# PROFESSIONAL SERVICES AGREEMENT BETWEEN MADISON COUNTY BOARD OF SUPERVISORS AND



MISSISSIPPI ENGINEERING GROUP, INC.

This **PROFESSIONAL SERVICES AGREEMENT** (this "Agreement") is made by and between:

Name: Madison County Board of Supervisors Address: 125 West North Street, Canton, MS 39046

Telephone: (601) 790-2590

Representative: Hon. Trey Baxter, President

(referred to in this Agreement as "CLIENT")

#### **AND**

Name: Mississippi Engineering Group, Inc.

Address: 143-A LeFleurs Square, Jackson, MS 39211

Telephone: (601) 355-9526

Representative: Joe A. Waggoner, PE, PLS, Chairman

(referred to in this Agreement as "MSEG"), in connection with the I-55 Overpass and Roadway Connections from Bozeman Road to Galleria Parkway (the "Project"), effective as of the \_\_\_\_\_ day of August 2019 (the "Effective Date").

In consideration of the mutual covenants and promises set forth in this Agreement, CLIENT and MSEG agree as follows:

1. SERVICES. CLIENT hereby engages MSEG to perform or furnish the professional engineering and related services ("Services") described on <u>Exhibit A</u> attached to and made part of this Agreement (the "Scope of Services") as part of the Project.

Client may request MSEG to perform additional services not described in the Scope of Services ("Additional Services"), regardless whether related to the Project. Such additional services shall be approved by the CLIENT prior to the performance of said services. Unless agreed otherwise by MSEG, CLIENT shall compensate MSEG for Additional Services on an hourly basis using the rates attached to this Agreement as <a href="Exhibit B">Exhibit B</a>. MSEG reserves the right to require written authorization by CLIENT prior to performing any Additional Services.

(a) **Standards of Practice**. MSEG will perform the Services in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. MSEG makes no other representation or warranty regarding its Services. CLIENT may not infer any additional or different representation or warranty by MSEG from any report, opinion, document or other communication made by or on behalf of MSEG.

(b) Changes in Scope of Services. The Scope of Services described in Exhibit A is based on facts known at the time of execution, including, if applicable, information supplied by CLIENT. For some projects involving conceptual or process development services, the Scope of Services may not be fully defined at the time of execution. As the Services progress, facts discovered may indicate the need for changes to the Scope of Services. Changes in the Scope of Services will result in a change in agreed upon compensation if the change in Scope of Services changes the amount of work or expertise required of MSEG.

#### 2. **COMPENSATION.**

- (a) CLIENT shall compensate MSEG for the Services provided on an hourly basis in accordance with the rate schedule attached to this Agreement as Exhibit B. CLIENT shall also reimburse MSEG for all reasonable expenses incurred in the performance of the Services, to include printing, travel, lodging and subsistence, and equipment use in accordance with Exhibit B. Exhibit C sets forth an estimate of the cost of performance of the Scope of Services by task.
- (b) MSEG will invoice CLIENT monthly based upon the work completed during the billing period, and CLIENT shall pay MSEG within 30 days after receipt of MSEG's monthly invoice. Any invoice not paid within forty-five days of receipt shall bear interest at the rate of 1.5% per month in accordance with MISS. CODE ANN. § 31-7-305.
- (c) MSEG reserves the right to modify its Hourly Rate Schedule as of January 31, 2020 subject to prior approval by the CLIENT

#### 3. TERM OF AGREEMENT; SCHEDULE OF PERFORMANCE.

- (a) This Agreement shall be effective as of the Effective Date and shall continue, unless sooner terminated in accordance with the provisions of this Agreement, until January 30, 2020.
- (b) In the event of any delays in performance of the Services through no fault of MSEG, MSEG shall be entitled to an equitable adjustment in compensation to address increased costs of performing the Services.

#### 4. CLIENT RESPONSIBILITIES.

- (a) **Information/Reports**. CLIENT shall furnish MSEG with all applicable reports, studies, site characterizations, regulatory orders and similar information in its possession relating to the Services to be performed by MSEG. Unless specified otherwise in the Scope of Services, in performing the Services, MSEG may rely upon CLIENT-furnished information without independent verification.
- (b) **Representative**. CLIENT shall designate a representative who shall have authority to transmit instructions, receive information, interpret and define CLIENT's policies and make decisions with respect to the Services performed.

