

EXHIBIT “F”
HIDALGO COUNTY
Professional Engineering Services
Agreement # C-24-0065-09-03

WORK AUTHORIZATION NO. 1

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of the Professional Engineering Services Agreement No. C-24-0065-09-03, incorporated herein by reference, for the “Professional Engineering Services for Construction Management, Material Testing, and Inspection for the Liberty Blvd. Project (US 83 to Mile 3 Rd.)” made by and between HIDALGO COUNTY, action herein by and through the Commissioner’s Court, hereinafter called the “**Owner**,” and **SAMES, Inc.**, hereinafter called “**Engineer**”.

PART 1. SCOPE OF WORK

The purpose of this Work Authorization is for the **Engineer** to provide engineering services for construction management, material testing, and inspection for the Liberty Blvd. (US 83 to Mile 3 Rd.) project.

The **Engineer** is to provide the scope of Services as required by the Agreement with Owner.

The scope of services to be provided by the **Engineer** is identified in **Attachment “A”** – “*Scope of Services to be provided by Engineer*” attached hereto and incorporated by reference.

PART 2. ESTIMATED COST

The estimated cost for services under this Work Authorization is \$1,128,341.04. This amount is based upon the costs outlined in the **Attachment “B”** – “*Fee Proposal*” attached hereto and incorporated by reference.

PART 3. PAYMENT

Compensation and payment to the Engineer for the services established under this Work Authorization shall be made in accordance with the **Professional Engineering Services Agreement No. C-24-0065-09-03** between the **Owner** and the **Engineer**.

PART 4. FUNDING

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

Account No. 4-1315-431-00-123-128-0-841

Requisition Number: _____ (**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 the scopes of the Work Authorization, within the limits of Agreement No. C-24-0065-09-03, provided in this Work Authorization; or on (_____ **DATE** _____). *If applicable*: Engineer shall conform to the approved “Work/Project Schedule”, attached hereto and incorporated by reference herein as **Attachment “C”**.

PART 6. RESPONSIBILITIES AND OBLIGATIONS

This Authorization does not waive the parties’ responsibilities and obligations provided under the Agreement No. C-24-0065-09-03.

PART 7. ACKNOWLEDGEMENT AND CONFIRMATION

Acknowledgement and confirmation by **Hidalgo County Precinct 3, Commissioner Everardo “Ever” Villarreal**, as to content and detail of this **Work Authorization No. 1.**

HIDALGO COUNTY PRECINCT No. 3

By: _____
Everardo “Ever” Villarreal, Commissioner

PART 8. ACCEPTANCE AND APPROVAL

This Work Authorization is hereby accepted, approved by Hidalgo County Commissioners’ Court on 09/03/2024 as indicated below and effective as of **3rd day of September, 2024.**

EXECUTED as of the day and year first written above.

APPROVED BY COMMISSIONERS’ COURT ON SEPTEMBER 3, 2024.

Agenda Item No. 96514

Executive Office: _____

ENGINEER:
SAMES, Inc.

COUNTY:
COUNTY OF HIDALGO

Samuel D. Maldonado, PE, RPLS, CEO

Hon. Richard F. Cortez, County Judge

ATTEST:

Arturo Guajardo, Jr., County Clerk

LIST OF ATTACHMENTS:

Attachment “A” – *Scope of Services to be provided by Engineer*

Attachment “B” – *Fee Proposal*

Attachment “C” – *Approved Work/Project Schedule (If applicable)*



ATTACHMENT A

PROJECT SPECIFIC SCOPE OF SERVICES TO BE PROVIDED BY ENGINEER

SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

The services designated herein as “Services provided by the ENGINEER” shall include the performance of all engineering services for the following described facility:

COUNTY/CITY: HIDALGO COUNTY/ PENITAS

CONTROL: 0921-02-194

PROJECT/DESCRIPTION: Professional Engineering Services for Construction Management, Material Testing, and Inspection for the Liberty Blvd. Project

LENGTH: 2.71 Miles (Approx.)

HIGHWAY: Liberty Blvd.

LIMITS: From US 83 to Mile 3 Rd.

EXISTING FACILITY

PROJECT CLASSIFICATION

(Place an “X” in only one Project Classification)

- Surface Treatment
- Overlay
- Rehabilitation Existing Road (Scarify & Reshape)
- Convert Non-Freeway to Freeway
- Widen Freeway
- Widen Non-Freeway
- New Location Toll Freeway
- New Location Non-Freeway
- Interchange (New or Reconstruct)
- Bridge Widening or Rehabilitation
- Bridge Replacement
- Upgrade to Standards - Freeway
- Upgrade to Standards - Non-Freeway
- Miscellaneous Studies (Use Function Code 110 for All Tasks)
- Pedestrian Facility – Hike & Bike Trail

ENGINEER shall mean SAMES, Inc.

STATE shall mean Texas Department of Transportation (TxDOT).

COUNTY shall mean the Hidalgo County.

SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

CONSTRUCTION MANAGEMENT SERVICES:

The ENGINEER will provide Construction Engineering, Geotechnical & Construction Material Testing, and Construction Inspection/Record Keeping services for and during the construction of the Project, or portions of the Project, approved by the COUNTY. Specific services for CONSTRUCTION MANAGEMENT AND SUPPORT by the ENGINEER will include the following:

Construction Contract Administration:

