



# KINGFISHER COUNTY COMMISSIONERS

Jeff Moss, District 1  
Ray Alan Shimanek, District 2  
Heath Dobrovolny, District 3

Phone: (405) 375-3808  
Fax: (405) 375-2366

Kingfisher County Courthouse  
101 S. Main, Room #9  
Kingfisher, OK 73750

July 5, 2022

*Bid #2-22-23*  
NOTICE TO BIDDERS

Notice is hereby given that the Board of County Commissioners of Kingfisher County will receive sealed bids for labor and materials for the Okarche Rural Water District water system improvements. 48,090 L.F. 6" PE DR 11 Complete in Place, 9 - 6" Gate Valves, 7 - Connections to Existing Water Lines, 2,600 L.F. Directional Bore for Creek Crossings, 475 L.F. Road Bores and Casing and all appurtenances in accordance with the plans and specifications. Bids will be accepted at the Kingfisher County Courthouse in the Office of the County Clerk until 4:00pm on the 29<sup>th</sup> day of July, 2022 to be opened at their regular meeting of August 1<sup>st</sup>, 2022.

Statement of Work and Specifications of the project to be bid are included in the bid packet and also available from the purchasing agent located in the Kingfisher County Clerk's office and the County Engineer's office.

The successful bidder is required to produce a performance bond upon request and to show certificates of Insurance, its limits, and Workers Compensation Insurance. This will be detailed in the Statement of Work and general requirements.

The Board of County Commissioners reserves the right to reject any or all bids. All bidders must complete a statement of non-collusion and a Cashier's Check, a certified check, or a surety bid bond in the amount of five percent (5%) of the gross amount of base bid as a guaranty, shall accompany the sealed proposal of each bidder. Deposits will be returned to the unsuccessful bidders and successful bidders, upon approval of the contract and submission of a 100% Performance Bond, a 100% Statutory Bond, and a 100% Maintenance Bond. Please contact Kingfisher County Clerk's office for bid results at 405-375-3887.

Board of County Commissioners  
Kingfisher County Courthouse  
Kingfisher, Oklahoma

CHAIRMAN: \_\_\_\_\_  
Heath Dobrovolny

MEMBER: *Jeff Moss* \_\_\_\_\_  
Jeff Moss Dist 1 Foreman

MEMBER: *Ray Shimanek* \_\_\_\_\_  
Ray Shimanek

ATTEST:

*Jeannie Bowens*

COUNTY CLERK



S.A. & I. 425 (2000)

AFFIDAVIT FOR FILING WITH COMPETITIVE BID

State of Oklahoma ) SS

County of Kingfisher )

\_\_\_\_\_, lawful age, being first duly sworn, on oath says, that (s)he is the agent authorized by the bidder to submit the attached bid. Affiant further states that the bidder has not been a party to any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding; or with any county official or employee as to quantity, quality or price in the prospective contract, or any other terms of said prospective contract; or in any discussions between bidders and any county official concerning exchange of money or other thing of value for special consideration in the letting of contract.

Bidder:

\_\_\_\_\_  
Name:

\_\_\_\_\_  
Address:

\_\_\_\_\_  
Phone Number:

\_\_\_\_\_  
Signature

Subscribed and sworn to before me the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

\_\_\_\_\_  
Notary Public (or Clerk or Judge)

My commission expires: \_\_\_\_\_

Note:

Each competitive bid submitted to a county, school district or municipality must be accompanied with the above Affidavit as required by 61 Okla. St. Ann. 138

SPECIFICATIONS  
FOR  
WATER SYSTEM IMPROVEMENTS

OKARCHERWD, INC  
APRIL 2022



P.O. Box 579 Stillwater, Oklahoma 74076-0579

PHONE: (405) 372-4848 FAX: (405) 372-7055

CA NO. 2659 - 06/30/2018

**INDEX**

Advertisement for Bids	_____
Information for Bidders	_____
Bid Proposal	_____
Bid Schedule	_____
Business Relationships Affidavit	_____
Noncollusion Affidavit	_____
Payroll Affidavit	_____
Claim or Invoice Affidavit	_____
Bid Bond	_____
Agreement	_____
Performance Bond	_____
Statutory Bond	_____
Maintenance Bond	_____
Standard Requirements	_____
Certificate of Approval	_____
Notice of Award	_____
Notice to Proceed	_____
State Wage Rates (If Applicable)	_____
Release of Claimants	_____
Project Sign	_____

## INFORMATION FOR BIDDERS

BIDS will be received by New Prue (hereinafter called the "OWNER"), at P.O. Box 333, Okarche, OK 73762 until 11:00 am, 2022 or be hand delivered to the office of Okarche RWD, Inc. until 11:00 am, 2022 and then at said office publicly opened and read aloud.

