

STATE OF TEXAS §
 §
COUNTY OF FORT BEND §

**AMENDMENT TO AGREEMENT FOR
PROFESSIONAL ENGINEERING SERVICES**

THIS AMENDMENT, is made and entered into by and between Fort Bend County (hereinafter “County”), a body corporate and politic under the laws of the State of Texas, and Halff Associates, Inc., (hereinafter “Contractor”), a company authorized to conduct business in the State of Texas.

WHEREAS, the parties executed and accepted that certain Agreement for Professional Engineering Services on May 25, 2021, for improvements to Southbound Frontage Road under 2020 Mobility Bond Project No. 20301, pursuant to SOQ 14-025, (hereinafter “Agreement”); and

WHEREAS, the parties desire to amend the Agreement for additional professional engineering services to be provided and increase the total Maximum Compensation under the Agreement for the completion of such additional services.

NOW, THEREFORE, the parties do mutually agree as follows:

1. County shall pay Contractor an additional amount not to exceed Two Hundred Sixty-One Thousand One Hundred Eighty-Five and 00/100 dollars (\$261,185.00) to perform the additional Services, as described in Contractor’s Proposal dated December 18, 2024 (revised January 23, 2025), attached hereto as Exhibit “A-1” and incorporated herein for all purposes.
2. The Maximum Compensation payable to Contractor for all Services rendered is hereby increased to an amount not to exceed One Million Two Hundred Sixty-Six Thousand Five Hundred Fifty-Five and 00/100 dollars (\$1,266,555.00), authorized as follows:

\$1,005,370.00 under the Agreement; and
\$ 261,185.00 under this Amendment.
3. In no case shall the amount paid by County for all Services under the Agreement and this Amendment exceed the Maximum Compensation without a written agreement executed by the parties.

4. BY ACCEPTANCE OF AGREEMENT, CONTRACTOR ACKNOWLEDGES THAT THE COUNTY IS OPPOSED TO HUMAN TRAFFICKING AND THAT NO COUNTY FUNDS WILL BE USED IN SUPPORT OF SERVICES OR ACTIVITIES THAT VIOLATE HUMAN TRAFFICKING LAWS.

Except as provided herein, all terms and conditions of the Agreement shall remain unchanged.

IN WITNESS WHEREOF, the parties hereto have signed or have caused their respective names to be signed to multiple counterparts to be effective on the date signed by the final party.

FORT BEND COUNTY

HALFF ASSOCIATES, INC.

KP George, County Judge



Authorized Agent – Signature

Date

Michael Barbier
Authorized Agent – Printed Name

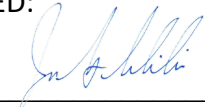
ATTEST:

Vice President
Title

Laura Richard, County Clerk

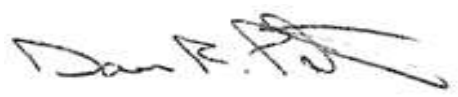
4/17/2025
Date

APPROVED:



J. Stacy Slawinski, P.E., County Engineer

APPROVED AS TO LEGAL FORM:



Darius R. Porter
Assistant County Attorney
General Counsel Division

AUDITOR'S CERTIFICATE

I hereby certify that funds are available in the amount of \$_____ to accomplish and pay the obligation of Fort Bend County under this contract.

Robert Ed Sturdivant, County Auditor

Attachment:

Exhibit A-1 – Contractor's Proposal – December 18, 2024 (revised January 23, 2025)

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EXHIBIT A-1



December 18, 2024
Revised January 23, 2025
043071.001

BinkleyBarfield | DCCM
1710 Seamist Drive
Houston, TX 77008

Attn: **Mr. Matt Billiot, PE – Project Manager**

Re: **Proposal for Additional Professional Services – Southbound SH 99 Frontage Road
From Bay Hill Boulevard to Cinco Ranch Boulevard**

Dear Mr. Billiot:

Halff Associates, Inc. (Halff) is pleased to present our proposal for professional services required for additional engineering services for the Southbound SH 99 Frontage Road (Bay Hill Boulevard to Cinco Ranch Boulevard) project. The additional scope items pertain to the reversal of existing on- and off-ramps and their respective design for the project and additional effort related to drainage analysis and design incorporating bridge widening adjacent to the proposed project limits. Halff requests a lump sum fee of **\$261,185.00** for the additional scope of services detailed herein.

We trust this proposal meets your requirements for this project. We appreciate the opportunity to be of service to you and trust that our continued coordination on this project will be mutually beneficial. Please feel free to contact me if you have any questions or comments concerning this matter.

Sincerely,

A handwritten signature in blue ink that reads "Ashley Purkey".