- 1) In general, the ENGINEER will provide the management and engineering support in accordance with TxDOT's LGPP Manual required for consultation and advisement to the COUNTY, and act as the COUNTY's representative as provided in the General Condition of the Construction Contract.
- 2) The ENGINEER will coordinate and conduct both a "Pre-Coordination Meeting" and a "Pre-Construction Conference" as required by the LGPP.
- 3) The ENGINEER will work with the County RPIC to develop and issue a Notice to Proceed (NTP) to the contractor.
- 4) The ENGINEER will coordinate with the Design Engineer of Record (DEOR) and will use his best efforts to protect the COUNTY against defects and deficiencies in the work of the Contractor. The ENGINEER will promptly notify the COUNTY of any such defect or deficiency and take all steps possible to require the Contractor to correct the defect or deficiency.
- 5) The ENGINEER will review the contractor's DBE Program and EEO Plan for compliance throughout the project.
- 6) The ENGINEER will ensure that all eligible expenditures are appropriately allocated with regards to the Federal Monies identified on the AFA and inform the County RPIC of any potential exposure.
- 7) The ENGINEER will work with the County RPIC to develop a Certificate of Substantial Completion at the appropriate time.
- 8) The ENGINEER will develop as built plans identifying any field and change order modifications done during the project. When applicable the ENGINEER will work with the DEOR to prepare the engineering data, including plan sheet drawings, specifications, and estimates, for the preparation of construction contract change orders, which may be required due to actual field conditions encountered or new requirements directed by the COUNTY.
- 9) The ENGINEER will provide the County RPIC a Certification that all work performed on the project met and/or exceeded the project specifications.

Construction Management and Inspection:

Construction Management (During Construction)

- 1) The ENGINEER will conduct frequent meetings w/ County RPIC & Contractor throughout the construction duration of the project.
- 2) The ENGINEER will assist the County RPIC with the implementation of the adopted Quality Assurance Program (QAP)
- 3) The ENGINEER will conduct team field visits with the County RPIC, Design Engineer, TxDOT, Cities, and FHWA representatives throughout duration of the project (Estimated at 18 months)

SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

- 4) The ENGINEER will review quantities as submitted by the Contractor and will coordinate with the County RPIC for the preparation of the monthly and final estimates for payment to the Contractor.
- 5) The ENGINEER will coordinate with the DEOR to obtain concurrence on any suggestions or RFI's made by the contractor to modify the plans and/or contract documents.
- 6) The ENGINEER will coordinate with County RPIC, Design Engineer, TxDOT/FHWA Representatives, and City Personnel to participate in all Project Related Stakeholder Meetings, Construction Status Meetings, and Final Inspection
- 7) The ENGINEER will coordinate with the DEOR and TxDOT to obtain approval on any and all Change Orders.
- 8) The ENGINEER will confirm TxDOT/FHWA Participation & Eligibility on Change Orders as well as Time Extensions prior to executing them for the project.

Construction Inspection

- 1) The ENGINEER will provide Project site inspection of the authorized construction contract as follows:
 - a) The ENGINEER will provide visits by a Senior Construction Engineer or a competent representative of the ENGINEER to the site of construction for the purpose of monitoring the Contractor's progress and conformance to the construction contract plans and specifications.
 - b) The ENGINEER will provide a Construction Manager to coordinate with the public and adjacent property owners on construction inconveniences.
 - c) The ENGINEER will furnish the services of a Construction Superintendent and/or Construction Inspector(s) for full-time on-site inspection services.
 - a. The ENGINEER will provide construction oversight to monitor/inspect the Contractor's daily progress and conformance to PS&E specifications.
 - b. The ENGINEER will provide an Environmental Specialist to inspect SW3P BMP's, as well as compliance w/ the requirements of the EPIC sheets.
 - c. The ENGINEER will maintain job safety measures and implement OSHA requirements including day/night inspection of barricades
 - d. The ENGINEER will develop and oversee completion of a "Project Punch List" with the County RPIC & Contractor's Representative.

Construction Management (Post Construction)

- 1) The ENGINEER will prepare a Final Estimate for Project Close-Out & Release Retainage.
- 2) The ENGINEER will provide all Close-Out Documents to County RPIC.
- 3) The ENGINEER will coordinate "Final Acceptance" of the project.

Miscellaneous Technical Activities:

- 1) The ENGINEER will coordinate with the Design Engineer of Record to review and check all shop or working drawings furnished by the Contractor.
- 2) The ENGINEER will track Utility Relocations and develop as built drawings to depict the location of the utility and the work as actually constructed. The COUNTY will be furnished five (5) set of prints.
- 3) The ENGINEER will provide Monthly Reports/Presentations to Hidalgo County Commissioners Court and the HCMPO (as requested)

SCOPE OF SERVICES TO BE PROVIDED BY THE ENGINEER

- 4) The ENGINEER will provide inspection of all materials and equipment furnished/used by the Contractor as follows:
 - a) Review and record all laboratory, shop and mill tests of materials and equipment for compliance with the construction contract specifications.
 - b) Observe and/or perform Project record testing and/or independent assurance testing as outlined in the construction contract specifications.

CONSTRUCTION MATERIAL TESTING:

The ENGINEER will provide the COUNTY with construction material testing services for the Project. The services to be provided include sampling and testing of all construction materials as required by the project plans and specifications. All sampling frequencies and test procedures will be performed in general accordance with the Texas Department of Transportation TEX methods (or ASTM methods as required) as outlined in the Guide Schedule for Sampling and Testing. The construction material testing includes, but is not limited to the following:

- a) Sampling and laboratory testing of soils and base materials proposed for use in the construction of Project (Roads/Bridges/Misc.) to determine compliance of these materials with project plans and specifications.
- b) Field density testing of soils and base materials to ensure proper compaction as required by project plans and specifications.
- c) Field sampling and testing of fresh concrete, and laboratory testing of hardened concrete to determine compliance with project plans and specifications.
- d) Field compaction testing of asphalt to ensure proper compaction during lay down operations.
- e) Field inspection, sampling and laboratory testing of asphalt materials to determine their material properties and their compliance with project plans and specifications.
- f) The ENGINEER will be responsible for concrete batching as well as the asphalt testing at the plants to insure delivery of acceptable material to the job site.
- g) Any additional laboratory testing as required/requested by the COUNTY and the project plans and specifications.
- h) Providing accurate and timely reports to the COUNTY RPIC and all/other recipients as designated by the COUNTY RPIC.
- i) The ENGINEER will verify the concrete and asphalt designs to assure it is in accordance with TxDOT specifications to be developed by the contractor.