Each BID must be submitted in sealed envelope, addressed to: Okarche RWD, Inc at P.O. Box 333, Okarche, OK 73762. Each sealed envelope containing a BID must be plainly marked on the outside as BID for either Water System Improvements and the envelope should bear on the outside the BIDDER'S name, address, and license number if applicable, and the name of the project for which the BID is submitted. If forwarded by mail, the sealed envelope containing the BID must be enclosed in another envelope addressed to the OWNER at P.O. Box 333, Okarche, OK 73762

All BIDS must be made on the required BID form. All blank spaces for BID prices must be filled in, in ink or typewritten, and the BID form must be fully completed and executed when submitted. Only one Copy of the BID form is required.

The OWNER may waive any informalities or minor defects or reject any and all BIDS. Any BID may be withdrawn prior to the above scheduled time for the opening of BIDS or authorized postponement thereof. Bids received more than ninety-six (96) hours before time specified and Bids received after the time set for opening Bids will not be considered and will be returned unopened. No BIDDER may withdraw a BID within 60 days after the actual date of the opening thereof. Should there be reasons why the contract cannot be awarded within the specified period, the time may be extended by mutual agreement between the OWNER and the BIDDER.

BIDDERS must satisfy themselves of the accuracy of the estimated quantities in the BID schedule by examination of the site and a review of the drawings and specifications including ADDENDA. After BIDS have been submitted, the BIDDER shall not assert that there was a misunderstanding concerning the quantities of WORK or of the nature of the WORK to be done.

The OWNER shall provide to BIDDERS prior to BIDDING, all information which is pertinent to, and delineates and describes, the land owned and rights-of-way acquired or to be acquired.

The CONTRACT DOCUMENTS contain the provisions required for the construction of the PRODUCT. Information obtained from an officer, agent, or employee of the OWNER or any other person shall not affect the risks or obligations assumed by the CONTRACTOR or relieve the contractor from fulfilling any of the conditions of the contract.

Each bid must be accompanied by a bid bond payable to the OWNER for five percent of the

total amount of the bid. A certified check may be used in lieu of the bid bond. No bid security is required if bid is \$7,500.00 or less. As soon as the bid prices have been compared, the OWNER will return the bonds of all except the three lowest responsible bidders. The bid bond of the successful bidder will be retained until the Performance Bond, Statutory Bond, Maintenance Bond, and Certificate of Insurance have been executed and approved, after which it will be returned. The bid security of the two remaining unsuccessful Bidders will be returned after the successful bidder has entered into a contract and has furnished the required bonds and insurance.

A Performance Bond, Statutory Bond and Maintenance Bond each in the amount of 100 percent of the Contract Price with a corporate surety approved by the OWNER will be required for the faithful performance of the Contract.

Attorneys-in-fact who sign Bid Bonds and Performance Bonds must file with each Bond a certified and effective dated Copy of their Power-of-Arrowney.

The OWNER shall award a contract to the lowest responsible bidder or bidders within sixty (60) calendar days after bid opening. The OWNER may extend the award period not to exceed fifteen (15) calendar days by formal recorded action and for good cause.

The party to whom the contract is awarded will be required to execute the Agreement and obtain the Performance Bond, Statutory Bond, Maintenance Bond and Certificate of Insurance within ten (10) calendar days from the date when Notice of Award is delivered to the Bidder. The Notice of Award shall be accompanied by the necessary Agreement and Bond forms. In the of failure of the Bidder to execute the Agreement, the OWNER may consider the Bidder in default in which case the Bid Bond accompanying the proposal shall become the property of the OWNER.

The OWNER within ten (10) calendar days of receipt of acceptable Agreement, Bonds and Certificate of Insurance signed by the party to whom the Agreement was awarded shall sign the Agreement and return to such party an executed duplicate of the Agreement. Should the OWNER not execute the Agreement within such period, the BIDDER may by WRITTEN NOTICE withdraw the signed Agreement. Such NOTICE of withdrawal shall be effective upon receipt of the NOTICE by the OWNER.

The NOTICE to Proceed shall be issued by the OWNER within ten (10) calendar days of the execution of the Agreement, approval of Bonds and approval of the Certificate of Insurance. Should there be reasons why the NOTICE to Proceed cannot be issued within such period, the time may be extended by mutual agreement between the OWNER AND CONTRACTOR. If the NOTICE TO PROCEED has not been issued within the ten (10) day period or within the period mutually agreed upon, the CONTRACTOR may terminate the Agreement without further liability on the part of either party.

The OWNER may make such investigations as deemed necessary to determine the ability of the BIDDER to perform the WORK, and the BIDDER shall furnish to the OWNER all such information and data for this purpose as the OWNER may request. The OWNER reserves the right to reject any BID if the evidence submitted by, or investigation of, such BIDDER fails to satisfy the

OWNER that such BIDDER is properly qualified to carry out the obligations of the AGREEMENT and to complete the WORK contemplated therein.

