Hooksett Sewer Commission
April 16, 2018
Minutes

The meeting was called to order at 12:00pm present were Chairman Sidney Baines, Commissioner Frank Kotowski, Commissioner Roger Bergeron, Superintendent Bruce Kudrick, Guy Beloin, Don Winterton, Scott Tremaine, Jon Clark and Kim Langlois.

Approve and Sign Manifests

Approve and sign minutes from April 2, 2018
Commissioner Roger Bergeron made motion to accept the April 2nd 2018 minutes as read. Commissioner Frank Kotowski seconded. Motion was carried unanimously.

Read Correspondence

Financial Report: Guy came in to give a brief overview of the Sewer accounts. Guy also went over the possible new sewer rates. The usage charge would go from **$6.05** to **$6.17** and the rent rates would be the following: **Industrial**: $88.75 to $90.00
Commercial: $57.25 to $58.00
Residential: $35.75 to $36.00
The rate increase would still be under the national average of 2.01%. Commissioner Roger Bergeron made motion to increase the Usage charge from $6.05 to $6.17 and to raise the rent rates to the above listed rates, July 1st, 2018 (to be billed in January). Commissioner Frank Kotowski seconded. The motion was carried unanimously.

Scheduled Appointments: 12:15pm- Underwood Engineers RE: Asset Management Program
1:00pm- Jeff Kevan, from TF Moran RE: SNHU Dorm

Underwood (12:25pm): Margaret and David from Underwood Engineering came in to present their proposal for the Asset Management Program. Attached is the proposal they handed out to the Commission. After the presentation David asked to speak to the commission regarding the upgrades that Underwood is working on for the Sewer Plant. There were three change order items that need to be made, #1 the cost of coating just the interior of the chemical storage tank will be $12,617.00, the outside will not be painted, plant employees can/will paint that themselves at a later date. #2 The Hydraulic improvement originally called for knife gates to be used however a $10,025.00 credit is being offered if slide gates are used instead. David from Underwood recommended going with the slide gates, Bruce agreed with David on this. #3 with accommodating future upgrades in mind for the IFast tank, it was recommended that the plant upsize the pipe from 4 inch to 6 inch pipe at an additional cost of $3500.00. All together the changes add an additional $6000.00 in cost to the planned upgrades for the plant. Commissioner Roger Bergeron made motion to approve all three changes to Change order #2 in regards to the Plant upgrades. Commissioner Frank Kotowski seconded. The motion was carried

unanimously. The given start date to the upgrades is May 7th with a finish date of early August. Bruce stated that he would like the commissioners to look into possibly upgrading the computer system and looking into the cost of an automatic chlorine dispenser before the upgrades are complete.

Jeff Kevan from TF Moran RE: SNHUDorm (1:25pm): Jeff came in to give the commissioners a brief overview of what SNHU has planned. Back in December there was a fire in one of the dorms. This has caused SNHU to act faster into knocking it down. A new dorm is being built (will hold 130-140 beds) and there will be a new parking lot added. Jeff informed the commission that a final bed count versus a current bed count will be given before the end of the project. Jeff showed the commission the plans for the new dorm and where the sewer will run, it will be a gravity fed sewer line versus a pump station sewer line which is what Bruce had recommended. SNHU is going to submit their plans to the planning board on 04/17/2018.

Superintendent's Report: No violations for the month of March. DES did their yearly inspection, they found minor errors, especially in the lab, where it was mentioned that Scott Tremaine is doing an excellent job. The DES sat down with Bruce and showed him a comparison of the violations the plant had last year vs. this year. The plant is down in violations and Bruce attributes this to the new procedure he put in place for testing the chlorine.
National Guard: is getting ready to put in the sewer, they have to cross the road so they will be working at night on Tuesday, Wednesday and Thursday (Weather permitting).
Village Water: Bruce went to a meeting that was held at Village Water, he was informed that there is a telephone poll that is located over there that has the Sewers phone lines connected to it. The plan is to get B&W's permission to go over the tracks with the phone line, the telephone pole will be taken out and a box will be put in, the remainder of the line is underground.
Bridge: Work at the bridge continues.

Old Business: Mike Desaulniers reached his 6 month probation mark a few weeks back. Bruce asked for the commission to consider giving Mike a more substantial raise due to all his hard work. Commissioner Roger Bergeron made motion to grant Mike the higher pay increase, his raise will be retroactive to the date of his 6 month probation. Commissioner Frank Kotowski seconded. The motion was carried unanimously.

New Business: Jon Clark was given the Assistant Superintendents position. He is on a six month probation period starting today. The commission would like for Bruce to get Scott out of the lab more frequently. The next Commissioner's meeting is May 7th, 2018.

Non Public: None

Public Input: None

Adjournment: Commissioner Roger Bergeron made motion to adjourn at 2:13pm. Commissioner Frank Kotowski seconded. The motion was carried unanimously.

