

Baker

Michael Baker Jr., Inc.
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November 18, 2013

James Duval
City of Flagstaff
211 W. Aspen Avenue
Flagstaff, AZ. 86001

RE: Rio de Flag Flood Control Design Concept Proposal (Revised)

Dear Mr. Duval:

Michael Baker Jr., Inc. is proud to present our proposal for providing engineering technical services related to the Rio de Flag Flood Control Design Concept Project based on our understanding of the work requested by the City of Flagstaff. Attached to this letter you will find proposed Scope of Work and Cost Proposal for your review and consideration. Should all the attached items meet your expectations, please let us know and we will work with you to complete the contract documents. Should you have any comments on any of the attached documents, please send them back to us and we will work with you to a final resolution.

We look forward to a successful completion to this high profile project for the City of Flagstaff.

Sincerely,



Timothy Quillman, P.E.
Assistant Vice President

Attachments: Scope of Work
Cost Proposal

RIO DE FLAG FLOOD CONTROL DESIGN CONCEPT PROJECT

SCOPE OF WORK

PROJECT BACKGROUND

This project is located in the northwest quadrant of the City of Flagstaff, Arizona. It is the CLIENT's desire to develop a flood control project that will contain the existing Rio de Flag floodplain for the 100-year event within proposed flood control structures.

Recently the City of Flagstaff has partnered with the U.S. Army Corps of Engineers (USACE) to facilitate the stated goal. Due to continued funding issues at the Federal Level, the CLIENT is exploring the option of delivering this project without the assistance of the USACE. A project alignment and design have been developed to 90% level of completion by the USACE using USACE hydrology and hydraulic modeling (not available). In addition, the CLIENT has developed 90% plans for the replacement of City owned utilities and surface replacements relative to the USACE flood control plans.

The Rio de Flag Flood Control Design Concept project will require the CONSULTANT to prepare a Design Concept Report (DCR). The DCR shall be based on Federal Emergency Management Agency (FEMA) criteria and shall include the development of up to 3 separate project alternative alignment recommendations, preliminary hydraulic modeling, proposed flood control structures, scheduling, cost estimating and an outline of the requirements for the City of Flagstaff to ultimately contain the Rio de Flag floodplain and obtain CLOMR prior to and LOMR upon completion of construction.

TASK DESCRIPTIONS & DELIVERABLES**Task A Client Coordination****A.1 Kick-Off Meeting**

CONSULTANT shall organize and facilitate a project kick-off meeting with the CLIENT. The project kick-off meeting shall be held at CLIENT office location at a time agreed upon between the CLIENT and CONSULTANT. CLIENT shall provide the CONSULTANT with a list of stakeholders that are to be invited to the kick-off meeting. CONSULTANT shall come prepared to kick-off meeting to discuss CONSULTANT team organization, project design criteria and assumptions, project schedule and anticipated design questions.

Task A.1 DELIVERABLES: Within three working days before the kick-off meeting, CONSULTANT shall provide a PDF of the kick-off meeting agenda. Within five working days of completion of the kick-off meeting, CONSULTANT shall provide a PDF of the draft meeting minutes for review by CLIENT and stakeholders. Upon receiving and review comments of the meeting minutes, the CONSULTANT shall address comments and submit a PDF of the final meeting minutes to the CLIENT and stakeholders.

A.2 LIDAR Turn-over

CONSULTANT shall coordinate with the CLIENT to obtain and review current CLIENT digital topographic survey titled 2013 Aerial Survey Lidar/Imaging in LAS format. The project Design Concept Report (DCR)

shall utilize this data to develop the concept plans, alternatives, estimates and schedules. Consultant shall work with CLIENT staff to identify which portions of CLIENT owned LIDAR data is required for production of the DCR.

A.3 Monthly Meetings

CONSULTANT shall attend monthly meetings throughout the duration of the project. The purpose of the meetings will be to discuss progress, issues and schedule. The CONSULTANT shall coordinate with the CLIENT regarding the timing of meetings and list of stakeholders to be invited.

Task A.3 DELIVERABLES: Within three working days before each meeting, the CONSULTANT shall provide a PDF of the agenda to the CLIENT and CLIENT identified stakeholders. Within five working days after each meeting, the CONSULTANT shall provide a PDF of the meeting minutes to the CLIENT and stakeholders.

A.4 Council Meeting

CONSULTANT shall attend one City Council Meeting with the CLIENT for purposes of presenting findings of the project design concept study. The council meeting will be held in the evening at City of Flagstaff pre-determined location.

Task A.4 DELIVERABLES: The CONSULTANT shall provide 24x36 color exhibits showing the alternatives analyzed and recommendations. In addition, the CONSULTANT shall be prepared to produce and provide 8 ½ x 11 color hand-outs for facilitating the meeting and have the presentation available in Microsoft Power Point Format.

Task B New Effective Model

B.1 Structures & Cross Section Survey

CONSULTANT shall provide additional necessary field survey for capturing structures within the Rio De Flag alternative alignments. Structures survey shall include, but not be limited to: invert elevations at inlet and outlet, profile length of structure and opening dimensions.

Task B.1 DELIVERABLES: All survey captured shall be provided to the CLIENT in AutoCAD format.

B.2 Hydraulic Model

CONSULTANT shall develop an existing conditions hydraulic model and delineate the 100-year floodplain for the reaches of the Rio de Flag and Clay Avenue Wash identified below.