A conditional or qualified BID will not be accepted. An unbalanced bid (any unit price that does not cover the cost of materials as determined by the Engineer) may be determined as a qualified bid by the OWNER and rejected at the option of the OWNER.

Award will be made to the lowest responsible BIDDER.

All applicable laws, ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout.

Each BIDDER is responsible for inspecting the site and for reading and being thoroughly familiar with the CONTRACT DOCUMENTS. The failure or omission of any BIDDER to do any of the foregoing shall in no way relieve any BIDDER from any obligation in respect to its BID.

The successful bidder will be required to meet all requirements of the Underground Facilities Damage Prevention Act when engaged in work within public rights-of-way.

When alternate BIDS are taken, they will be listed in numerical order with the highest priority being number one, second, number two, etc.

When alternates are used, the low BIDDERS will be selected by the lowest and best BID considering all BIDS which include the selected alternate BIDS.

The alternates will be listed in consecutive priority order to remain within the funds available for the project.

The low BIDDER shall supply the names and addresses of major material SUPPLIERS and SUBCONTRACTORS when required to do so by the OWNER.

Inspection trips for prospective BIDDERS will leave from the

at

The Engineer is:

Brown Engineering, P.C.

The Engineer's address and phone number is

P.O. Box 579, Stillwater, OK 74076

405/ 372-4848

The Engineer's contact person is

Phil Brown or Mike Brown

## BID PROPOSAL

Proposal of \_\_\_\_\_ (hereinafter called "BIDDER"), organized and existing under the laws of the State of Oklahoma doing business as" \_\_\_\_\_. To the Okarche RWD Inc. (hereinafter called "OWNER").

In compliance with your Advertisement for Bids, BIDDER hereby proposes to perform all MATERIALS for the construction of:

48,090 L.F. 6" PE DR 11 Complete in Place, 9 - 6" Gate Valves, 7 - Connections to Existing  
Water Lines, 2,600 L.F. Directional Bore for Creek Crossings, 475 L.F. Road Bores and Casing  
and all appurtenances

in strict accordance with the CONTRACT DOCUMENTS, within the time set forth therein, and at the prices stated below.

By submission of this BID, each BIDDER certifies, and in the case of a joint BID each party thereto certifies as to its own organization, that this BID has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this BID with any other BIDDER or with any competitor.

BIDDER hereby agrees to commence WORK under this contract within ten (10) calendar days of the date to be specified in the NOTICE TO PROCEED and to fully complete the PROJECT within 90 consecutive calendar days thereafter. BIDDER further agrees to pay as liquidated damages, the sum of \$ 1,000.00 for each consecutive calendar day thereafter as provided in Standard Requirements.

No BIDDER may withdraw a BID within 60 days after the actual opening thereof. Each BID must be accompanied by a BID BOND payable to OWNER for 5% of the amount bid.

BIDDER acknowledges receipt of the following ADDENDUM: \_\_\_\_\_

BIDDER agrees to perform all the work described in the CONTRACT DOCUMENTS for the unit prices or lump sum given in the Bid Schedule.

---

\* Insert "a corporation", "a partnership", or "an individual" as applicable



**BID SCHEDULE**

NO.	DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE	TOTAL PRICE
1	6" PE DR 11 Complete in Place	L.F.	48,080		
2	6" Gate Valves	Each	9		
3	Connection to Existing Water Lines	Each	7		
4	Directional Bore for Creek Crossing	L.F.	2,600		
5	Bore & Case for Road Crossing	L.F.	475		
<b>Total Bid</b>					

**Total Bid in Words** \_\_\_\_\_

Respectfully submitted,

By: \_\_\_\_\_  
(Signature)

Firm Name: \_\_\_\_\_  
(Print or Type)

Title: \_\_\_\_\_  
(Print or Type)

Address: \_\_\_\_\_  
(Print or Type)

Employer I.D. No. \_\_\_\_\_  
(Print or Type)

Telephone No. \_\_\_\_\_  
(Print or Type)

**ATTEST:**

Secretary/Witness \_\_\_\_\_  
(Signature)

Date: \_\_\_\_\_

**(SEAL) - If BID is by a corporation**

**BUSINESS RELATIONSHIP AFFIDAVIT**

STATE OF OKLAHOMA            )  
  )  
COUNTY OF \_\_\_\_\_)        ss.

