

Town of Lake Lure – Utilities Board

- Minutes of Regular Monthly Meeting – February 5, 2019

The Utility Advisory Board held a special meeting at the Town of Lake Lure Municipal Center on Tuesday, February 5, 2019 at 1:00 pm.

Members Present:

Wayne Hyatt (Chairman)
Richard Glassen (Vice Chair)
David Diorio
John Chapman
Don Cason

Others Present:

Linda Ward – Clerk
David Arrowood – Staff Liaison
Jeffrey Brown – Brown Engineering
Kevin Cooley - Mayor
Shannon Baldwin – Town Manager
Council Liaison Bob Cameron

Members Absent:

All members present

General Meeting Actions

Call to Order – Chairman Wayne Hyatt called the meeting to order at 1:00 pm.

Motion to Amend Agenda - Richard Glassen made a motion to amend the agenda as follows: New Business (a) first, followed by the approval of January 8 meeting minutes, New Business (c), Old Business (a), and ending with New Business (b). The motion was seconded by David Diorio and carried 5 – 0.

New Business

a. Hydromatic Pump System Presentation by Mike Knight with Clearwater Inc., Hickory NC – After being introduced by Richard Glassen, Mike Knight with Clearwater Inc. told the board a little about the company and proceeded to show a presentation about the Hydromatic Pump System. This is the system that their company recommends for the Town's Low Pressure Sewer System and the terrain in Lake Lure.

Mr. Knight explained that Clearwater Inc handles sales and service, and that they own a sister pump service company. He mentioned that they can repair motors of any size that they would pick up, repair and return, or town staff could take the pump apart and bring to Clearwater for repair. He said that they keep five to ten units in the warehouse at all times and that the inventory could be owned by the Town or Clearwater. They also have loaner pumps on hand to use while broken ones are being repaired. He told the board that it is a good idea to have a few pumps and control panels on hand inside the town for repairs when things happen in the middle of the night.

Mr. Knight said he recommends each house having a pump and alarm box, and that the alarm box can notify either the Town or the homeowner.

Hydromatic is a Pentair Company which offers the engineering service to consultants to design the full system. Mr. Knight mentioned that equipment is the same but the line work, head calculations are different. They would ask the Town to provide a topo map, the locations of the lots with and without houses and then they would take this information into conjunction with consultant and run it through a computer sizing system. This would present mapping and a report to be used by the consultant to get required permitting through the state. Every station would be shown and this information could also help determine the flow, which Mayor Cooley mentioned is something that has been hard to determine.

Clearwater would then give a complete billed material. This would not include the service line from the house to the station.

The recommended HV200 Hydromatic Pump has a 36 month warranty that covers material and workmanship, and the cost for the basin, pump, pipe valves and control panel is \$3000 to \$3500.

The board discussed the need to have the same pumps at each station. Mayor Cooley talked about incentives and requirements for hook-ups, saying this is something that has been discussed but still needs to be determined by Council.

Chairman Wayne Hyatt recessed the meeting to take a five minute break

Consider Approval of the January 8, 2019 Regular Meeting Minutes – Richard Knight made a motion to approve the minutes, David Diorio seconded and the motion carried 4 - 0. (Don Cason was not present at the January 8th meeting)

New Business

c. Review Utility Advisory Board's Establishing Resolution and recommend changes for Council - After a brief discussion concerning the need to have a secretary, David Diorio made a motion to make a recommendation to Council to amend the Utility Board's Establishing Resolution to remove the requirement of having a Secretary from the bylaws of said resolution. John Chapman seconded the motion, which carried 5 – 0.

Old Business

a. Low Pressure Sewer System Update – Jeffrey Brown with Brown Engineering mentioned that the computer generated reports from the supplier would be used as data and may not be what the state requires.

The board discussed the need to pre-bid the suppliers to narrow down the pumps that need to be used and the costs associated with them, and the need to move forward with this process. Jeffrey said that he needs the pump selected to move forward with the model.