- Rio de Flag: from Lone Tree Road, upstream for approximately 8500 feet (1.61 river miles) to Beal Road.
- Clay Avenue Wash: from the Rio de Flag confluence, upstream for approximately 3600 feet (0.68 river miles) to Chateau Drive.

The model and delineation shall meet all FEMA standards for floodplain mapping, and will constitute the “Pre Project” model required for FEMA map revision submittals. While this model may consider local drainage effects, identified by the existing USACE design, no new hydrology or hydraulics for local drainage will be required for completion of the model. This work will not include any of the

documentation or other administrative tasks needed solely to revise the Flood Insurance Rate Map(s) for these watercourses.

CONSULTANT shall obtain and review the existing, FEMA regulatory model for these watercourses (if available) and the hydraulic models and supporting information developed for the U.S. Army Corps of Engineers project. Where possible, hydraulic structures data shall be taken from these sources to reduce the amount of field survey necessary.

Task B.2 DELIVERABLES: CONSULTANT shall present model input and output files to the CLIENT for review and comment. Model submittals will include cross-section location maps with topographic data at a scale appropriate for review. Any comments by the CLIENT on the models shall be submitted at one time for response by CONSULTANT. Once comments are resolved, CONSULTANT shall submit the final models to the CLIENT for their records as part of the final Design Concept Report.

Task C Review Existing Corps Plans & Models

C.1 Hydraulic Models

CONSULTANT shall review hydraulic models produced for the Thorpe Road Bridge under the recently completed USACE Rio de Flag design project. Where ever possible, the Consultant shall use the existing hydraulic models as the basis for new hydraulic modeling to be completed for the alternatives analysis.

C.2 90% Plans & Reports

Consultant shall obtain and review the existing USACE 90% plans and all other supporting project documents. Consultant shall deliver a summary of all reports and reference any data used in the development of the project Conceptual Design Report for the City of Flagstaff.

Task D Alternatives Analysis

D.1 Hydraulic Modeling & CLOMR Requirements

CONSULTANT shall select and model up to three alignment recommendations for the Rio de Flag using FEMA effective flow rates, one of which shall include the current alignment as proposed by USACE. CONSULTANT shall develop hydraulic models for each of the three alternatives using the latest FEMA approved version of HEC-RAS. While these models may consider local drainage effects identified by the existing USACE design, no new hydrology or hydraulics for local drainage will be required for completion of the model. All models shall meet FEMA standards for floodplain mapping and effective map revisions. Based on the modeling results, each alternative's influence on the effective Special Flood Hazard Area will be used as part of the alternatives analysis. For each alternative alignment, CONSULTANT shall identify additional data and analyses that may be required as part of a future CLOMR or LOMR application process.

Task D.1 DELIVERABLES: CONSULTANT shall present model input and output files to the CLIENT for review and comment for all hydraulic models developed for this project. Model submittals shall include cross-section location maps with topographic data at a scale appropriate for review. Any comments by the CLIENT on the models shall be submitted at one time for response by CONSULTANT. Once comments

are resolved, CONSULTANT shall submit the final models to the CLIENT for their records as part of the final Design Concept Report.

D.2 Utilities Analysis

For each alternative alignment recommendation selected for hydraulic modeling, CONSULTANT shall provide preliminary design concepts for addressing utility conflicts. Design concepts shall take into consideration previous designs generated under the USACE Rio de Flag project. Utility analysis shall include both public and private utilities that are affected by each of the alternative alignments.

D.3 Surface Analysis

For each alternative alignment recommendation selected for hydraulic modeling, CONSULTANT shall provide preliminary design concepts for associated surface improvements. Design concepts shall take into consideration previous designs generated under the USACE Rio de Flag project.

D.4 Structures Analysis

For each alternative alignment selected for hydraulic modeling, CONSULTANT shall provide preliminary design concept for arch type structures used to convey the design storm and any modifications required to structures that are to remain. Structure design concepts shall include typical cross sections that are to be implemented throughout each of the alignments.

D.5 Constructability & Sequencing Analysis

For each alternative alignment selected for hydraulic modeling, CONSULTANT shall provide preliminary design concepts for construction sequencing. Each alternative alignment shall be reviewed for constructability concerns by the CONSULTANT. Design concepts for addressing constructability concerns shall be provided by the CONSULTANT.

D.6 Construction Cost Analysis

For each alternative alignment selected for hydraulic modeling, CONSULTANT shall provide preliminary cost analysis. The cost analysis shall include all major construction items and shall be presented in a bid schedule format. The cost analysis shall also include any contingency items identified during the development of the preferred alternative. Costs shall be consistent with historic bids in the Northern Arizona region and shall be reviewed by a registered contractor. Bid tabulations from recent City of Flagstaff infrastructure projects are available to assist with this task and can be provided by the CLIENT upon request.

D.7 Value Engineering Charette

Prior to production of the design concept report, the CONSULTANT shall hold a value engineering (VE) Charette at which time the CONSULTANT shall present the alternative alignment recommendations selected for hydraulic modeling and the results of the alternatives analysis. The CONSULTANT shall prepare one plan exhibit for each of the alternative alignments selected for hydraulic modeling. The plan exhibits shall each show arch typical sections and horizontal alignment overlaid with associated surface and utility requirements. The VE Charette shall include the CONSULTANT, CLIENT and stakeholders as required by the CLIENT. Upon completion of the VE Charette, one of the three alternative alignments

selected for hydraulic modeling will be chosen as the preferred alignment. Recommendations discussed during the VE Charette shall be documented by the Consultant and considered when producing the Design Concept Report.