ATTACHMENT B

FEE PROPOSAL



HIDALGO COUNTY PCT. 3 - LIBERTY BLVS ROADWAY IMPROVEMENT PROJECT - CSJ: 0921-02-194
 PROFESSIONAL ENGINEERING SERVICES - ENGINEERING FEE TABLE

8/20/2024

| TASK DESCRIPTIONS | Construction Manager | Asst. Construction Manager | Field Engineer Inspector | Senior Construction Manager | Construction Inspector | Project Controls | Contract Specialist | Document Control | Env. Compliance Manager | Project Admin/Clerk | Totals | |
|---|----------------------|----------------------------|--------------------------|-----------------------------|------------------------|---------------------|---------------------|---------------------|-------------------------|---------------------|---|----------------------|
| Construction Administration | | | | | | | | | | | | |
| Review project plans, specifications, general notes, general conditions, bid & contract documents, advanced funding agreement, and any other pertinent project document. | 32 | 24 | 16 | 32 | 12 | 4 | 10 | 4 | 4 | 2 | 140 | |
| Prepare Construction Management Plan for services during construction. | 16 | 24 | 8 | 2 | 2 | | 10 | 2 | | 2 | 66 | |
| Prepare/Coordinate & Conduct a Project Coordination Meeting with the County RPIC, TxDOT Project Manager, Design Engineer, and other Hidalgo Co. and TxDOT Project Staff. | 16 | 8 | 4 | 4 | 4 | | 10 | 2 | | 2 | 50 | |
| Prepare/Coordinate & Conduct Pre-Construction Meeting with Contractor & all project stakeholders. | 16 | 16 | 8 | 4 | 4 | 4 | | 4 | | | 56 | |
| Coordinate w/ County RPIC and Develop/Issue a Notice to Proceed to the Contractor. | 8 | 8 | 2 | | | | | 2 | | | 22 | |
| Coordinate with Design Engineer, Hidalgo County RPIC, TxDOT PM, City of Penitas, and Construction Contractor(s) throughout the duration of the project. | 32 | 80 | 80 | | | | 10 | 24 | | 2 | 228 | |
| Review of Contractor's DBE and EEO programs for Compliance w/CUF requirements. | 24 | 24 | 16 | 16 | | | 10 | 8 | | 2 | 100 | |
| Continuous Monitoring of Construction Expenditures vs. Available Funds in the AFA. | 32 | | 6 | 6 | | 32 | 10 | 8 | | 2 | 90 | |
| Issue a Certificate of Substantial Completion as required. | 8 | 8 | 2 | 2 | | | 10 | 4 | | 2 | 36 | |
| Update/monitor As-Built Plans and provide Certification to the County RPIC and TxDOT that Project was Constructed as Designed & Compliance w/Release of the Retainage. | 16 | 20 | 32 | 32 | | | 10 | 12 | | 2 | 124 | |
| Coordinate with the County RPIC to issue certification that all work performed on the project met and/or exceeded the project specifications. | 16 | 8 | 2 | 2 | | | | 2 | | 2 | 32 | |
| Review/Prepare Monthly Invoicing to County | 20 | 20 | 9 | | | | 9 | | | 36 | 94 | |
| Subtotal Labor Hours | 236 | 240 | 179 | 100 | 22 | 40 | 89 | 72 | 4 | 56 | | |
| Construction Management & Inspection | | | | | | | | | | | | |
| Construction Management (During Construction) | | | | | | | | | | | | |
| Conduct Monthly Meeting with the County RPIC & Contractor throughout construction duration for adherence to the schedule. | 8 | 36 | 18 | 18 | 18 | | | 16 | | 2 | 116 | |
| Assist the RPIC with Implementation of the Adopted Quality Assurance Program (QAP). | 16 | 24 | 8 | | | | | 16 | | 2 | 66 | |
| Coordinate/attend field visits w/County RPIC, Design Engineer, TxDOT, FHWA representatives and/or with other project stakeholders throughout duration of the project. | 8 | | 4 | 8 | | | | | | 2 | 22 | |
| Review/Coordinate Contractors' Progress Payment Estimate on a monthly basis. | 36 | 36 | 36 | 36 | 18 | 36 | | 36 | | 2 | 236 | |
| Process contractor invoices (approval/modification/rejection) and submit recommendation for payment. | 16 | 36 | 36 | 18 | | | | 9 | | 2 | 117 | |
| Process RFIs/RFP's and coordinate with Design Engineer as required by the contractor to change or modify any requirements of the plans or contract documents. | 16 | 36 | 56 | 32 | | | | 18 | | 2 | 160 | |
| Conduct Construction Activity "Hold Points" (new tasks/scope of work) meetings and "Hands Down" (incident review) meetings as needed. | 24 | 24 | | 24 | 24 | 9 | | | | 2 | 107 | |
| Coordinate with County RPIC, Design Engineer, TxDOT/FHWA Representatives, and City of Penitas to participate in all project related stakeholder meetings, construction status meetings, and final inspection. | 8 | 16 | 8 | 8 | 8 | | | | | 2 | 50 | |
| Coordinate with the Design Engineer on change orders and obtain TxDOT approval. | 16 | 32 | 32 | 32 | | | | 9 | | 2 | 123 | |
| Review/confirm TxDOT/FHWA Participation & Eligibility on change orders for cost and/or time. | 8 | 16 | 16 | | | 8 | | | | 2 | 50 | |
| Subtotal Hours | 156 | 256 | 214 | 176 | 68 | 53 | 0 | 104 | 0 | 20 | | |
| Construction Inspection | | | | | | | | | | | | |
| On-site Inspection during construction activities, and as required after hours. | 67 | 67 | 67 | 335 | 2680 | | | 34 | | | 3250 | |
| Daily Reports (Procure) and daily documentation in project diaries. | 67 | 67 | 67 | | 335 | 134 | | 17 | | 144 | 831 | |
| Coordination with the public and adjacent property owners on construction inconveniences. | 16 | 16 | 16 | 60 | | | | | | | 108 | |
| Inspect SW3P BMP's, as well as compliance with requirements of EPIC Sheets. | 17 | 34 | 50 | | 67 | 67 | | 17 | 67 | | 318 | |
| Verify Daily Pay Sheets & Assure Compliance of Materials delivered to the job site meet specifications (Including Buy America Act). | | | 268 | | 34 | | | 67 | | | 369 | |
| Ensure Contractor maintains job safety measures & implements OSHA requirements, including day/night inspection of traffic control devices and barricades. | | | | 34 | | 34 | | 17 | | | 84 | |
| Develop and oversee completion of a "project punch list" with the County RPIC & Contractor. | 40 | 40 | 40 | 16 | 16 | | | | 16 | 10 | 178 | |
| Subtotal Labor Hours | 207 | 224 | 508 | 445 | 3132 | 235 | | 151 | 83 | 154 | | |
| Construction management (post construction) | | | | | | | | | | | | |
| Prepare a final estimate for project close out & release of retainage | 32 | 10 | 10 | | | | 10 | 16 | | | 78 | |
| Prepare and provide all close out documents to County RPIC. | 40 | | 4 | | | | 10 | 4 | | 20 | 78 | |
| Coordinate Final Acceptance of project with County, TxDOT and FHWA. | 48 | 8 | 8 | | | | 10 | 4 | | 20 | 98 | |
| Subtotal Labor Hours | 120 | 18 | 22 | 0 | 0 | 0 | 30 | 24 | 0 | 40 | | |
| Miscellaneous Technical Activities | | | | | | | | | | | | |
| Coordination Design Engineer for shop drawing and other submittals review as required. | 32 | 24 | 20 | 16 | | | 1 | 4 | | | 97 | |
| Coordination w/County RPIC and Utility personnel (City of Penitas, Agua SUD, HCID, ETAL) on relocation of utilities in conflict. | 32 | 32 | 20 | 16 | | | | 4 | | | 104 | |
| Track utility relocations and plot final locations on the Final As-built Plans as required. | 32 | 32 | 32 | 36 | | | | 16 | | | 148 | |
| Monthly reporting/presentation to Hidalgo County Commissioner Pct. #1, City of Penitas & HCMPO (as needed). | 36 | 36 | 36 | | | | 27 | | | | 135 | |
| Subtotal Labor Hours | 132 | 124 | 108 | 68 | 0 | 0 | 28 | 24 | 0 | 0 | | |
| TOTAL HOURS | 851 | 862 | 1031 | 789 | 3222 | 328 | 147 | 375 | 87 | 270 | 7960 | |
| Hourly Rates | \$ 165.00 | \$ 145.00 | \$ 85.00 | \$ 220.00 | \$ 90.00 | \$ 85.00 | \$ 190.00 | \$ 75.00 | \$ 220.00 | \$ 55.00 | | |
| Direct Labor | \$ 140,373.75 | \$ 124,917.50 | \$ 87,656.25 | \$ 173,470.00 | \$ 289,935.00 | \$ 27,837.50 | \$ 27,930.00 | \$ 28,106.25 | \$ 19,140.00 | \$ 14,850.00 | \$ 934,216.25 | |
| TOTAL ESTIMATE | \$ 140,373.75 | \$ 124,917.50 | \$ 87,656.25 | \$ 173,470.00 | \$ 289,935.00 | \$ 27,837.50 | \$ 27,930.00 | \$ 28,106.25 | \$ 19,140.00 | \$ 14,850.00 | \$ 934,216.25 | |
| | | | | | | | | | | | EXPENSES (MILEAGE, PRINTS & COPIES, MISC.) | \$ 9,342.16 |
| | | | | | | | | | | | CONSTRUCTION MATERIAL TESTING (CMT) | \$ 184,782.63 |
| TOTAL CONTRACT AMOUNT | | | | | | | | | | | \$ 1,128,341.04 | |