\_\_\_\_\_, of lawful age, being first duly sworn, on oath says that (s)he is the agent authorized by the bidder to submit the attached bid. Affiant further states that the nature of any partnership, joint venture, or other business relationship presently in effect or which existed within one (1) year prior to the date of this statement with the architect, engineer, or other party to the project is as follows:

\_\_\_\_\_  
\_\_\_\_\_

Affiant further states that any such business relationship presently in effect or which existed within one (1) year prior to the date of this statement between any officer or director of the bidding company and any officer or director of the architectural or engineering firm or other party to the project is as follows:

\_\_\_\_\_  
\_\_\_\_\_

Affiant further states that the names of all persons having any such business relationships and the positions they hold with their respective companies or firms are as follows:

\_\_\_\_\_  
\_\_\_\_\_

(If none of the business relationships herein above mentioned exist, affiant should so state.)

\_\_\_\_\_  
Subscribed and sworn to before me this \_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

My Commission  
Expires: \_\_\_\_\_

\_\_\_\_\_  
Notary Public

**NOTE: This form is to be submitted with the BID.**

**NONCOLLUSION AFFIDAVIT**

STATE OF OKLAHOMA            )  
  )  
COUNTY OF \_\_\_\_\_)

ss.

\_\_\_\_\_, of lawful age, being first duly sworn, on oath says that (s)he is the agent authorized by the bidder to submit the attached bid. Affiant further states that the bidder has not been a party to any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding; or with any state official or employee as to quantity, quality or price in the prospective contract, or any other terms of said prospective contract; or in any discussions between bidders and any state official concerning exchange of money or other thing of value for special consideration in the letting of a contract.

\_\_\_\_\_

SUBSCRIBED AND SWORN to before me this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

\_\_\_\_\_  
Notary Public

My Commission Expires:  
\_\_\_\_\_

**NOTE: This form is to be submitted with the BID.**

**PAYROLL AFFIDAVIT**

I \_\_\_\_\_, of lawful age, being first duly sworn, on oath says that (s)he is the agent authorized by the bidder to submit the attached bid. Affiant further states that (s)he has submitted the required payroll information to the State Department of Labor. Affiant further states that (s)he is in compliance with the requirements of Title 40 O.S., 1981, Sections 196.1 through 196.12 and any amendments thereto.

\_\_\_\_\_  
SIGNATURE

Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_.

\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires: \_\_\_\_\_

**NOTE: This form is to be submitted with the bid.**

**CLAIM OR INVOICE AFFIDAVIT**

STATE OF OKLAHOMA            )  
  )        ss.  
COUNTY OF                    )

The undersigned (engineer or supervisory official), of lawful age, being first duly sworn, on oath says that this (invoice, claim, or contract) is true and correct. Affiant further states that the (work, services or materials) as shown by this invoice or claim have been (completed or supplied) in accordance with the plans, specifications, orders, or requests furnished to the affiant. Affiant further states that (s)he has made no payment, given, or donated or agreed to pay, give, or donate, either directly or indirectly, to any elected official, officer, or employee of the State of Oklahoma, of money or any other thing of value to obtain payment or the award of this contract.

\_\_\_\_\_  
Engineer or Other Supervisory Official

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

\_\_\_\_\_  
Notary Public

My Commission Expires:  
\_\_\_\_\_

**BID BOND**

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned, \_\_\_\_\_ as Principal, and \_\_\_\_\_ as Surety, are hereby held firmly bound unto \_\_\_\_\_ as OWNER in the penal sum of \_\_\_\_\_ for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors and assigns.

Signed, this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_. The Condition of the above obligation is such that whereas the Principal has submitted to \_\_\_\_\_ a certain BID, attached hereto and hereby made a part hereof to enter into a contract in writing, for the:

48,090 L.F. 6" PE DR 11 Complete in Place, 9 - 6" Gate Valves, 7 - Connections to Existing  
Water Lines, 2,600 L.F. Directional Bore for Creek Crossings, 475 L.F. Road Bores and Casing  
and all appurtenances

NOW, THEREFORE,

(a) If said BID shall be rejected, or

(b) If said BID shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attachment hereto (properly completed in accordance with said BID) and shall furnish a BOND for faithful performance of said contract, and for the payment of all persons performing labor furnishings materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said BID, then this obligation shall be void. Otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated. The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its BOND shall be in no way impaired or affected by any extension of the time within which the OWNER may accept such BID; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

\_\_\_\_\_(L.S.)  
Principal

ATTEST: (if by Corporation)

\_\_\_\_\_  
Surety

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

IMPORTANT - Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state of Oklahoma.

## AGREEMENT

THIS AGREEMENT, made this \_\_\_\_\_ day of \_\_\_\_\_, 2022 between Okarche RWD Inc., hereinafter called "OWNER" and \_\_\_\_\_ doing business as (a partnership) or (a corporation) (an individual) hereinafter called "CONTRACTOR".

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned:

1. The CONTRACTOR will commence and complete the construction of:

48,090 L.F. 6" PE DR 11 Complete in Place, 9 - 6" Gate Valves, 7 - Connections to Existing  
Water Lines, 2,600 L.F. Directional Bore for Creek Crossings, 475 L.F. Road Bores and Casing  
and all appurtenances

2. The CONTRACTOR will furnish all of the materials, supplies, tools, equipment, labor, and other services necessary for the construction and completion of the PROJECT described herein.

