23C

Purchase Order No. 14928

CONTRACT FOR ENGINEERING SERVICES
SUPPLEMENTAL AGREEMENT NO. 2

STATE OF TEXAS §
COUNTY OF FORT BEND §

THIS SUPPLEMENTAL WORK AUTHORIZATION to contract for engineering services is made by and between Fort Bend County acting by and through the Fort Bend Commissioners Court, hereinafter called the "County", and Burk-Kleinpeter, Inc., hereinafter called the "Engineer", and becomes effective when fully executed by both parties.

WITNESSETH

WHEREAS, the County and the Engineer executed a contract on April 1, 2008 concerning Trammel Fresno Road; and,

WHEREAS, Section II, Compensation, and Supplemental Agreement No. 1 limits the amount payable of the contract to $877,494.20; and

WHEREAS, Attachment B Services Provided by the Engineer, details the Scope of Services; and,

WHEREAS, it has become necessary to amend the contract;

AMENDMENT

NOW THEREFORE, premises considered, the County and the Engineer agree that said contract is amended as follows:

The maximum amount payable of the contract is increased by $124,305.50 to a total of $1,001,799.70

The Services Provided by the Engineer have been amended, included as Attachment A, to add additional services to incorporate offsite detention and related revisions into the project.

All others provisions are unchanged and remain in full force and effect.

IN WITNESS WHEREOF, THE County and the Engineer have executed this supplemental agreement in duplicate.

THE ENGINEER
Burk-Kleinpeter, Inc

(Signature)
Ken Stanley, PE
(Printed Name)
Director – Houston Operations
(Title)
8/11/10
(Date)

FORT BEND COUNTY
Executed and approved by Fort Bend County Commissioner Court.

(Signature)
Honorable Robert E. Hebert
(Printed Name)
County Judge
(Title)
9-7-10
(Date)

Auditors Certificate: I hereby certify that funds are available in the amount of $1,001,799.70 to pay Fort Band County's obligation under contract.

Ed Sturdivant, County Auditor

Attest: Dianne Wilson, [redacted], County Clerk

9/16/10 2 originals returned to Paulette at Engineering

ATTACHMENT A

BURK-KLEINPETER, INC.

ENGINEERS, ARCHITECTS, PLANNERS, ENVIRONMENTAL SCIENTISTS

6420 RICHMOND AVENUE, SUITE 675, HOUSTON, TX 77057
TELEPHONE (713) 892-5901 FAX (713) 892-5908
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BKI

OVER 100 YEARS OF SERVICE

July 19, 2010

Jesse Hegemier, P.E.
Ft. Bend County Engineer

c/o David Balmos, PE
Klotz Associates
1160 Dairy Ashford, Suite 500
Houston, Texas 77079

Re: Trammel Fresno Road – Project 746
BKI Project 4041
Proposal for Additional Services – Detention Basins

Dear Mr. Balmos:

As previously discussed I am submitting this proposal for your consideration to perform additional services required to incorporate detention basins into this project. This request is for an increase in the project fee of $124,305.50 as shown on Attachment A and the subconsultant proposals.

The original basis of this work anticipated using the storm sewer and proposed ditches within the existing right of way to accommodate the required detention. After the 30% design was completed, additional information became available concerning adjacent land use, development patterns and drainage concerns of the community. Ft. Bend County requested that the hydrologic and hydraulic study be re-evaluated in light of this information and it was determined that additional offsite detention would be required. This re-evaluation identified the need for significant modification to the work that has been previously performed not only for the hydraulic impact analysis, but the storm sewer design, environmental documentation and surveying tasks as well. In addition, new work will be required for the design of the two detention basins.

BKI will be performing a portion of this work and we have solicited proposals from LJA Engineering & Surveying, Inc. for the hydrologic/hydraulic and surveying tasks and from Berg-Oliver Associates, Inc. for the updated wetlands delineation required for the new detention basin sites. Attachment A is the proposed scope of services and fee assembled from all three firms. This scope includes the environmental document revisions that will be required by TxDOT. A summary of the proposed fees is as follows:

BKI	
Revised Storm Sewer Design and Detention Basin at Hurricane Lane	$36,590.00
Revise and Update the Environment Documentation	$14,970.00
LJA	
Drainage Analysis and Design	$54,866.50
Surveying	$11,879.00
BOA	
Additional Wetlands Evaluation and Report Update	$6,000.00

We are prepared to begin this work immediately upon your authorization. If you have any questions or need additional information please feel free to call me.

