

August 30, 2013 Revised September 27, 2013

Mr. Bill Riebe, P.E. Village of Wellington 14000 Greenbriar Boulevard Wellington, FL 33414

Ref. No.

A9738.03

Subject:

Wellington Drainage Improvements Modeling and Evaluation

Dear Bill:

Pursuant to your request, we are submitting the attached Revised Proposal To Provide Computer Modeling (ICPR) and Engineering Evaluation for Improvements to ACME's Surface Water Management System. Please review the attached proposal and return one signed copy to our office as our authorization to proceed with the Scope of Services outlined in the proposal.

We will provide the Scope of Services on an hourly basis for a fee not to exceed \$40,000.

If you have any questions please contact me at 683-3113, extension 231. Thank you for using Mock\*Roos on this project. We look forward to working with you.

Sincerely,

MOCK, ROOS & ASSOCIATES, INC.

Alan D. Wertepny, P.E

Vice President

ADW:jeh Enclosure

Copies:

Thomas A. Biggs

Bookkeeping

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# Proposal To Provide Computer Modeling and Engineering Evaluation for Improvements to ACME's Surface Water Management System

Services to be provided by:

Mock•Roos

Services provided to (Client):

Village of Wellington

**Proposal Date:** 

August 30, 2013

Revised September 27, 2013

## **Proposal Terms**

### A. Project Description:

Wellington (ACME) recently re-plumbed its Stormwater Management System (SWMS) in response to regional stormwater quality requirements imposed by the USEPA/FDEP. Overall, the re-plumbed system has performed well. However, now that the improvements are complete and Wellington has had a chance to operate the system during several severe rainfall events, it is time to re-evaluate the SWMS. This proposed study is designed to determine/verify the effectiveness of the existing improvements and identify/verify any additional improvements and operational strategies to optimize the system. Specifically, the existing ICPR model of Wellington's SWMS, previously developed by Mock\*Roos in 2008, will be: 1) Updated to match existing, physical conditions; 2) Used to analyze the system and identify/verify weaknesses and 3) Used to determine physical and operational improvements needed to address any weaknesses and optimize the system. The findings of the modeling evaluation will be used to: 1) Support the SWMS improvement proposed in the Water Control Plan Update; 2) Support Wellington's position concerning the FEMA flood map revisions, and 3) Provide engineering criteria for conveyance structures.

### B. Scope of Services:

- Coordinate record information for improvements completed since the last model update with Wellington Staff. Update the 2008 ICPR computer model of the ACME Surface Water Management System to reflect current existing conditions as well as operational changes under the South Florida Water Management District permit.
- 2. Develop, with the assistance of Wellington staff, preliminary drainage improvement design concepts for the proposed improvements to be incorporated into the ICPR Model.
- 3. Modify the updated ICPR model to include the proposed drainage improvements.

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- 4. Setup and perform computer simulations for three design storms (10-year, 1-day, 25-year, 3-day, and 100-year, 3-day) for both the updated existing conditions model and the proposed improvements model.
- 5. Perform sensitivity testing, model calibration and result data analysis for all simulations. Rerun simulations as necessary.
- Parse model result output data and prepare tables showing peak stages and duration of stages above 14.0' NGVD at select locations within the Surface Water Management System for all simulations.
- 7. Review the preliminary results with Wellington Staff and discuss potential modifications or enhancements to the proposed drainage and roadway improvements.
- 8. Incorporate modifications or enhancements identified in Task 7 into the ICPR model.
- 9. Setup and perform additional computer simulations for the three previously identified design storms for the modified ICPR model.
- 10. Perform sensitivity testing, model calibration and result data analysis for the new simulations. Re-run simulations as necessary.
- 11. Parse model result output data and update tables from Task 6.
- 12. Prepare a letter report that summarizes the findings and evaluations. Provide a CD with the model input file and computer simulations.

### C. Additional Services:

- 1. Any services not included in the Scope of Services will be considered Additional Services.
- 2. Any ICPR (training, modeling support, documentation) or other services requested by Client will be considered Additional Services.
- 3. Additional Services can be provided upon Mock•Roos receiving signed authorization from Client.

### D. Fees and Rates:

- 1. Mock•Roos will complete the Scope of Services on an hourly basis for a fee not to exceed \$40,000.
- 2. Mock•Roos can provide Additional Services at the Mock•Roos rates in effect at that time.

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### E. Conditions:

- 1. All terms become valid upon Mock•Roos receiving one complete copy of this proposal within 60 days of its date.
- 2. This proposal serves as a supplement to the general agreement between Mock•Roos and Client dated October 11, 2011.
- 3. In case of discrepancies, the terms of this proposal supersede those of previous agreements.

### F. Acceptance and Authorization to Proceed:

1. This proposal is acceptable and Mock•Roos has authorization to proceed with the Scope of Services. This authorization becomes valid upon Mock•Roos receiving one **complete** copy of this form with an original signature below.

CLIENT	MOCK•ROOS
Signed:	Signed: Alley // tellips
Name:	Name: Alan D. Wertepny, P.E.
Title:	Title: Vice President
Date:	Date: August 30, 2013, Revised September 27, 2013

Please return one complete copy of this form with an original signature to Mock\*Roos. Thank you.

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# Mock•Roos Hourly Breakdown of Services for Modeling and Evaluation of Proposed 2013 Drainage Improvements BUDGET ESTIMATE

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			Labor Classification	u
Task	Task Description	Project	Project	Admin
No.		Manager	Engineer	Asst
-	Update 2008 ICPR Model	4	40	2
2	Develop Conceptual Plan	8	40	2
က	Modify Updated ICPR Model	4	32	
4	Setup/Perform Simulations		20	
2	Sensitivity Testing		20	
9	Analyze Result Data/Prepare Tables	4	16	2
7	Review Results	4	16	2
œ	Incorporate Modifications	4	16	
တ	Perform Additional Simulations		10	
10	Additional Sensitivity Testing		10	
11	Update Model Result Data Exhibits	4	20	2
12	Letter Report	16	40	12
	Labor Hourly Total	48	280	22
	Labor Hourly Billing Rate	\$140	\$115	\$50
14	Sub Total	\$6,720	\$32,200	\$1,100
	Project Total			\$40,020