



March 2, 2018

Mr. Elliott Owen  
Cypress Cove Water Supply Corporation  
3674 Tanglewood Trail Court  
P.O. Box 1107  
Spring Branch, TX 78070

**Re: Water System Evaluation**

Dear Mr. Owen:

As requested, M&S Engineering is providing this fee proposal for engineering services related to an evaluation of the Cypress Cove Water Supply Corporation (CCWSC) water distribution system.

**Project Background and Description**

The Cypress Cove Water System is in the process of incorporating to form the Cypress Cove Water Supply Corporation. As part of that change, the Corporation is interested in the development of a system evaluation report that will serve to establish an operational baseline for the water system moving forward.

**Assumptions**

1. All relevant existing system information needed for the development of the report or mapping has been, or will be, provided by CCWSC.
2. The hydraulic model provided by CMWSC is free from fatal run errors, crashes and will be used as the basis for the hydraulic model in this scope of work.
3. Surveying of any kind is not included in this scope of work.
4. Development of Site Plans (as-built/record drawings) does not include submittal to the TCEQ for as-built approval.

**Scope of Services**

The development of the system evaluation report and mapping will produce the following:

1. Mapping provided in full color, 36"x48" hardcopy and .pdf formats
  - a. Distribution System Map that includes:
    - Distribution piping locations (approximate, based on available data)
    - Distribution line sizes
    - Isolation Valve locations (provided by CCWSC)
    - Supply Well sites
    - Plant/Booster Station sites with storage and hydropneumatic tank volumes
    - Lot/Property lines with lot numbers
    - Active meter locations (only if provided by CCWSC)
  - b. Pressure Zone Map
  - c. Provide distribution system geometry in .dwg and shapefile formats
2. Site Plans (as-builts) of Plants/Booster Stations and Well sites
  - a. Four (4) Booster Station sites
  - b. Two (2) Well only sites
3. Hydraulic System Model (KY Pipe)



- a. Debug existing model
  - b. Calibrate existing model using field pressure readings provided by CCWSC
  - c. Account for system water loss in the hydraulic model by using historical water loss estimates provided by CCWSC
  - d. Provide static flow scenarios for minimum TCEQ demand (0.6 gpm per connection) and peak flow demand (1.5 gpm per connection) for the following conditions:
    - Existing conditions
    - Existing plus 50% buildout of remaining lots
    - Ultimate buildout
4. System evaluation report
- a. Determine compliance with TCEQ Rules and Regulations (TAC 290) with recommendations to address deficiencies (if any) along with a Preliminary Opinion of Cost for each recommendation.
  - b. Summarize results of hydraulic modeling
  - c. A draft of the report and supporting documentation will be provided to the Board of Directors for review and comment
  - d. Comments provided will be addressed and a final report (signed and sealed by an Engineer licensed in the State of Texas) will be submitted to the Board of Directors.

#### **Additional Services**

The following items are not included in the scope of services but could be provided for an additional fee (to be negotiated on a case-by-case basis):

1. Reconciliation of any outstanding violations with the Texas Commission on Environmental Quality.
2. Subsurface Utility Engineering investigations to supplement mapping data provided by CCWSC.
3. Topographic and/or boundary survey for the development of as-built/record drawings.
4. Any other item not explicitly listed in the scope of services.

#### **Schedule**

Based on past experience with projects of similar scope and size, we anticipate the timeframe to submit a draft version of the report and supporting documentation to be 90 days from the date of authorization to proceed.

#### **Compensation**

M&S Engineering proposes to complete the scope of work described herein for the **lump sum amounts** as follows:

- |  |                |
|--|----------------|
| 1. Mapping   | <b>\$5,000</b> |
| 2. Site plans (as-builts) of Plants/Booster Stations and Wells | <b>\$9,000</b> |
| 3. Hydraulic System Model                                      | <b>\$5,000</b> |
| 4. System Evaluation Report                                    | <b>\$4,000</b> |

#### **Terms and Conditions**

M&S Engineering proposes to complete this work as a Task Order to our current Task Order Agreement between Owner and Engineering for Engineering Services dated March \_\_, 2018.

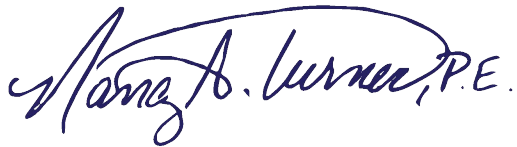


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Should you have any questions or comments concerning this fee proposal, please do not hesitate to contact me.

Sincerely,



Nancy A. Turner, P.E.  
Project Manager