



CENTRAL TEXAS REGIONAL  
**MOBILITY AUTHORITY**

February 27, 2019  
**AGENDA ITEM #8**

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Approve Supplement No. 2 to Work Authorization No. 7 with WSP USA Inc. for construction engineering, inspection and general engineering consultant services on the MoPac Improvement Project and Mopac Miscellaneous Improvements Project

Strategic Plan Relevance: Regional Mobility  
Department: Engineering  
Contact: Justin Word, P.E., Director of Engineering  
Associated Costs: \$687,333.08  
Funding Source: Project Funds (Previously Allocated)  
Action Requested: Consider and act on draft resolution

**Summary:**

During the July 2017 Board meeting, the Board authorized Work Authorization No. 7 with WSP USA Inc. (formerly known as Parsons Brinckerhoff, Inc.) for completion of design/build oversight on the MoPac Improvement Project contract being completed by CH2M Hill. At that time, the project schedule anticipated completion of the construction efforts in July 2018.

During the March 2018 Board meeting, the Board authorized the Executive Director to negotiate and execute a construction contract with McCarthy Building Companies, Inc. to perform additional work on MoPac (referred to as the MoPac Miscellaneous Improvements Project). At that time, the project schedule for this work anticipated completion in January 2019.

During the July 25, 2018 Board meeting, the Board approved and authorized the Executive Director to execute Supplement No. 1 to Work Authorization 7 with WSP USA Inc. in the amount not to exceed \$1,270,780.32. The executed supplement increased the not to exceed amount for Work Authorization No 7 to \$6,219,609.89.

Since that time, construction of the MoPac Improvement Project and MoPac Miscellaneous Improvements Project have extended beyond their anticipated schedules.

Completion of the MoPac Improvement Project is now anticipated in March 2019; and completion of the MoPac Miscellaneous Improvement Project is anticipated in July 2019.

To continue General Engineering Consultant (GEC) oversight, inspection, testing, and close out of the MoPac Improvement Project and MoPac Miscellaneous Improvements Project, Mobility Authority staff recommends that additional fee in the amount of \$687,333.08 be authorized under Supplemental Work Authorization No. 2 to Work Authorization No. 7 with WSP USA Inc.

This additional fee is composed of a Base Amount of \$580,329.29 and a Contingency Amount of \$107,003.79. This additional fee will increase the not to exceed amount for Work Authorization No. 7 from \$6,219,609.89 to \$6,906,942.97. The use of any portion of the Contingency Amount by WSP USA Inc. will be upon written authorization from the Executive Director or Director of Engineering.

Backup provided: Draft Resolution  
Draft Supplement No. 2 to Work Authorization No. 7

**GENERAL MEETING OF THE BOARD OF DIRECTORS  
OF THE  
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

**RESOLUTION NO. 19-0XX**

**APPROVAL OF SUPPLEMENT NO. 2 TO WORK AUTHORIZATION NO. 7 WITH WSP USA,  
INC. FOR PROFESSIONAL ENGINEERING SERVICES FOR THE MOPAC IMPROVEMENT  
PROJECT AND MOPAC MISCELLANEOUS IMPROVEMENTS PROJECT**

WHEREAS, by Resolution No. 17-043 dated July 26, 2017, the Board Authorized the Executive Director to execute Work Authorization No. 7 with WSP USA, Inc. (formerly Parsons Brinckerhoff, Inc.) for general engineering consultant services for the MoPac Improvement Project; and

WHEREAS, by Resolution No. 18-009 dated March 28, 2018, the Board authorized the Executive Director to negotiate and execute a construction contract with McCarthy Building Companies, Inc. for additional enhancements to the MoPac Improvement Project (the “MoPac Miscellaneous Improvements Project”); and

WHEREAS, by Resolution No. 18-041, dated July 25, 2018, the Board authorized the Executive Director to execute Supplement No. 1 to Work Authorization No. 7 for construction engineering, inspection and general engineering consultant services on the MoPac Improvement Project and the MoPac Miscellaneous Improvements Project through January 2019; and

WHEREAS, completion of the MoPac Improvement Project is currently anticipated in March 2019 and completion of the MoPac Miscellaneous Improvements Project is currently anticipated in July 2019; and

WHEREAS, the Executive Director and WSP USA, Inc. have negotiated proposed Supplement No. 2 to Work Authorization No. 7 in an amount not to exceed \$687,333.08 to continue construction engineering, inspection and general engineering consultant services for the Mopac Improvements Project and the Mopac Miscellaneous Improvements Project; and

WHEREAS, the Executive Director recommends that the Board approve proposed Supplement No. 2 to Work Authorization No. 7 in the form or substantially the same form as attached hereto as Exhibit A.

