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REGULATORY COMMISSION

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October 15, 2018

Loren Grosvenor, Area Manager
Community Utilities of Indiana, Inc.
10996 Four Seasons Pl. Suite 100G
Crown Point, IN 46307

RE: Proposal for Professional Services, New Public Water Supply Production Well Drilling and Testing, Lakes of the Four Seasons Development, Crown Point, Indiana

Dear Mr. Grosvenor:

Peerless-Midwest, Inc. (PMI) appreciates this opportunity to provide professional services to Community Utilities of Indiana. The proposed scope of work outlined below includes our costs for completing test drilling, permitting, production well design and drilling, and aquifer testing and groundwater sampling activities at the above referenced Site.

SCOPE OF WORK

Our proposed scope of work is divided into four tasks and summarized below.

Task 1 – Test Well Drilling

PMI will drill two test borings using sonic method. One test boring will be located approximately 100 feet east of existing Well 8 adjacent to proposed Well 12. The second test boring will be located approximately 100 feet east of existing Well 9 adjacent to proposed Well 13. Drilling activities will be completed using the direct rotary drilling method. A licensed PMI hydrogeologist can be onsite to perform drilling oversight and collect formation samples for sieve analysis. However, this is an optional recommendation and service and if requested would be billed at an hourly rate of \$125.

Test borings will be advanced to the base of the primary sand and gravel aquifer in the area at approximately 125 feet below grade. A licensed PMI hydrogeologist will be onsite to perform drilling oversight and collect formation samples for sieve analysis. The results from these test borings will be incorporated into production well designs for proposed Wells 12 and 13. Upon completion of sampling activities the borings will be properly plugged and abandoned in accordance with IDNR regulations.

Task 2 – Production Well Permitting

PMI will stake the Well 12 and Well 13 well locations and complete the Indiana Department of Environmental Management (IDEM) required New Well Site Survey (NWSS) applications and Construction Permit (CP) applications for both locations. We estimate 60 to 90 days to obtain regulatory approval of the NWSS and CP applications.

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Task 3 – Production Well 12

Once the IDEM permits are obtained PMI will drill and construct Production Well 12. Drilling activities will be completed by PMI using the direct rotary drilling method. For budgetary purposes, the 12-inch diameter production well will be drilled to a depth of 100 feet, schedule 40 steel casing will be installed from 2 feet above ground level to 80 feet below grade, and 20 feet of 12-inch diameter stainless steel wire wrapped well screen with gravel pack installed from 80 to 100 feet below grade.

PMI will jet wash develop the well spending a minimum development time of 1 hour per foot of well screen. Following well development and demobilization of the drilling rig, a PMI crew will install a submersible test pump capable of pumping at a rate up to 200 gpm, and a stepped rate pumping test will be completed to predict the long-term pumping capacity of the well.

PMI will install pressure transducers equipped with data loggers in Well 8 and Well 12. The transducers will be programmed to collect water levels at one-minute intervals throughout the test pumping. The testing period will include a 24-hour background period (no pumping), a 24-hour pumping period, and a 24-hour recovery period (again, no pumping). During the 24-hour pumping period, groundwater will be pumped to waste and the flow rate measured with an orifice. Well 8 should be taken offline during this time. Groundwater sampling for nitrate and fluoride will be performed by PMI near the end of the pumping period. Water samples will be submitted to a state certified laboratory for analysis.

At the end of the test, the transducers will be removed from the wells and downloaded. PMI will prepare a report that provides the well log, groundwater sampling results, the aquifer test results and a recommended pump setting depth and rating for the well.