- (c) **Decisions**. CLIENT shall provide all criteria and full information as to Client's requirements for the Project, obtain necessary approvals and permits (unless specified otherwise in Exhibit A), attend project meetings, provide interim reviews on an agreed-upon schedule, make decisions as to project alternatives, and generally participate in the project to the extent necessary to enable MSEG to performance the Services in a timely and efficient manner.
- (d) **Access**. CLIENT shall provide MSEG safe access to the project site and any other premises under Client's control necessary for MSEG to perform or provide the Services.
- Utilities and Other Underground Improvements. CLIENT shall furnish to (e) MSEG information identifying the type and location of any underground utilities or other underground improvements that affect the Services. As part of any design, testing or other Services that include ground penetrations, MSEG will prepare one or more plans that show the locations intended for subsurface penetrations for CLIENT's approval. CLIENT agrees, to the fullest extent permitted by law, to waive all claims and causes of action against MSEG and anyone for whom MSEG may be legally liable for damages to underground improvements that result from subsurface penetrations shown on the plans submitted to CLIENT for approval. CLIENT further agrees, to the fullest extent permitted by law, to indemnify, defend and hold MSEG and its subconsultants harmless from any damage, liability or cost, including reasonable attorneys' fees and defense costs, for any property damage, injury or economic loss arising or allegedly arising from subsurface penetrations in locations authorized by Client or from inaccuracy of information provided to MSEG by Client, except for damages caused by the sole negligence of MSEG in its use of Client-furnished information.
- 5. **OWNERSHIP OF INSTRUMENTS OF SERVICE**. Drawings, specifications, reports, and other documents prepared by MSEG in connection with any or all of the services furnished hereunder shall be the property of the CLIENT. MSEG shall have the right to retain copies of all documents and drawings for its files. All documents, including drawings and specifications furnished by MSEG pursuant to this Agreement, are intended for use on the specified project only CLIENT agrees they should not be used by CLIENT or others on extensions of the specified project or any other project. Any reuse, without written verification or adaption by MSEG, shall be at the CLIENT'S SOLE RISK

#### 6. PROVISIONS APPLICABLE TO PARTICULAR TYPES OF SERVICES.

- (a) **Construction Observation**.
  - (i) Omitted
  - (ii) If the Scope of Services does not include observation or review of the performance by MSEG of any construction or other third-party services, CLIENT assumes all responsibility for interpretation of the plans, specifications and other contract documents and for construction

observation and supervision and waives any claims against MSEG that may be in any way connected thereto.

#### (b) **Hazardous Materials**.

- (i) The Scope of Services does not include any services related to investigations for or abatement or remediation of hazardous or toxic materials ("Hazardous Materials"). In the event MSEG or any other party encounters any Hazardous Materials at any project site, or should it become known in any way that Hazardous Materials may be present at the any project site or any adjacent areas that may affect the performance of the Services, MSEG may, at its option and without liability for consequential or any other damages, suspend performance of the Services (in whole or in part) until CLIENT retains appropriate specialist consultant(s) or contractor(s) to identify, abate and/or remove the Hazardous Materials.
- (ii) CLIENT shall furnish or cause to be furnished to MSEG all documents and information known or available to CLIENT that relate to the identity, location, quantity, nature, or characteristic of any Hazardous Materials at or near each project site, and shall immediately transmit new, updated, or revised information as it becomes available. In no event shall MSEG be required to sign a hazardous waste manifest or take title to any Hazardous Materials. CLIENT shall have the obligation to make all spill or release notifications to appropriate government agencies.
- (c) **Testing and Observation**. CLIENT understands that testing and observation are discrete sampling procedures, and that such procedures indicate conditions only at the depths, locations, and times the procedures were performed. CLIENT is responsible (even if delegated to contractor) for requesting any additional testing services that CLIENT deems appropriate for the Project beyond that provided in the Scope of Services. MSEG's performance of testing and observation services shall not relieve CLIENT's contractor in any way from its responsibility for defects in its work or create a warranty or guarantee by MSEG. MSEG will not supervise or direct the work performed by CLIENT's contractor or its subcontractors, and neither any testing nor construction observation performed by MSEG shall result in MSEG being or becoming responsible for means and methods of construction.
- (d) **Testing Laboratory Services**. All laboratory testing services will be performed by a third party. CLIENT understands that MSEG may not be knowledgeable in the procedures of the testing laboratory's services and will not rely upon MSEG to verify the quality or accuracy of the testing laboratory's reports.
- (e) **Sample Disposition Upon Completion of Testing**. Unless specified otherwise in the Scope of Services, material samples will be considered consumed in testing and will be disposed of upon completion of the tests.