3. The CONTRACTOR will commence the work required by the CONTRACT DOCUMENTS within 10 calendar days after the date of the NOTICE TO PROCEED and will complete the same within 30 calendar days unless the period for completion is extended otherwise by the CONTRACT DOCUMENTS.

4. The CONTRACTOR agrees to perform all the WORK described in the CONTRACT DOCUMENTS and comply with the terms therein for the sum of \$ 41,500.00 or as shown in the BID SCHEDULE.

5. The term "CONTRACT DOCUMENTS" means and includes the following:

- (A) Advertisement for Bids
- (B) Information for Bidders
- (C) Bid Proposal
- (D) Bid Schedule
- (E) Business Relationships Affidavit
- (F) Noncollusion Affidavit
- (G) Bid Bond
- (H) Agreement
- (I) Standard Requirements
- (J) Statutory Bond
- (K) Performance Bond
- (L) Maintenance Bond
- (M) Certificate of Insurance
- (N) Notice of Award
- (O) Notice to Proceed
- (P) Change Order
- (Q) Drawings prepared by Brown Engineering Numbers            through            and dated February 2021
- (R) Specifications prepared or issued by Brown Engineering dated February 2021

(S) ADDENDA:

No. \_\_\_\_\_, dated \_\_\_\_\_  
No. \_\_\_\_\_, dated \_\_\_\_\_  
No. \_\_\_\_\_, dated \_\_\_\_\_  
No. \_\_\_\_\_, dated \_\_\_\_\_  
No. \_\_\_\_\_, dated \_\_\_\_\_

6. The OWNER will pay to the CONTRACTOR in the manner and at such times as set forth in the Standard Requirements such amounts as required by the CONTRACT DOCUMENTS.

7. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

8. It is understood that the following are also required of the Contractor in performance of this contract:

- a. Liquidated damages for failure to complete the work within the time specified shall be assessed at the rate of \$75.00 per day for each additional calendar day until the work is completed for Contract.
- b. Contractor shall comply with the Underground Facilities Damage Prevention Act (63 O.S. 42.1 et seq.).

IN WITNESS WHEREOF, the parties hereto have executed or caused to be executed by their duly authorized officials, this Agreement in (four) copies each of which shall be deemed an original on the date first above written.



**Owner:** Okarche RWD Inc.  
(Print or Type)

**By:** \_\_\_\_\_  
(Signature)

**Name:** \_\_\_\_\_  
(Print or Type)

**Title:** Chairman  
(Print or Type)

(SEAL)

**ATTEST:**

**By:** \_\_\_\_\_  
(Signature)

**Name:** \_\_\_\_\_  
(Print or Type)

**Title:** \_\_\_\_\_  
(Print or Type)

**CONTRACTOR:** \_\_\_\_\_  
(Print or Type)

**By:** \_\_\_\_\_  
(Signature)

**Name:** \_\_\_\_\_  
(Print or Type)

**Address:** \_\_\_\_\_  
\_\_\_\_\_  
(Print or Type)

**Telephone:** \_\_\_\_\_

(SEAL)

**ATTEST:**

**By:** \_\_\_\_\_  
(Signature)

**Name:** \_\_\_\_\_  
(Print or Type)

**Title:** \_\_\_\_\_  
(Print or Type)

**PERFORMANCE BOND**

KNOW ALL PERSONS BY THESE PRESENTS: that

\_\_\_\_\_  
(Name of Contractor)

\_\_\_\_\_  
(Address of Contractor)

a \_\_\_\_\_, hereinafter called  
(Corporation, Partnership, or Individual)  
PRINCIPAL, and

\_\_\_\_\_  
(Name of Surety)

\_\_\_\_\_  
(Address of Surety)

hereinafter called SURETY, are held and firmly bound unto

\_\_\_\_\_  
(Name of Owner)

\_\_\_\_\_  
(Address of Owner)

hereinafter called OWNER, and the State of Oklahoma acting through the Oklahoma Water Resources Board, hereinafter referred to as the GOVERNMENT, in the total aggregate penal sum of \_\_\_\_\_ /100--Dollars (\$) \_\_\_\_\_) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents. THE CONDITION OF THIS OBLIGATION is such that whereas, the PRINCIPAL entered into a certain contract with the OWNER, dated the \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, a copy of which is hereto attached and made a part hereof for the construction of:

48,090 L.F. 6" PE DR 11 Complete in Place, 9 - 6" Gate Valves, 7 - Connections to Existing  
Water Lines, 2,600 L.F. Directional Bore for Creek Crossings, 475 L.F. Road Bores and Casing  
and all appurtenances

NOW, THEREFORE, if the PRINCIPAL shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the OWNER, or GOVERNMENT, with or without notice to the SURETY and if the PRINCIPAL shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save

harmless the OWNER and GOVERNMENT from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER and GOVERNMENT all outlay and expense which the OWNER and GOVERNMENT may incur in making good any default, then this obligation shall be void, otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the liability of the PRINCIPAL and SURETY hereunder to the GOVERNMENT shall be subject to the same limitations and defenses as may be available to them against a claim hereunder by the OWNER, provided, however, that the GOVERNMENT may, at its option, perform any obligations of the OWNER required by the contract.