NOW THEREFORE, BE IT RESOLVED, that the Board approves an amount not to exceed \$687,333.08 for the services described in Supplement No. 2 to Work Authorization No. 7; and

BE IT FURTHER RESOLVED, that the Board authorizes the Executive Director to finalize and execute proposed Supplement No. 2 to Work Authorization No. 7 with WSP USA, Inc. in the form or substantially the same form as Exhibit A.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 27<sup>th</sup> day of February 2019.

Submitted and reviewed by:

Approved:

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Geoffrey Petrov, General Counsel

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Ray A. Wilkerson  
Chairman, Board of Directors

**Exhibit A**

## APPENDIX D

### SUPPLEMENTAL WORK AUTHORIZATION

#### SUPPLEMENTAL WORK AUTHORIZATION NO. 2 to WORK AUTHORIZATION NO. 7

**THIS SUPPLEMENTAL WORK AUTHORIZATION** is made as of this 27<sup>th</sup> day of February 2019, under the terms and conditions established in the AGREEMENT FOR GENERAL CONSULTING ENGINEERING SERVICES, dated as of June 30, 2016 (the "Agreement"), between the Central Texas Regional Mobility Authority ("Authority") and WSP USA Inc. (formerly Parsons Brinckerhoff, Inc.) ("GEC"). This Supplemental Work Authorization is made for the following purpose, consistent with the services defined in the Agreement:

#### *MoPac Improvement Projects –Completion of Design/Build & Construction Oversight*

##### **Section A. - Scope of Services**

A.1. GEC shall perform the following Services:

Please reference "Scope of Work" attached hereto as Attachment A which replaces the Scope of Work included in Supplemental Work Authorization No. 1 in its entirety.

##### **Section B. - Schedule**

GEC shall perform the Services and deliver the related Documents (if any) according to the following schedule:

Services defined herein are anticipated to be substantially complete on December 31, 2019. This Work Authorization will not expire until all tasks associated with the Scope of Services are complete as defined by the Mobility Authority.

##### **Section C. - Compensation**

C. 1. In return for the performance of the foregoing obligations, the Authority authorizes an amount not to exceed \$687,333.08 based on Attachment B - Fee Estimate which is composed of a Base Amount of \$580,329.29 and a Contingency Amount of \$107,003.79. This will increase the not to exceed amount for Work Authorization No. 7 from \$6,219,609.89 to \$6,906,942.97. Compensation shall be in accordance with the Agreement.

The Authority and the GEC agree that the budget amounts contained in Attachment B - Fee Estimate for the GEC are estimates and that these individual figures may be redistributed and/or adjusted as necessary over the duration of this Work Authorization. The GEC may alter the compensation distribution between tasks or work assignments to be consistent with the Services actually rendered within the total Work Authorization amount. The GEC shall not exceed the maximum amount payable without prior written

permission by the Authority.

C.2. Compensation for Additional Services (if any) shall be paid by the Authority to the GEC according to the terms of a future Work Authorization or an additional Supplement to the original Work Authorization.

**Section D. - Authority's Responsibilities**

The Authority shall perform and/or provide the following in a timely manner so as not to delay the Services of the GEC. Unless otherwise provided in this Supplemental Work Authorization, the Authority shall bear all costs incident to compliance with the following:

Not applicable

**Section E. - Other Provisions**

Except to the extent expressly modified herein, all terms and conditions of the Agreement shall continue in full force and effect.