- 7. **INSURANCE**. Throughout the term of this Agreement, MSEG shall maintain the following minimum insurance coverages:
  - (a) Workers' compensation insurance in such amounts as may be required under the laws of the State of Mississippi.
  - (b) Comprehensive general liability insurance with limits of not less than \$1,000,000 per occurrence and \$2,000,000 aggregate.
  - (c) Automobile liability insurance with a combined single limit of not less than \$1,000,000.
  - (d) Professional liability insurance in an amount of not less than \$1,000,000 annual aggregate, on a claims-made basis.

At CLIENT's request, MSEG shall add CLIENT as an additional insured under MSEG's automobile liability and general liability policies, but only with respect to the Services.

- 8. **TERMINATION**. Either CLIENT or MSEG may terminate this Agreement at any time with or without cause upon giving the other party seven (7) calendar days prior, written notice. CLIENT shall pay MSEG for all Services performed and all costs incurred up to the date of termination within thirty (30) calendar days of the date of termination.
- 9. **DISPUTE RESOLUTION**. The parties agree to attempt to settle any disputes arising under this Agreement in an amicable manner through discussions between the parties' senior management representatives. If a dispute cannot be resolved in this manner within a reasonable parties of time, the parties agree to submit the matter to non-binding mediation prior to filing any legal proceedings. Mediation shall be conducted in accordance with the mediation Rules of the American Arbitration Association with the parties sharing the cost of the mediator(s) equally. In the event any actions are brought to enforce this Agreement, the prevailing party shall be entitled to collect its litigation costs (including reasonable attorneys' fees and expenses, costs of investigation and other costs of litigation) from the other party.
- 10. **CONSEQUENTIAL DAMAGES**. Notwithstanding any other provision of the Agreement, neither party shall be liable to the other for any consequential damages incurred due to the fault of the other party, regardless of the nature of the fault or whether it was committed by CLIENT or MSEG, their employees, agents, subconsultants or subcontractors. Consequential damages include, but are not limited to, loss of use and loss of profit.
- 11. **NOTICES**. Any notice required to be given under this Agreement shall be given in writing, and shall be effective when actually delivered, one business day after deposit with a nationally recognized overnight courier, delivery fees prepaid, or, if mailed, three business days after deposit in the United States mail, as first class, certified or registered mail postage prepaid, directed to the addresses shown below:

CLIENT: Madison County Board of Supervisors

125 West North Street Canton, MS 39046

Telephone: (601) 790-2590

Attention: Shelton Vance, County Administrator

MSEG: 143-A LeFleur's Square

Jackson, Mississippi 39211 Telephone: (601) 355-9526

Attention: Hunter T. Arnold, PE

Any party may change its address for notices under this Agreement by giving formal written notice to the other parties, specifying that the purpose of the notice is to change the party's address.

#### 12. **GENERAL PROVISIONS.**

#### (a) **Amendments**.

This Agreement represents the complete agreement between CLIENT and MSEG with respect to the subject matter hereof and may only be amended, supplemented, or modified by a duly executed instrument approved by both parties.

