

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

RESOLUTION NO. 17-043

**APPROVAL OF WORK AUTHORIZATION NO. 7 WITH PARSONS
BRINCKERHOFF, INC. FOR GENERAL ENGINEERING CONSULTANT SERVICES
RELATED TO THE MOPAC IMPROVEMENT PROJECT**

WHEREAS, by Resolution 16-034 dated June 15, 2016, the Board of Directors authorized the Executive Director to negotiate and execute on behalf of the Mobility Authority an agreement with Parsons Brinckerhoff, Inc. for general engineering consultant services; and

WHEREAS, on July 1, 2016 the Mobility Authority entered into an agreement with Parsons Brinckerhoff, Inc. for general consulting civil engineering services; and

WHEREAS, the Executive Director and Parsons Brinckerhoff, Inc. have negotiated proposed Work Authorization No. 7 for general engineering consultant services for the MoPac Improvement Project; and

WHEREAS, the Executive Director estimates the reasonable fees associated with the services to be provided under Work Authorization No. 7 to be in an amount not to exceed \$4,948,829.57; and

WHEREAS, the services to be provided under in Work Authorization No. 7 are anticipated to be substantially complete by August 31, 2018. However, Work Authorization No. 7 will not expire until all tasks associated with the Scope of Services are completed; and

WHEREAS, the Executive Director recommends that the Board approve proposed Work Authorization No. 7, a copy of which is attached to this resolution as Exhibit A.

NOW THEREFORE, BE IT RESOLVED, that the Board approves an amount not to exceed \$4,948,829.57 for the services described in Work Authorization No. 7; and

BE IT FURTHER RESOLVED, that the Board authorizes the Executive Director to finalize and execute proposed Work Authorization No. 7 with Parsons Brinckerhoff, Inc. in an amount not to exceed \$4,948,829.57 and 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 26th day of July 2017.

Submitted and reviewed by:



Geoffrey Petrov, General Counsel

Approved:



Ray A. Wilkerson
Chairman, Board of Directors

Exhibit A

APPENDIX D

WORK AUTHORIZATION

WORK AUTHORIZATION NO. 7

This Work Authorization is made as of this 26 day of July, 2017, 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 **Parsons Brinckerhoff, Inc.** ("GEC"). This Work Authorization is made for the following purpose, consistent with the services defined in the Agreement:

MoPac Improvement Project – Completion of Design/Build Oversight

Section A. - Scope of Services

A.1. GEC shall perform the following Services:

Please reference Attachment A - Scope of Work

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 August 31, 2018. 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 shall pay to the GEC the amount not to exceed \$4,948,829.57 based on a Cost Plus fee listed in Attachment B - Fee Estimate. 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 a Supplement to this 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 Work Authorization, the Authority shall bear all costs incident to compliance with the following:

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:

Parsons Brinckerhoff, Inc.

By: _____

By: _____

Name: Mike Heiligenstein

Name: Mario Medina

Title: Executive Director

Title: Vice President

Date: _____

Date: _____

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

Attachment A – Scope of Work

WORK AUTHORIZATION NO. 7

SERVICES TO BE PROVIDED BY THE GENERAL ENGINEERING CONSULTANT (GEC)

General

The services to be performed by the GEC will include, but not be limited to, project management services necessary to oversee the **remaining** construction of the MoPac Improvement Project (hereinafter referred to as the Project) through the use of a Design/Build Contract (hereinafter referred to as the D/B Contract). This will entail those professional services and associated deliverables required to complete the oversight activities associated with the management of the Design/Build Contractor(s) (hereinafter referred to as the D/B Contractor) for the remaining portion of work.

The GEC will assist with communications between the Mobility Authority and D/B Contractor, 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 D/B Contract. Oversight reviews by the GEC will not relieve the D/B Contractor of sole responsibility for the means and methods of construction, or for health or safety precautions in connection with the work under the D/B Contract. The GEC will maintain core D/B Oversight staff at the D/B Contractor-provided Project I 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 D/B Contract.

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 D/B Contractor's submittals of records and reports including:
 - Weekly payroll
 - Statement of wage compliance
 - Requests for payment of materials on hand and DBE compliance
 - Reports and records as required for the Project by TxDOT and/or FHWA and/or City of Austin and/or UPRR and/or Capital Metro
- Report Project progress and issues in a timely manner
- Review, monitor, and report on D/B Contractor's 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 D/B Contractor's compliance with contract requirements that are remaining on the project. The GEC will review, based on available information, the D/B Contract compliance and maintaining the appropriate files thereof. Typical areas of compliance responsibility include LGPP requirements, EEO Affirmative Action, DBE, OJT positions and number if hours, and payroll and subcontracts.
- Provide compliance oversight of third party agreements for remaining work including:
 - Dewatering permits
 - NPDES permits
 - Demolition permits
 - Noise permits
 - Corps of Engineer permits
 - Utility agreements
 - UPRR I 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 sub-consultants, and the D/B Contractor
- Track, monitor, and prepare reports on DBE utilization for the D/B Contractor's 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 D/B Contractor's Project Schedule; Baseline and Updates, and Recovery Schedules.
- Report and verify the D/B Contractor's progress and upcoming milestones on a monthly basis to the Mobility Authority.
- Identify, catalog, and archive Baseline Schedule 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 D/B Contract and coordinate with external agencies as required.
- Review Change Order cost estimates prepared by the D/B Contractor, evaluate