Sincerely,

Ken Stanley, PE
Director – Houston Operations

cc: files

P:\4xxx\4041 - Trammel Fresno Design Phase\01\02 - Correspondence\General\LTR-FBC Klotz Prop for Detention Basins 07-19-10.doc

ATTACHMENT A

Trammel Fresno Road – Project 746

BKI Project 4041

Proposal for Additional Services – Detention Basins

Storm Sewer Redesign

- Project Management and coordination with our sub-consultants on the basin hydraulic analysis and the environmental evaluation and documentation (see separate proposal from LJA attached)
- Coordination of the basin design with the proposed storm sewer analysis and design.
- Run new WinStorm calculations for the proposed storm sewer analysis
- Revise the Storm Sewer Hydraulic Data sheets
- Revise the Storm Sewer Plan and Profile sheets.
- Re-compute the estimated storm sewer quantities for the project cost estimate

Environmental Documentation

- Modify CE Document to Incorporate Pond Descriptions and Details - (Incorporate information on ponds as supplied by BKI Houston as well as information obtained from the review completed by BOA, update the vegetation information as per TxDOT comments to include ponds)
- Incorporate Comments from follow-up TxDOT - Modify the current drawings for the project shown in the CE Appendix A to include the pond location/information: 15, 11x17 panels with final roadway concept/construction plans, 6, 11x17 panels for construction sequence. Update information on construction period tree removal to reflect pond construction and ROW clearing
- Additional wetland evaluation and delineation coordination (see separate proposal from Berg Oliver attached)

TRAMMEL FRESNO ROAD – Project 746
BKI Project 4041
Proposal for Additional Services – Detention Basins

STORM SEWER REVISIONS	Project Manager	Engineer	CAD Technician	Administrative Asst.	
Computations and Hydraulic Data Sheets	4	26	16	2	
Drainage Plan and Profile Sheets	30	120	120	4	
Hours	34	146	136	6	
Rate (@ 3.01 Mult)	$150.00	$130.00	$90.00	$45.00	
Total					$36,590.00

ENVIRONMENTAL DOCUMENTS	Env. Project Manager	Envionmental Planner	CAD/GIS Technician	Administrative Asst.	
Modify Existing CE Documents and Exhibits	8	60	24	6	
Additional Coordination with TxDOT	2	24	4	4	
Hours	10	84	28	10	
Rate (@ 3.01 Mult)	$150.00	$125.00	$90.00	$45.00	
Total					$14,970.00

Appendix A-1
Fort Bend County
Trammel Fresno Segment II
Supplemental Scope of Work

General

The purpose of this additional work is to provide drainage analysis and recommendation for design of an offsite detention pond located in the property in the northwest quadrant of the intersection of Trammel Fresno and Teal Bend, which will include expansion and modification to an existing pond within the same property. Additional hydraulic analysis will be performed for use in the design of a detention pond at Hurricane Lane. Design of this pond will be by others. The work also includes all topographic and property surveys required for design and right-of-way acquisition for the pond at Hurricane Lane.

Drainage Analysis and Design

This work will consist of the following tasks:

- **Participation coordination meetings** with the County and landowner
- **Determination of preliminary detention basin location and footprint.**
    - LJA will analyze multiple scenarios regarding location, sizing and outfall location for the additional detention required.
    - Determine preliminary detention expansion footprint for existing detention basin north of Trammel Fresno in the Cambridge Falls Subdivision.
- **Modeling of detention through the existing development:** Based on current direction from Fort Bend County, the required detention facility for Trammel Fresno Road improvements will be located in the expanded Cambridge Falls Subdivision existing detention basin. The existing ICPR models for the interconnected detention basins for Cambridge Falls will be modified for the expanded condition. In tandem with the ICPR models, the HEC-RAS model will be revised for Long Point Creek East Fork to include the new expanded detention locations. The existing HEC-HMS models for the area will be revised to break the larger areas into smaller sub-basins to isolate flow and show no impact to the watershed. The revisions will be based on preliminary expanded basin layout provided to the landowner on July 1, 2010. At the time of this scope, no final approval has been received from the landowner. It is expected only minimal changes to the preliminary expanded detention basin.
- **Revise the current drainage impact analysis report:** Report will be revised to include the revised detention location and modeling to verify no impact to Long Point Creek East Fork.
- **Design of recommended detention basin:** Complete design sheets for the expanded detention basin including layout sheet, grading sheet, plan and profile for outfall, and detail sheet. It is anticipated the sheets will be inserted into the Trammel Fresno Roadway package and not as a stand alone project.
- **Complete a hydrologic and hydraulic analysis for the detention basin near Hurricane Lane**: The analysis will cover over detaining the flow for the Trammel Fresno improvements from the west portion of the drainage area to