(b)

- (c) Third Party Beneficiaries. Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either CLIENT or MSEG. MSEG's Services under this Agreement are being performed solely for Client's benefit, and no other entity, including CLIENT's contractors, shall have any claim against MSEG because of this Agreement or the performance or nonperformance of any Services under this Agreement.
- (d) **Delays**. If events beyond the control of CLIENT or MSEG, including, but not limited to, fire, flood, explosion, riot, strike, war, process shutdown, act of God or the public enemy, and act or regulation of any government agency, result in delay to any schedule established in this Agreement, such schedule shall be amended to the extent necessary to compensate for such delay. In the event such delay exceeds 60 days, MSEG shall be entitled to an equitable adjustment in compensation.
- (e) **Safety**. MSEG shall have no responsibility for or control over general job site safety of persons other than MSEG employees.
- (f) Construction Means, Methods, Techniques. MSEG shall not have any responsibility for or control over any contractors means, methods, techniques or sequencing of any work.

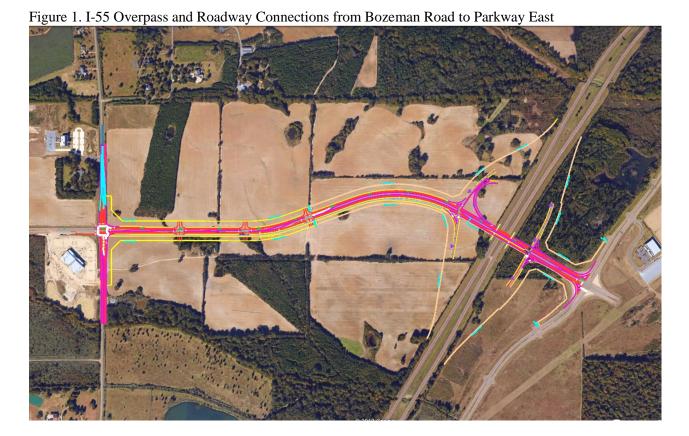
**IN WITNESS WHEREOF**, the parties hereto have caused this Agreement to be executed by their duly authorized representatives effective as of the date set forth above.

MADISON COUNTY BOARD OF SUPERVISORS	MISSISSIPPI ENGINERING GROUP, INC		
By: Title:	By:		
litle:	Title:		

### Exhibit A MSEG Scope of Work

The Madison County Board of Supervisors ("CLIENT" / "OWNER"), proposes to construct a 1.2 mile connection of Reunion Parkway from Bozeman Road to Parkway East, hereinafter called the "PROJECT". The new roadway will intersect Bozeman Road opposite its intersection with the existing Reunion Parkway (Phase 1) and then extend over Interstate 55 with a bridge before terminating at an intersection with Parkway East opposite the Reunion Parkway Phase 3 roadway that is currently being designed. Ramps to connect Reunion Phase 2 to Interstate 55 will not be built as part of the county's project but will be built by MDOT when MDOT widens Interstate 55. The horizontal and vertical layout of the ultimate interchange with Interstate 55 will be included in the design for purposes of compatibility with MDOT's plans for expansion of Interstate 55 and connection to Reunion Parkway.

The following Scope of Work, with associated Estimated Cost and Schedule of Performance is based on the Project alignment, survey, and property lines provided by the CLIENT, as depicted in Figure 1, following.



As part of this Scope of Work, Mississippi Engineering Group, Inc. (MSEG, or the "CONSULTANT"), shall provide necessary professional services required for completion of limited "Phase A" elements of work, including development of Field Review Ready Plans in connection with the PROJECT. Field Review Ready plans shall be prepared according to the MDOT Local Public Agency (LPA) Project Development Manual (PDM), with noted exceptions.

Upon receipt of a notice-to-proceed, the CONSULTANT shall begin engineering services in accordance with the following outline of tasks. Specifically, the CONSULTANT will complete the following tasks:

#### PRELIMINARY RIGHT OF WAY PLANS

- Part 1 -- Pre-Design Conference, Field Reconnaissance, & Data Gathering
- Part 2 Project Activation (Limited as Noted)
- Part 3 Supplemental Topographical Field Survey (Limited as Noted)
- Part 4 -- Centerline Soil Profile
- Part 5 -- Preliminary Geotechnical Design Report
- Part 6 -- Field Review Ready Plans

#### 1. Pre-Design Conference, Field Reconnaissance, & Data Gathering

The purpose of the conference is to discuss procedures, contract administration, data required by this CONTRACT, the design criteria, and other matters as the parties deem necessary. After the Pre-Design Conference, the OWNER shall authorize the CONSULTANT to proceed with the task order. If any of the items provided by the OWNER upon further review by the CONSULTANT results in changes to the Scope of Work, a supplemental agreement may be necessary to complete the final deliverables.

