

**TOWN OF CASTLE ROCK, COLORADO**  
**CONSTRUCTION CONTRACT**

THIS CONSTRUCTION CONTRACT (Contract) is made at the Town of Castle Rock, Colorado, between the Town of Castle Rock, Colorado (Town), a municipal corporation, 100 N. Wilcox Street, Castle Rock, Colorado 80104 and Directed Technologies Drilling, Inc. (Contractor) a Washington Corporation, 100 Rolling Ridge Drive, Bellefonte, PA 16823.

In consideration of these mutual covenants and conditions, the Town and Contractor agree as follows:

**SCOPE OF WORK** The Contractor shall execute the entire Work described in the Contract.

**CONTRACT** The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, written or oral representations and agreements. The Contract incorporates the following Contract Documents. In resolving inconsistencies among two or more of the Contract Documents, precedence will be given in the same order as enumerated.

**LIST OF CONTRACT DOCUMENTS**

The Contract Documents, except for Modifications issued after execution of this Agreement, are:

1. Change Orders;
2. Notice to Proceed;
3. Agreement for Construction Contract;
4. The following Addenda, if any:

	<b>Number</b>	<b>Date</b>	<b>Pages</b>
	NA		
5.	Special Conditions of the Contract:		

	<b>Document</b>	<b>Title</b>	<b>Pages</b>
	NA		
6.	Traffic Signal Installation		
	NA		
7.	The following Specifications:		
	NA		

8. The following Drawings:  
Design Drawings for the East Plum Creek South Well Field Improvement Project, January 2016
9. Notice of Award;

10. Invitation to Bid;
11. Information and Instructions to Bidders;
12. Notice of Substantial Completion;
13. Notice of Construction Completion;
14. Proposal Forms, including Bid Schedules;
15. Performance, and Labor and Material Payment Bonds;
16. Performance Guarantee; and
17. Insurance Certificates.
18. Addendum 1

*(List here any additional documents, which are  
intended to form part of the Contract Documents.)*

**CONTRACT PRICE.** The Town shall pay the Contractor for performing the Work and the completion of the Project according to the Contract, subject to Change Orders as approved in writing by the Town, under the guidelines in the General Conditions. The Town will pay \$850,719.98 DOLLARS, (Contract Price), to the Contractor, subject to full and satisfactory performance of the terms and conditions of the Contract. The Contract Price is provisional based on the quantities contained in the Proposal attached as **Exhibit 1**. The final Contract Price shall be adjusted to reflect actual quantities incorporated into the Work at the specified unit prices. The Town has appropriated money equal or in excess of the Contract Price for this work.

**COMPLETION OF WORK.** The Contractor must begin work covered by the Contract within 15 calendar days, and must complete work within 75-working days from and including the date of Notice to Proceed, according to the General Conditions. The Work should be completed by July 1, 2016.

**LIQUIDATED DAMAGES.** If the Contractor fails to substantially complete the Work by the date set for substantial completion in the Contract, or if the completion date is extended by a Change Order, by the date set in the Change Order, the Town may permit the Contractor to proceed, and in such case, may deduct the sum of \$500 for each day that the Work shall remain uncompleted from monies due or that may become due the Contractor. This sum is not a penalty but is a reasonable estimate of liquidated damages.

The parties agree that, under all of the circumstances, the daily basis and the amount set for liquidated damages is a reasonable and equitable estimate of all the Town's actual damages for delay. The Town expends additional personnel effort in administering the Contract or portions of the Work that are not completed on time, and has the cost of field and office engineering, inspecting, and interest on financing and such efforts and the costs thereof are impossible to accurately compute. In addition, some, if not all, citizens of Castle Rock incur personal inconvenience and lose confidence in their government as a result of public projects or parts of them not being completed on time, and the impact and damages, certainly serious in monetary as well as other terms are impossible to measure.

**SERVICE OF NOTICES.** Notices to the Town are given if sent by registered or certified mail, postage prepaid, to the following address:

TOWN OF CASTLE ROCK  
100 N. Wilcox Street  
Castle Rock, CO 80104

**INSURANCE PROVISIONS.** The Contractor must not begin any work until the Contractor obtains, at the Contractor's own expense, all required insurance as specified in the General Conditions. Such insurance must have the approval of the Town of Castle Rock as to limits, form and amount.