Task D.7 DELIVERABLES: One Plan exhibit for each of the alternative alignment recommendations selected for hydraulic modeling shall be prepared by the CONSULTANT for the VE Charette. Plan exhibits shall be produced on 22x34 sheets. For presentation of floodplain analysis, exhibits shall be produced in color on 11x17 sheets. Other analysis documentation may be produced in black & white on 8 ½ x 11 sheets. Following the VE Charette, CONSULTANT shall present model input criteria and output to the CLIENT as PDFs for review and comment. Any comments by the CLIENT on the models shall be submitted at one time for response by CONSULTANT. Once comments are resolved, CONSULTANT shall submit the final models to the CLIENT for their records as part of the Design Concept Report. All deliverables shall also be provided to the CLIENT in color PDF format. In addition to providing hard copy documents during the VE Charette, the CONSULTANT shall also be prepared present all materials on overhead projector.

Task E Design Concept Report

E.1 Finalize Hydraulic Model

CONSULTANT shall finalize the hydraulic model for the preferred alignment based on the results of the VE Charette and for any other changes that occurred while finalizing the Design Concept Report. The final hydraulic model for the preferred alignment shall meet FEMA standards for floodplain mapping and map revisions. Based on the modeling results, the City of Flagstaff's requirements for obtaining a Conditional Letter of Map Revision (CLOMR) and Letter of Map Revision (LOMR) from FEMA beyond the proposed improvements will be outlined in the Design Concept Report.

E.2 Finalize Utility & Surface Recommendations

CONSULTANT shall provide utility and surface improvement recommendations as a result of the preferred alignment. Utility and surface improvements for the preferred alignment shall be overlaid onto the plan sheets that show the preferred alignment.

E.3 Finalize Structure Recommendations

CONSULTANT shall provide structural recommendations for the arch structures and associated retaining walls required for each of the alternative alignments. In addition, CONSULTANT shall provide recommendations for modifications to existing structures as a result of the alternative alignments, where required. CONSULTANT shall provide structural typical sections for the preferred alignment.

E.4 Finalize Estimated Construction Costs

CONSULTANT shall provide estimated construction costs for the preferred alignment. Estimated constructed costs completed in the Alternatives Analysis shall be updated for items identified in the VE Charette or as otherwise updated during production of the Draft DCR.

E.5 Draft DCR

CONSULTANT shall produce a draft DCR that presents the final recommendations for the Rio de Flag flood control measures. The DCR shall be comprised of the following sections/appendices:

1. Project background including relevant USACE design data
2. Design criteria and assumptions
3. General description of each of the alternatives considered
4. Design approach and results for the preferred alignment including:
 - Hydrology
 - Hydraulics
 - Conveyance structures
 - Associated utility improvements
 - Associated surface improvements
 - Associated Environmental implications
 - Associated Geotechnical implications
 - Engineering principles for future full scale design and construction
 - FEMA footprints
 - CLOMR requirements
 - Estimated construction costs
 - VE considerations
5. Final recommendations
6. Preferred alignment plans (appendices)
7. Detailed back-up documentation for estimated construction costs (appendices)
8. Floodplain delineations (appendices)
9. Hydraulic models and calculations (appendices)

The preferred alignment plans shall be one plan set that shows arch typical sections, centerline profile and horizontal alignment overlaid with associated surface and utility requirements. CONSULTANT shall submit the DCR to the CLIENT and identified stakeholders for one review and comment phase. Upon review of the DCR by the CLIENT, CONSULTANT shall compile comments received into a draft comment matrix and provide response to comments. Once comments are addressed, CONSULTANT shall hold one comment review meeting with the CLIENT and identified stakeholders for discussion of comments and responses. Following the comment review meeting, CONSULTANT shall provide a final comment response matrix that documents all final responses and decisions made during the comment review meeting.

DELIVERABLES: Five copies of the draft DCR and a color PDF shall be submitted to the CLIENT for review and comment. Preferred alignment plans and floodplain map exhibits prepared by the CONSULTANT shall be produced on 11x17 sheets at 40 Scale, unless otherwise agreed to by the CLIENT and CONSULTANT. Other analysis documentation may be produced on 8 ½ x 11 sheets. Comment review matrices shall be submitted in PDF. CONSULTANT shall present model input and output files to the CLIENT for review and comment for all hydraulic models developed for the Draft DCR. Model submittals shall include cross-section location maps with topographic data at a scale appropriate for review.

E.6 Final DCR

CONSULTANT shall produce and submit a final DCR upon distribution of the draft DCR final comment response matrix. The final DCR shall be comprised of all sections and appendices included in the draft DCR with the appropriate edits made. Upon completion of the final DCR, CONSULTANT shall submit the final DCR to the CLIENT for final back check. Should the CLIENT identify any comments noted in the final comment response matrix that were not addressed, CONSULTANT shall promptly make the necessary corrections and re-submit the final DCR to the CLIENT.

DELIVERABLES: Five copies of the draft DCR and a color PDF shall be submitted to the CLIENT for review and comment. Plans and floodplain map exhibits prepared by the CONSULTANT shall be produced on 11x17 sheets. Other analysis documentation may be produced on 8 ½ x 11 sheets. Comment review matrices shall be submitted in PDF. CONSULTANT shall submit model input and output files to the CLIENT for all hydraulic models developed for the Final DCR. Model submittals shall include cross-section location maps with topographic data at a scale appropriate for review.