D/B Contractor 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 D/B Contractor's 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 PDA, D/B Contract, and 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 D/B Contractor's construction work activities. Construction Oversight by the GEC, including field inspections, testing, and oversight reviews, will not relieve the D/B Contractor 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 D/B Contractor-provided facility; including leasing and maintenance of project vehicles; and any additional expenses required by the Project and not provided by the D/B Contractor.

Construction oversight efforts will focus on coordination with the D/B Contractor's 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 Plan (QAP) which will be incorporated by reference into the D/B Contractor's 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 D/B Contractor's 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 D/B Contractor's maintenance of traffic/traffic control operations according to applicable specifications and standards.
- Document and issue deficiency reports to the D/B Contractor on any non-compliance of traffic control devices or layouts.
- Coordinate with the D/B Contractor and the Mobility Authority regarding major traffic disruptions.
- Attend meetings pertaining to the traffic control and maintenance of traffic that are held by the D/B Contractor, 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 I 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 D/B Contractor. 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 D/B Contractor on processing, submittal documentation, follow-up activities, and clarifications.

2.5. D/B Contractor Draw Requests

- Review completeness of the D/B Contractor's submittal in accordance with the requirements of the D/B Contract, 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 I shoulder I ramp I 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 D/B Contractor's 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 D/B Contractor 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 D/B Contractor in scheduling periodic meetings with utility and rail owner's representatives for coordination purposes.
- Support D/B Contractor 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 D/B Contractor 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

The GEC will:

- Coordinate with the D/B Contractor, CTRMA 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 D/B Contractor's work.
- Provide Notification of Completion to the Mobility Authority.

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 Quality Acceptance Program (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 D/B Contractor's environmental compliance efforts. Specific activities include:

- Oversight review and audits of the D/B Contractor's Comprehensive Environmental Protection Program (CEPP).
- Monitor the D/B Contractor's compliance with the SWPPP plans and permit requirements.
- Issue new Non-Compliance Reports (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 D/B Contractor's activities to determine if environmental encounters are being promptly reported and managed in accordance with the 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 D/B Contractor, 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 D/B Contract scope of work and technical provisions. Given this D/B project is within a year and a half until completion, 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 remaining project schedule. Any change to the project schedule dates as noted below may require a supplement to this Work Authorization.

ATTACHMENT B - FEE ESTIMATE

CTRMA: North Mo Pac Improvement Project GEC Transition
 Consultant: WSP USA Inc.
 Construction Level Of Effort Estimate: August 2017 thru December 2018