**Authority:**

**CENTRAL TEXAS REGIONAL  
MOBILITY AUTHORITY**

**GEC:**

**WSP USA Inc.**

By: \_\_\_\_\_

By: \_\_\_\_\_

Name: Mike Heiligenstein

Name: \_\_\_\_\_

Title: Executive Director

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

**ATTACHMENT A – SCOPE OF WORK**  
**CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**  
**WSP USA INC. GENERAL ENGINEERING CONSULTANT CONTRACT**  
**SUPPLEMENTAL WORK AUTHORIZATION NO. 2 TO**  
**WORK AUTHORIZATION NO. 7**  
**SERVICES TO BE PROVIDED BY THE**  
**GENERAL ENGINEERING CONSULTANT (GEC)**

**General**

The services to be performed by the General Engineering Consultant (GEC) will include, but not be limited to, project management services necessary to oversee 1) the remaining construction of the MoPac Improvement Project through the use of a Design/Build (D/B) Contract and 2) the construction of the MoPac Miscellaneous Improvements Project through the use of Traditional Construction Contract (hereinafter referred to as the Projects). The terms “Projects”, “Contracts”, and or “Contractors” will be used hereinafter to collectively reference both Projects. The services to be performed by the GEC will entail those professional services and associated deliverables required to complete the oversight activities associated with the management of the Contractors on the Projects.

The GEC will assist with communications between the Mobility Authority and Contractors, acting as an extension of Mobility Authority staff by providing technical and professional personnel to perform the duties and responsibilities assigned under the terms of this Agreement. The GEC shall not control or direct construction under the Contracts. Oversight reviews by the GEC will not relieve the Contractors of sole responsibility for the means and methods of construction, or for health or safety precautions in connection with the work under the Contracts. The GEC will maintain core Oversight staff at the Contractor-provided Project field office(s) to manage and administer the planning, execution, and construction; including invoicing and administrative support, for activities required to complete the overall oversight efforts. This staff will represent the Mobility Authority's interests as defined in the Contracts.

**1. PROJECT MANAGEMENT (Code 13730)**

The GEC will provide staff to manage, review and coordinate the Project. The GEC will develop and maintain a staffing plan for consistency and appropriate level of Project staffing. Activities included in this task:

## **1.1 Project Administration**

- Review and report on the Contractors' submittals of records and reports including:
  - Weekly payroll
  - Statement of wage compliance
  - Requests for payment of materials on hand and Disadvantaged Business Enterprise (DBE) compliance
  - Reports and records as required for the Project by Texas Department of Transportation (TxDOT) and/or Federal Highway Administration (FHWA) and/or City of Austin and/or Union Pacific Railroad (UPRR) and/or Capital Metro
- Report Project progress and issues in a timely manner
- Review, monitor, and report on Contractors' Project Schedule
- Update records of the cost involved in potential new change order work. These records will include labor and equipment times and materials installed (temporary or permanent).
- Assist in the surveillance of the Contractors' compliance with contract requirements that are remaining on the project. The GEC will review, based on available information, the Contract compliance and maintaining the appropriate files thereof. Typical areas of compliance responsibility include TxDOT Local Government Project Procedures (LGPP) requirements, Equal Employment Opportunity (EEO) Affirmative Action, DBE, On-the-Job Training (OJT) positions and number of hours, and payroll and subcontracts.
- Provide compliance oversight of third party agreements for remaining work including:
  - Dewatering permits
  - National Pollution Discharge Elimination System (NPDES) permits
  - Demolition permits
  - Noise permits
  - Corps of Engineer permits
  - Utility agreements
  - UPRR | Capital Metro agreements

## **1.2 Sub-Consultants**

- Coordinate, contract and provide oversight for any required sub-consultants to the GEC.

## **1.3 Program Reporting**

- Provide a monthly update to the Mobility Authority on key milestones accomplished during the preceding month, meetings and key activities for the upcoming month, and identify outstanding issues requiring resolution.
- Track, monitor, and report on contracts and budgets for the GEC and subconsultants, and the Contractors.



- Track, monitor, and prepare reports on DBE utilization for the Contractors' program and GEC team.

#### **1.4 Project Schedule**

The GEC will provide staff to coordinate the Project scheduling efforts.

Specific activities include:

- Evaluate, monitor, and verify according to contractual requirements, the Contractors' Project Schedule; Baseline and Updates, and Recovery Schedules.
- Report and verify the Contractors' progress and upcoming milestones on a monthly basis to the Mobility Authority.
- Identify, catalog, and archive Baseline Schedules and schedule revisions and Updates, and Recovery Schedules. Evaluate time impacts and report recommendations to the Mobility Authority.

#### **1.5 Change Order Processing & Management**

- Provide review of new potential Change Orders on the Project and process in accordance with the Contract and coordinate with external agencies as required.
- Review Change Order cost estimates prepared by the Contractors. Evaluate Contractors' claims for extension of time, and provide comments and recommendations to the Mobility Authority.
- Update log and retain all documents associated with new potential Change Orders.