PROJECT SCHEDULE

The CLIENT has identified a project completion date of June 30, 2014. CONSULTANT shall coordinate with the CLIENT regarding intermediate project submittal dates. Once initial dates are agreed upon by the CLIENT and CONSULTANT, CONSULTANT shall develop the project draft schedule in Microsoft Project format. CONSULTANT shall provide a PDF of the draft schedule to the CLIENT for review and comment. Once all comments are resolved, the draft schedule shall be finalized as the baseline schedule by the CONSULTANT and provided to the CLIENT.

Michael Baker Jr., Inc.

Contract No.: **TBD**Project Name: Rio De Flag Flood Control Project Conceptual Design ReportDate: November 18, 2013**COST PROPOSAL SUMMARY****LABOR**

Classification	Hours	Average Hourly Rates	Direct Labor Costs
Project Manager	110	\$ 65.00	\$ 7,150.00
Engineer Sr	210	\$ 52.00	\$ 10,920.00
Geotechnical Engineer Sr	8	\$ 52.00	\$ 416.00
Engineer Jr	250	\$ 43.00	\$ 10,750.00
CAD Technician	164	\$ 24.00	\$ 3,936.00
Project Assistant / Administrator	18	\$ 20.00	\$ 360.00
Total Hours		760	

Total Direct Labor \$ 33,532.00

Overhead 162.92% \$ 54,630.33

Total Labor with Overhead \$ 88,162.33**OTHER DIRECT COSTS**

Travel	\$	3,607.20
Reproduction	\$	498.00
Shipping	\$	40.00
Miscellaneous	\$	200.00
Total Other Direct Costs		\$ 4,345.20

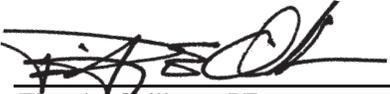
SUB-CONSULTANT COSTS

Shepard Wesnitzer, Inc.	\$	80,472.08
Hunter Contracting, Co.	\$	39,998.28
Total Sub-Consultant Costs		\$ 120,470.36

Total Cost to Consultant \$ 212,977.90

PROFIT (Direct Labor) 10.00% \$ 8,816.23

Sub-Consultant Administration 2.50% \$ 3,011.76

TOTAL COST \$ 224,805.89


 Timothy Quillman, PE
 Assistant Vice President

11/18/2013

Date

Michael Baker Jr., Inc.

Contract No.: TBD

Project Name: Rio De Flag Flood Control Project Conceptual Design Report

BAKER TASK SUMMARY					
Task	Labor (Burdened)	ODC	Sub-Consultants (Plus Administration)	Sub-Task Total	Task Total
Task A Client Coordination					\$ 28,232.99
A.1 Kick-Off Meeting	\$ 4,037.40	\$ 329.75	\$ 3,965.32	\$ 8,332.47	
A.2 LIDAR Turn-over	\$ 526.37	\$ -	\$ 3,482.95	\$ 4,009.31	
A.3 Monthly Meetings	\$ 7,114.62	\$ 989.75	\$ 1,302.16	\$ 9,406.53	
A.4 Council Meeting	\$ 3,493.68	\$ 752.65	\$ 2,238.34	\$ 6,484.67	
Task B New Effective Model					\$ 24,074.06
B.1 Structures & Cross Section Survey	\$ 994.89	\$ -	\$ 9,048.59	\$ 10,043.48	
B.2 Hydraulic Modeling	\$ 13,055.03	\$ 975.55	\$ -	\$ 14,030.58	
Task C Review Existing Corps Plans & Models					\$ 12,295.69
C.1 Hydraulic Models	\$ 2,573.99	\$ -	\$ -	\$ 2,573.99	
C.2 90% Plans & Reports	\$ 977.54	\$ 28.00	\$ 8,716.17	\$ 9,721.70	
Task D Alternatives Analysis					\$ 95,934.21
D.1 Hydraulic Modeling	\$ 23,669.11	\$ -	\$ -	\$ 23,669.11	
D.2 Utilities Analysis	\$ 375.98	\$ -	\$ 28,446.55	\$ 28,822.52	
D.3 Surface Analysis	\$ 375.98	\$ -	\$ 5,589.60	\$ 5,965.57	
D.4 Structures Analysis	\$ 601.56	\$ -	\$ 7,876.51	\$ 8,478.07	
D.5 Constructability & Sequencing Analysis	\$ 1,955.07	\$ -	\$ 4,169.21	\$ 6,124.28	
D.6 Cost Analysis	\$ 1,955.07	\$ -	\$ 10,608.34	\$ 12,563.41	
D.7 Value Engineering & Charette	\$ 5,656.99	\$ 429.75	\$ 4,224.50	\$ 10,311.24	
Task E Design Concept Report					\$ 64,268.94
E.1 Finalize Hydraulic Model	\$ 3,846.52	\$ -	\$ -	\$ 3,846.52	
E.2 Finalize Utility & Surface Recommendations	\$ 375.98	\$ -	\$ 23,705.03	\$ 24,081.01	
E.3 Finalize Structure Recommendations	\$ 977.54	\$ -	\$ 2,069.89	\$ 3,047.42	
E.4 Finalize Cost Estimates	\$ 977.54	\$ -	\$ 2,613.59	\$ 3,591.12	
E.5 Draft DCR	\$ 18,613.68	\$ 255.00	\$ 3,439.24	\$ 22,307.92	
E.6 Final DCR	\$ 4,824.06	\$ 584.75	\$ 1,986.14	\$ 7,394.94	
Totals	\$ 96,978.57	\$ 4,345.20	\$ 123,482.12		\$ 224,805.89



Michael Baker Jr., Inc.