Ashley Purkey, PE
Public Works Team Leader
apurkey@halff.com

Attachments:

- Scope of Additional Services
- Compensation
- SH 99 Highland Knolls Bridge Supplemental Deck Survey Proposal (SAM, LLC)

Scope of Additional Services

Halff was tasked with the design of the southbound lanes of SH99's frontage road between Bay Hill Boulevard and Cinco Ranch Boulevard. As the project progressed, a directive was received from the client that the existing ramps along the up and downstream sections of this roadway would need to be reversed. The main phases affected by this decision were the Preliminary Design and Final Design. With the reversal of the ramps, approximately 1,000-feet has been added to the project's original scope. To facilitate the ramp reversal, additional consultants were hired by Fort Bend County to design the widening of the main-lane bridges above Bay Hill Boulevard and Cinco Ranch Boulevard. Halff included analysis of the drainage impact for these segments along with additional coordination with the consultants as the managing consultant for CSJ 3510-04-066, which includes the 2 bridge segments. This document outlines the additional effort that was outside the original scope of work to complete the roadway design.

Preliminary Design

000100: Preliminary Roadway Design

\$52,990

Project Management & Meetings

At the time of project scoping, it was not expected that Halff's segment would be incorporated into a corridor-wide plan set, which was compiled by BinkleyBarfield | DCCM (BBI). This resulted in additional coordination because of the complexity of multiple design consultants working on separate segments that were to be compiled within a single submittal. Additionally, the project contract was executed in June 2021 and the 30% submittal was in March 2024. Halff began preparation of the preliminary schematic in May 2021, so project management tasks during the "Preliminary Roadway Design" phase lasted approximately 18 months longer than could have been reasonably assumed for a standard project timeline.

30% PS&E

The original scope of work limited the 30% submittal to a roll-plot schematic, however, the actual 30% submittal included plan sheets for inclusion in a master frontage road submittal compiled by BBI and submitted to TxDOT. To facilitate the integration into the compiled plan set, additional meetings and coordination effort was required. The 30% plan set, which was sent to BBI on March 22, 2024, included a total of 51 sheets containing the following:

- Cover sheet & Index
- Project Layout
- Typical Sections
- Summary of Quantities
- Traffic Control Plan (narrative, sequencing, sections, and phasing layouts)
- Removal Plan
- Plan and Profile Sheets
- Drainage Sheets (drainage area map, calculations, and plan & profile)

Please note, some of the effort required to cut sheets for the 30% PS&E reduced the level of effort required during the Final Design Phase. See **Credit for 30% PS&E** for additional details.

Quantities & Cost Estimate

The additional ramps, approximately 1,000 linear feet, resulted in additional effort required for quantities and cost estimating. As Halff's sheets were packaged with other segments, the bid items were coordinated with other consultants for consistency.

000101: Drainage Analysis/Report

\$80,220

Project Management & Meetings

Additional coordination has occurred related to completing the drainage analysis, which involved coordinating with other consultants' responses for the auxiliary lane roadway improvements and for the northbound frontage road design given the shared culvert crossing. Halff estimates attending and/or facilitating an average of two (2) additional meetings per week for approximately 4 months plus additional meetings with Woolpert or Binkley Barfield or Cobb Fendley aimed at specific coordination topics such as model stability and data exchange and discussion of consistent approach and path forward on the H&H modeling and mitigation analysis.

Reductions from Original Scope

Besides the following additions to scope, there were reductions from the original scope of this project. Those reductions came from the following specific tasks:

- Existing Conditions
- Additional Existing Conditions

Existing Conditions

The drainage analysis and models obtained for the main lanes roadway improvements provide a starting point for the existing conditions analysis. Instead of delineating new existing drainage areas, Halff will leverage the work performed by Civiltech/Woolpert. The existing hydrology will be reviewed and adjusted accordingly to delineate drainage areas and calculate hydrologic parameters in order to generate the existing drainage area map, existing peak flows, and runoff volumes.

Part way through the project, Halff became aware that the Woolpert plans and modeling did not match, and after discussion with the project team, the decision was made to move forward adjusting the existing modeling to match the information contained with the plans.

Specific scope changes include replacing Item #1 with the following:

1. Review existing conditions drainage areas from main lanes drainage study and adjust them as necessary to prepare an existing drainage area map.

New scope additions include the following:

1. Delineate existing drainage areas for the auxiliary lane roadway improvements and calculate required hydrologic parameters.

Additional modeling revisions include the following:

1. Adjustment of drainage updates and updates to hydrologic parameters to reflect the Woolpert plans.
2. Adjustment of the hydraulic model to reflect changes made to the existing hydrology that were revised based on matching the Woolpert plans.

Proposed Conditions

In addition to the work needed to analyze proposed conditions for the southbound frontage road, proposed conditions analysis is required for the ramp reversals and the auxiliary lanes roadway improvements.

New scope additions include the following:

1. Develop the appropriate proposed hydraulic modeling to evaluate the ramp reversals and auxiliary lane drainage improvements similar to what was scoped for the southbound frontage road.

