TASK ORDER NO. 3-1 TO CONTINUING PROFESSIONAL SERVICES AGREEMENT Between City of Greenfield (Owner) and Peerless Midwest, Inc. (Engineer) Date of Original Executed Agreement: 27 December 2022

TASK ORDER NAME/DESCRIPTION

Task 3-1: Wellfield development and Pilot study

The purpose of this Task Order is to provide all parts, materials, testing, analysis, and labor for the well drilling as outlined in the scope services below.

A. SCOPE OF SERVICES

Engineer's proposed task under this scope of services are as follows:

- Conduct Test well drilling of up to three (3) test wells on parcel identification 30-07-18-200-001.001-009 accessed from 300 N. Greenfield IN 46140 to be classified as Well sites #23-1, 23-2, 23-3. See attachment 3-1.1 for map of intended test sites.
 - 1.1. Call in locates for proposed GPS staked well sites
 - 1.2. Mob drilling equipment down and set up on staked locations
 - 1.3. Drill down to estimated 150'-200' pulling samples below 40' with a hydrogeologist on site
 - 1.4. Abandon bore hole per regulations and submit well logs to state
 - 1.5. Sieve formation samples and plot
 - 1.6. Provide detailed report with proposed High Capacity Well designs
 - 1.7. Site Restoration and grading after project if needed

2. Conduct Test well drilling of up to four (4) test wells on property located at 823 W US 40 Greenfield IN 46140 to be classified as Well Field #3. See attachment 3-1.2 for map of intended test sites.

- 2.1. Call in locates for proposed GPS staked well sites
- 2.2. Mob drilling equipment down and set up on staked locations
- 2.3. Drill down to estimated 150'-200' pulling samples below 40' with a hydrogeologist on site
- 2.4. Abandon bore hole per regulations and submit well logs to state
- 2.5. Sieve formation samples and plot
- 2.6. Provide detailed report with proposed High Capacity Well designs
- 2.7. Site Restoration and grading after project if needed

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3. Conduct new 24" production well drilling of up to two (2) production wells at Well Field #3 as determined from test well drilling.

- 3.1. Call and locates for proposed GPS staked well site and move drilling equipment down and set up on state location
- 3.2. Provide onsite power generation for this service item.
- 3.3. Review well logs with city and well design order 24 inch screen in all drilling materials
- 3.4. Drill down to the productive formation with 36 inch bit with a hydrogeologist onsite
- 3.5. Install gravel pack and stainless steel well screen as determined by Hydrologist and grout well casing
- 3.6. Development of the well screen and test new well production
 - 3.6.1.Develop well using air lifting then surging with chemicals with 1500 gallons per minute vertical turbine in pump for four days
 - 3.6.2. Develop world using double disc surge blocked with airlifting for two days
- 3.7. Install 2000 gpm test pump for 24 hour pump test collecting water levels with transducers for monitoring wells
 - 3.7.1.Measure static water level, safe pumping water levels, monitoring well levels, gallons per minute
 - 3.7.2.Submit well log to state and drilling report including a report with pump test data with logs and records
 - 3.7.3. Monitoring existing wells and other on-site monitoring well
 - 3.7.4.Test pump the new well at 5 steps (1000, 1200, 1400, and 1600 gpm), then start the test pumping capacity constant rate at 1400 gallons per minute with eight hours of recovery monitoring.
- 3.8. As needed assist with development of Wellfield Protection Plan for new field.

4. Conduct Pilot plant testing for treatment process design

- 4.1. Provide pilot plant rig, test media, pumps, chemicals, and all necessary labor and expertise necessary to conduct treatment process testing of new production wells on Well Field #3
- 4.2. Provide a detailed report of the results of the pilot testing with recommendations for new water treatment plant aeration and filter media design specifications.

B. KEY STAFF

ENGINEER shall include all subcontractors relevant to the scope of services in this task order. ENGINEER may not remove or otherwise substitute subcontractors indicated on without consent of OWNER. A failure by ENGINEER to provide the subcontractors as required by this Article shall be considered a material breach of the Agreement.

- 1. Utility Manager Charles Gill
- 2. Assistant Utility Manager Jimmy Griffith
- 3. Project Manager Nick Rice

Note: Engineer reserves the right to assign additional staff as needed to complete Work of the Project.

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C. PROJECT TIMING

Task Order shall be completed by the ENGINEER and delivered to the GREENFIELD DEPARTMENT OF ENGINEERING (OWNER) according to the schedule below.

Engineer will receive notice to proceed with a two week lead time notification after approval of this Task Order by City of Greenfield Water Utility for Scope of service items 1 & 2.

Once Scope of services items 1 & 2 are completed, there will be a design meeting to coordinate with Owner Stakeholders. Notice to proceed will be issued post-coordination meeting for the remaining scope of service items 3 & 4.

Expected duration of project is up to 6 months.

D. COMPENSATION

 Compensation for the work as defined in the Scope of Services of this Task Order shall be in accordance with ENGINEER's standard charge out rates in effect at the time the Services are performed. Routine expenses will be billed at cost and sub-consultant costs will include a 10% markup. The total cost for these Services and expenses are as follows:

Scope of service item 1, and 2: Not to exceed: \$100,000

Scope of service item 3: Not to exceed: \$270,000

Scope of service item 4: Not to exceed: \$100,000

- 2. ENGINEER will bill Owner monthly, with net payment due in 30 days.
- 3. ENGINEER will notify Owner if Project scope changes require modifications to the above-stated contract value. Services relative to scope changes will not be initiated without written authorization from Owner.

APPROVED FOR OWNER	APPROVED FOR ENGINEER
Ву:	By: Peerless Midwest Inc.
Printed Name:	Printed Name: NICK RICE
Title:	Title: Project MANAger
Signature:	Signature:
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Attachment 3-1.1



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Attachment 3-1.2

