



May 7, 2026

City of Crest Hill  
2090 Oakland Ave.  
Crest Hill, IL 60403  
Attn: John Kemp – Utilities Operator

**RE: Well 4 and Well 9 Booster Rehabs & Maintenance**

Mr. Kemp -

Water Well Solutions is pleased to submit the following proposal for the various maintenance required at your Well 4 and Well 9 facilities.

Our technician visited your sites on April 28<sup>th</sup>, 2026. At Well 4, there was concern of the motor for your booster pump running too hot. While onsite, our technician measured the temperature to be 100.4 degrees after running for 30 minutes. Also, motor vibrations were fairly elevated, measuring 2.28 mm/s in the middle of the motor, 12.09 mm/s at the top of the motor, and 16.6 mm/s at the pump case. Anything over 11.2 mm/s is in the “forbidden” category with out vibration meter, meaning this booster pump should not be operated at its current vibration readings.

The elevated vibrations are likely due to the motor being run faster than it should. The motor is nameplated for 1770 RPM. The drive at times though runs it at 2020 RPM, well beyond its limit. In addition to this, the motor is nameplated for 72 full load amps. While on site, we measured 82.8 amps. Oddly enough, that is the exact max service factor amps it should be running at, with a 15% buffer over full load. Something in the drive is making it go to the max service factor amps. The service factor is generally only run into as needed, and not all the time unless absolutely necessary.

We would suggest to pull this pump sooner than later. We would require Crest Hill to drain the tank ahead of time, or valve the tank off, so we can remove this pump. We would also suggest to have the VFD looked at. We understand it is giving a 2010 code that is for overheating but it does not call for the pump to be shut off. We have technicians available to perform this work and suggest doing so. We can also look to see what set points this is running off of, because ideally, we would not want to go above 72 amps under normal conditions.

We understand there are also some valves that need to be replaced at Well 4’s site. We are proposing to replace these valves. We understand you have the valves. Please advise if you have gasket kits as well, otherwise we could bring some with.

Lastly, our technician went to Well 9 to inspect the booster pump. We were told the booster leaks and hasn’t run in a long time. We would suggest to replace the upper packing above the lantern ring, which we can perform, in an attempt to stop the leaking. Should this not be a suitable fix, the shaft would have to be removed and likely replaced as it is likely too hour-glassed from wear. This would be at an additional cost and not included in this proposal.

**Pricing Schedule**

WWS proposes the mobilization of a service truck with boom & 2-man crew with a support truck and equipment for the scope of work. We would only use a 1-man crew for the VFD technician. The cost associated with the scope of work outlined above is shown in the table below. Please note, this work will be billed on a time and materials basis, so as to reflect the actual hours used on the job, in accordance with the fee schedule below.

<b>Well 4 Booster and Valve Rehab</b>				
<b>Mobilize and Pull Pump; Replace valves</b>	QTY	Unit	Unit Cost	Extended Total
Crane and 1-man Crew	8	HR	\$265.00	\$2,120.00
Serviceman w/ Service Truck	8	HR	\$240.00	\$1,920.00
Operator – OT	6	HR	\$307.50	\$1,845.00
<b>TOTAL ESTIMATED COST</b>				<b>\$5,885.00</b>

<b>Well 4 VFD Rehab</b>				
<b>Mobilize and Diagnose VFD issues</b>	QTY	Unit	Unit Cost	Extended Total
VFD Operator	16	HR	\$240.00	\$3,840.00
<b>TOTAL ESTIMATED COST</b>				<b>\$3,840.00</b>

<b>Well 9 Booster Rehab</b>				
<b>Mobilize and Re-Pack Pump</b>	QTY	Unit	Unit Cost	Extended Total
Serviceman w/ Service Truck	8	HR	\$240.00	\$1,920.00
<b>Materials</b>				
Packing	2	FT	\$40.00	\$80.00
<b>TOTAL ESTIMATED COST</b>				<b>\$2,000.00</b>

WWS is signatory to Local Union 150 operating engineers.

Water Well Solutions shall not be held liable for any damage to the well, surrounding property, or loss of use arising from or related to the performance of such services, except to the extent such damage or loss is caused by the sole negligence or willful misconduct of Water Well Solutions.

The Client further agrees to indemnify and hold harmless Water Well Solutions, its employees, agents, and subcontractors from and against any and all claims, damages, losses, and expenses (including reasonable attorney’s fees) arising out of or resulting from the services provided, except where such claims are the direct result of Water Well Solution’s negligence.