Contract No.: TBD

Project Name: Rio De Flag Flood Control Project Conceptual Design Report

BAKER LABOR SUMMARY								
Descriptions	Project Manager	Engineer Sr	Geotechnical Engineer Sr	Engineer Jr	CAD Technician	Project Assistant/Administrator	Total Hours	Base Labor \$
	\$ 65.00	\$ 52.00	\$ 52.00	\$ 43.00	\$ 24.00	\$ 20.00		
Task A Client Coordination								
A.1 Kick-Off Meeting	8	12		4		4	28	\$ 1,396.00
A.2 LIDAR Turn-over				2	4		6	\$ 182.00
A.3 Monthly Meetings	36					6	42	\$ 2,460.00
A.4 Council Meeting	8	8			8	4	28	\$ 1,208.00
Task B New Effective Model								
B.1 Structures & Cross Section Survey				8			8	\$ 344.00
B.2 Hydraulic Modeling	2	24		64	16		106	\$ 4,514.00
Task C Review Existing Corps Plans & Models								
C.1 Hydraulic Models	2	8		8			18	\$ 890.00
C.2 90% Plans & Reports	2	4					6	\$ 338.00
Task D Alternatives Analysis								
D.1 Hydraulic Modeling	8	72		80	20		180	\$ 8,184.00
D.2 Utilities Analysis	2						2	\$ 130.00
D.3 Surface Analysis	2						2	\$ 130.00
D.4 Structures Analysis			4				4	\$ 208.00
D.5 Constructability & Sequencing Analysis	4	8					12	\$ 676.00
D.6 Cost Analysis	4	8					12	\$ 676.00
D.7 Value Engineering & Charette	8	8		4	32	4	56	\$ 1,956.00
Task E Design Concept Report								
E.1 Finalize Hydraulic Model	2	8		16	4		30	\$ 1,330.00
E.2 Finalize Utility & Surface Recommendations	2						2	\$ 130.00
E.3 Finalize Structure Recommendations	2		4				6	\$ 338.00
E.4 Finalize Cost Estimates	2	4					6	\$ 338.00
E.5 Draft DCR	12	30		64	56		162	\$ 6,436.00
E.6 Final DCR	4	16			24		44	\$ 1,668.00
Total Hours	110	210	8	250	164	18	760	
Totals \$	\$ 7,150.00	\$ 10,920.00	\$ 416.00	\$ 10,750.00	\$ 3,936.00	\$ 360.00		\$ 33,532.00



Michael Baker Jr., Inc.

Contract No.: TBD

Project Name: Rio De Flag Flood Control Project Conceptual Design Report

Task	BAKER TRAVEL COSTS											
	Per Diem (Lodging + M&IE)							Mileage				
	No. of People	No. of Trips	Days per Trip	Lodging Rate	Lodging Taxes	M&IE Rate	Task Total	Trips	Miles per Trip	Units Miles	Unit Rate	Task Total
Task A Client Coordination							\$ -					\$ -
A.1 Kick-Off Meeting	2	1	1			\$ 66.00	\$ 132.00	1	350	350	\$ 0.565	\$ 197.75
A.2 LIDAR Turn-over							\$ -					\$ -
A.3 Monthly Meetings	2	6	1			\$ 66.00	\$ 792.00	1	350	350	\$ 0.565	\$ 197.75
A.4 Council Meeting	2	1	2	\$ 83.00	\$ 12.45	\$ 66.00	\$ 454.90	1	350	350	\$ 0.565	\$ 197.75
Task B New Effective Model							\$ -					\$ -
B.1 Structures & Cross Section Survey							\$ -					\$ -
B.2 Hydraulic Modeling	2	1	3	\$ 83.00	\$ 12.45	\$ 66.00	\$ 777.80	1	350	350	\$ 0.565	\$ 197.75
Task C Review Existing Corps Plans & Models							\$ -					\$ -
C.1 Hydraulic Models							\$ -					\$ -
C.2 90% Plans & Reports							\$ -					\$ -
Task D Alternatives Analysis							\$ -					\$ -
D.1 Hydraulic Modeling							\$ -					\$ -
D.2 Utilities Analysis							\$ -					\$ -
D.3 Surface Analysis							\$ -					\$ -
D.4 Structures Analysis							\$ -					\$ -
D.5 Constructability & Sequencing Analysis							\$ -					\$ -
D.6 Cost Analysis							\$ -					\$ -
D.7 Value Engineering & Charette	2	1	1			\$ 66.00	\$ 132.00	1	350	350	\$ 0.565	\$ 197.75
Task E Design Concept Report							\$ -					\$ -
E.1 Finalize Hydraulic Model							\$ -					\$ -
E.2 Finalize Utility & Surface Recommendations							\$ -					\$ -
E.3 Finalize Structure Recommendations							\$ -					\$ -
E.4 Finalize Cost Estimates							\$ -					\$ -
E.5 Draft DCR							\$ -					\$ -
E.6 Final DCR	2	1	1			\$ 66.00	\$ 132.00	1	350	350	\$ 0.565	\$ 197.75
Totals							\$ 2,420.70					\$ 1,186.50