Additional modeling revisions include the following:

1. Adjustment of the proposed hydraulic model to reflect changes based on matching the Woolpert plans.

Mitigation Evaluation

Preliminary mitigation for the proposed frontage roads was evaluated by Civiltech/Woolpert as part of the main lanes drainage analysis for the ultimate conditions. In addition to the work needed to confirm no adverse impact for the southbound frontage road, a mitigation evaluation is required for the ramp reversals and auxiliary lanes roadway improvements. Per the TxDOT comments, a mitigation evaluation needs to be performed that is based on the Woolpert ultimate conditions modeling with Halff roadway improvements incorporated.

New scope additions include the following:

1. Complete a similar mitigation evaluation as originally scoped for the frontage road but that accounts for the ramp reversals and auxiliary lane roadway improvements.
2. Perform additional adjustments to the ultimate conditions hydrology and manually apply hydrographs to the ultimate conditions mitigation hydraulic model.

Drainage Report

The drainage report will need to be revised to include the analysis related to the ramp reversals and the auxiliary lane roadway improvements.

New scope additions include the following:

1. Prepare and include additional narrative, tabular data, and exhibits related to the ramp reversals and auxiliary lane roadway improvements in a manner consistent with the rest of the report.

Additional Existing Analysis

Halff understands that there is no available modeling for the existing channel crossing SH99 between Bay Hill Boulevard and Cinco Ranch Boulevard. As discussed during an initial drainage coordination call with all consultants, Halff will be responsible for developing the existing hydraulic model of this channel and a portion of the existing hydrology. Cobb Fendley will be responsible for the existing hydrology upstream of SH99, but with Halff reviewing and finalizing the additional existing analysis if needed. Halff will coordinate with Cobb Fendley as needed to complete an existing conditions analysis of the outfall channel.

Specific scope changes include replacing Item #1 with the following:

1. Delineate existing conditions drainage areas based on identified existing outfall locations and prepare an existing drainage area map. Coordinate with Cobb Fendley on the upstream hydrology to prepare a complete existing drainage area map for the culvert crossing.
2. Develop existing conditions hydrologic parameters to calculate existing peak flow rates for the three storm events to be modeled. Coordinate with Cobb Fendley on the upstream hydrologic parameter calculations to generate the required existing peak flows for the culvert crossing hydraulic analysis.

New scope additions include the following:

1. Review the drainage area delineations and hydrologic calculations from Cobb Fendley and coordinate, if required, on comments and actions taken to address comments.
2. Delineate and calculate parameters as needed to ensure complete existing hydrology is completed within the study area.

Final Design

000200: Final Roadway Design

\$121,475

Following the 30% submittal, Halff was tasked with incorporating the main-lane bridge plan sheets into the overall CSJ 3510-04-066 plan set. This included the following key tasks:

Project Management & Meetings

At the time of project scoping, it was not expected that Halff's segment would be incorporated into a corridor-wide plan set for the 60% submittal. This resulted in added coordination because of the complexity of multiple design consultants working on separate segments that were to be compiled within a single submittal. Additionally, for the 60% plan submittal, the main-lane bridge widening plan sets were incorporated into Halff's CSJ. Following the 60% submittal, Halff was directed that the frontage road segment CSJ (3510-04-066) would be separated from the corridor-wide plan set, but Halff would be responsible for fully integrating the bridge sheets into the package. These components resulted in additional coordination meetings than a standard standalone roadway project would reasonably expect. From March 2024 to December 2024, Halff's Project Manager and Designer participated in an average of approximately 5 hours each week (20 hours per month) for coordination meetings with BBI, other design consultants, and drainage consultants. Based upon the average time spent weekly, approximately 200 hours of meetings occurred between the submittal of 30% plans and the 90% submittal. A standalone project would typically expect approximately 5 hours per month throughout the final design phase. It is expected that the coordination effort will continue to exceed the expectations of a standalone project throughout the remainder of the project.

Credit for 30% PS&E

As noted in the Preliminary Roadway Design section, the **30% PS&E** submittal required sheet cuts that were originally assumed to be a part of the Final Roadway Design phase. As such, a portion of the initial sheet set up time is reduced from the Final Roadway Design phase.