**RESPONSIBILITY FOR DAMAGE CLAIMS.** The Contractor shall indemnify, save harmless, and defend the Town, its officers and employees, from and in all suits, actions or claims of any character brought because of: any injuries or damage received or sustained by any person, persons or property because of operations for the Town under the Contract; including but not limited to claims or amounts recovered from any infringements of patent, trademark, or copyright; or pollution or environmental liability. The Town may retain so much of the money due the Contractor under the Contract, as the Town considers necessary for such purpose. If no money is due, the Contractor's Surety may be held until such suits, actions, claims for injuries or damages have been settled. Money due the Contractor will not be withheld when the Contractor produces satisfactory evidence that the Contractor and the Town are adequately protected by public liability and property damage insurance.

The Contractor also agrees to pay the Town all expenses, including attorney's fees, incurred to enforce this Responsibility for Damage Claim clause.

Nothing in the **INSURANCE PROVISIONS of the General Conditions** shall limit the Contractor's responsibility for payment of claims, liabilities, damages, fines, penalties, and costs resulting from its performance or nonperformance under the Contract.

**STATUS OF CONTRACTOR.** The Contractor is performing all work under the Contract as an independent Contractor and not as an agent or employee of the Town. No employee or official of the Town will supervise the Contractor. The Contractor will not supervise any employee or official of the Town. The Contractor shall not represent that it is an employee or agent of the Town in any capacity. **The Contractor and its employees are not entitled to Town Workers' Compensation benefits and are solely responsible for federal and state income tax on money earned.** This is not an exclusive contract.

**THIRD PARTY BENEFICIARIES.** None of the terms or conditions in the Contract shall give or allow any claim, benefit, or right of action by any third person not a party to the Contract. Any person, except the Town or the Contractor, receiving services or benefits under the Contract is an incidental beneficiary only.

**INTEGRATION.** This contract integrates the entire understanding of the parties with respect to the matters set forth. No representations, agreements, covenants, warranties, or certifications, express or implied, shall exist as between the parties, except as specifically set forth in this Contract.

**DEFINITIONS.** The Definitions in the General Conditions apply to the entire Contract unless modified within a Contract Document.

Executed this \_\_\_\_\_ day of \_\_\_\_\_, 2016

**ATTEST:**

**TOWN OF CASTLE ROCK**

\_\_\_\_\_  
Town Clerk

\_\_\_\_\_  
Mayor/Manager (as applicable)

**APPROVED AS TO FORM:**

\_\_\_\_\_  
Town Attorney

**CONTRACTOR**

**Directed Technologies Drilling, Inc.**

By: \_\_\_\_\_

Title: \_\_\_\_\_

*(Insert either the Corporate or Partnership Certificate, as appropriate)*

**EXHIBIT 1**  
**(PROPOSAL/BID)**

**Scope of Work Summary**  
**East Plum Creek – South Well Field**  
**Improvement Project**  
**HDPE Underdrain Installation**  
**Town of Castle Rock, CO**

**February 25, 2016**



**Washington**  
3476-B W. Belfair Valley Road  
Bremerton, WA 98312

**Pennsylvania**  
100 Rolling Ridge Drive  
Bellefonte, PA 16823

**Texas**  
7701 Hwy 180 East  
Mineral Wells, TX 76067

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## **Introduction**

Directed Technologies Drilling (DTD) is submitting the following Statement of Work to better quantify the costs provided to the Town of Castle Rock for the East Plum Creek – South Well Field Improvement Project. The South Well Field currently consists of a multiple vertical wells and one horizontal lateral. The goal of this project is to increase the amount of water able to be produced by the South Well Field.

DTD has reviewed the 90% design documents provided by the town of Castle Rock in order to prepare our Scope of Work and cost estimate. The design documents are not complete with the specific requirements for landscape notes and planting schedule, planting plan, planting details, electrical notes, electrical drawings, and electrical details incomplete. DTD has prepared the following scope of work with the information provided.

