

**UV DISINFECTION & REAERATION IMPROVEMENTS  
VICTOR, IOWA**

CONTRACTOR'S BID DATE: Thursday, June 9, 2022 @ **2:00 P.M.**

PLACE FOR CONTRACTORS  
TO SUBMIT BIDS:

City of Victor  
City Hall  
707 2<sup>nd</sup> Street  
Victor, Iowa 52347

**ADDENDUM NO.2**

June 6, 2022

**TO ALL PLANHOLDERS:**

The following changes, clarifications, additions, and/or deletions are hereby made a part of the contract documents for the above-referenced project, as fully and completely as if the same were fully set forth therein. All Bidders submitting a Bid on the above Contract shall carefully read this Addendum and give it consideration in the preparation of their Bid.

This Addendum No. 2 consists of the following:

- Addendum No. 2 pages ADN2-1 through ADN2-2
- Pre-bid Meeting Minutes (2 pages)
- Section 31 5000 Excavation and Support – ADDENDUM #2 (4 pages)



**CLARIFICATIONS:**

1. The bid item “8-inch DIP Force Main” is for force main located in the effluent lift station.

**SPECIFICATIONS:**

1. **REFER TO SECTION 01 2000 PRICE AND PAYMENT PROCUDURES, 1.07 O. 2. 8-Inch DIP Force Main:**
  - a. **DELETE** “insulation (if required), excavation, dewatering, thrust restraint, furnishing and placing bedding material.”
2. **REFER TO SECTION 22 1116 DUCTILE IRON PIPE**
  - a. **DELETE 2.02 B** “Cement Mortar: Cement lining and seal coat shall be in accordance with AWWA C104.”
3. **REPLACE SECTION 31 5000 EXCAVATION SUPPORT AND PROTECTION WITH THE ATTACHED.**

All bidders shall acknowledge receipt and acceptance of Addendum No. 2 by signing in the space provided on the Bid Form. Bids submitted without Addendum No. 2 being acknowledged will be considered non-responsive.

	I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa. 
	Date: <u>6/06/22</u> <b>MATTHEW JOHN WILDMAN, P.E.</b> License No. <b>17910</b> My renewal date is <b>December 31, 2023</b> Pages or sheets covered by this seal: <b>Addendum #2</b>

MATT WILDMAN  
HR GREEN, INC.  
8710 EARHART LANE  
CEDAR RAPIDS, IOWA 52404  
PHONE: (319) 841-4000

**END OF ADDENDUM #2**

**SECTION 31 5000**  
**EXCAVATION SUPPORT AND PROTECTION**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Shoring, bracing, underpinning, and trench boxing necessary to protect existing buildings, streets, walkways, utilities, and other improvements; excavation protection against loss of ground or caving of embankments.
- B. Maintenance of shoring, bracing, underpinning and trench box.
- C. Removal of shoring and bracing when no longer needed.
- D. Utility protection for all utilities that are encountered during construction, whether parallel to or crossing the proposed utility.

**1.02 SUMMARY**

- A. Section includes temporary excavation support and protection systems.
- B. Related Sections:
  - 1. Division 1 Section "Temporary Facilities and Controls" for temporary utilities and support facilities.
  - 2. Division 31 Section "Dewatering" for dewatering system for excavations.
  - 3. Iowa SUDAS Section 3010 Trench Excavation and Backfill.

**1.03 PERFORMANCE REQUIREMENTS**

- A. Design, furnish, install, monitor, and maintain excavation support and protection system capable of supporting excavation sidewalls and of resisting soil and hydrostatic pressure and superimposed and construction loads.
  - 1. Delegated Design: Design excavation support and protection system, including comprehensive engineering analysis by a qualified professional engineer licensed in the state of Iowa, using performance requirements and design criteria indicated.
  - 2. Prevent surface water from entering excavations by grading, dikes, or other means.
  - 3. Install excavation support and protection systems without damaging existing buildings, structures, and site improvements adjacent to excavation.

**1.04 SUBMITTALS**

- A. First paragraph below is defined in Division 1 Section "Submittal Procedures" as an "Action Submittal." Retain if Contractor is not required to assume responsibility for design.
- B. Shop Drawings: For excavation support and protection system.
  - 1. Excavation Plan:
    - a. Methods and sequencing of excavation.
    - b. Proposed locations of stockpiled excavated material.
    - c. Proposed onsite and offsite spoil disposal sites.
  - 2. Excavation Support Plan:
    - a. Sheet piling, type, size, material properties, penetration, location(s), installation, equipment.
    - b. Bracing, type, size, material properties, location.
    - c. Layout plan and profile of excavation bracing system.
    - d. Anticipated difficulties and proposed resolutions.
    - e. Design assumptions and calculations.
    - f. Minimum lateral distance from the crest of slopes for vehicles, equipment and stockpiled excavated materials.
  - 3. Movement Monitoring Plan:

- a. Survey control.
- b. Locations of monitoring points.
- c. Plots of data trends.
- d. Interval between surveys.
4. Dewatering Plan: See specification 31 2319.
5. Filling Plan:
  - a. Methods and sequencing of filling operations.
  - b. Fill material.
  - c. Compaction requirements.
  - d. Compaction effort (number of passes with specific equipment).
  - e. Equipment.
  - f. Schedule.
- C. Shop Drawings: For excavation of utilities.
  1. Shop drawings of all excavation and utility support systems that in compliance with the applicable requirements of OSHA and SUDAS with respect to excavation and construction.
  2. Arrangement, construction methods, and sequencing to be used for the installation and removal of the support system.
  3. Monitoring plan and contingency plan for utility support systems.

#### **1.05 PROJECT CONDITIONS**

- A. Interruption of Existing Utilities: Do not interrupt any utility serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility according to requirements indicated:
  1. Notify Owner no fewer than two days in advance of proposed interruption of utility.
  2. Do not proceed with interruption of utility without Owner's written permission.

#### **1.06 WEATHER LIMITATIONS**

- A. Do not place frozen material as fill or backfill.
- B. Do not place backfill on frozen foundation or fill material.
- C. Do not place material which will freeze during backfilling or compaction operations.
- D. Do not place material excavated during inclement weather until after material dries sufficiently to meet compaction requirements.

### **PART 2 PRODUCTS**

#### **2.01 MATERIALS**

- A. General: Provide materials that are either new or in serviceable condition.
- B. Structural Steel: ASTM A 36/A 36M, ASTM A 690/A 690M, or ASTM A 992/A 992M.
- C. Steel Sheet Piling: ASTM A 328/A 328M, ASTM A 572/A 572M, or ASTM A 690/A 690M; with continuous interlocks.
- D. Wood Lagging: Lumber, mixed hardwood, nominal rough thickness of size and strength required for application.
- E. Cast-in-Place Concrete: ACI 301, of compressive strength required for application.
- F. Reinforcing Bars: ASTM A 615/A 615M, Grade 60, deformed.
- G. Tiebacks: Steel bars, ASTM A 722/A 722M.
- H. Tiebacks: Steel strand, ASTM A 416/A 416M.

### **PART 3 EXECUTION**

#### **3.01 PREPARATION**

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards that could develop during excavation support and protection system operations.
  - 1. Shore, support, and protect utilities encountered.
- B. Install excavation support and protection systems to ensure minimum interference with roads, streets, walks, and other adjacent occupied and used facilities.
  - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction.
- C. Locate excavation support and protection systems clear of permanent construction so that forming and finishing of concrete surfaces are not impeded.
- D. Monitor excavation support and protection systems daily during excavation progress and for as long as excavation remains open. Promptly correct bulges, breakage, or other evidence of movement to ensure that excavation support and protection systems remain stable.
- E. Promptly repair damages to adjacent facilities caused by installing excavation support and protection systems.

#### **3.02 SHEET PILING**

- A. Before starting excavation, install one-piece sheet piling lengths and tightly interlock to form a continuous barrier. Accurately place the piling, using templates and guide frames unless otherwise recommended in writing by the sheet piling manufacturer. Limit vertical offset of adjacent sheet piling to 60 inches (1500 mm). Accurately align exposed faces of sheet piling to vary not more than 2 inches (50 mm) from a horizontal line and not more than 1:120 out of vertical alignment. Cut tops of sheet piling to uniform elevation at top of excavation.

#### **3.03 TIEBACKS**

- A. Tiebacks: Drill, install, grout, and tension tiebacks. Test load-carrying capacity of each tieback and replace and retest deficient tiebacks.
  - 1. Test loading shall be observed by a qualified professional engineer responsible for design of excavation support and protection system.
  - 2. Maintain tiebacks in place until permanent construction is able to withstand lateral soil and hydrostatic pressures.

#### **3.04 BRACING**

- A. Bracing: Locate bracing to clear columns, floor framing construction, and other permanent work. If necessary to move brace, install new bracing before removing original brace.
  - 1. Do not place bracing where it will be cast into or included in permanent concrete work unless otherwise approved by Engineer.
  - 2. Install internal bracing, if required, to prevent spreading or distortion of braced frames.
  - 3. Maintain bracing until structural elements are supported by other bracing or until permanent construction is able to withstand lateral earth and hydrostatic pressures.