#### TYPICAL ITEMS/MATERIALS PROVIDED BY THE OWNER:

The OWNER will provide within normal resources, the following:

- A. Maps, aerial photographs, and other cartographic items as may be available;
- B. Available old construction plans, drawings, and maps pertinent to the project;
- C. Copies of previous surveys, studies/analyses, environmental assessments and reassessments, conceptual plans, and other information pertaining to the project;
- D. Names, addresses, and telephone numbers of points of contact which may prove useful to the CONSULTANT in the conduct of the analysis;
- E. A single point of contact for day-to-day coordination;
- F. Computer files (depending on availability) may include CADD files, GIS data, or Survey Control Points set by Surveyors on or near the project; and

#### 2. Project Activation

The CONSULTANT will provide limited project activation as defined in the MDOT LPA PDM. The CONSULTANT will provide the following information for project activation: Vicinity Map, LPA-700 form, LPA 800 form. If required by MDOT, CONSULTANT will assist CLIENT in jointly preparing LPA-001 form.

#### 3. Supplemental Topographical Field Surveying

The following items represent the various tasks included in the scope of work regarding the topographical surveying to be performed as a supplement to the existing survey data as provided by the client. The topographical survey shall be limited to field verification of critical control locations such as project termini and Interstate 55. Otherwise, design shall be accomplished using data provided by the CLIENT. The Consultant is not responsible for the accuracy of the data as provided by others"

#### Topographical / Supplemental Surveying Phase

- A. All surveying tasks shall be performed under this phase shall be performed under the supervision and guidance of a Professional Land Surveyor who is properly registered and in good standing with the Mississippi State Board of Registration for Professional Engineers and Land Surveyors.
- B. Prior to beginning the field survey, document "good faith" efforts that the owners of the adjacent properties are notified by letter of the project and the required field surveying required for the design of the proposed extension of Reunion Parkway.
- C. The horizontal datum used for this survey shall be based upon the North American Datum of 1983, (NAD 83), Mississippi State Plane Coordinate System, East Zone and the vertical datum used for this survey shall be based upon the North American Vertical Datum 1988. (NAVD 88). All measurements shall be based upon US Survey feet. Any distances or bearings shown on survey shall be grid based.
- D. A centerline profile shall be performed along the mainline at 50-foot intervals plus grade breaks.
- E. Four (4) cross-sections shall be obtained on existing Reunion Parkway; two at Bozeman Road intersection and two at Parkway East intersection. Cross-sections to extend 150 feet each way of centerline.
- F. Cross-sections shall also be performed along Interstate 55 and extend approximately 100 feet North and South from the intersection of the proposed centerline of Reunion Parkway. The cross-sections shall be obtained at 50 foot intervals and shall extend from 50 beyond the West edge of pavement of the South bound lanes to the 50 feet beyond the East edge of pavement of the North bound lanes.
- G. The consultant shall also obtain cross-sections along Interstate 55 where the proposed interchange ties into the interstate. The sections shall be from edge of pavement to edge of pavement and extend 100 feet each way at intervals of 20 feet.

- H. Survey and Map locations (horizontal and vertical top of ground) of the soil borings.
- I. Establish a minimum of six (6) horizontal and vertical control points for future use. The horizontal and vertical control points shall be established utilizing a combination of GPS/RTK and conventional surveying, and their locations shall be property identified on the completed survey.
- J. The actual location of any underground utilities will be shown as per markings by the Mississippi One Call System, Madison County, or the utility owner or from any utility drawings that may be provided by the utility owner. In that the underground utilities are based at least in part, on information from others, WEI cannot and does not warrant their completeness or accuracy.
- K. This scope does not include any surveying tasks related to the performance of any boundary, property or right-of-way surveying that would be required in order to determine and/or delineate the location of any existing or proposed boundaries, properties, easements or right of way lines.