#### **1.6 Project Meetings & Documentation**

The GEC will facilitate the following internal GEC Project meetings to assess progress, schedule, and quality of services being provided as well as identify issues:

- Project Progress Meetings - Weekly
- Mobility Authority Construction Status Update Meetings - Monthly

The GEC will prepare agendas and meeting minutes.

In addition, the GEC will participate in the Contractors' Project meetings, including but not limited to:

Construction Phase

- Utilities - Weekly
- Rail - Weekly
- Quality Assurance - Bi-weekly
- Maintenance of Traffic - Weekly
- Public information - Weekly
- Environmental Compliance — Weekly

Oversight, Scheduling, and Coordination

- 4-Week Rolling Schedule Review - Weekly
- Comprehensive Schedule — Monthly
- Staffing Meeting - Monthly
- Steering Committee - Bi-weekly
- Executive Management - Quarterly

### **1.7 Tracking Database**

Update the tracking database for correspondence, transmittals, requests for information, meeting minutes, action items, submittals, Inspector daily reports, project diary, project schedule, change orders, pay estimates, lien waivers, Shop drawings, working drawings, erection drawings, catalog cut sheets, mix designs, non-conformance reports, payment certifications, Insurance and Bonds, material test data, schedules, audits, related technical data, and issues associated with the Project that occur after the start date of this GEC work authorization.

## **2. CONSTRUCTION OVERSIGHT (Code 13620)**

The GEC will provide professional services associated with construction oversight including the construction engineering and inspection in accordance with the Project Development Agreement (PDA), Contracts, and Systems Integrator (SI) Contract for the remainder of construction. The GEC will provide qualified technical and professional personnel to perform this task. In performance of this task, the GEC shall not direct, manage, or control the Contractors' construction work activities. Construction Oversight by the GEC, including field inspections, testing, and oversight reviews, will not relieve the Contractors of sole responsibility for the means and methods of the construction, or for health or safety precautions in connection with the work. The Engineer(s) of Record will remain responsible for design related services.

The GEC will establish and maintain the Project Field Office operation within the Contractor-provided facility; including leasing and maintenance of project vehicles; and any additional expenses required by the Project and not provided by the Contractors.

Construction oversight efforts will focus on coordination with the Contractors' and SI's construction processes to provide monitoring and oversight of reasonable compliance obligations, sound engineering practices, and regulatory requirements. The GEC will utilize the previously developed Quality Assurance Program (QAP) which will be incorporated by reference into the Contractors' Construction Quality Management Plan (CQMP). The following activities are included:

### **2.1 Construction Oversight Inspections**

- Perform and report construction inspections for remaining construction items.

- Review and report final documentation of schedule of values in support of Contractors' draw requests.
- Develop diaries and logs for remaining construction items.
- Provide a digital photo and/or video log of the Project area for the remainder of construction. with heavy emphasis on areas with potential claim items/issues and on areas of real/potential public controversy.

## **2.2 Traffic Control**

- Review, monitor, and recommend modification to the Contractors' maintenance of traffic/traffic control operations according to applicable specifications and standards.
- Document and issue deficiency reports to the Contractors on any noncompliance of traffic control devices or layouts.
- Coordinate with the Contractors and the Mobility Authority regarding major traffic disruptions.
- Attend meetings pertaining to the traffic control and maintenance of traffic that are held by the Contractors, designers or interested parties.

## **2.3 Requests for Information (RFI) and Non-Conformance Report Processing and Management**

- Review and facilitate responses on Project RFIs for newly submitted RFIs.
- Prepare new Non-Compliance Reports (NCRs) for non-compliant work issued.
- Update log, and retain all documents associated with RFIs and NCRs.

## **2.4 Shop Drawing Submittals Processing and Management**

- Review new shop drawings, erection drawings, working drawings, Samples, material and product certifications, and catalog cuts and brochure submittal for general conformance with the design plans and specifications submitted by the Contractors. Check that the Engineer(s) of Record have provided required approvals. The Engineer(s) of Record will be responsible for final approval.
- Update log and retain all new documents associated with shop drawings.
- Coordinate with the Contractors on processing, submittal documentation, follow-up activities, and clarifications.