PMI will perform the following scope of work once the test pump is removed and the report is prepared:

- Downhole color-video inspect the well casing and screen. (This is an optional recommendation and service; the cost for the video is \$1,200 and is not included in the estimated total below.)
- Chlorinate the well before installing the new pump.
- Excavate around the 12-inch diameter steel casing and install a new 12" Baker™ pitless adaptor.
- Install a new submersible pump rated for 200 gpm @ 150 feet total dynamic head (TDH). The pump will include a stainless-steel pump bowl assembly with a new 20 HP submersible motor. The pump and motor with new wire will be set on 80 feet of certa-lok drop pipe with ¾-inch diameter black poly installed for obtaining water levels.
- A 4-inch diameter bronze check valve will be installed in the pumping equipment.
- Install a short spool piece with MJ fittings off the discharge of the pitless and provide a buried valve for water main connection. Install the water main to existing water main with installation of buried valves.
- Upon completion of the pitless, water line, and pump installation, PMI will obtain two consecutive satisfactory bacteriological water samples.

The itemized costs for completing the proposed scope of work is summarized below:

Professional Services, Utilities, Inc., Lakes of the Four Seasons, Crown Point, Indiana

Item	Description	Summary of Tasks	Estimated Cost
1	Test borings adjacent to proposed Wells 12 and 13	Complete local and county well permits and drill two test borings to an estimated depth of 100 feet	\$21,000
		Perform sieve analyses, prepare well logs, prepare production well designs, and reporting	\$2,000
	Task 1 total		\$23,000
2	Wells 12 & 13 IDEM Permitting	Complete both New Well Site Survey applications and meet with the IDEM inspector on Site	\$3,125
		Complete the well Construction Permits	\$3,750
	Task 2 total		\$6,875
3	Production Well 12 Construction	Obtain local and county permits and drill, construct, and develop one 12-inch diameter production well to a depth of 100 feet	\$49,844
		Install test pump, perform stepped rate pumping test and complete 24 hour pumping test	\$6,500
		Prior to end of test perform groundwater sampling for nitrate and fluoride (IDEM drinking water certified laboratory)	\$200
		Prepare a report that provides the well log, groundwater sampling results, the aquifer test results and a recommended pump setting depth and rating for the well. Complete IDEM reporting as required by the CP	\$2,500
		Install 12 inch Baker pitless adaptor, permanent submersible pump and motor at a depth of 80 feet on 4 inch diameter certa-loc drop pipe, with check valve. Install electrical to new well site, meter pit, and water line	32,600
		Upon completion of the pitless and pump installation obtain two consecutive satisfactory bacteriological water samples	\$800
	Task 3 total		\$92,444
4	Production Well 13 Construction	Scope of work is assuming to be identical to Task 3 above	\$92,444
	Task 4 total		\$92,444

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*Abandon Well 9 per state requirements - \$4,500.00

*As discussed for future maintenance inspections would include doing 2 annual well cleanings based on flow testing reports would be estimated at \$16,000 each well rehabilitation.

*WCS wells would be estimated to Airburst every 5 years and would be estimated at \$15,000 each well

PMI appreciates the opportunity to provide Community Utilities of Indiana, Inc. with this proposal, and we look forward to working with you on this project. Should you have any questions, or should you like to discuss this proposal further, please call me at the office number or cell phone.

Sincerely,

Nick Rice,

PEERLESS-MIDWEST, INC.



Nick Rice, Project Manager

TERMS & ACCEPTANCE

As a benefit to you, Peerless-Midwest, Inc. (PMI) has developed the ideas and concepts and special techniques detailed in this proposal/quotation. These are considered by PMI to be confidential and proprietary. These ideas and concepts and special techniques remain the sole property of PMI and shall not be used in any way or manner detrimental to the interests of PMI.

Community Utilities of Indiana, Inc. and its agents and representatives, acknowledge and agree to honor our proprietary right to the contents of this proposal/quotation and refrain from disclosing such content or any information to any third party, without the prior written consent of PMI. Any unauthorized use of these ideas and concepts is strictly prohibited.

TERMS

All pricing is based upon acceptance within 30 days of this date and may be modified if not accepted within 30 days. Quoted prices do not include Indiana sales tax on materials, which will be itemized separately from labor and service when the work is billed.

By: _____

For: **Community Utilities of Indiana, Inc.**

Printed Name: _____

Title: _____

**Proposal for Professional Services, New Public Water Supply Production Well
Drilling and Testing, Lakes of the Four Seasons Development, Crown Point, Indiana**

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