#### 4. Centerline Soil Profile

The CONSULTANT will investigate sub-surface soil and geological conditions along the project route as required to provide the necessary design criteria for structure foundations, pavement support criteria, embankment stability, and other as required by the CLIENT.

Design Criteria for pavement support shall be determined from a Centerline Soil Profile. The specific objective of this study is to determine the quality and type of soils located along the project. The centerline soil profile shall be completed prior to the submittal of the preliminary right-of-way plans so that the plans reflect slope requirements in areas that contain high-volume-change soils as well as fill and cut areas that will require benching foreslopes and/or backslopes.

The CONSULTANT shall perform necessary field and laboratory work to develop and provide the complete soil profile along the centerline of survey. The soil survey shall be performed by the CONSULTANT in such a manner as necessary to produce a report similar in content and format commonly developed by MDOT, and in accordance with MDOT Standard Operating Procedures *TMD-20-14-00-000 – Standard Design Procedures for Construction of Roadways Through High Volume Change Soils*.

The CONSULTANT shall identify the types of soils along the proposed alignment, evaluate their potential use as fill materials, and locate any undesirable low strength surface soils which may require undercutting or other remedial measures for construction. From the original soil profile, a tentative base design will be formed and any undesirable strata shall be noted for special consideration. It is of distinct value in determining soil strata placement during grading operations where better soils should be placed at grade and poor soils below.

Prior to the beginning of the field exploration, the CONSULTANT shall submit the proposed plan of work to the OWNER for review and approval. As a general rule, soil borings should be spaced a maximum of 200 feet apart along the centerline and drilled to a depth of 3 feet below the proposed subgrade line in cut sections or natural ground in fill sections. The spacing and depth of soil borings should vary if unusual conditions are encountered such as rock layers, water strata, or

weak deposits (muck or unstable material). The auger method of drilling for disturbed samples is generally suitable for identification of the materials obtained.

Additional laboratory tests and analyses, which are not specified in TMD-20-14-00-000, shall be performed by the CONSULTANT. These include:

- 1. Estimated CBR, from charts supplied by MDOT;
- 2. Volume Change, AASHTO T 92;
- 3. pH, Mississippi Test Method MT-30;
- 4. Soil Resistivity, Mississippi Test Method MT-47.

The CONSULTANT shall prepare a report of the findings of the soil survey. This report shall include recommendations for handling unsuitable or undesirable soils, copies of the laboratory test results on MDOT form TMD-683, or equivalent, and the centerline soil profile. The centerline soil profile shall show the limits of each soil type identified, with each type labeled with:

- 1. an identification number to reference it to the laboratory test results,
- 2. AASHTO classification,
- 3. Unified Soils classification,
- 4. estimated CBR.
- 5. % Volume Change (if applicable)

The CONSULTANT shall provide 2 copies of the report including Adobe PDF to the OWNER, or his or her designee.

#### 5. Preliminary Geotechnical Design Report

#### **Subsurface Investigation:**

Perform field exploration as necessary to supplement the existing boreholes and to establish proper bridge foundation criteria.

- 1. Five (5) borings will be made for the proposed bridge and approaches to depths of 20 ft, 25 ft, 40 ft, 70 ft, and 100 ft. The boring will be made to a depth of 100 ft to establish the site classification, and Seismic Zone to estimate the site PGA.
- 2. Soil samples will be obtained in the borings. These samples will be taken at intervals necessary to produce continuous logs. The sampling interval will not exceed 5 feet to a depth of 50 feet and 10 ft beyond this depth.

Undisturbed soil samples will be obtained in cohesive soil zones (AASHTO T207). Standard penetration tests will be conducted in cohesionless soil zones and in cohesive soil zones too hard to sample with a Shelby tube (AASHTO T206).