PROVIDED, FURTHER, that the said SURETY, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to work to be performed thereunder or the specifications accompanying same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

PROVIDED, FURTHER, that it is expressly agreed that the bond shall be deemed amended automatically and immediately, without formal and separate amendments hereto, upon amendment to the contract not increasing the contract price more than 20 percent, so as to bind the PRINCIPAL and the SURETY to the full and faithful performance of the contract as so amended. The term "Amendment, wherever used in this bond, and whether referring to this bond, the contract or the loan documents shall include any alteration, addition, extension, or modification of any character whatsoever.

PROVIDED FURTHER, that no final settlement between the OWNER or GOVERNMENT and the PRINCIPAL shall abridge the right of the other beneficiary hereunder, whose claim may be unsatisfied. The OWNER and GOVERNMENT are the only beneficiaries hereunder.

IN WITNESS WHEREOF, this instrument is executed in \_\_\_\_\_ counterparts, each which shall be deemed an original, this the \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

**ATTEST:**

**By:** \_\_\_\_\_  
(Signature)

**Name:** \_\_\_\_\_  
(Print or Type)

**Title:** \_\_\_\_\_  
(Print or Type)

**(SEAL)** \_\_\_\_\_

**ATTEST:**

**By:** \_\_\_\_\_  
Signature

**Name:** \_\_\_\_\_  
(Print or Type)

**Principal** \_\_\_\_\_  
(Print or Type)

**By:** \_\_\_\_\_  
(Signature)

**Name:** \_\_\_\_\_  
(Print or Type)

**Title:** \_\_\_\_\_  
(Print or Type)

**Surety:** \_\_\_\_\_  
(Print or Type)

**By:** \_\_\_\_\_  
Surety's Agent (Signature)

**Name:** \_\_\_\_\_  
(Print or Type)

**By:** \_\_\_\_\_  
Attorney-in-Fact (Signature)

**Name:** \_\_\_\_\_  
(Print or Type)

**NOTE:** Date of bond must not be prior to date of contract. If contractor is partnership, all partners should execute bond.

**IMPORTANT:** Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State of Oklahoma. Attach a certified Copy of the Power of Attorney.

**STATUTORY BOND**

KNOW ALL MEN BY THESE PRESENTS:

That we, \_\_\_\_\_ as Principal, and \_\_\_\_\_ a Corporation organized under laws of \_\_\_\_\_, as Surety, are held and firmly bound unto the State of Oklahoma, in the amount of \_\_\_\_\_/100--Dollars (\$ \_\_\_\_\_) for the payment of which we hereby bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

Dated \_\_\_\_\_.

Whereas, the said \_\_\_\_\_ did on \_\_\_\_\_ enter into a certain contract with New Prue PWA for construction of :  
48,090 L.F. 6" PE DR 11 Complete in Place, 9 - 6" Gate Valves, 7 - Connections to Existing  
Water Lines, 2,600 L.F. Directional Bore for Creek Crossings, 475 L.F. Road Bores and Casing  
and all appurtenances

WHEREAS, this bond is given in compliance with OKLAHOMA STATUTES ANNOTATED, 1941, Title 61, Sections 1 and 2, as amended.

NOW THEREFORE, the condition of the above obligation is such, that if the Principal shall pay all indebtedness incurred for labor or material or rental of machinery or equipment furnished in the construction of said public building or in making said public improvements, then this obligation shall be void, otherwise to remain in full force and effect.

IN WITNESS WHEREOF, we have hereunto set our hands and seals the day first written above.

By: \_\_\_\_\_  
Surety's Agent (Signature)

Name: \_\_\_\_\_  
(Print or Type)

By: \_\_\_\_\_  
Attorney-in-Fact (Signature)

Name: \_\_\_\_\_  
(Print or Type)

NOTE: Attach a certified copy of the Power of Attorney.