Respectfully Submitted,

Frank R. Kotowski

Frank Kotowski
Clerk

civil &
environmental
engineering

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N2738

April 16, 2018

Mr. Bruce Kudrick
Wastewater Superintendent
Hooksett Sewer Commission
1 Egawes Drive
Hooksett, NH 03106

Re: Professional Engineering Services Proposal
Wastewater Collection System Asset Management Program
Hooksett Sewer Commission, Hooksett, New Hampshire

Dear Mr. Kudrick:

We understand that the Hooksett Sewer Commission is seeking to prepare an Asset Management Program for its wastewater collection system. Based on discussions, the system was mapped using ArcGIS software approximately nine years ago. Since that time, staff has been using the paper utility atlas that was produced as a result of that effort. The electronic data assembled includes valuable information such as pipe installation dates and materials; however, that is not easily accessible or usable in a paper format.

Recently, NHDES awarded the Commission $30,000 in principal forgiveness through the Clean Water SRF Loan Program to complete an Asset Management Program. Underwood Engineers is pleased to respond to the Town's request for engineering proposals.

PROPOSED SCOPE OF WORK

Underwood will provide the following professional engineering services related to development of an Asset Management Program:

Task 1 – Funding Assistance

- Prepare a full application for an Asset Management Program CWSRF loan for review and signature by the Owner.
- Assist the Owner with preparation of a loan disbursement request and closing of the loan upon completion of the AM Program.

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Concord, NH 03301
underwoodengineers.com

Task 2 – Wastewater Collection System Asset Management Program

Asset Inventory and Condition Assessment

- Organize existing ArcGIS data into a useful and understandable format for use by Commission staff.
    - Categorize assets into basins. In general, each pumping station collection area will constitute a basin.
    - Organize into "vertical" and "horizontal" assets.
        - Vertical assets consist of items such as pumping stations which contain multiple systems and sub-components.
        - Horizontal assets are items such as manholes, clean-outs, gravity sewer mains, etc.
- Vertical assets will be stored in an Excel spreadsheet and to a lesser extent in Survey123 editable forms which constitute a module of ArcGIS.
- Horizontal assets will be stored in ArcGIS format (ex. Shapefiles), which can easily be exported into an Excel spreadsheet along with the vertical assets to provide a complete, comprehensive view of all collection system assets.
- Fill in missing mainline sewer data wherever possible.
- Under the SRF Loan, purchase ArcGIS Online software (1-year subscription and two tablets to run the software on and collect information with).
- Provide training for staff in ArcGIS software, both on information gathering and on information retrieval.
- The shapefiles and spreadsheets will be provided in electronic format and be set up to be readily expanded or revised by Owner personnel.

Level of Service

- Assist the Owner in developing a Level of Service Statement.
    - Review and collect system performance data.
    - Determine areas where the system could be improved.
    - Development incremental steps based on that information to reach and/or maintain desired level of service.

Assess Criticality

- For each asset or asset block, estimate its probability of failure and consequence of failure.
- Rank assets in order of importance (priority) based on a combination of probability and consequence of failure.

Life Cycle Costing

- Prepare an opinion of probable cost to repair or replace each asset type or block. The opinions of cost will be planning level estimates. Using the "top down" approach,

opinions of cost will be developed for each asset block and will include all work assumed for full replacement of the asset.

Long-Term Funding Strategy

- Using the planning level cost estimates, develop a schedule for the rehabilitation and replacement costs each year for 10 years into the future and in 10-year windows for the estimated life of the assets, out to 100 years.
- Determine the estimated cost per year to adequately fund repair and replacement of existing assets and compare that cost to the Owner's current operating budget and reserve fund contributions.

Asset Management Program

- Work with staff to develop strategies to update the asset inventory, including field data collection techniques.
- Conduct training in the use of these strategies.
- Prepare a written Asset Management Program report presenting the results of the above tasks.

Implementation / Communication Program

- Prepare an Asset Management Program document that will serve as a baseline and will provide "next steps" for the continuation, refinement and expansion of the program.
- Shapefiles and spreadsheets will be provided to the Owner for use in managing wastewater collection system assets going forward.
- Prepare tri-fold flyer document summarizing the Asset Management Program for Owner distribution to customers.

Task 3 – Value-Added Work

Given that $30,000 in principal forgiveness is being offered to the Commission for wastewater related asset management work, it makes complete sense to spend the full $30,000 and the focus should be on getting the most asset management work done for that $30,000. In addition to the typical scope of services offered in Tasks 1 and 2, Underwood proposes to also provide the following value-added work, all within the $30,000 budget.

- Review available service tie sheets, field sketches, and TV inspection data to fill in missing service lateral information in the ArcGIS mapping to the extent practical.
- Scan all available service tie sheets and link them to the ArcGIS mapping.
- Scan all available manhole inspection and TV inspection reports and link them to the ArcGIS mapping.
- Scan all available pumping station operation and maintenance manuals and link them to the ArcGIS mapping.

