
VILLAGE OF SUGAR GROVE BOARD REPORT

TO: VILLAGE PRESIDENT & BOARD OF TRUSTEES
FROM: BRAD MERKEL, DIRECTOR OF PUBLIC WORKS
SUBJECT: DISCUSSION: WELL #11 PUMP REMOVAL AND INSPECTION
AGENDA: NOVEMBER 5, 2024, REGULAR BOARD MEETING
DATE: OCTOBER 23, 2024

ISSUE

Should the Village Board approve the Well #11 Pump Removal and Inspection.

DISCUSSION

At the January 9, 2023, Regular Board Meeting, the Village Board approved an agreement with Layne Christensen Company, Inc for water system needs. Layne Christensen has been providing well rehabilitation and construction services to the Village of Sugar Grove for more than 50 years. The service agreement is non-binding and does not obligate the Village to utilize Layne Christensen for work. Individual Task Orders detailing the description of the work, costs, schedule, etc., will need to be executed for each project.

Recently Well #11 faulted and quit pumping. The pump is megging a dead short. Layne believes the either the pump motor has failed or the wiring to the pump motor has shorted out. The only way to resolve or find the source is to pull the pump.

Attached for your review are the proposal and task order detailing the description of work, costs and schedules for the Well #11 Pump Removal and Inspection.

The Pump Maintenance Proposal includes mobilization, remove pump, rack pipe, measure well total depth, conduct component field inspection for an estimated cost of \$45,000.00. The cost to reinstall the pump is also estimated at \$45,000.00.

Given the unknow condition of the pump and column pipe, necessary repairs etc. the total repair cost is hard to estimate at this time. Once the Pump is removed a proposal will be submitted with costs to make necessary repairs.

Well #9 was scheduled to be removed and inspected this FY however it is staff's recommendation to remove Well #11 this FY and move Well #9 to next FY.

COST

The estimated cost of the Well #11 Pump Removal and Inspection is \$45,000.00. FYE 2025 Account 51-71-7008 includes \$200,000.00 for Well #9 repairs which was included in the Capital Improvement Plan.

RECOMMENDATION

The Village Board directs staff on how to proceed with the Well #11 Pump Removal and Inspection with Layne Christensen Company.



Layne Christensen Company
721 W. Illinois Avenue
Aurora, IL 60506

630/897-8941
graniteconstruction.com

August 14, 2024

Mr. Chris Lemke
Village of Sugar Grove
601 Heartland Drive
Sugar Grove, IL 60554

Re: Well #11 Pump Repair Budget Estimate

Mr. Lemke:

The Sugar Grove Well 11 pump's cable/motor assembly is megging a dead short at the well head. The pump must be removed to determine the pump's issue.

If contracted, Layne will perform the work on a time and material basis per the attached Schedule B and will follow the terms and conditions of our Professional Services Agreement (PSA) with the Village. The attached Work Order Form lists Layne's standard published rates. The estimates in this letter include the PSA stipulated 5% deduct applied toward labor and 10% deduct applied toward special services. The following pump repair budget is based upon normal pump removal without unusual circumstances such as pump separation.

Layne recommends a Phase I scope of work to include

- Mobilize and remove pump, rack pump components onsite.
- Conduct meg-ohm testing throughout the pump removal and cable/motor separation.
- Perform a visual inspection of pump components on site
- Perform a field mechanical and field electrical inspection of the Byron Jackson motor.
- Reinstall and test pump after necessary repairs.

It is difficult to budget the cost of necessary repairs prior to inspecting the pump components. It is Layne's custom to meet with a Village representative and our Crew Foreman to conduct a preliminary inspection of the racked components on site. During this inspection, it is decided which components require additional clean up and inspection in Layne's Aurora, IL yard. Layne encourages the Village to visit our yard to inspect components with us. At this point, Layne is in position to present a Pump Inspection Report with observations, recommendations, and an accurate repair cost estimate.

Phase I Budget Estimate

1. Mobilize, remove pump, rack on site, measure well total depth, conduct component field inspection	\$45,000
2. Reinstall pump after necessary repairs, conduct capacity test to waste, demobilize	<u>\$45,000</u>
Total Phase I Estimate	\$90,000

Theoretically, repair costs and services, in addition to the Phase I Budget Estimate, could run as high as \$450,000 if all of the pump components require replacement. This would be a total project estimate of \$540,000.

However, a total budget estimate of \$400,000 is more reasonable in that there is a probable chance that the bowl assembly can be rebuilt, the submersible cable can be reused, and much of the column pipe can be reused or repaired.

Based upon our current schedule, Layne is in position to mobilize to the site within three to four weeks of the Village's written authorization to proceed.

Thank you for the opportunity to furnish this information. If you have any questions, or if Layne may be of any service, please do not hesitate to contact me.

Layne Christensen Company

A handwritten signature in black ink, appearing to read 'W. M. Balluff', with a stylized, flowing script.

William Balluff, P.E.
WRD Account Project Manager III

WORK ORDER



Layne Christensen Company

721 W. Illinois Avenue, Aurora, IL 60506; Phone (630) 897-6941
229 W. Indiana Ave., P.O. Box 489, Beecher, IL 60401, Phone (708) 946-2244

SCHEDULE B

Purchaser: VILLAGE OF SUGAR GROVE

Job Location: WELL11

SERVICE RATES - EFFECTIVE OCTOBER 1, 2023

	Straight Time		Overtime Doubletime	
	Per Hr.	8 Hr. Day	Per Hr.	Per Hr.
Serviceman w/hand tools	227.00	1816.00	340.50	454.00
Serviceman w/service truck and hand tools, or welder	270.00	2160.00	383.50	497.00
Helper	198.00	1584.00	297.00	396.00
Serviceman and 1 Helper	425.00	3400.00	637.50	850.00
<u>Small Rig or Winch Truck</u>				
1 Man Crew	282.00	2256.00	395.50	509.00
2 Man Crew	480.00	3840.00	692.50	905.00
3 Man Crew	678.00	5424.00	989.50	1301.00
<u>Middle Rig, Large Hoist or Flatbed Crane</u>				
1 Man Crew	295.00	2360.00	408.50	522.00
2 Man Crew	493.00	3944.00	705.50	918.00
3 Man Crew	691.00	5528.00	1002.50	1314.00
<u>Big Rig, Large Hoist and Poles, or Large Crane</u>				
1 Man Crew	337.00	2696.00	450.50	564.00
2 Man Crew	535.00	4280.00	747.50	960.00
3 Man Crew	733.00	5864.00	1044.50	1356.00
4 Man Crew	931.00	7448.00	1341.50	1752.00
Power Tong Usage, per 8 hour shift		475.00		
<u>Machine Shop/Yard Labor and Equipment</u>				
Machinist and Equipment	209.00	1672.00	304.00	399.00
12" Threading Machine and Operator	235.00	1880.00	330.00	425.00
Serviceman w/hand tools	190.00	1520.00	285.00	380.00
Helper	185.00	1480.00	277.50	370.00
Sandblast Equipment and 2 man crew	425.00	3400.00	612.50	800.00

Mileage: Auto: \$0.65

Pickup: \$0.90

1-Ton:\$1.35

2-1/2 Ton Flatbed: \$2.50

Semi-Tractor: \$4.00

Subsistence-Per Man

Over 55 miles radius from home office.....\$72.00 + Hotel

REMARKS:

SUBMITTED WITH BUDGET ESTIMATE OF 08/14/2024

Work Authorized on Behalf of Purchaser By: _____

Date: _____

Title: _____