In the most general sense, the project includes:

- 1- The installation of two horizontal directionally drilled (HDD) laterals in immediate proximity to two vertical wells. The laterals have been designed to expand the zone of groundwater capture of the existing vertical wells
- 2- The installation of one HDD well
- 3- The abandonment of a vertical well
- 4- The trenching, plumbing and wiring necessary to have all wells outfitted with new pumps
- 5- Site preparation and restoration to allow all work to be conducted and to restore the site as close to the pre-existing condition as possible.

The South Well Field Improvement Project has been 90% designed by the Town of Castle Rock's subcontracted engineer, Leonard Rice Engineers, Inc. (LRE). The following Scope of Work is based largely on the 90% drawings the engineer has prepared.

## **1 Scope of Work**

### **1.1 Bonds, Insurance, and General Conditions**

DTD will provide Bonds, Insurance and meet the General Conditions as outlined in the Town of Castle Rock's Construction Contract General Conditions, revision 7/19/15.

### **1.2 Directional Drilling and Installation of Horizontal laterals and Well**

DTD will complete the drilling and installation of the two HDD laterals and the one HDD well in accord with the LRE 90% design drawings dated January 19, 2016. This includes an estimated 1,956 feet of horizontal drilling for the installation of an equal among of 6-inch diameter HDD laterals and or well, surface completions, horizontal well pitless adaptor, and disposal of drilling derived waste.



### 1.3 Well Materials

All HDD well materials are to be of 6-inch diameter stainless steel. Well sections open to the geologic formation will include both 6-inch diameter stainless pipe perforated with slots and 6-inch diameter wire wrap screen, shrouded for protection with larger diameter and larger open area wire wrap screen.

### 1.4 Video Survey of Lateral Wells

After well development, each horizontal lateral and/or horizontal well (three total) will be video surveyed to document the condition of the well screen. The video will be a color video and notes will be taken while the video is recorded. The video will not have length indicators captured on the video screen, but notes of the camera's position in the well will be documented whenever a significant observation is made. A written video log will be submitted with the video.

### 1.5 Install Pump in Lateral Well 12R

A pump, inclusive of discharge piping and a safety retrieval cable will be installed in Lateral Well 12 R.

### 1.6 Development of Horizontal Wells

Each HDD drilled horizontal lateral or horizontal well (three total) will be developed to maximize the hydraulic communication between the well and the geologic formation. The development will generally consist of flushing, jetting, and pumping of the wells. **The development is assumed to require no more than five days per well.**

### 1.7 Colorado Licensed Water Well Driller

DTD will provide supervision of all well drilling, installation, development and pump installation activities, as required by Colorado regulation, by a Colorado licensed water well driller.

### 1.8 Abandonment of Vertical Well

Existing vertical well 12 R will be abandoned in accord with Colorado regulations. This effort will be completed under the supervision of a Colorado licensed well driller.

### 1.9 Redevelopment of Vertical Wells

The redevelopment of the vertical wells (two total) will include a process of jetting, swabbing, and pumping of the wells. The development is assumed to require no more than three days per well.

### 1.10 Pump Replacement, 11R and 13R

The pumps in the vertical wells (two total) will be replaced with larger pumps better suited to pump the expected higher volume of groundwater.

### 1.11 Well Disinfection

The HDD horizontal laterals, horizontal wells, and vertical wells will be disinfected in accord with Colorado Regulation. The piping and conduit installed between the wells and the water lines connecting to the Town of Castle Rock's treatment system will not be disinfected.

### **1.12 Conveyance Line between 12R and 12 R Vault**

Conveyance line between 12R and the 12 R vault will be trenched into place. The trenching is estimated to be approximately 127 feet in length.

### **1.13 Electrical Work**

No electrical drawings were ready for review to allow a detailed statement of work to be prepared. DTD's subcontractor, Velocity, has prepared a rough estimate based upon the understanding that power is need to power the submersible pump for well 12R. It is also assumed a control system is necessary to operate this pump. The cost estimate for this task is subject to change.