	2017					2018											Reg. Hours (165/mo)	OT Hours (15%)	Total Hours	Rate	OH	Profit	Multiplier	Burdened Hourly Rate	Total Labor																						
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov										Dec																					
TOTAL LABOR TASK 1																				\$																											
TASK 1 - Construction Phase Services																																															
Construction Engineering & Inspection																																															
OFFICE																																															
Senior CM Adviser	0.20	0.20	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1					248		248	\$ 120.00	1.53	0.1	2.78	\$ 333.96	\$ 82,655.10																						
Sr. Construction Manager	0.50	0.50	0.50	0.50	0.50	0.50	0.33	0.33	0.25	0.25	0.25	0.25					769		769	\$ 100.00	1.53	0.1	2.78	\$ 278.30	\$ 213,984.87																						
Project Manager	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.50	0.50	0.50	0.50					1320		1,320	\$ 75.00	1.70	0.1	2.97	\$ 222.75	\$ 294,030.00																						
Office Engineer	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50					990		990	\$ 42.00	1.70	0.1	2.97	\$ 124.74	\$ 123,492.60																						
Administrative Assistant	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25					495		495	\$ 22.00	1.70	0.1	2.97	\$ 65.34	\$ 32,343.30																						
FIELD																																															
Construction Mgr.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					1980		1,980	\$ 200.00	1.00	1	1.00	\$ 200.00	\$ 396,000.00																						
Field Engineer	1.00	1.00	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75					1568		1,568	\$ 60.00	1.20	0.1	2.42	\$ 145.20	\$ 227,601.00																						
Auditor	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25					495		495	\$ 44.50	1.20	0.1	2.42	\$ 107.69	\$ 53,306.55																						
Chief Inspector	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50					990	149	1,139	\$ 46.50	1.20	0.1	2.42	\$ 112.53	\$ 128,115.41																						
Sr. Inspector	1.00	1.00	1.00	1.00	1.00	1.00											990	149	1,139	\$ 40.00	1.11	0.1	2.32	\$ 92.84	\$ 105,698.34																						
Sr. Inspector/Office Eng.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					1980	297	2,277	\$ 43.00	1.11	0.1	2.32	\$ 99.80	\$ 227,251.43																						
Inspector	1.00	1.00	1.00	1.00	1.00	1.00	1.00										1155	173	1,328	\$ 33.00	1.11	0.1	2.32	\$ 76.59	\$ 101,734.65																						
Inspector	1.00	1.00	1.00	1.00	1.00	1.00											990	149	1,139	\$ 27.00	1.50	0.1	2.75	\$ 74.25	\$ 84,533.63																						
Inspector	1.00	1.00	1.00	1.00	1.00	1.00	1.00										1155	173	1,328	\$ 69.00	1.00	1	1.00	\$ 69.00	\$ 91,649.25																						
TOTAL LABOR TASK 2																				\$																											
Task 2-Material Testing, Surveying, Inspection																																															
REL (Material Testing																									\$400,000																						
Toll Operations (HNTB)																									\$310,000																						
Rifeline (Public Information)																									\$75,000																						
Survey Verification																									\$150,000																						
TOTAL LABOR TASK 3																				\$																							\$935,000				
TASK 3 -Project Closeout																																															
Construction Engineering & Inspection																																															
OFFICE																																															
Senior CM Adviser																	83		83	\$ 120.00	1.53	0.1	2.78	\$ 333.96	\$ 27,551.70																						
Sr. Construction Manager																	248		248	\$ 75.00	1.53	0.1	2.78	\$ 208.73	\$ 51,659.44																						
Project Manager																	619		619	\$ 75.00	1.70	0.1	2.97	\$ 222.75	\$ 137,826.56																						
Office Engineer																	330		330	\$ 42.00	1.70	0.1	2.97	\$ 124.74	\$ 41,164.20																						
Administrative Assistant																	124		124	\$ 22.00	1.70	0.1	2.97	\$ 65.34	\$ 8,085.83																						
FIELD																																															
Construction Mgr.																	825		825	\$ 200.00	1.00	1	1.00	\$ 200.00	\$ 165,000.00																						
Field Engineer																	248		248	\$ 60.00	1.20	0.1	2.42	\$ 145.20	\$ 35,937.00																						
Auditor																	165		165	\$ 44.50	1.20	0.1	2.42	\$ 107.69	\$ 17,768.85																						
TOTAL LABOR TASK 4																				\$																										\$ 484,993.58	
TASK 4 - GEC Support (Breakout Project, Fence Extensions, General Support)																																															
OFFICE																																															
Program Manager	0.25	0.25	0.25	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	355		355	\$ 85.00	1.53	0.1	2.78	\$ 236.56	\$ 83,917.89																						
Senior Engineer	1.00	1.00	1.00	1.00													660		660	\$ 65.00	1.53	0.1	2.78	\$ 180.90	\$ 119,390.70																						
Engineer	1.50	1.50	1.00	1.00	0.50	0.50	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	1444		1,444	\$ 55.00	1.70	0.1	2.97	\$ 163.35	\$ 235,836.56																						
CADD	1.00	1.00	0.50	0.50													495		495	\$ 40.00	1.50	0.1	2.75	\$ 110.00	\$ 54,450.00																						
Administrative Assistant	1.00	1.00	1.00	1.00	1.00	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.10	0.10	1370		1,370	\$ 32.00	1.50	0.1	2.97	\$ 95.04	\$ 130,157.28																						
Scheduler	0.50	0.50	0.50	0.50	0.50	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	949		949	\$ 183.00	1.00	1	1.00	\$ 183.00	\$ 173,621.25																						
K Friese and Associates																									\$	\$ 35,000.00																					
TOTAL LABOR TASK 4																				\$																										\$ 832,373.68	
TASK 5 - Dispute Support Resources																																															
Dispute Analysis & Resolution																																															
OFFICE																																															
Jr. Claims Analyst	0.50	1.00	1.00	0.50	0.50	0.33	0.33	0.20									719		719	\$ 58.00	1.70	0.1	2.97	\$ 172.26	\$ 123,923.84																						
Sr. Construction Engineer	0.50	1.00	1.00	0.50	0.20	0.20	0.20	0.20									627		627	\$ 65.00	1.70	0.1	2.97	\$ 193.05	\$ 121,042.35																						
FTE (Full Time Equivalent)																																															
TOTAL LABOR TASK 5																				\$																											\$ 244,966.19
TOTAL LABOR																				\$																											\$ 4,659,729.57

Field Direct Expense	
Field Man Hours	13,629
Man Hours / Month	165
Field Man Months	82.6
TOTAL DIRECT EXPENSE @ \$3,500/ MO	\$ 289,100.00
TOTAL CONSTRUCTION PHASE FEE ESTIMATE	\$ 4,948,829.57