## **2.5 Contractors' Draw Requests**

- Review completeness of the Contractors' submittal in accordance with the requirements of the Contracts, including:
  - Cover Sheet
  - Monthly Progress Report
  - Certification by Construction Quality Control Manager
  - Report of personnel hours
  - Progressed schedule of values

- DBE utilization report
- Cash flow and payment curves
- Updated Project schedule
- Waiver of liens from previous draw requests
- Material on hand invoices
- Lane/shoulder/ramp/cross street rental and/or Liquidated Damages fee report
- Evaluate that the request accurately reflects monies due for acceptable work completed.
- Review and provide required certifications to the Mobility Authority for processing of the Contractors' partial and final pay requests.

## **2.6 Utility and Rail Oversight**

The GEC will provide coordination, support, and assistance for utility related activities. GEC support activities do not relieve the Contractors of sole responsibility for performance of all utility-related activities. Specific activities include:

- Review new (if any) utility plans for compliance with the TxDOT Utility Accommodation Policy, compatibility with the Project features. Betterment inclusion, and constructability.
- Provide oversight review of location, materials, and backfilling of trenches associated with utility adjustments; the GEC is not responsible for actual location of utilities.
- Participate in meetings as necessary to support effective management of the utility and rail coordination process.
- If necessary, provide support to Contractors in scheduling periodic meetings with utility and rail owner's representatives for coordination purposes.
- Support Contractors with negotiating the details of new utility agreements with the utility companies, as requested. Details will include any necessary betterment percentages, indirect costs, plans, estimates, and schedules for the utility companies' activities.
- Review of new utility adjustment agreements including plans, estimates, and property interest.
- Monitor payments from the Contractors to utility owners for utility adjustments and rail owners for flagging operations.
- Provide utility construction monitoring and verification to the extent possible.

## **2.7 Survey Support**

- Perform remaining survey verifications needed to complete verification.

## **2.8 Final Punch List, Final Inspection, Notice of Completion, Close Out**

The GEC will:

- Coordinate with the Contractors, Mobility Authority and TxDOT in the generation of a final punch list.
- Monitor the resolution of outstanding construction items.
- Inspection of punch list completion.
- Verify there are no outstanding claims related to the Contractors' work.
- Provide Notification of Completion to the Mobility Authority.
- Complete all necessary activities to formally close-out the project.

### **3. MATERIAL ACCEPTANCE TESTING (Code 13620)**

The GEC will provide Quality Acceptance testing of remaining materials incorporated into the project. coordinate materials testing operations, and review Material Test Reports. Material testing procedures will include:

#### **3.1 Quality Acceptance**

- Utilize the previously prepared Qualification Program for materials utilized by the project for the construction of the Project in accordance with the QAP.
- Submit construction Quality Acceptance Material Certification letter monthly to the Mobility Authority.
- All material test results will be reviewed by the Construction Manager or Resident Engineer.

#### **3.2 Verification**

- Utilize the previously prepared testing plan in compliance with TxDOT's Guide Schedule of Sampling and Testing for the Project.
- Perform the testing of construction materials utilized on the Project.
- Prepare and manage new Non-Compliance Reports (NCRs) for failing tests as appropriate.
- Update the material testing database.
- Review mill and shop inspection and laboratory tests and field test of construction materials performed by the testing engineer and the off-site materials testing agency.

#### **3.3 Independent Assurance Program**

- Continue the Independent Assurance (IA) Program which evaluates all sampling and testing procedures, personnel, and equipment used as part of an acceptance decision.
- Update documentation of all qualified individuals who perform required tests for acceptance of materials, as needed.
- Verify that laboratories are qualified to perform testing.

### **4. ENVIRONMENTAL COMPLIANCE (Code 13620)**

The GEC will provide staff to review and report on the Contractors' environmental compliance efforts. Specific activities include:

- Oversight review and audits of the Contractors' Comprehensive Environmental Protection Program (CEPP).
- Monitor the Contractors' compliance with the SWPPP plans and permit requirements.
- Issue new NCRs for instances which fall below permit requirements.
- Update database to track and verify new environmental commitments documented in the Environmental Documents and for permit compliance.
- Monitor the Contractors' activities to determine if environmental encounters are being promptly reported and managed in accordance with the Comprehensive Environmental Protection Program (CEPP), and applicable laws and regulations.