Long Point Creek to allow for the area east to drain unrestricted without impacts to the watershed.

Surveying

Survey will include topographic survey, boundary survey, and preparation of documents necessary for right-of-way acquisition. Specific tasks will consist of:

- **Topographic survey:** Survey topographic features of the proposed detention area based on 100-foot grid, including elevation grade breaks. The survey will extend 50 feet beyond the site limits.
- **Boundary survey:** Perform boundary survey of detention pond area. Deed and easement documents will be obtained by a professional abstractor. A metes and bounds description and parcel map will be prepared. Iron rods will be set for the property corners.
- **Drainage easement:** Prepare metes and bounds description and exhibit for one drainage easement. Iron rods will be set for the easement corners. One fee owner is assumed.

Appendix B-1
Fort Bend County
Trammel-Fresno Segment II
Supplemental Fee Estimate

	No. of Sheets	Senior Project Manager	Senior Engineer	Senior Engineer Hydraulics	Design Engineer	Engineer-in-Training	Senior Technician	Engineering Specialist (QA/QC)	Clerical / Admin.	TOTAL HOURS	Hours per Sheet	Total Labor Cost
Contract Rates		$195.00/hr	$162.50/hr	$177.13/hr	$104.00/hr	$78.00/hr	$104.00/hr	$139.75/hr	$56.88/hr			
Drainage Analysis and Design												
Coordination		8		8	4					20		$3,393.00
Preliminary Alternative Footprint Layouts				4		16	4			24		$2,372.50
Modeling of Detention thru Existing Development				32	80		24	4		140		$17,043.00
Revise Drainage Impact Analyisis Report				4	16		8		4	32		$3,432.00
Detention Basin Layout Sheet	1	1		4	16		16	1		38	38	$4,371.25
Detention Basin Grading Sheet	1	1		4	12		24	1		42	42	$4,787.25
Outfall P&P Sheets	1	1		4	12		40	1		58	58	$6,451.25
Detention Basin Detail Sheet	1	1		4	16		16	1		38	38	$4,371.25
Hurricane Lane Detention Analysis				12	48		12	2		74		$8,645.00
TOTALS												
Hours		**12**		**76**	**204**	**16**	**144**	**10**	**4**	**466**		
Total Labor Cost per Position		**$2,340.00**		**$13,461.50**	**$21,216.00**	**$1,248.00**	**$14,976.00**	**$1,397.50**	**$227.50**			**$54,866.50**
		Senior Project Manager	Survey Manager	Project Surveyor	Survey Tech	Survey Field Crew						
		$181.00/hr	$126.00/hr	$112.00/hr	$96.00/hr	$135.00/hr						
Surveying												
Topo Survey		2	2	2	8	21				35		$4,441.00
Boundary Survey /Property Description - Pond			2	8	16	16				42		$4,844.00
Drainage Easement (Description and Monument)			2	2	8	10				22		$2,594.00
TOTALS												
Hours		**2**	**6**	**12**	**32**	**47**				**99**		
Total Labor Cost per Position		**$362.00**	**$756.00**	**$1,344.00**	**$3,072.00**	**$6,345.00**						**$11,879.00**
TOTALS DESIGN & SURVEYING												**$66,745.50**

BERG ♦ OLIVER ASSOCIATES, INC.
Environmental Science, Engineering & Land Use Consultants
14701 St. Mary's Lane, Suite 400, Houston, Texas 77079
(281) 589-0898 fax: (281) 589-0007
Houston ◊ Austin ◊ Dallas/ Fort Worth ◊ WDBE/HUB ◊ www.bergoliver.com

