

**SUPPLEMENTAL AGREEMENT NO. 1
TO
AGREEMENT OF AUGUST 4, 2011
FOR ENGINEERING SERVICES**

THIS SUPPLEMENTAL AGREEMENT is made and entered into this ^{21st} day of December, 2011, and modifies the ENGINEERING SERVICES AGREEMENT effective August 4, 2011 (the "Agreement"), by and between the Fort Bend Grand Parkway Toll Road Authority, a transportation corporation organized and operating under the laws of the State of Texas, hereinafter called the "FBGPTRA" and Applied Research Associates, Inc., an Illinois corporation, hereinafter called "Engineer."

The Agreement is hereby modified as follows:

1. The first sentence of Section 2.a. is replaced with the following sentence:

"The Maximum Compensation under this contract is \$104,050."

2. The second paragraph of Section 2.a. is replaced with the following paragraph:

"Compensation for performance of services within the Scope of Services described in Attachment A will be as follows: The lump sum compensation shall be increased by \$15,750, for the additional work shown in Attachment A. The maximum amount payable under this agreement shall not exceed \$104,050, as shown in Attachment B. Progress payments for work detailed in Attachment A will be made when the Engineer has attained a level of completion equal to or greater than the agreed upon milestones of completion in the reasonable opinion of FBGPTRA."

3. The first sentence of Section 3 is replaced with the following sentence:

"It is understood and agreed that the time for performance of the Engineer's services under this Agreement shall begin with receipt of the Notice to Proceed and end 120 calendar days from that date."

4. The Scope of Services shown in Attachment A shall be expanded to include Exhibit A-2, attached hereto.


5. The Compensation for Scope of Services shown in Attachment B shall be expanded to include Exhibit B-2, attached hereto.

This Supplemental Agreement does not alter, modify, or otherwise change any part of the Agreement, except as specifically stated in this Supplemental Agreement.

[Remainder of page intentionally left blank.]


IN WITNESS WHEREOF, this Supplemental Agreement is hereby executed as of the date first set forth above.

FORT BEND GRAND PARKWAY TOLL ROAD
AUTHORITY, a local government Texas
corporation

By: 
James D. Condrey
Chairman, Board of Directors

ATTEST: 
By _____
Secretary, Board of Directors

Applied Research Associates, Inc.
ENGINEER

By: 
Name: _____
Title: **William R. Vavrik, Ph.D., P.E.**
Vice President

Supplemental Agreement No. 1, Attachment A, Exhibit A-2
SCOPE OF SERVICES

PROJECT UNDERSTANDING

In the summer of 2011, the Fort Bend Grand Parkway Toll Road Authority (FBGPTRA) contracted with ARA (through PPMS) to implement a pavement and roadway asset management system for the Grand Parkway in Fort Bend County, Texas. In the fall of 2011, ARA delivered and implemented an instance of their RoadCare PMS/AMS software suite at the PPMS office, thereby completing the scope of services promised for the original project.

Today, PPMS has requested a proposal from ARA to utilize the recently-implemented PMS to develop a five year Capital Improvement Plan (CIP), that is, a selection of treatments and timings to improve the Grand Parkway within two different budget scenarios:

1. 'Unlimited budget' scenario
 - a. Includes all improvements in the vicinity of interchange improvements over the next two years
 - b. Includes all remaining improvements over the following three years
2. '\$2M/year for five years' scenario
 - a. Optimized timings and project definitions to utilize \$2M per year over the next five years

SCOPE OF SERVICES

This section details services ARA will provide to develop the CIP for the Grand Parkway.

Task 1. Define Treatments

ARA will identify potential pavement rehabilitation treatments for inclusion in the treatment matrix. ARA will work with PPMS to define activities, such as patching and diamond grinding, and their associated costs and benefits. The result of this task will be a treatment matrix that contains activities, estimated unit costs, and projected benefits (in terms of pavement serviceability).

Task 2. Analyze Network

ARA will review the conditions along the Grand Parkway, the scheduled intersection improvements (and their scopes), and pavement performance prediction models to develop an optimized CIP. ARA will consider the 'Unlimited budget' scenario and the '\$2M/year for five years' scenario to optimize the type of treatments and the timings for those treatments based on highest benefit/cost ratio.

During this analysis, it may be determined that no treatment should be applied at a given time, even though a pavement may have a deficient serviceability rating. There are times where a pavement may be too far deteriorated to gain significant benefit from a surficial rehabilitation treatment, and this analysis will help the FBGPTRA spend their money as wisely as possible.

Task 3. Prepare Reports and Populate RoadCare Database

ARA will summarize the findings of the two budget scenarios in one engineering report. The report will define the parameters considered for analysis, the available treatments that were considered, and the results of the benefit/cost optimizations. ARA will also populate the FBGPTRA RoadCare database with treatments, unit costs used in these analyses, and the projected benefits associated with the treatments. This will enable PPMS to conduct future analyses with identical data and results as what is achieved during this exercise.