Total Travel Costs: \$ 3,607.20



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Contract No.: TBD

Project Name: Rio De Flag Flood Control Project Conceptual Design Report

Task	BAKER REPRODUCTION & MISCELLANEOUS COSTS													
	Copies 8.5x11 (Color)				Copies 11x17				Shipping/Express Mail			Poster Boards		
	Document Pages	Copies	Unit Rate	Task Total	Document Pages	Copies	Unit Rate	Task Total	Number	Unit Rate	Task Total	Number	Unit Rate	Task Total
Task A Client Coordination				\$ -				\$ -			\$ -			\$ -
A.1 Kick-Off Meeting				\$ -				\$ -			\$ -			\$ -
A.2 LIDAR Turn-over				\$ -				\$ -			\$ -			\$ -
A.3 Monthly Meetings				\$ -				\$ -			\$ -			\$ -
A.4 Council Meeting				\$ -				\$ -			\$ -	5	\$ 20.00	\$ 100.00
Task B New Effective Model				\$ -				\$ -			\$ -			\$ -
B.1 Structures & Cross Section Survey				\$ -				\$ -			\$ -			\$ -
B.2 Hydraulic Modeling				\$ -				\$ -			\$ -			\$ -
Task C Review Existing Corps Plans & Models				\$ -				\$ -			\$ -			\$ -
C.1 Hydraulic Models				\$ -				\$ -			\$ -			\$ -
C.2 90% Plans & Reports				\$ -	100	4	\$ 0.07	\$ 28.00			\$ -			\$ -
Task D Alternatives Analysis				\$ -				\$ -			\$ -			\$ -
D.1 Hydraulic Modeling				\$ -				\$ -			\$ -			\$ -
D.2 Utilities Analysis				\$ -				\$ -			\$ -			\$ -
D.3 Surface Analysis				\$ -				\$ -			\$ -			\$ -
D.4 Structures Analysis				\$ -				\$ -			\$ -			\$ -
D.5 Constructability & Sequencing Analysis				\$ -				\$ -			\$ -			\$ -
D.6 Cost Analysis				\$ -				\$ -			\$ -			\$ -
D.7 Value Engineering & Charette				\$ -				\$ -			\$ -	5	\$ 20.00	\$ 100.00
Task E Design Concept Report				\$ -				\$ -			\$ -			\$ -
E.1 Finalize Hydraulic Model				\$ -				\$ -			\$ -			\$ -
E.2 Finalize Utility & Surface Recommendations				\$ -				\$ -			\$ -			\$ -
E.3 Finalize Structure Recommendations				\$ -				\$ -			\$ -			\$ -
E.4 Finalize Cost Estimates				\$ -				\$ -			\$ -			\$ -
E.5 Draft DCR	50	8	\$ 0.50	\$ 200.00	10	50	\$ 0.07	\$ 35.00	1	\$ 20.00	\$ 20.00			\$ -
E.6 Final DCR	50	8	\$ 0.50	\$ 200.00	10	50	\$ 0.07	\$ 35.00	1	\$ 20.00	\$ 20.00			\$ -
Totals				\$ 400.00				\$ 98.00			\$ 40.00			\$ 200.00

Total Reproduction: \$ 498.00
 Total Shipping: \$ 40.00
 Total Miscellaneous \$ 200.00



Michael Baker Jr., Inc.

Contract No.: 04-03014

Project Name: Rio De Flag Flood Control Project Conceptual Design Report

BAKER SUBCONSULTANT SUMMARY			
Task	SWI	HUNTER	Total
Task A Client Coordination			\$ -
A.1 Kick-Off Meeting	\$ 2,134.77	\$ 1,733.84	\$ 3,868.61
A.2 LIDAR Turn-over	\$ 3,398.00		\$ 3,398.00
A.3 Monthly Meetings	\$ 1,270.40		\$ 1,270.40
A.4 Council Meeting	\$ 1,143.67	\$ 1,040.08	\$ 2,183.75
Task B New Effective Model			\$ -
B.1 Structures & Cross Section Survey	\$ 8,827.90		\$ 8,827.90
B.2 Hydraulic Modeling			\$ -
Task C Review Existing Corps Plans & Models			\$ -
C.1 Hydraulic Models			\$ -
C.2 90% Plans & Reports	\$ 1,417.66	\$ 7,085.92	\$ 8,503.58
Task D Alternatives Analysis			\$ -
D.1 Hydraulic Modeling			\$ -
D.2 Utilities Analysis	\$ 27,752.73		\$ 27,752.73
D.3 Surface Analysis	\$ 5,453.27		\$ 5,453.27
D.4 Structures Analysis		\$ 7,684.40	\$ 7,684.40
D.5 Constructability & Sequencing Analysis		\$ 4,067.52	\$ 4,067.52
D.6 Cost Analysis		\$ 10,349.60	\$ 10,349.60
D.7 Value Engineering & Charette	\$ 1,693.87	\$ 2,427.60	\$ 4,121.47
Task E Design Concept Report			\$ -
E.1 Finalize Hydraulic Model			\$ -
E.2 Finalize Utility & Surface Recommendations	\$ 23,126.86		\$ 23,126.86
E.3 Finalize Structure Recommendations		\$ 2,019.40	\$ 2,019.40
E.4 Finalize Cost Estimates		\$ 2,549.84	\$ 2,549.84
E.5 Draft DCR	\$ 2,835.31	\$ 520.04	\$ 3,355.35
E.6 Final DCR	\$ 1,417.66	\$ 520.04	\$ 1,937.70
Totals	\$ 80,472.08	\$ 39,998.28	\$ 120,470.36

MICHAEL BAKER JR., INC.

Sub-Consultant

Shepard Wesnitzer, Inc.