July 13, 2010

Mr. Ken Stanley
Burk-Kleinpeter, Inc.
6420 Richmond, Suite 675
Houston, Texas 77057

Via email: kstanley@bkiusa.com

Re: Proposal for a Wetland Delineation and GPS Mapping
BOA 7667espr

Dear Mr. Stanley:

The following proposal is provided to Burk-Kleinpeter, Inc. for environmental services on two separate proposed detention ponds on two different sites, located on Trammel Fresno Road, in Fort Bend County, Texas. The first site is across from Hightower High School on Trammel Fresno and the second is on the northwest corner of Trammel Fresno and Chimney Rock Road. Berg♦Oliver Associates, Inc. (Berg♦Oliver) will provide special attention to complete the work in a timely and professional manner. We will begin the assessment upon your acceptance and execution of this proposal.

Berg♦Oliver Associates, Inc. is proposing to provide the following services: Task I) Wetland Delineation and Task II) GPS Mapping. Attachment A describes of these services.

PROJECT SCHEDULE

Tasks I and II are anticipated to be complete within thirty (30) calendar days of the receipt of an executed proposal and boundary survey/plat, or other suitable boundary map, by Berg♦Oliver.

The project completion schedule is the goal of all parties; it does not, however, reflect unusual delays due to forces beyond the control of Berg♦Oliver and/or modifications to the scope of work based upon actual findings or additional requests by Burk-Kleinpeter, Inc., its agents, or governmental agency.

RIGHT OF ENTRY

Unless otherwise stated, it is assumed that the client has the authority to enter the property for purposes of conducting environmental assessments and herein grants that authority to Berg♦Oliver.

BASIC COMPENSATION AND METHOD OF PAYMENT

Berg♦Oliver proposes to provide the environmental services described in Attachment A to Burk-Kleinpeter, Inc. for the following lump sum amounts:

TASK I: WETLAND DELINEATION $6,000.00*

TASK II: GPS MAPPING ..... N/C

MINIMUM TOTAL $6,000.00

** This amount is based upon the property having clear access for delineation so that field work can be completed in two (2) days or less by a two-man crew. This task includes 48 hours of Project Management/Mapping time. Extraordinary circumstances, such as regulatory agency reviews based upon recent policy changes, may require additional tasks or further detailed analysis not covered in the present scope of work. If this task requires more than a total of 48 hours of Project Management/Mapping time, the extra hours will be billed as additional services, based on the attached rate schedule, but will not exceed 10% ($600.00) without written approval from the client.*

If additional tasks require more than a 10% overage (as described above), Berg♦Oliver will provide the client with an appropriate change order.

Invoices for Tasks I and II will be submitted at the completion of each task. Payment of all invoices is expected within thirty (30) days of the client's receipt of the invoice submitted by Berg♦Oliver.

CONFIDENTIALITY OF ASSESSMENT

The assessment and all related work and services of Berg♦Oliver Associates, Inc. are confidential. Berg♦Oliver Associates, Inc. is hereby employed by Burk-Kleinpeter, Inc. pursuant to this contract. Under such contract relationship, all correspondence, written or oral, which relates to the findings of this study are, to the extent permitted by law, strictly confidential between the parties hereto, unless Berg♦Oliver Associates, Inc. receives a written request from the client to offer the results of this study to a third party not a part of this agreement/proposal. Environmental assessments may occasionally uncover extremely sensitive findings. It is the responsibility of Berg♦Oliver Associates, Inc. to report these findings to the authorizing client and to no other party.

PROPOSAL ACCEPTANCE AND EXECUTION

Acceptance of this proposal, including the "General Conditions for Services" found in Attachment C, will be indicated by the signatures below and will serve as authorization to proceed with the work proposed herein. The signatory below also represents that the client has, or has secured, the authority to grant permission for Berg♦Oliver Associates, Inc. personnel to enter the subject property as necessary to conduct these assessments and that such permission is granted to Berg♦Oliver Associates, Inc. by the execution of this agreement/proposal. If the client is a Corporation or a Partnership, then the signature below will also represent the personal guarantee of the individual signing on behalf of the Client.