CONSTRUCTION MANAGEMENT FC300 (330)
ESTIMATED MAN-HOURS AND TEST BREAKDOWN



Hidalgo County Pct. No. 3 - Liberty Boulevard Roadway Improvement Project - CSJ: 0921-02-194
Construction Materials Testing



Embankment (Test All Fill Material Including Cut From Job) (ITEM 132)

Sampling and laboratory testing of soils and base materials proposed for use in the construction of Project (Roads/Bridges/Misc.) to determine compliance of these materials with project plans and specifications.
Field density testing of soils and base materials to ensure proper compaction as required by project plans and specifications.

| Test Item | TxDOT Test | TxDOT Guide Specs | Additional Assumptions | Unit | Qty. | Contract Rate 2024 | Total |
|-------------------|------------|---|---|------|------|--------------------|-------------------|
| Liquid Limit | Tex-104-E | Pl>15 ~ Every 5,000 CY | Included with PI | Each | | \$80.00 | |
| Plasticity Index | Tex-106-E | Pl>15 ~ Every 5,000 CY | | Each | 2 | \$80.00 | \$160.00 |
| Gradation | Tex-110-E | Every 10,000 CY | | Each | 1 | \$85.00 | \$85.00 |
| Moisture/Density | Tex-114-E | One per Each Material | | Each | 1 | \$225.00 | \$225.00 |
| In-Place Density | Tex-115-E | Every 5,000 CY or 600 Linear Feet (Min. 1 per Lift) | Every 600 Linear Feet (Min. 1 per Lift) | Each | 40 | \$28.00 | \$1,120.00 |
| Reports | | | LL/PI, Grad, MD, FD | Each | 9 | \$30.00 | \$270.00 |
| Tech Time (Soils) | | | 6 hrs - PI, Gr, MD, 6 hrs - FD | Hour | 54 | \$75.00 | \$4,050.00 |
| # of Trips (Tech) | | | 10 Trips (26 Miles RT) | Trip | 9 | \$40.00 | \$360.00 |
| **Admin/Clerical | | | | Hour | 2.25 | \$63.00 | \$141.75 |
| | | | | | | Item Subtotal | \$6,411.75 |