## **5. ADDITIONAL SERVICES**

### **5.1 General**

The services listed above are anticipated to cover the range of activities for the oversight of remainder of construction of the Project. However, change can occur at any time during the project term and may involve changed scope, schedule or staffing. Changes to the scope and/or schedule of the work, whether at the request of the Mobility Authority or resulting from changes to the project initiated by the Contractors, may require additional services outside of this scope, or the provision of identified services for an additional period of time.

## **6. LIST OF ASSUMPTIONS**

### **6.1 Project Scope**

The services provided by the GEC as described in this Work Authorization are based upon the Project scope as defined in the Contracts scopes of work and technical provisions. The GEC will be responsible only for those items, as outlined in the scope of services, from the time of the notice to proceed until project completion.

### **6.2 Project Schedule**

The services provided by the GEC as described in this Work Authorization are based upon the current project schedules. Any change to the project schedule dates as noted below may require a supplement to this Work Authorization.

**CTRMA // WSP USA INC. GEC CONTRACT  
MIP & MMIP CONSTRUCTION OVERSIGHT  
WORK AUTHORIZATION NO. 7  
SUPPLEMENTAL WORK AUTHORIZATION 2  
COST TO COMPLETE ANALYSIS**

**FEE ESTIMATE**

CTRMA: MoPac Improvement Project & MoPac Miscellaneous Improvements Project  
Consultant: WSP USA Inc.  
Construction Level Of Effort Estimate: Cost to Complete Estimate [2/11/2019]