IN WITNESS THEREOF, Burk-Kleinpeter, Inc. and Berg♦Oliver Associates, Inc. have accepted and executed this proposal for environmental services on this the _____ day of _____, 2010.

BURK-KLEINPETER, INC.

By: _____
Authorized Signature

BERG♦OLIVER ASSOCIATES, INC.

By: Susan Alford
Susan Alford, REM
President

ATTACHMENT A

TASK I
WETLAND DELINEATION
SCOPE OF WORK

The objective of the Delineation is to evaluate any portion of the site to be classified as a "Jurisdictional Water of the United States" as defined in 33 CFR 328 and subject to USACE jurisdiction.

Delineation work will consist of the following tasks:

Task 1: Review of NRCS Soil Surveys: Task 1 will include a review of previously published soil data published by the U.S. Department of Agriculture, NRCS, to determine the types of surface soils expected to be confirmed by on-site soil analysis.

Task 2: Review of Aerial Photographs: Task 2 will include a review of historical aerial color and black/white photographic enlargements for selected years. Infrared color photographs will be analyzed for the presence of wetland signature color distortions. Information for all photographic interpretation will be compared to locate recurring sites where wetland signatures are present.

Task 3: Site Reconnaissance for Wetland Indicators.: Task 3 will include inspecting the property under the field procedures outlined in the Corps of Engineers Wetland Delineation Manual – Technical Report Y-87-1 by the USACE.

Transects are required for tracts greater than 5 acres in size, unless negotiated with the USACE to forego transects based on the homogeneous landscape and habitat type. If necessary, transects will be performed across the property, perpendicular to the nearest watercourse. Samples of vegetation, soils, and hydrology indicators will be taken at each change in topography or vegetation. Vegetation samples will be evaluated and recorded at each sample area. Upland vegetation will be verified, for it is as significant as wetland vegetation in the determination process. Inspection of the property for evidence or lack of wetland hydrology will be performed at each sample area. Soil samples will be evaluated at each test site for their hydric and non-hydric characteristics. Non-hydric soils verify upland status and are as significant as hydric soils in the determination process.

Task 4: Demarkation of Wetland Areas: Task 4 will include the flagging of the jurisdictional wetland areas and/or the ordinary high water mark for location by a Registered Professional Land Survey (RPLS) or GPS. Location of the areas by RPLS or GPS survey using the USACE October 2003 Standard Operating Procedures is required for USACE verification/permitting and is recommended for project planning.

Task 5: Preparation of a Map Representing Wetland Areas: Upon receipt of the RPLS or GPS wetland areas and the limits of the Jurisdictional Waters, information regarding the field location of the boundaries of all Section 10 and 404 waters/wetland limits within the

property boundaries will be plotted on a scaled map. Each Jurisdictional area will be depicted with the following information: (1) size and shape; (2) surface area calculation (acres); and (3) combined total wetland and Jurisdictional Water area calculations for the entire subject tract. The final report submitted to the client from Berg♦Oliver will reflect the surveyed data from the RPLS or GPS survey showing the location of the wetlands.

Task 6: Report Preparation: Task 6 will include the preparation of a final report. Upon completion of the site reconnaissance, data translation, and map preparation, a report will be completed, two copies of which will be given to the client. The report will include a discussion of methodology used to delineate the tract, site findings, copies of all historical information reviewed, such as USGS topographical maps, NRCS soil survey maps, aerial photographs, site photographs, USACE routine data sheets, and a wetland delineation map.

TASK II
GPS MAPPING
SCOPE OF WORK

To receive USACE Verification and subsequent permits, the wetland and waters identified and marked during delineation must be located using the October 2003 USACE Standard Operating Procedure. Collection of data will be conducted using a Trimble Pro-XRS integrated GPS/Beacon receiver and a Trimble TSC1 datalogger. Each survey point will be taken using DGPS real-time or post-processed survey techniques, and all data must be submitted as NAD 1983 UTM coordinates. 10% of all points surveyed must be repeated as an additional measure of accuracy. It is estimated that the field work for the mapping will require up to two (2) days of field reconnaissance and up to one day of post processing time. Prior to field reconnaissance, the client must provide a boundary survey.