Cement Stabilized and Sand Backfill (Soils Testing for Drainage and Bridge Structures) (ITEM 400)

Sampling and laboratory testing of soils and base materials proposed for use in the construction of Project (Roads/Bridges/Misc.) to determine compliance of these materials with project plans and specifications.
Field density testing of soils and base materials to ensure proper compaction as required by project plans and specifications.

| Test Item | TxDOT Test | TxDOT Guide Specs | Additional Assumptions | Unit | Qty. | Contract Rate 2024 | Total |
|-------------------|------------|---|---|------|------|--------------------|-------------------|
| Liquid Limit | Tex-104-E | Pl>15 ~ Every 5,000 CY | Included with PI | Each | 1 | \$88.00 | \$88.00 |
| Plasticity Index | Tex-106-E | Pl>15 ~ Every 5,000 CY | | Each | 1 | \$88.00 | \$88.00 |
| Gradation | Tex-110-E | Every 10,000 CY | | Each | 1 | \$93.50 | \$93.50 |
| Moisture/Density | Tex-114-E | One per Each Material | | Each | 1 | \$247.50 | \$247.50 |
| In-Place Density | Tex-115-E | Every 5,000 CY or 600 Linear Feet (Min. 1 per Lift) | Every 600 Linear Feet (Min. 1 per Lift) | Each | 20 | \$30.80 | \$616.00 |
| Reports | | | LL/PI, Grad, MD, FD | Each | 6 | \$33.00 | \$198.00 |
| Tech Time (Soils) | | | 6 hrs - LL/PI, Grad, MD, 6 hrs - FD | Hour | 36 | \$82.50 | \$2,970.00 |
| # of Trips (Tech) | | | 4 Trips (50 Miles Round Trip) | Trip | 6 | \$44.00 | \$264.00 |
| **Admin/Clerical | | | | Hour | 2 | \$69.30 | \$103.95 |
| | | | | | | Item Subtotal | \$4,668.95 |

Bridge Structures - Drilled Shaft (ITEM 416), Concrete Abutment (TEM 420) and Concrete Slab Beam (ITEM 425)

Sampling and laboratory testing of concrete materials proposed for use in the construction of Project (Bridges) to determine compliance of these materials with project plans and specifications.

| Test Item | TxDOT Test | TxDOT Guide Specs | Additional Assumptions | Unit | Qty. | Contract Rate 2024 | Total |
|-------------------|------------|------------------------------|-------------------------------------|------|------|--------------------|-------------------|
| Slurry Testing | Tex-130-E | 1 Per Mix | | Each | 2 | \$88.00 | \$176.00 |
| Concrete | | | Concrete | | | | \$0.00 |
| *Strength | Tex-418-A | Each 60 CY (2 Sets = 4 Cyl.) | use 2 sets per Pour (40 Pours) | Each | 8.00 | \$34.10 | \$272.80 |
| Slump | Tex-415-A | One per 2 Sets | | Each | 4.00 | \$22.00 | \$88.00 |
| Entrained Air | Tex-416-A | One per 2 Sets | | Each | 4.00 | \$27.50 | \$110.00 |
| Temperature | Tex-422-A | One per 2 Sets | | Each | 4.00 | \$5.50 | \$22.00 |
| Reports | | | Conc. | Each | 16 | \$33.00 | \$528.00 |
| Tech Time (Soils) | | | 6 hrs per pour - 4 hours per pickup | Hour | 80 | \$82.50 | \$6,600.00 |
| # of Trips (Tech) | | | 16 Trips (50 Miles Round Trip) | Trip | 16 | \$44.00 | \$704.00 |
| **Admin/Clerical | | | | Hour | 4.00 | \$69.30 | \$277.20 |
| | | | | | | Item Subtotal | \$8,778.00 |

Lime (ITEM 260)

Sampling and laboratory testing of soils and base materials proposed for use in the construction of Project (Roads/Bridges/Misc.) to determine compliance of these materials with project plans and specifications.

| Test Item | TxDOT Test | TxDOT Guide Specs | Additional Assumptions | Unit | Qty. | Contract Rate 2024 | Total |
|-------------------------------|------------|-------------------|------------------------|------|------|--------------------|-------------------|
| Compliance of Lime (DMS 6350) | Tex-600-J | 1 per 200 tons | | Each | 6 | \$333.00 | \$1,998.00 |
| | | | | | | Item Subtotal | \$1,998.00 |

Subgrade (Lime Treated) (ITEM 260)

Sampling and laboratory testing of soils and base materials proposed for use in the construction of Project (Roads/Bridges/Misc.) to determine compliance of these materials with project plans and specifications.
Field density testing of soils and base materials to ensure proper compaction as required by project plans and specifications.