PROJECT SCHEDULE

ARA can begin work on this project within two weeks of receiving written Notice to Proceed (NTP). ARA will provide a draft report for PPMS to review within four weeks of commencing work. Once ARA receives comments/feedback on the draft report, we will deliver a final report within two weeks.

PROJECT COSTS

ARA's firm fixed price proposal for these services is \$15,750. ARA will invoice monthly on a percent complete basis, for payment to be made within 30 days of receipt of invoice.

REQUIRED SUPPORT

ARA requires timely responses to requests for coordination/input to successfully complete this project in an efficient and effective manner.

We appreciate the opportunity to provide you these services and look forward to working with you on this project. If you have any questions or comments, please do not hesitate to contact us.

ACCEPTANCE OF PROPOSAL

To accept this proposal as an agreement to provide professional services in accord with the scope, cost, schedule, required support, and terms & conditions, please sign this proposal in the space below. This acceptance will act as a notice to proceed.

ACCEPTANCE AND AUTHORIZATION	
Name (print)	
Title	
Signature:	
Date:	

TERMS & CONDITIONS

Applied Research Associates, Inc. (ARA) agrees to perform the specified work in accordance with the accepted professional standards.

COMPLIANCE WITH LAW

In the performance of services, it is mutually agreed that the Client and ARA will comply with applicable terms and regulations of the United States Government which are by law or regulation to be included in agreements of this nature and are incorporated herein by reference.

INDEPENDENT CONTRACTOR

ARA will act as an independent contractor and not as Client's agent for any purpose whatsoever, and will have no authority to make any commitments on behalf of Client or to bind Client in any way whatsoever.

PROJECT SUPERVISION AND ASSIGNMENT

ARA shall have wide discretion in the methods used to perform any assigned tasks unless specified otherwise. ARA will exercise sound professional judgment, use the standard of care as required in the industry, and strive for high quality performance and products and service delivery. ARA will cooperate with the Client to the extent possible to arrange for consultations between the Client, ARA personnel, and others engaged in rendering services to the client related to ARA's performance under this agreement. ARA agrees that no tasks shall be performed or expenses incurred without specific authorization of the Client.

OWNERSHIP OF DOCUMENTS

All data, information, software, hardware, and documents produced by ARA under this agreement shall remain the property of ARA and may not be used by the Client for any endeavor outside of the scope of this agreement without the written consent of ARA, unless otherwise noted in this agreement.

ACCESS TO PROJECT SITE

ARA will be granted access to the project site for the activities necessary for the performance of the services. If traffic control is required for the site visit, it shall be provided by the Client or specific provisions will be made for ARA to provide traffic control at an additional cost. ARA will take precautions to minimize damage when performing its work, but ARA is not responsible for any items destroyed as a necessary part of the work.

CONFIDENTIALITY

Each party agrees not to use the other's proprietary information for any purpose other than for the performance of this Agreement. Proprietary information is defined as information concerning techniques, processes, inventions, research and development, and cost data in written form with each sheet thereof marked with an appropriate legend

indicating its proprietary nature and delivered by one party to another. Any other use of such proprietary information by the recipient shall be made only upon receipt of the prior written consent from an authorized representative of the other party.

INDEMNIFICATION

The Client shall indemnify and hold harmless ARA from and against any and all (including third party) claims, damages, losses and expenses (including reasonable attorney's fees) arising out of or resulting from the performance of services, provided that any such claims, damage, loss or expense is caused in whole or in part by the negligent act or omission and/or liability of the Client, anyone directly or indirectly employed by the Client (except ARA).

RISK ALLOCATION

It is agreed between the parties and in recognition of the relative risks, rewards, and benefits of the project to both the Client and ARA, the risks have been allocated so that the Client agrees that, to the fullest extent permitted by law, ARA's total liability to the Client, for any and all injuries, claims, losses, expenses, damages or claim expenses arising out of this agreement, from any cause or causes, shall not exceed the total amount of \$50,000 or the amount of ARA's fee (whichever is smaller). Such causes include, but are not limited to, ARA's negligence, errors, omissions, strict liability, breach of contract or breach of warranty.

DISPUTE RESOLUTION

Any controversy or claim arising out of or relating to this agreement, or breach thereof, which may be properly submitted to arbitration, shall be settled by arbitration.

TRAVEL

Travel costs are actual project expenses for meals, incidentals, motels, airfare, mileage, rental car, parking, and other travel costs.

PAYMENT

Payment for ARA invoices are due net 30 days. Interest will be charged on amounts outstanding more than 30 days. The interest rate will be 1½ percent per month, compounded until paid. In the event of late payment, the Client agrees to pay all collection costs, legal expenses and attorneys' fees incurred by ARA in collecting payment, including interest.

**Supplemental Agreement No. 1, Attachment B, Exhibit B-2
FEE ESTIMATE**

FEE ESTIMATE

ARA'S firm-fixed price cost for the development of a five year Capital Improvement Plan (CIP) providing timing and treatments for two different budget scenarios: 1) unlimited budget; 2) 2-million per year for the Grand Parkway Toll Road Authority is \$15,750.