Compiled PS&E Packaging

For the 60% submittal, the bridge packages were inserted into Halff's plan set as "volumes" to expedite the combination effort. For this submittal, Halff had limited effort requiring changes to the index, quantities, and cost estimates. Following the 60% submittal, TxDOT requested that the overall project pack adopts a holistic approach, which requires assessing multiple sheets for potential combination with adjacent consultants' work or presenting them individually where appropriate. As the primary consultant managing the packaging tasks, this effort requires modifications to existing plan sheets that include, but are not limited to, the following:

- Sheet Index
- Project Layout
- Removal Plan
- Summary Tables
- Drainage Area Map and Hydraulic Calculations (full-CSJ sheet preparation, see below)
- Typical Sections
- Small Sign Layout
- Striping Plan
- Standard Details
- Storm Water Pollution Prevention Plans (full-CSJ sheet preparation, see below)
- Traffic Control Plan, Construction Sequencing, and Narrative (full-CSJ sheet preparation, see below)

Additionally, Halff has been instructed to gather, organize, and combine summary tables across all segments, which includes compiling forms and filling in missing information, where applicable.

Full-CSJ PS&E Sheet Preparation

Per TxDOT's request for a holistic approach, sections of the overall CSJ package required extensive coordination to provide a project-wide design. These sheets require Halff to collect input from the adjacent bridge consultants to prepare a single design for the project. These sections include:

- Summary Tables
- Drainage Area Maps and Hydraulic Calculations
- Storm Water Pollution Prevention Plan (SW3P)
- Traffic Control Narrative
- Detour Plan and Advanced Warning Signage
- Construction Sequencing / Traffic Control Plans

This effort necessitates ongoing coordination between consultants to reconcile and agree upon the methodology. The SW3P plans were expanded to encompass the other roadway segments, ensuring comprehensive coverage and adherence to regulatory standards. All components of the traffic control planning require extensive and iterative coordination to provide seamless traffic management and safety. The initial sheet set up for these sections required additional effort for the 90% submittal with ongoing coordination effort that must continue throughout the project duration.

Optional Additional Services

000406: Bridge Supplemental Deck Survey

\$6,500

Refer to the attached proposal from Surveying and Mapping, LLC (SAM) for a detailed scope of work for the SH 99 Highland Knolls Bridge Supplemental Deck Survey.

Assumptions and Exclusions

1. Small roadside signs are the only proposed signage included in this scope. All large signs or new/special sign designs are excluded from this scope of work.
2. Assume that the TxDOT SH 99 main lanes project will coordinate the proposed overhead signage with this project. Relocating large signage that will conflict with the frontage road are excluded.
3. TxDOT did not provide comments on the 60% plan submittal. This proposal assumes that comments received throughout the remainder of the project will not result in significant redesign effort. If a comment requires fundamental redesign of the alignment, paving layout, sections, drainage design, traffic control, etc. that would typically be noted during a 60% design review, Halff will negotiate additional fee under a separate agreement prior to initiating the design effort.
4. BinkleyBarfield | DCCM is responsible for all coordination effort with SAM, LLC.

Compensation

DESCRIPTION		SENIOR ENGINEER	PROJECT MANAGER	PROJECT ENGINEER, P.E.	SENIOR DESIGNER	PROJECT ENGINEER, EIT	CAD TECHNICIAN/ GIS ANALYST	ADMIN	TOTAL HOURS	TASK TOTAL
2024 Maximum Hourly Billing Rates		\$300	\$230	\$190	\$165	\$140	\$130	\$105		
Preliminary Design Total										\$133,210
000100	Preliminary Roadway Design (LS)									\$52,990
	Project Management & Meetings	8	60	-	20	-	-	8	96	\$20,340
	30% PS&E	10	15	30	40	60	15	-	170	\$29,100
	Quantities & Cost Estimate	2	4	6	2	4	-	-	18	\$3,550
000101	Drainage Analysis/Report (LS)									\$80,220
	Project Management & Meetings	20	4	48	-	-	-	-	72	\$16,040
	Reductions from Original Scope	-2	-	-10		-18	-20	-	-	-\$7,620
	Existing Conditions	10	8	35	-	75	-	-	128	\$21,990
	Proposed Conditions	4	4	15	-	40	-	-	63	\$10,570
	Impact Analysis	12	20	35	-	55	-	-	122	\$22,550
	Documentation	6	8	15	-	30	8	-	67	\$11,730
	Additional Existing Conditions	4	-	8	-	16	-	-	28	\$4,960
Final Design Total										\$121,475
000200	Final Roadway Design (LS)									\$121,475
	Project Management & Meetings	5	200	-	-	40	-	-	245	\$53,100
	Credit for 30% PS&E	-10	-5	-10	-20	-20	-15	-	(80)	-\$14,100
	Compiled PS&E Packaging	5	20	25	35	30	30	-	145	\$24,725
	Full-CSJ PS&E Sheet Preparation	20	45	70	80	60	50	-	325	\$57,750
Optional Additional Total										\$6,500
000406	Bridge Supplemental Deck Survey (LS)									\$6,500
	SAM, LLC Surveying	-	-	-	-	-	-	-	-	\$6,500

Additional Services Summary

Preliminary Design Total	\$133,210
Final Design Total	\$121,475
Optional Additional Total	\$6,500
CONTRACT TOTAL	\$261,185