| Test Item | TxDOT Test | TxDOT Guide Specs | Additional Assumptions | Unit | Qty. | Contract Rate 2024 | Total |
|-------------------------|----------------------|-----------------------------------|---|------|------|--------------------|-------------------|
| Pulverization Gradation | Tex-101-E (Part III) | Each 4,500 CY | | Each | 4 | \$110.00 | \$440.00 |
| Liquid Limit | Tex-104-E | | Included with PI | Each | 0 | | |
| Plasticity Index | Tex-106-E | Each 5,000 CY | | Each | 4 | \$88.00 | \$352.00 |
| Gradation | Tex-110-E | Each 5,000 CY | | Each | 4 | \$93.50 | \$374.00 |
| Moisture/Density | Tex-121-E (Part II) | Every 20,000 CY | | Each | 2 | \$247.50 | \$495.00 |
| In-Place Density | Tex-115-E | Every 3,000 CY or 300 Linear Feet | Every 300 Linear Feet (Min. 1 per Lift) | Each | 42 | \$30.80 | \$1,293.60 |
| Reports | | | LL/PI, Grad, MD, FD | Each | 11 | \$33.00 | \$363.00 |
| Tech Time (Soils) | | | 6 hrs - LL/PI, Grad, MD, 6 hrs - FD | Hour | 66 | \$82.50 | \$5,445.00 |
| # of Trips (Tech) | | | 12 Trips (50 Miles Round Trip) | Trip | 11 | \$44.00 | \$484.00 |
| **Admin/Clerical | | | | Hour | 2.75 | \$69.30 | \$190.58 |
| | | | | | | Item Subtotal | \$9,437.18 |

Flexible Base (Cement Treated) (ITEM 247)

Sampling and laboratory testing of soils and base materials proposed for use in the construction of Project (Roads/Bridges/Misc.) to determine compliance of these materials with project plans and specifications.
Field density testing of soils and base materials to ensure proper compaction as required by project plans and specifications.

| Test Item | TxDOT Test | TxDOT Guide Specs | Additional Assumptions | Unit | Qty. | Contract Rate 2024 | Total |
|-------------------------|----------------------|-----------------------------------|---|------|------|--------------------|--------------------|
| Pulverization Gradation | Tex-101-E (Part III) | Each 4,500 CY | | Each | 4 | \$110.00 | \$440.00 |
| Liquid Limit | Tex-104-E | | Included with PI | Each | | | |
| Plasticity Index | Tex-106-E | Each 5,000 CY | | Each | 4 | \$88.00 | \$352.00 |
| Gradation | Tex-110-E | Each 5,000 CY | | Each | 4 | \$93.50 | \$374.00 |
| Moisture/Density | Tex-121-E (Part II) | Every 20,000 CY | | Each | 2 | \$247.50 | \$495.00 |
| In-Place Density | Tex-115-E | Every 3,000 CY or 300 Linear Feet | Every 300 Linear Feet (Min. 1 per Lift) | Each | 42 | \$30.80 | \$1,293.60 |
| Reports | | | LL/PI, Grad, MD, FD | Each | 12 | \$33.00 | \$396.00 |
| Tech Time (Soils) | | | 6 hrs - LL/PI, Grad, MD, 6 hrs - FD | Hour | 72 | \$82.50 | \$5,940.00 |
| # of Trips (Tech) | | | 26 Trips (50 Miles Round Trip) | Trip | 12 | \$44.00 | \$528.00 |
| **Admin/Clerical | | | | Hour | 3.00 | \$69.30 | \$207.90 |
| | | | | | | Item Subtotal | \$10,026.50 |

Asphalt Concrete Pavement (ITEM 3076 - HMA-QC/QA)

Field compaction testing of asphalt to ensure proper compaction during lay down operations.
Field sampling and laboratory testing of asphalt materials to determine their material properties and their compliance with project plans and specifications.

| Test Item | TxDOT Test | TxDOT Guide Specs | Additional Assumptions | Unit | Qty. | Contract Rate 2024 | Total |
|-------------------------------|--------------------|-------------------------------------|---|------|------|--------------------|----------|
| <u>Coarse Aggregate</u> | | | Stockpile | | | | |
| L.A. Abrasion | Tex-410-A | 1 Per Project Per Source Per Design | if BRSQC meets Project Spec ~ Remove | Each | 1 | \$550.00 | \$550.00 |
| Soundness | Tex-411-A | 1 Per Project Per Source Per Design | if BRSQC meets Project Spec ~ Remove | Each | 1 | \$550.00 | \$550.00 |
| Gradation | Tex-200-F | 1 Per Project Per Source Per Design | | Each | 1 | \$93.50 | \$93.50 |
| MicroDeval | Tex-461-A | 1 Per every 12 Sublots | May be Eliminated based on Test History | Each | 1 | \$550.00 | \$550.00 |
| Flat & Elongated Particles | Tex-280-F | 1 Per Project Per Source Per Design | | Each | 1 | \$66.00 | \$66.00 |
| Coarse Aggregate Angularity | Tex-460-A (Part I) | 1 Per Project Per Source Per Design | | Each | 1 | \$66.00 | \$66.00 |
| Deleterious Material & Decant | Tex-217-F | 1 Per Project Per Source Per Design | | Each | 1 | \$55.00 | \$55.00 |
| <u>Fine Aggregate</u> | | | Stockpile | | | | |
| Bar Linear Shrinkage | Tex-107-E | 1 Per Project Per Source Per Design | | Each | 1 | \$49.50 | \$49.50 |
| Organic Impurities | Tex-408-A | 1 Per Project Per Source Per Design | | Each | 1 | \$55.00 | \$55.00 |
| Gradation | Tex-200-F | 1 Per Project Per Source Per Design | | Each | 1 | \$93.50 | \$93.50 |
| <u>Mineral Filler</u> | | | Bin or Silo | | | | |
| Bar Linear Shrinkage | Tex-107-E | 1 Per Project Per Source Per Design | Assume No Filler | Each | 1 | \$49.50 | \$49.50 |
| Gradation | Tex-200-F | 1 Per Project Per Source Per Design | Assume No Filler | Each | 1 | \$93.50 | \$93.50 |
| <u>Combined Aggr.</u> | | | Stockpile or Feeder Belt | | | | |
| Sand Equivalent | Tex-203-F | 1 Per Project Per Source Per Design | | Each | 1 | \$82.50 | \$82.50 |