**MAINTENANCE BOND**

WHEREAS, the undersigned, \_\_\_\_\_ has executed a certain Contract dated the \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, designated and known as Okarche RWD Inc. for the construction of Water System Improvements including all of the work mentioned and described in said Contract, and to be performed by the undersigned strictly and punctually in accordance with the terms, conditions, plans and specifications thereof,

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

That \_\_\_\_\_  
(Contractor)  
of \_\_\_\_\_, as Principal, and \_\_\_\_\_ as Surety, are jointly and severally, firmly held and bound unto the Okarche RWD Inc. (hereinafter "OWNER") in the sum of \_\_\_\_\_/100----Dollars (\$ \_\_\_\_\_), lawful money of the United States of America, same being the approximate cost of the Contract herein referred to, for the payment of which sum well and truly to be made, we hereby bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

The Condition of this Bond is such that the said Principal and Surety herein name do hereby agree and bind themselves unto and guarantee the "OWNER" that the said improvements, including materials, workmanship and all work done under said contract were such that the same shall endure without need of any repair whatsoever for a period of one (1) year from and after the formal acceptance of said project by resolution of the duly appointed governing body of the "OWNER" and that at the expense of said Principal and/or Surety, that such work performed under said Contract shall be kept and maintained in a first-class condition for a period of one (1) year as herein provided, and that all trenches, excavations or ditches that may sink or settle, shall promptly be refilled without any notice being given, and that all breaks or failures occurring or arising from any cause whatsoever within said period of one (1) year, shall be promptly repaired and at all times during the said period of one (1) year, maintained by said Principal and/or Surety, without notice being given; and it being further agreed that upon the neglect, failure or refusal of the Principal to make any needed repairs or backfills upon said project or any work connected therewith within ten (10) calendar days after notice to said Principal by letter deposited in the United States mail, addressed to said Principal at \_\_\_\_\_,

(Address)

that the said Principal and Surety shall jointly and severally be liable to the Okarche RWD Inc. for the costs and expenses of making such repairs or backfills, or making good defects or imperfections.

NOW, THEREFORE, if the said Principal and surety shall faithfully and securely keep and perform all of the obligations herein provided to be kept and performed by them, or either of them, then this obligation shall be null and void and of no force and effect, otherwise to be and remain in full force and effect at all times.

Signed, sealed and delivered this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

**ATTEST:**

**By:** \_\_\_\_\_  
(Signature)

**Name:** \_\_\_\_\_  
(Print or Type)

**Title:** \_\_\_\_\_  
(Print or Type)

**(SEAL)** \_\_\_\_\_

**ATTEST:**

**By:** \_\_\_\_\_  
Signature

**Name:** \_\_\_\_\_  
(Print or Type)

**Principal** \_\_\_\_\_  
(Print or Type)

**By:** \_\_\_\_\_  
(Signature)

**Name:** \_\_\_\_\_  
(Print or Type)

**Title:** \_\_\_\_\_  
(Print or Type)

**Surety:** \_\_\_\_\_  
(Print or Type)

**By:** \_\_\_\_\_  
Surety's Agent (Signature)

**Name:** \_\_\_\_\_  
(Print or Type)

**By:** \_\_\_\_\_  
Attorney-in-Fact (Signature)

**Name:** \_\_\_\_\_  
(Print or Type)

**NOTE:** Date of bond must not be prior to date of contract. If contractor is partnership, all partners should execute bond.

**IMPORTANT:** Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State of Oklahoma. Attach a certified Copy of the Power of Attorney.

## STANDARD REQUIREMENTS

### 1. Filling in Bid Proposal Form

Each proposal shall be made on the forms accompanying these instructions, and all blank spaces in the form shall be filled, numbers shall be stated both in writing where applicable and in figures, the signatures shall be in longhand and the completed form shall be without interlineation, alteration or erasure.

Proposals shall not contain any recapitulation of work to be done.

Proposals shall be addressed to and delivered to the Owner at the address given in the "Information for Bidders" enclosed in a sealed opaque envelope. Place on the envelope the name of bidder, project name, project number (if given) and date of bid opening. Bidders shall acknowledge addendums including dates, if any.

Bids received more than ninety-six (96) hours before bid opening as well as bids received after the time set for opening bids, will not be considered and will be returned unopened.

### 2. Alternates

Bidder shall state in his proposal the amount to be deducted from or added to the basic bid, for all alternates as specified in the specifications.

### 3. Bid Security to be Furnished by Each Bidder with His Bid

Each proposal must be accompanied by a certified check or a bid bond in an amount equal to 5% of the total amount of the proposal as guarantee that, if awarded the contract, the bidder will execute the contract and furnish bonds and insurance as required in these Standard Requirements. The successful bidder's check or bid bond will be retained until (s)he has entered into a satisfactory contract and furnished bonds and insurance as required in these Standard Requirements. The Owner reserves the right to hold the bid security of the three lowest bidders until the successful bidder has entered into a contract and has furnished the required bonds and insurance. No Bid Security is required if bid is \$7,500.00, or less.