Mayor Cooley mentioned that the town is working on the grid/GIS platform of the town as to who is connected to the current sewer system and who is on septic and which lots are developed and which are not. He said that once completed, Council can begin working on the policies and incentives for connections. Jeffrey Brown said he would meet with Brad Burton concerning building the layers needed to show this. Jeffrey also mentioned the need to get a realistic flow amount so he can move forward.

The question was raised on whether the Town should choose the pump to be used or bid this out. Jeffrey said that he thinks they could do either. Richard Glassen mentioned that there may be some citizens that want to know why it was not competitively bid out.

New Business

b. Presentation by Guy Chapman with Tencarva Machinery Co. out of Greenville, SC - Richard Glassen introduced Guy Chapman who is a Sales Engineer with the Tencarva Company. John Monroe, who is a Municipal Project Manager with Tencarva, was also present.

The presentation began with Guy telling the board a little bit about the company. He said that they are heavily invested in repair and service and that the Greensboro stocking warehouse has 16 million dollars of equipment. He mentioned that Flygt is big in the submersible pump industry, and that they have provided engineering in service solutions for 50 years.

Guy said that the Progressive Cavity Grinder pump can go with high head down to negative and is their preferred system for Lake Lure, that it has constant flow over wide pressure changes.

Flygt makes their own motor which is bigger, does not heat as quickly, and can be used with both centrifugal and progressive cavity. They use a trickle impregnated resin which trickles down the wires. Guy mentioned that most motor failures occur from infiltration from the mechanical seal and that the cable entry in the Flygt is nice and tight with a double mechanical seal. This seal sits in an oil rather than what is being pumped.

John Monroe talked about the timeframe of the stator wearing out, which is five to eight years with proper flushing. This timeframe would change with things such as kitty litter, wipes, etc. being flushed.

The control panel for the alarms and monitoring that is suggested is simple. It is all UL certified and can probably be fixed with a trouble shooting call. One technician can work on the control panel, but it would take two people to change out the pump.

Guy Chapman told the board that a level probe or a standard mechanical flow switch can be used, but maintenance on the level probe is easier.

If Lake Lure did choose Tencarva for the LPS project, they would work with Flygt and work through the engineering with a topo map, run computer system analysis, scale model testing, calculate line velocities and make recommendations on placement and pump sizing.

Basins made of fiberglass are the most popular solution for either simplex or duplex stations, which have various sizes based on the storage required. Polyurethane stations can also be used which are light weight and robust for some of the terrain.

Hydrogen Sulfide will be an issue with Lake Lure's LPS system because of the number of part time residents in Lake Lure. The sulfide turns to sulfuric acid creating an explosion of H₂S. As it hits the regional lift stations it will eat away at galvanized pipe, ductile iron, concrete and stainless steel. But, Tencarva makes US Composite Pipe steel reinforced polymer concrete structures that carry a 50 year warranty against this type of corrosion. They are completely inert.

The Flygt progressive cavity grinder pump is the pump that Tencarver is recommending for Lake Lure's LPS. The reduced maintenance over time and the interchangeability between stations/ static head variation is part of the reason for this recommendation.

Jeffrey asked Guy and John if the large commercial areas, such as Rumbling Bald Resort, could use centrifugal pumps to reduce costs of storage basins along with residential PD systems. John said yes it can be modeled if they have the right criteria.

John Monroe also estimated the cost to be about \$4800 for the basin (140 gallon above on level), pump and control panel. Costs are based on basin size and how many purchased.

Guy also mentioned that they would train Town maintenance personnel to do basic maintenance and changing and cleaning staters.

Open Comments/ Discussion – no further comments

Public Comments – no public comments

Adjournment

There being no further business, Richard Glassen made a motion to adjourn the meeting at 4:25, David Diorio seconded and the motion carried 5-0.

ATTEST

Wayne Hyatt, Chairman

Linda Ward, Clerk