| Complete Mix | | | Truck Sample | | | | | | |
|------------------------------|----------------------|--|--|------|------|----------|--------------------|--|--|
| Asphalt Content (%) | Tex-236-F | 1 Per Lot Per Design | | Each | 6 | \$104.50 | \$627.00 | | |
| Voids in Mineral Aggr. (VMA) | Tex-204-F | 1 Per Sublot Per Design | with 227-F Rice Gravity | Each | 24 | \$99.00 | \$2,376.00 | | |
| Gradation | Tex-236-F | Min. 1 Per 12 Sublots Per Design | | Each | 1 | \$93.50 | \$93.50 | | |
| Boil Test | Tex-530-C | 1 Per Project Per Source Per Design | Waived by Engineer | Each | 1 | \$99.00 | \$99.00 | | |
| Indirect Tensile-Dry | Tex-226-F | 1 Per Project Per Source Per Design | Waived by Engineer | Each | 1 | \$68.75 | \$68.75 | | |
| Moisture Content | Tex-212-F (Part II) | 1 Per Project Per Source Per Design | | Each | 1 | \$19.80 | \$19.80 | | |
| Lab Molded Density | Tex-207-F | 1 Per Sublot Per Design | | Each | 24 | \$99.00 | \$2,376.00 | | |
| Hamburg Wheel Tracker | Tex-242-F | 1 Per Project Per Source Per Design | | Each | 1 | \$506.00 | \$506.00 | | |
| Roadway | | | At Site | Each | | | | | |
| Field Coring | | 2 Cores Per Sublot Per Design | | Each | 48 | \$258.50 | \$12,408.00 | | |
| In-Place Air Voids | Tex-207-F | 2 Cores Per Sublot Per Design | | Each | 48 | \$27.50 | \$1,320.00 | | |
| Segregation Profile | Tex-207-F (Part V) | 1 Per Project Per Source Per Design | | Each | 1 | \$275.00 | \$275.00 | | |
| Joint Density | Tex-207-F (Part VII) | 1 Per Project Per Source Per Design | | Each | 1 | \$346.50 | \$346.50 | | |
| Tack Coat Adhesion | Tex-243-F | 1 Per Project Per Source Per Design | Waived by Engineer | Each | 1 | \$110.00 | \$110.00 | | |
| Thermal Profile | Tex-244-F | 1 Per Project Per Source Per Design | | Each | 1 | \$220.00 | \$220.00 | | |
| Ride Quality Reports | Tex-1001-S | Engineer may verify Contractor's results | | Each | | | | | |
| Tech Time (Agg) | | | 8 hours per 2 days (trips/test - CA/FA/Co) | Hour | 64 | \$82.50 | \$5,280.00 | | |
| Tech Time (Asph) | | | 8 hours per 49 days | Hour | 272 | \$82.50 | \$22,440.00 | | |
| # of Trips (Tech) | | | 34 Trips (50 Miles Round Trip) | Trip | 34 | \$44.00 | \$1,496.00 | | |
| **Admin/Clerical | | | | Hour | 8.50 | \$69.30 | \$589.05 | | |
| Item Subtotal | | | | | | | \$54,126.60 | | |

Hydraulic Cement Concrete ~ Concrete Pavement Reinforced Cont. (CRCP)

Field sampling and testing of fresh concrete and laboratory testing of hardened concrete to determine compliance with project plans and specifications.
Concrete batching at the plants to insure delivery of acceptable material to the job site (as required).

| Test Item | TxDOT Test | TxDOT Guide Specs | Additional Assumptions | Unit | Qty. | Contract Rate 2024 | Total |
|-------------------------|------------|------------------------------|---|------|------|--------------------|--------------------|
| <u>Coarse Aggregate</u> | | | QA Test. (QC by Source) | | | | |
| L.A. Abrasion | Tex-410-A | Two Each Source | if CRSQC meets Project Spec ~ Remove | Each | 2 | \$550.00 | \$1,100.00 |
| Soundness | Tex-411-A | Two Each Source | if CRSQC meets Project Spec ~ Remove | Each | 2 | \$550.00 | \$1,100.00 |
| Sieve Analysis | Tex-401-A | Each 1,000 CY (ea source) | 5 Sieve | Each | 1 | \$93.50 | \$93.50 |
| Decantation | Tex-406-A | Each 20,000 CY (or source) | | Each | 1 | \$55.00 | \$55.00 |
| Deleterious Material | Tex-413-A | Each 20,000 CY (or source) | | Each | 1 | \$55.00 | \$55.00 |
| <u>Fine Aggregate</u> | | | QA Test. (QC by Source) | | | | |
| Sand Equivalent | Tex-203-F | Each 1,000 CY (ea source) | | Each | 1 | \$82.50 | \$82.50 |
| Organic Impurities | Tex-408-A | 1 Per Project Per Source | | Each | 1 | \$55.00 | \$55.00 |
| Sieve Analysis | Tex-401-A | Each 1,000 CY (ea source) | | Each | 1 | \$93.50 | \$93.50 |
| Fineness Mod. | Tex-402-A | Each 1,000 CY (ea source) | | Each | 1 | \$16.50 | \$16.50 |
| Deleterious Material | Tex-413-A | Each 20,000 CY (or source) | | Each | 1 | \$55.00 | \$55.00 |
| Acid Insoluble | Tex-612-J | Two Each Source | if CRSQC meets Project Spec ~ Remove | Each | 2 | \$99.00 | \$198.00 |
| <u>Mineral Filler</u> | | | QA Test. (QC by Source) | | | | |
| Sieve Analysis | Tex-401-A | Two Each Source | If No Mineral Filler utilized in Mix~Remove | Each | 2 | \$93.50 | \$187.00 |
| <u>Concrete</u> | | | | | | | |
| *Strength | Tex-418-A | Each 60 CY (2 Sets = 4 Cyl.) | use 2 sets per Pour (40 Pours) | Each | 24 | \$34.10 | \$818.40 |
| Slump | Tex-415-A | One per 2 Sets | | Each | 14 | \$22.00 | \$308.00 |
| Entrained Air | Tex-416-A | One per 2 Sets | | Each | 14 | \$27.50 | \$385.00 |
| Temperature | Tex-422-A | One per 2 Sets | | Each | 14 | \$5.50 | \$77.00 |
| Reports | | | CA, FA, MF, Conc. | Each | 34 | \$33.00 | \$1,122.00 |
| Tech Time (Agg) | | | 8 hours per 2 days (trips/test - CA/FA/Co) | Hour | 40 | \$82.50 | \$3,300.00 |
| Tech Time (Conc) | | | 6 hrs per pour - 4 hours per pickup | Hour | 240 | \$82.50 | \$19,800.00 |
| # of Trips (Tech) | | | 63 Trips (50 Miles Round Trip) | Trip | 34 | \$44.00 | \$1,496.00 |
| **Admin/Clerical | | | | Hour | 8.50 | \$69.30 | \$589.05 |
| Item Subtotal | | | | | | | \$30,986.45 |