### **1.14 Site Preparation and Restoration**

The estimated total volume of waste drilling fluid that will be generated in drilling underdrains will be approximately 55 cubic yards. This volume is based on calculations of the completed borehole

### **1.15 Pump Testing of Wells**

Pump testing is expected to include two distinct tests for each well. The first test will be an eight-hour step test, designed to determine a reasonable rate for the next pumping test. The second pumping test is to be a 48-hour constant rate pumping test to allow a reasonable estimate of the sustainable pumping rate for the well.

## **2 Assumptions and or Exclusions**

The notes included in the Leonard Rice Engineers, design drawings for the East Plum Creek South Well Field Improvement Project, dated January 2016, are not all included in our proposed cost estimate. Therefore the following notes are important to consider in preparing the final scope of work.

- If site is inaccessible due to being under water or other extreme weather and exception must be allowed for project delays.
- Property access agreements must be negotiated by TOCR or others, this includes temporary laydown areas necessary for pipe pullback.
- The LRE drawings note DTD must control all flows including: surface and storm flows. DTD cannot take responsibility for storm flows of East Plum Creek, which are beyond the scope of this project.
- DTD has not included a cost for a detailed site survey. If a survey is required prior to or upon completion of work DTD will provide the TOCR with a revised project cost.
- DTD has not included a cost for daily street cleaning. If this is required, DTD will provide the TOCR with a revised project cost.
- DTD has not included a cost for securing the site 24 hours a day in order to meet TOCR site safety indemnification requirements. We will secure active work areas with temporary fencing or barriers. If 24-hour security is required, DTD will provide the TOCR with a revised project cost.
- DTD has not included a cost for a traffic control plan. If this is required, DTD will provide the TOCR with a revised project cost.

- Other specific exclusions by Site Works Contractor (Velocity): pumps, meters, control devices, programming, demo, downhole transducers, permits, bonds, dumpsters, concrete work, surveying, dewatering, taxes on permanent materials, access to sites if under water or too soft for rubber tired vehicles, import of top soil or too wet

**Town of Castle Rock, Colorado**  
**East Plum Creek - South Well Field Improvement**  
**90% Plan**  
**Bid Schedule**

No.	Bid item	Provided By:	DTD Prices
1	<b>Bonds, Insurance and General Conditions*</b>	DTD	\$ 40,510.48
2	<b>Directional drilling and installation of three horizontal wells</b> Includes: 1,956 ft of drilling for 6-inch well material Installation of 6-inch stainless steel well material Surface completions Installation of pitless adaptor for lateral well 12R Disposal of drilling derived waste	DTD	\$ 383,535.00 \$ 25,000.00
3	<b>Well Materials (all stainless)</b> Includes: 1,020 ft casing 920 ft slotted screen 40 ft wire wrap screen 100 ft of 10-inch surface casing Material assembly	DTD	\$ 190,174.50
4	<b>Video survey of lateral wells</b>	DTD	\$ 5,400.00
5	<b>Install pump in lateral well 12R</b> Includes: Pump and discharge piping to surface Retrieval cable	DTD	\$ 6,000.00
6	<b>Development of horizontal wells</b> Includes: Development of three lateral wells	DTD	\$ 28,800.00
7	<b>Colorado licensed water well driller</b>	Ground Exploration	\$ 20,900.00
8	<b>Abandonment of vertical well 12R</b>	Ground Exploration	\$ 4,000.00
9	<b>Redevelopment of vertical wells</b> Includes: Redevelopment of vertical wells 11R and 13R after installation of lateral wells	Ground Exploration	\$ 10,000.00
10	<b>Pump replacement for vertical wells 11R and 13R</b> Includes: Removal of existing pumps Purchase and installation of new pumps	Ground Exploration	\$ 10,000.00
11	<b>Well disinfection (all wells - vertical and lateral)</b>	GE/DTD	\$ 8,800.00
12	<b>Construction of conveyance line connecting the lateral arm of 12R to the pre-existing 12R vault</b> Includes: Approximately 127 ft of trenching Installation of 4-inch PVC water pipe Installation of all required thrustblocks	Velocity (10% markup)	\$ 19,600.00
13	<b>Electrical Work</b> Includes: Provide power to 12R pump from an existing power source Install control systems at 12R vault	Velocity (10% markup)	\$ 30,700.00
14	<b>Site prep and restoration</b> Includes: Site preparation for access to both ends of wells Site restoration** Site maintenance during project Erosion and sediment controls during project	Velocity (10% markup)	\$ 34,300.00
15	<b>3 Pump Tests</b> 8 hour step test, 48 hour constant rate test	Ground Exploration	\$ 33,000.00
		<b>Total</b>	<b>\$ 850,719.98</b>