Contract No.: TBD
 Project Name: Rio De Flag Flood Control Project Conceptual Design Report
 Date: November 15, 2013



COST PROPOSAL SUMMARY

LABOR

Classification	Hours	Average Hourly Rates	Direct Labor Costs
Project Manager	87	\$ 58.00	\$ 5,046.00
Project Engineer	68	\$ 42.25	\$ 2,873.00
Design Engineer	504	\$ 28.33	\$ 14,278.32
CAD Drafter	36	\$ 24.00	\$ 864.00
Project Surveyor	96	\$ 29.00	\$ 2,784.00
Robotic Total Station Survey Crew	-	\$ 8.33	\$ -
Clerical	9	\$ 21.00	\$ 189.00
Total Hours	800		

Total Direct Labor \$ 26,034.32
 Overhead 181.00% \$ 47,122.12

Total Labor with Overhead \$ 73,156.44

OTHER DIRECT COSTS

Travel	\$	-
Reproduction	\$	-
Shipping	\$	-
Miscellaneous	\$	-
Total Other Direct Costs	\$	-

Total Cost to Consultant \$ 73,156.44
 PROFIT (Direct Labor) 10.00% \$ 7,315.64

TOTAL COST \$ 80,472.08

NAME Guillermo E. Cortes
 TITLE Vice President

11/15/2013
 Date

Contract No.: TBDProject Name: Rio De Flag Flood Control Project Conceptual Design Report

SWI TASK SUMMARY

Task	Labor (Burdened)	ODC	Sub-Task Total	Task Total
NON-DESIGN				
Task A Client Coordination				\$ 7,946.84
A.1 Kick-Off Meeting	\$ 2,134.77	\$ -	\$ 2,134.77	
A.2 LIDAR Turn-over	\$ 3,398.00	\$ -	\$ 3,398.00	
A.3 Monthly Meetings	\$ 1,270.40	\$ -	\$ 1,270.40	
A.4 Council Meeting	\$ 1,143.67	\$ -	\$ 1,143.67	
Task B New Effective Model				\$ 8,827.90
B.1 Structures & Cross Section Survey	\$ 8,827.90	\$ -	\$ 8,827.90	
B.2 Hydraulic Modeling	\$ -	\$ -	\$ -	
Task C Review Existing Corps Plans & Models				\$ 1,417.66
C.1 Hydraulic Models	\$ -	\$ -	\$ -	
C.2 90% Plans & Reports	\$ 1,417.66	\$ -	\$ 1,417.66	
Task D Alternatives Analysis				\$ 32,097.69
D.1 Hydraulic Modeling	\$ -	\$ -	\$ -	
D.2 Utilities Analysis	\$ 24,950.55	\$ -	\$ 24,950.55	
D.3 Surface Analysis	\$ 5,453.27	\$ -	\$ 5,453.27	
D.4 Structures Analysis	\$ -	\$ -	\$ -	
D.5 Constructability & Sequencing Analysis	\$ -	\$ -	\$ -	
D.6 Cost Analysis	\$ -	\$ -	\$ -	
D.7 Value Engineering & Charette	\$ 1,693.87	\$ -	\$ 1,693.87	
Task E Design Concept Report				\$ 30,182.01
E.1 Finalize Hydraulic Model	\$ -	\$ -	\$ -	
E.2 Finalize Utility & Surface Recommendations	\$ 25,929.04	\$ -	\$ 25,929.04	
E.3 Finalize Structure Recommendations	\$ -	\$ -	\$ -	
E.4 Finalize Cost Estimates	\$ -	\$ -	\$ -	
E.5 Draft DCR	\$ 2,835.31	\$ -	\$ 2,835.31	
E.6 Final DCR	\$ 1,417.66	\$ -	\$ 1,417.66	
Totals	\$ 80,472.08	\$ -		\$ 80,472.08

Contract No.: TBD
 Project Name: Rio De Flag Flood Control Project Conceptual Design Report

SWI LABOR SUMMARY

Descriptions	Project Manager	Project Engineer	Design Engineer	CAD Drafter	Project Surveyor	Robotic Total Station Survey Crew	Clerical	Total Hours	Base Labor \$
	\$ 58.00	\$ 42.25	\$ 28.33	\$ 24.00	\$ 29.00	\$ 8.33	\$ 21.00		
NON-DESIGN									
Task A Client Coordination									
A.1 Kick-Off Meeting	8		8					16	\$ 690.64
A.2 LIDAR Turn-over	1		4		32			37	\$ 1,099.32
A.3 Monthly Meetings	6						3	9	\$ 411.00
A.4 Council Meeting	4			4			2	10	\$ 370.00
Task B New Effective Model									
B.1 Structures & Cross Section Survey	4			32	64			100	\$ 2,856.00
B.2 Hydraulic Modeling								0	\$ -
Task C Review Existing Corps Plans & Models									
C.1 Hydraulic Models								0	\$ -
C.2 90% Plans & Reports	4		8					12	\$ 458.64
Task D Alternatives Analysis									
D.1 Hydraulic Modeling								0	\$ -
D.2 Utilities Analysis	24	24	200					248	\$ 8,072.00
D.3 Surface Analysis	8	12	28					48	\$ 1,764.24
D.4 Structures Analysis								0	\$ -
D.5 Constructability & Sequencing Analysis								0	\$ -
D.6 Cost Analysis								0	\$ -
D.7 Value Engineering & Charette	8						4	12	\$ 548.00
Task E Design Concept Report									
E.1 Finalize Hydraulic Model								0	\$ -
E.2 Finalize Utility & Surface Recommendations	8	32	232					272	\$ 8,388.56
E.3 Finalize Structure Recommendations								0	\$ -
E.4 Finalize Cost Estimates								0	\$ -
E.5 Draft DCR	8		16					24	\$ 917.28
E.6 Final DCR	4		8					12	\$ 458.64
Total Hours	87	68	504	36	96	-	9	800	
Totals \$	\$ 5,046.00	\$ 2,873.00	\$ 14,278.32	\$ 864.00	\$ 2,784.00	\$ -	\$ 189.00		\$ 26,034.32

MICHAEL BAKER JR., INC.