All soils encountered will be described, and a generalized soil profile will be developed and drawn, showing as a minimum the ground line profile, soil zone

stratification, locations of the borings, and results of the standard penetration tests. A detailed log of each boring will be prepared by a professional engineer.

#### **Laboratory Testing:**

Perform laboratory tests to supplement the existing laboratory tests and to determine necessary classification and design parameters.

- 1. Laboratory testing of the soil samples obtained during field exploration will be performed to adequately determine necessary classification and design parameters. The following characteristics will be determined: Atterberg limits, field moisture content, unit mass, grain size, and cohesive shear strength. A sufficient number of tests will be performed on representative samples from each strata designated in the field exploration to adequately determine its shear strength, settlement potential and ultimate bearing capacity.
- Unconfined compression and unconsolidated-undrained triaxial compression tests will be used to determine the shear strength characteristics of cohesive soils. A wide range of confining pressures will be used with representative samples from each zone to develop a Mohr's failure envelope.
- Consolidation tests shall be performed on representative samples of all potentially compressible soil strata. The in-situ void ratio, saturation percentage, specific gravity, over-consolidation ratio, and coefficients of compression and vertical drainage shall be determined for these tests.

#### **Engineering Analysis:**

- 1. Foundation conditions, together with typical bent loads and elevations will be analyzed, to develop feasible foundation support systems and general foundation designs.
- 2. Capacity curves will be developed in tons vs. feet for various sizes and types of piles/shafts. The curves will be developed for all bent locations. Construction considerations pertaining to pile construction will be provided.
- 3. Settlement analyses will be performed for the most critical combination of embankment height and compressible soil conditions at the bridge site.
- 4. Analyses will be performed to evaluate global stability for the spill through slopes. Pseudo-static seismic slope stability analyses (where required) should follow the current AASHTO LRFD Bridge Design Specifications.
- 5. Analyses will be performed to establish the site classification, Seismic Zone to estimate the site PGA and to evaluate liquefaction potential.

#### **Excluded from this scope of work are:**

- 1. The design of measures to prevent and/or mitigate liquefaction.
- 2. Development of stiffness parameters for foundation elements.

#### **CADD Drawings:**

The Generalized Soil Profile(s) will be included in the Geotechnical Investigation and will be submitted in MicroStation (.dgn) format. The Generalized Soil Profile will contain standard notes and disclaimers. In addition, the Generalized Soil Profile will contain a table of soil strengths and unit weights used for design calculations as well as a geologic description of the individual soil zones.

#### **Geotechnical Investigation Report:**

The Geotechnical Investigation Report will be prepared describing the results of the investigation, with specific recommendations as to foundation design and construction. The report will be prepared and signed by an engineer licensed in the State of Mississippi with a minimum of 10 years experience in the practice of geotechnical engineering. The report will contain the following:

- 1. A cover letter containing Project Name, County, and a general description of the project;
- 2. A Project Layout Sheet and a map encompassing the entire project area;
- 3. A copy of the boring logs;
- 4. Results of the laboratory tests;
- 5. Generalized soil profile suitable for inclusion in the plans.

In addition, the Geotechnical Investigation Report shall be organized according to the following outline.

- I. Cover Letter
- II. Layout Sheet
- III. General
- IV. Geology
- V. Conclusions and Recommendations
  - A. Settlement Analysis
  - B. Stability Analysis (including pseudo-static slope stability, where required)
  - C. Foundation Analysis
    - 1. Driven Piles
    - 2. Drilled Shafts
    - 3. Geotechnical Seismic Design
- VI. Reference Section
  - A. Generalized Soil Profile
  - B. Pile/Drilled Shaft Design Curves
  - C. Laboratory Test Results
  - D. Boring Logs

#### 6. Field Review Ready Plans

The CONSULTANT shall prepare and submit to the CLIENT field review plans for the project to include, where applicable:

- A. The CONSULTANT shall prepare and submit field review plans to the CLIENT in accordance with the LPA's format based on the following information provided by the CLIENT: approved environmental document, approved interstate access request, and conceptual level design.
- B. ROADWAY PLANS: Title Sheet(s), typical sections, preliminary listing of pay items, planprofile sheets showing all geometrics, profile grades, construction limits, cross sections, traffic control sheets, preliminary permanent directional signing layout sheets, preliminary pavement marking sheets, special design sheets where needed, phase construction sheets as required (plan & elevation) and right-of-way limits with or without property boundaries.
  - The CONSULTANT shall submit the interchange ramp alignments to the CLIENT for review an approval to ensure accurate alignment information after the interchange configuration has been approved. The CONSULTANT will make any adjustments deemed necessary by the CLIENT.
- C. BRIDGE PLANS: Span arrangements, pier/foundation schematics, shoring requirements adjacent to existing streets and railroads, typical sections, finish grade profiles, vertical and horizontal clearances, retaining walls, design data, drainage data, and any other information necessary for development of conceptual plans for bridges as well as roadway plans for the approach connections to the bridge concepts.
  - Four (4) sets of field review plans shall be submitted to the CLIENT for review and approval. Allow approximately two (2) weeks or less for review by the CLIENT. As time allows, the CONSULTANT shall submit field review plans to MDOT for review and approval.

## Exhibit B MSEG Hourly Rate Schedule

EMPLOYEE CATEGORY	RATES	8
Sr. Principal	\$210.00	Per Hour
Principal	\$210.00	Per Hour
Sr. Discipline Manager	\$210.00	Per Hour
Discipline Manager	\$170.00	Per Hour
Sr. Project Manager	\$200.00	Per Hour
Project Manager	\$185.00	Per Hour
Sr. Project Engineer	\$175.00	Per Hour
Project Engineer	\$155.00	Per Hour
Engineer Intern	\$125.00	Per Hour
Graduate Engineer	\$120.00	Per Hour
Architect	\$155.00	Per Hour
Designer	\$135.00	Per Hour
GIS Specialist	\$130.00	Per Hour
Administrative I	\$70.00	Per Hour
Administrative II	\$85.00	Per Hour
Technician Intern	\$95.00	Per Hour
Technician	\$105.00	Per Hour
Senior Technician	\$125.00	Per Hour
Construction Rep I	\$115.00	Per Hour
Construction Rep II	\$135.00	Per Hour
Survey Supervisor/ PLS	\$140.00	Per Hour
Survey Crew*		
One Man Robotic Total Station/GPS Crew	\$130.00	Per Hour
Two Man	\$150.00	Per Hour
Three Man	\$190.00	Per Hour
Four Man	\$230.00	Per Hour
Cadd/GIS Equipment	\$20.00	Per Hour
Four Wheeler	\$30.00	Per Day
IRS Current Standard Mileage Rate	Actual	

MSEG Hourly Rate Schedule (continued)

REIMBURSABLE EXPENSES PHOTOCOPIES Conjuga		Actu	al Expense + 1	10%
Copiers  Black & White	Letter & Legal	\$	0.15	Per Copy
	11X17	\$	0.25	Per Copy
	12X18	\$	0.30	Per Copy
Color		\$	1.10	Per Copy
Plotters**				
Black & White	11x17	\$	4.00	Per Copy
	12x18	\$	4.50	Per Copy
	18x24	\$	9.00	Per Copy
	24x36	\$	18.00	Per Copy
Color	11x17	\$	15.60	Per Copy
	12x18	\$	18.00	Per Copy
	18x24	\$	36.00	Per Copy
	24x36	\$	72.00	Per Copy

#### Travel Time:

Time required to travel to and from a project site will be billed at the normal hourly rates.

The stated rates are effective from January 1, 2019 through January 31, 2020. WEI reserves the right to adjust the hourly rates after January 31, 2020, subject to prior approval by CLIENT.

<sup>\*</sup>Survey crew rates include Total Stations with Data Collectors, Survey Vehicle, and Standard Survey Equipment.

<sup>\*\*</sup>Oversized or odd sized plots are billed at \$0.25/sq ft for black & white, and \$1.00.sq ft for color.

## Exhibit C MSEG Compensation Schedule

	Proposed Budget
Design Phase Services	\$483,923
	(hourly, not to exceed)
Additional Services	hourly as requested
TOTAL	\$483,923