Notes:

\* Line item #1 assumed to be 5% of total value of contract

\*\* Excludes replanting of trees and shrubs, and the import of topsoil

**Addendum 1**  
Town of Castle Rock, Colorado  
**East Plum Creek South Well Field Improvement Project**  
February 23, 2016

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**To: All Planholders**

**I. Contract Documents, Specifications and Drawings**

**A. Supplemental Conditions**

**1. Question:**

1.0 No work shall be completed on Sundays or days designated by the OWNER as a holiday. All work shall be completed during normal work hours, which shall be considered to be 7:00 a.m. to 6:00 p.m. Saturday with prior approval from the OWNER, unless otherwise specified or agreed upon on writing with the Owner prior to the extra work dates.

**Response:**

Well drilling is exempt from the working hours above per the Municipal Code, 9.16.050. Construction hours are limited to 7:00 am to 6:00 per for all other construction activities. Working on Saturdays is permitted as long as the Town is notified in advance.

**2. Question:**

12.1 Any known sewers, water mains, gas mains, telephone conduits, electric cables, and other underground structures are shown on the drawings only to the extent such information has been made available to or discovered by the Engineer. It is expected that there may be discrepancies and omissions in the location and quantities of utilities and structures shown. This information is shown for the convenience of the Contractor, but is not guaranteed to be either correct or complete and all responsibility for the accuracy and completeness thereof is expressly disclaimed. The Contractor shall make such investigation as he thinks necessary to verify its correctness and completeness. The Contractor shall, ahead of excavation, locate all underground utilities and structures so that they will not be accidentally damaged by his construction operation.

**Response:**

The DTD shall be responsible to call in locates before any excavation or drilling begins. The Town will work with DTD to ensure that all known facilities have been properly located.

**3. Question:**

13.11 The permanent waterline will have to be disinfected and pass bacteriological and hydrostatic testing prior to being placed into service. The Contractor will disinfect and the Town of Castle Rock will take samples to the Health Department. The Contractor will be required to coordinate with Town personnel for the sampling. Test waters are to be

dechlorinated prior to discharge.

**Response:**

DTD will disinfect the wells per the requirements in the rules and regulations for water well construction, pump installation, cistern installation, and monitoring and observation hole/well construction (water well construction rules) rules and regulations for water well construction, pump installation, cistern installation, and monitoring and observation hole/well construction (water well construction rules) 2 CCR 402-2 effective date January 1, 2005.

All of the pipeline work will follow the requirements of item 13.11. The disinfection of the pipe may be waved, if flushing the chlorinated water proves to be difficult at this location.

**B. Contract Documents**

**1. Question:**

7.5.1 The Town has collected and shown on the Drawings available information on the location of existing underground, surface and overhead structures and utilities. However, the Town does not guarantee the results of the investigations are accurate or complete. It is the Contractor's responsibility to verify all locations of existing structures and utilities shown on the Drawings and to ascertain whether any other structures and utilities exist. **Response:**

The DTD shall be responsible to call in locates before any excavation or drilling begins. The Town will work with DTD to ensure that all known facilities have been properly located.

**2. Question:**

7.6.2 All water from Town owned utilities required for the Project will be provided at the Contractor's expense.

**Response:**

DTD shall provide a backflow preventer and submit an application for a hydrant permit. The Town shall provide a flow meter for the hydrant assembly and pay for all water used for the construction of the project.

Attachments:

1.