Batching for Hydraulic Cement Concrete (Class C) & Asphalt Concrete Pavement (ACP) Inspection of Batching at Plant (1 Tech per Plant, Reports)

Field sampling and testing of fresh concrete and laboratory testing of hardened concrete to determine compliance with project plans and specifications.
Concrete batching as well as asphalt testing at the plants to insure delivery of acceptable material to the job site(as required).

| Test Item | TxDOT Test | TxDOT Guide Specs | Additional Assumptions | Unit | Qty. | Contract Rate 2024 | Total |
|-----------|------------|-------------------|------------------------|------|------|--------------------|----------|
| Concrete | | | | Each | 14 | \$33.00 | \$462.00 |
| Reports | | | | | | | |

| | | | | | | | |
|-------------------|--|--|--------------------------------|------|------|---------|--------------------|
| Tech Time (Conc) | | | 14 Conc Plant Inspections | Hour | 84 | \$82.50 | \$6,930.00 |
| # of Trips (Tech) | | | 14 Trips (50 Miles Round Trip) | Trip | 14 | \$44.00 | \$616.00 |
| **Admin/Clerical | | | | Hour | 3.50 | \$36.90 | \$129.15 |
| Hot Mix | | | | | | | |
| Reports | | | | Each | 34 | \$33.00 | \$1,122.00 |
| Tech Time (Asph) | | | 8 hours per 34 days | Hour | 272 | \$82.50 | \$22,440.00 |
| # of Trips (Tech) | | | 34 Trips (50 Miles Round Trip) | Trip | 34 | \$44.00 | \$1,496.00 |
| **Admin/Clerical | | | | Hour | 8.50 | \$69.30 | \$589.05 |
| Item Subtotal | | | | | | | \$33,784.20 |

*Concrete Strength testing includes strength testing of cylinder specimens (breaks) as well as preparation, holding, and curing of strength specimen costs
~ 1 Set is defined as 2 Cylinders (7-day or 28-day)
~ All Structural Concrete requires a minimum 2 Sets per Test Location (4 Cyl.)

**Project Administrative Fee is assessed on a per invoice basis and involves engineering review, evaluation, mangement, and administration

| Summary | |
|--|---------------------|
| Sub-Total (CMT Items) = | \$160,217.63 |
| CMT Engineering Coord. (Coord. w/RPIC/Rpt. Rev.) (57.25 hrs x 134/Hr.) | \$5,695.00 |
| Project Engineer (QA/QC of CMT) (57.5 hrs x 176/Hr.) | \$7,480.00 |
| Sr. Eng. Tech (Coord. w/CEI &CMT Team) (114.5 hrs x 134/Hr.) | \$11,390.00 |
| Construction Materials Testing Total : | \$184,782.63 |



ATTACHMENT C

APPROVED WORK/PROJECT SCHEDULE



| Task Name | Duration | Start | Finish | Qtr 3, 2024 | | | Qtr 4, 2024 | | | Qtr 1, 2025 | | | Qtr 2, 2025 | | | Qtr 3, 2025 | | | Qtr 4, 2025 | | | Qtr 1, 2026 |
|--|-----------------|--------------------|--------------------|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|
| | | | | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan |
| Project Management for Liberty Blvd Roadway Improvement | 335 days | Tue 8/20/24 | Mon 12/1/25 | | | | | | | | | | | | | | | | | | | |
| Construction Contract Administration | 335 days | Tue 8/20/24 | Mon 12/1/25 | | | | | | | | | | | | | | | | | | | |
| Construction Management | 326 days | Mon 9/2/24 | Mon 12/1/25 | | | | | | | | | | | | | | | | | | | |
| Construction Inspection | 326 days | Mon 9/2/24 | Mon 12/1/25 | | | | | | | | | | | | | | | | | | | |
| CMT - Construction Material Testing | 326 days | Mon 9/2/24 | Mon 12/1/25 | | | | | | | | | | | | | | | | | | | |
| Miscellaneous Technical Activities | 326 days | Mon 9/2/24 | Mon 12/1/25 | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | |
|-----------|--|--------------------|--|-----------------------|--|--------------------|--|-----------------|--|
| Task | | Project Summary | | Manual Task | | Start-only | | Deadline | |
| Split | | Inactive Task | | Duration-only | | Finish-only | | Progress | |
| Milestone | | Inactive Milestone | | Manual Summary Rollup | | External Tasks | | Manual Progress | |
| Summary | | Inactive Summary | | Manual Summary | | External Milestone | | | |