	2019												2020		Reg. Hours (165/mo)	OT Hours (15%)	Total Hours	Rate	OT Rate	OH	Profit	Multiplier	Burdened Hourly Rate	Total Labor	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan												
<b>TASK 1 - Construction Phase Services</b>																									
<b>Construction Engineering &amp; Inspection</b>																									
<b>OFFICE</b>																									
Administrative Assistant	0.05	0.05	0.05	0.05												33	0	33	\$ 27.00	\$ -	1.3993	0.1	2.639	\$ 71.26	\$ 2,351.55
GEC Program Manager	0.10	0.10	0.10	0.10												66	0	66	\$ 115.00	\$ -	1.3993	0.1	2.639	\$ 303.51	\$ 20,031.76
Project Accountant (WSP)	0.05	0.05	0.05	0.05												33	0	33	\$ 42.00	\$ -	1.3993	0.1	2.639	\$ 110.85	\$ 3,657.97
Construction Phased Services	0.10	0.10	0.10	0.10	0.10	0.10										99	0	99	\$ 50.00	\$ -	1.3993	0.1	2.639	\$ 131.96	\$ 13,064.19
Construction Phased Services	0.15	0.15	0.15	0.15	0.15	0.15										149	0	149	\$ 85.00	\$ -	1.3993	0.1	2.639	\$ 224.33	\$ 33,313.68
Construction Services Engineer	0.25	0.25	0.25	0.25	0.10	0.10										198	0	198	\$ 30.00	\$ -	1.6944	0.1	2.964	\$ 88.92	\$ 17,605.21
Information Coordinator	0.10	0.10	0.10	0.10												66	0	66	\$ 40.00	\$ -	1.3993	0.1	2.639	\$ 105.57	\$ 6,967.57
<b>FIELD</b>																									
Construction Mgr.	1.00	1.00	0.50	0.50												495	0	495	\$ 200.00	\$ -	0.0000	0.1	1.000	\$ 200.00	\$ 99,000.00
Auditor/Recordkeeper	0.50	0.50	0.50	0.50	0.25	0.25	0.25									454	0	454	\$ 52.00	\$ -	1.1975	0.1	2.417	\$ 125.70	\$ 57,035.01
Inspector	1.00	1.00	1.00	1.00	1.00	1.00	1.00									1155	173	1,328	\$ 35.00	\$ 35.00	1.1975	0.1	2.417	\$ 84.60	\$ 112,374.93
Inspector	1.00															165	25	190	\$ 34.00	\$ 34.00	1.1117	0.1	2.323	\$ 78.98	\$ 14,986.00
Sr. Inspector	1.00	1.00	1.00	1.00	1.00	1.00	1.00									1155	173	1,328	\$ 44.00	\$ 44.00	1.1117	0.1	2.323	\$ 102.21	\$ 135,755.49
Inspector	1.00	1.00	1.00	1.00	1.00	1.00	1.00									1155	173	1,328	\$ 25.00	\$ 25.00	1.1975	0.1	2.417	\$ 60.43	\$ 80,267.81
Senior Project Manager	0.85	0.85	0.85	0.85	0.50	0.50	0.50									809	0	809	\$ 80.00	\$ -	1.1975	0.1	2.417	\$ 193.38	\$ 156,347.73
Project Engineer	0.50	0.50	0.50	0.50	0.50	0.50	0.50									578	0	578	\$ 67.00	\$ -	1.1975	0.1	2.417	\$ 161.96	\$ 93,529.45
Scheduler	0.10															17	0	17	\$ 183.24	\$ -	0.0000	0.1	1.000	\$ 183.24	\$ 3,023.46
<b>TOTAL LABOR TASK 1</b>																						<b>\$</b>	<b>849,311.80</b>		
<b>TASK 2 - Material Testing, Surveying, Inspection and Toll Operations</b>																									
Material Testing																									\$ 40,000.00
Public Involvement																									\$ 46,000.00
Survey Verification																									\$ 40,000.00
Toll Operations	0.10	0.10	0.10													50	0	50	\$ 80.00	\$ 80.00	1.6944	0.1	2.964	\$ 237.11	\$ 11,736.81
<b>TOTAL LABOR TASK 2</b>																						<b>\$</b>	<b>137,736.81</b>		
<b>TASK 3 - Project Closeout</b>																									
<b>Construction Engineering &amp; Inspection</b>																									
<b>OFFICE</b>																									
Administrative Assistant					0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	371	0	371	\$ 27.00	\$ -	1.3993	0.1	2.639	\$ 71.26	\$ 26,454.98
GEC Program Manager					0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	74	0	74	\$ 115.00	\$ -	1.3993	0.1	2.639	\$ 303.51	\$ 22,535.73
Project Accountant (WSP)					0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	74	0	74	\$ 42.00	\$ -	1.3993	0.1	2.639	\$ 110.85	\$ 8,230.44
<b>FIELD</b>																									
Auditor					0.25	0.25	0.25	0.75	0.75	0.25	0.25	0.25	0.25	0.25	0.25	536	0	536	\$ 52.00	\$ -	1.1975	0.1	2.417	\$ 125.70	\$ 67,405.02
Project Manager					0.50	0.50	0.50	0.75	0.75	0.50	0.50	0.50	0.50	0.50	0.50	825	0	825	\$ 80.00	\$ -	1.1975	0.1	2.417	\$ 193.38	\$ 159,538.50
Office Engineer					0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	223	0	223	\$ 40.00	\$ -	1.1975	0.1	2.417	\$ 96.69	\$ 21,537.70
Sr. Inspector								0.25	0.50							124	0	124	\$ 44.00	\$ -	1.1117	0.1	2.323	\$ 102.21	\$ 12,648.03
<b>TOTAL LABOR TASK 3</b>																						<b>\$</b>	<b>318,350.39</b>		
<b>FTE (Full Time Equivalent)</b>													<b>8</b>	<b>7</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>

**TOTAL LABOR [Beginning Dec 2018] \$ 1,305,399.00**

**Field Direct Expense**

Field Man Hours	8,234
Man Hours / Month	165
Field Man Months	49.90
<b>TOTAL DIRECT EXPENSE @ \$3,500/Field Man Month</b>	<b>\$ 174,650.00</b>

**TOTAL FEE ESTIMATE [From January 1, 2019 to December 31, 2019] \$ 1,480,049.00**  
**TOTAL EXPENDED TO DATE [From August 1, 2017 to December 31, 2018] \$ 5,319,890.18**

**TOTAL FEE ESTIMATE [From August 1, 2017 to June 30, 2019] \$ 6,799,939.18**

**PREVIOUSLY APPROVED BASE FEE ESTIMATE (Base + SWA 1) \$ (6,007,813.17)**  
**PREVIOUSLY APPROVED CONTINGENCY FEE ESTIMATE (SWA 1) \$ (211,796.72)**  
**BASE AMOUNT SWA 2 \$ 580,329.29**  
**CONTINGENCY AMOUNT SWA 2 \$ 107,003.79**  
**TOTAL NOT TO EXCEED SWA 2 \$ 687,333.08**