#### **3.05 UTILITY SUPPORT SYSTEM**

- A. Utility support systems shall be installed and maintained during all adjacent excavation and fill activities. Support systems shall be removed after placement and compaction of bedding and initial pipe zone backfill.
- B. The Contractor shall closely monitor the support systems and integrity of the existing utilities. The Contractor shall take immediate corrective actions and/or implement contingency

alternative measures as required to alleviate and eliminate any lateral movement or vertical deflection of the existing utility. The Contractor shall perform any and all repairs to the existing utility, including joint restraint/welding, coating repair, piping replacement, testing, and disinfection as directed and approved by the Owner/Engineer, at no cost to the Owner.

### **3.06 REMOVAL AND REPAIRS**

- A. Remove excavation support and protection systems when construction has progressed sufficiently to support excavation and bear soil and hydrostatic pressures. Remove in stages to avoid disturbing underlying soils or damaging structures, pavements, facilities, and utilities.
  - 1. Fill voids immediately with approved backfill compacted to density specified.
  - 2. Repair or replace, as approved by Engineer, adjacent work damaged or displaced by removing excavation support and protection systems.

**END OF SECTION**

# Pre-Bid Meeting Minutes

## June 2, 2022

### Wastewater Treatment Plant UV Disinfection and Reaeration Improvements

#### City of Victor, Iowa

#### I. BID INFORMATION

A. BID DATE: Thursday, June 9, 2022 - 2:00 p.m. CDT

PLACE TO FILE  
SEALED BIDS: City of Victor  
City Hall  
707 2<sup>nd</sup> Street  
Victor, Iowa 52347

BIDS OPENED AND READ: Victor City Hall 2:00 p.m.

#### II. PROJECT TEAM - OWNER

City Clerk Fred Stiefel  
Phone: (319) 393-7150  
Email: stiefellaw@netins.net

WWTP Operator Kris Kempf  
Phone: (319) 361-3688  
Email: victorpublicworks@netins.net

HR GREEN, INC  
Sr. Project Manager: Matthew J. Wildman, P.E.  
319-841-4320  
mwildman@hrgreen.com  
Project Engineer: Haley Jindrich, P.E.  
319-841-4304  
hjindrich@hrgreen.com

#### III. PROJECT OVERVIEW

##### A. Description

The project consists of constructing a 442 SF concrete tank for an effluent UV and re-aeration system, 10-ft diameter effluent pump station, 384 SF pre-engineered wood post frame building, and influent flow metering provisions. In addition, the project includes site work, including grading, gravel drive restoration, seeding, and site piping, electrical and mechanical work, and other items or work shown on drawings.

##### B. Review of bid documents and bidding procedures -

1. Notice to Bidder – Notice to Proceed
2. Instructions to Bidders
3. Acknowledgement of Addenda
4. Section 00450 - Questionnaire
5. Special Provisions
6. Unit Prices
7. Liquidated Damages - \$500 per day for substantial and final completion
8. Iowa Sales Tax Exemption

##### C. Project Completion

1. Substantial completion date is **May 31, 2023**
  2. Final project completion date is **June 30, 2023**.
- D. Construction Schedule General Discussion
1. WWTP must stay operational and meet effluent limits during construction.
  2. Bypassing pipe would be installed before demolition of existing UV tank.
  3. Long lead time items such as valves, generator, blowers, pumps, and controls may dictate the schedule and should be communicated with OWNER and ENGINEER once a delivery schedule is established to determine if a time extension will be necessary. [Multiple mobilizations are acceptable. Schedule is required to be communicated to the Owner and Engineer throughout construction.](#)
- E. Site Work
1. Includes Shoring for existing structures
  2. Secure site and equipment when contractor is not onsite
  3. Notify OWNER and ENGINEER of any interruptions to site utilities
  4. [The city dump is located to the east of the EQ pond and can be utilized as a staging area or material stockpile area.](#)
- F. Addenda – Addendum #1 was issued June 2, 2022. Meeting minutes will be distributed to attendees following the meeting.
- G. Site utilities.
1. Contractor shall provide and pay for all electrical power required.
  2. Contractor to provide necessary telecommunications for project site.
  3. Contractor to make suitable arrangements for temporary water service if required for construction or testing.  
[The city will provide water for the water tightness test on the UV structure at no cost to the contractor. There is a hydrant available onsite, but contractor will need to provide a backflow preventer.](#)
  4. Contractor to provide temporary sanitary facilities as needed.
- H. Permits
1. Contractor to provide necessary storm water or dewatering permits.
  2. IDNR has issued the wastewater construction permit.
- I. Legal issues.
1. Davis Bacon Wages
  2. AIS
  3. SRF
  4. SRF now has attachment 10
- J. General Discussion of Plans and Specs
1. Demolition
  2. UV
  3. Reaeration
  4. New effluent pump station
  5. New storage building
  6. Existing influent pump station modifications

#### IV. SITE VISIT