Sub-Consultant

Hunter Contracting Co.

Preconstruction / Design Phase Services
Fee Proposal Summary

RIO DE FLAG FLOOD CONTROL DESIGN CONCEPT PROJECT

11/11/2013

<u>Classification</u>	<u>Labor Hours</u>	<u>Hourly Rate</u>	<u>Cost</u>
Hunter Contracting Co.			
Preconstruction Services Manager	92	\$130.01	\$11,961.00
Sr. Project Manager	32	\$86.72	\$2,775.00
Project Engineer	0	\$69.45	\$0.00
Structural Engineer	62	\$93.71	\$5,810.00
Structures Estimator	0	\$97.50	\$0.00
Director of Estimating	20	\$117.14	\$2,342.80
Senior Estimator	136	\$86.72	\$11,793.90
AGTEK / Auto-CAD Technician	64	\$80.85	\$5,174.40
Clerical	4	\$35.30	\$141.20
Direct Labor Total	Total Hours	410	\$39,998.30

Allowances (see detail attached)

Additional Services

Total Scope Amount

\$39,998.30



Chuck English
Vice President
Hunter Contracting Co.

ce 11/14/13

Contract No.: TBD
 Project Name: Rio De Flag Flood Control Project Conceptual Design Report

COMPANY NAME LABOR SUMMARY

Descriptions	Program Manager	Project Manager Sr	Project Manager	Engineer Sr	Structural Engineer Sr	Geotechnical Engineer Sr	Civil Engineer	Structural Engineer	Geotechnical Engineer	Architect Jr	Engineer Jr	Designer	Professional Surveyor	Party Chief	Survey Tech/Instrument Person	Construction Admin	Construction Associate	Director of Estimating	Cost Estimator	Project Assistant/Administrator	Total Hours	Base Labor \$
	\$ 130.01	\$ 86.72	\$ 69.45	\$ -	\$ -	\$ -	\$ -	\$ 93.71	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 35.30	\$ 80.85	\$ 117.14	\$ 86.72	\$ -		
NON-DESIGN																						
Task A Client Coordination																						
A.1 Kick-Off Meeting	8	8																			16	\$ 1,733.84
A.2 LIDAR Turn-over																					0	\$ -
A.3 Monthly Meetings																					0	\$ -
A.4 Council Meeting	8																				8	\$ 1,040.08
Task B New Effective Model																						
B.1 Data collection and review																					0	\$ -
B.2 Hydraulic modeling																					0	\$ -
B.3 Floodplain delineation																					0	\$ -
B.4 Structures & Cross Section Survey																					0	\$ -
Task C Review Existing Corps Plans & Models																						
C.1 Hydraulic Models																					0	\$ -
C.2 90% Plans & Reports	16	8															16	8	24		72	\$ 7,085.92
Task D Alternatives Analysis																						
D.1 Hydraulic Modeling																					0	\$ -
D.2 Utilities Analysis																					0	\$ -
D.3 Surface Analysis																					0	\$ -
D.4 Structures Analysis	16							46									16				78	\$ 7,684.42
D.5 Constructability & Sequencing Analysis	16	8															16				40	\$ 4,067.52
D.6 Cost Analysis	8															4	16	8	80		116	\$ 10,349.60
D.7 Value Engineering & Charette	8	8																	8		24	\$ 2,427.60
Task E Design Concept Report																						
E.1 Finalize Hydraulic Model																					0	\$ -
E.2 Finalize Utility & Surface Recommendations																					0	\$ -
E.3 Finalize Structure Recommendations	4							16													20	\$ 2,019.40
E.4 Finalize Cost Estimates																		4	24		28	\$ 2,549.84
E.5 Draft DCR	4																				4	\$ 520.04
E.6 Final DCR	4																				4	\$ 520.04
Total Hours	92	32	-	-	-	-	-	62	-	-	-	-	-	-	-	4	64	20	136	-	410	
Totals \$	11,961	2,775	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,810.02	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 141.20	\$ 5,174.40	\$ 2,342.80	\$ 11,793.92	\$ -		\$ 39,998.30

EXHIBIT B
HOURLY RATE SCHEDULE

<u>Name:</u>	<u>Title:</u>	<u>Direct Rate (\$/Hr)</u>	<u>Total Rate(\$/HR)</u>
Chuck English	Preconstruction Services Manager	\$60.00	\$130.01
Terry Snyder	Project Manager	\$45.00	\$86.72
Kevin Roach	Project Engineer	\$30.00	\$69.45
Allen Sacra	Structural Engineer	\$50.00	\$93.71
Steve Ostwinkle	Structures Estimator	\$45.00	\$97.50
Bob Carlson	Director of Estimating	\$55.00	\$117.14
Chris Page	Senior Estimator	\$45.00	\$86.72
John Gressley	Agtek / Auto CAD Take-off technician	\$35.00	\$80.85
Jackie Johnson	Clerical	\$18.00	\$35.30

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