- Train staff to use ArcGIS Online and Collector for GIS to update system information.
- Create Pumping Station Daily Inspection Report template in Survey123 for use by the Owner.
- Create Work Order template in Work Force or Survey 123 for use by the Owner.

Schedule:

Task #1: SRF application to be submitted to NHDES by May 31, 2018.
Disbursement request and loan closing at end of project.
Task #2: Draft asset management program by December 31, 2018.
Finalize by March 31, 2019.
Task #3: Draft value-added work by December 31, 2018.
Finalize by March 31, 2019.

Fee:

Our proposed fee for the above work is noted below:

Task Description	No. of Hours	Fee
Task 1 - Funding Assistance	15	$1750
Task 2 – Wastewater Collection System Asset Management Program	230	$28,250
Task 3 – Value-Added Work	Included in Task 2	Included in Task 2
Total	**245**	**$30,000**

Fee shall be billed on a time-and-expense basis, not to exceed $30,000 without prior approval.

Should you have any questions on this proposal, please feel free to call me at 230-9898.

Very truly yours,

UNDERWOOD ENGINEERS, INC.

MBlank

David J. Mercier, P.E.
Senior Project Manager

for

Hooksett Sewer Commission Wastewater Collection System Asset Management Program Proposal

April 16, 2018

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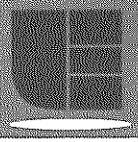
Overview

- Introductions
- DES Asset Management Principal Forgiveness
  - $30,000 from DES
  - To develop a wastewater collection system asset management program
- What is Asset Management?
  - Decision-making tool
  - Achieves desired level of service at lowest cost



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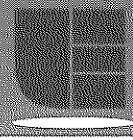
Underwood's Approach

- Build on what the Commission already has.
  - Verify, test and update existing GIS data.
  - Service laterals will need particular attention (see value added work).
- Basic formats to facilitate coordination and future expansion/edits.
  - Shapefiles
  - Spreadsheets
- Organize the data.
  - Sort into vertical and horizontal assets.
  - Create collection basins.

Vertical Assets

- What are vertical assets?
  - Pumping stations – multiple subcomponents
    - Pumps and motors
    - Structures – wet well, dry well, building
    - Systems – electrical, HVAC, instrumentation and control
  - Underwood proposes to address vertical assets in Excel spreadsheet format
    - Easy to learn/staff already uses it.
    - Convenient tools for quickly summarizing data.
    - Coordinate with financial software.



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Horizontal Assets

- What are horizontal assets?
  - Sanitary sewer pipe –gravity mains, force mains, water body crossings.
  - Sanitary sewer structures – manholes, air/vacuum release structures.
- Mostly Mapped in 2009-2010 using ArcGIS.
- Data can easily be exported to Excel for use by staff and coordination with other software packages (*i.e.* financial and billing).

Options for Field Data Collection

- Underwood recommends ArcGIS Online and related apps.
  - Collector for GIS – view and revise existing ArcGIS-based data in the field using a mobile device (phone, tablet, or lap top).
  - Survey123 – data collection forms
    - Incident reports
    - Complaints
    - Inspection reports
  - Workforce for GIS – assign and track tasks.

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Financial Planning

- Schedule out asset replacements and major maintenance costs based on condition, functionality and/or age of asset.
- Use full replacement cost for planning purposes to be conservative.
- Provide a means to prioritize replacements and refurbishments.
  - Criticality – Consequence of Failure versus Probability of Failure.

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Financial Planning Continued

- Allows for appropriate reserve account contributions.
- Avoids emergency repairs, run-to-failure situations.
- Facilitates long-term planning (*i.e.* ten-year capital improvements plan).
- Allows utility to develop a predictable user rate structure with reasonable increases.

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Why Underwood?

- Extensive experience with DES asset management SRF principal forgiveness program (wastewater).
  - Conway Village Fire District
  - Epping, NH
  - Wolfeboro, NH
  - New London, NH
- Extensive experience with DES asset management grant program (water).
  - Bristol, NH
  - Durham, NH
  - Newmarket, NH
  - Marlborough, NH
  - Conway Village Fire District
  - Belmont, NH
  - Keene, NH
  - Merrimack Village District

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Why Underwood Continued?

- Value Added Work
  - Review available service tie sheets, field sketches, and TV inspection data to fill in missing service lateral information in the ArcGIS mapping to the extent practical.
  - Scan all available service tie sheets and link them to the ArcGIS mapping.
  - Scan all available manhole inspection and TV inspection reports and link them to the ArcGIS mapping.
  - Scan all available pumping station operation and maintenance manuals and link them to the ArcGIS mapping.
  - Create Pumping Station Daily Inspection Report template in Survey123 for use by the Owner.

Demonstration

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Questions??

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