Should the successful bidder fail to enter into a contract and furnish the required bonds and insurance within ten (10) calendar days after the contract has been awarded, then there shall be forfeited to the Owner the cost of republication of notice to bidders, all actual expenses incurred by reason of bidder's default and the difference between the low bid of the defaulting bidder and the amount of the bid of the bidder whom the contract is subsequently awarded, but not to exceed the amount of said check or bond.

### 4. Scope of Work

The work contemplated under this contract includes all labor, materials, transportation, equipment and service necessary for, and reasonably incidental to the completion of all construction and mechanical work in connection with the project described in the specifications and the accompanying drawing(s).

### 5. Special Notice

The competency and responsibility of bidders and of their proposed subcontractors will be considered in making the award. The Owner reserves the right to reject any or all bids, and at its discretion, to waive any irregularities in the bid form.



6. Examination of Site & Conditions

Before submitting a proposal, bidders must carefully examine the drawings and specifications, visit the site of the work and fully inform themselves as to all existing conditions and limitations. They shall include in the proposal, a sum to cover the cost of all items contemplated by the contract.

7. Interpretation of Proposed Contract Documents

If a bidder finds discrepancies in, or omissions from, the drawings or documents, or if he is in doubt as to their meaning he shall at once notify the Owner. Any request for interpretation of drawings or documents, request for approval of materials when certain manufacturer's material or its approved equal are called for, apparent omissions or discrepancies shall be presented to the Owner's Consulting Engineer.

8. Contract Security

The contractor shall furnish the following surety bonds when the contract is awarded:

- (A) Performance Bond - 100% of Contract
- (B) Statutory Bond - 100% of Contract
- (C) Maintenance Bond - 100% of Contract

Forms will be furnished by the Owner's Consulting Engineer. If a contract is \$7,500.00 or less, no bonds are required.

9. Contractor's Liability and Builders All Risk Insurance

The contractor shall furnish the following insurance when the contract is awarded:

- (A) Workmen's Compensation: The contractor shall carry on his work in accordance with the requirements of the Workmen's Compensation Law of the State of Oklahoma, and shall not reject the provisions thereof during the life of this contract.
- (B) Public Liability and Property Damage: He shall also protect himself by liability insurance against any and all claims for damages to persons or property which may arise out of operations under this contract, whether such operations be by himself or a subcontractor or by anyone directly employed by either of them. Certificates of such insurance shall be filed with the Owner and shall be subject to its approval as to adequacy of protection. The public liability insurance shall have limits of not less than \$100/300,000 and the property damage insurance not less than \$50/100,000.
- (C) Builders Risk: Provide Builders Risk Insurance only if called for in other sections of the specifications.

10. Contract Changes - Change Orders to the Contract

- (A) All proposals for changes in work shall be submitted by the Contractor in a lump sum amount. (Must be broken down as shown in Section 10, paragraph d.)
- (B) In considering proposals for change involving added work, omitted work, or any combination thereof, check of estimates in detail will be made by the Owners representative, utilizing unit prices where specified or agreed upon, with the view of arrival at equitable adjustment.
- (C) When necessity to proceed with a change does not allow sufficient time to properly check a proposal or because of failure to reach an agreement, the Owner may order the Contractor to proceed on the basis of price to be determined at the earliest practical date, but not to be more than the increase or less than the decrease proposal.
- (D) With each proposal for a change involving an increase or a decrease in the amount of the contract, the Contractor shall submit separately an itemized breakdown that will include, but not be limited to, the following:

- (1) All materials with cost per item and extension.
- (2) All labor with number of hours per operation, cost per hour and extension.
- (3) Itemize the following:
  - a. All Insurance Cost
  - b. Bond Cost
  - c. Social Security Taxes
  - d. Workmen's Compensation
  - e. Employee Fringe Benefits
  - f. Overhead Cost
  - g. Profit

(E) Proposals and breakdown should be submitted as promptly as possible.

11. Labor

The Contractor shall pay the prevailing wage and comply with all State and Federal Laws in the employment and payment of labor.

12. Payroll Records

In compliance with Senate Bill 132 as passed by the Thirtieth Oklahoma Legislature, the Contractor and each subcontractor shall keep an accurate record showing the names and occupation of all workmen employed by them, in connection with the public work, and showing also the actual wages paid to each of the workmen, which record shall be open at all reasonable hours to the inspection of the Owner.

13. Affidavits

For contracts under \$7,500.00, an affidavit must be submitted to the Owner with the final estimate for payment stating that all indebtedness incurred by the Contractor or his subcontractors who perform work in the performance of such contract for labor, materials and repairs to and parts for equipment used and consumed in the performance of said contract, has been paid in full.

14. Permits

The Contractor shall procure all necessary permits, pay for the same, and shall obtain all official licenses for the construction of the work and for temporary obstructions, enclosures, openings of streets for pipes, walls, etc., arising from the construction and completion of the work as mentioned in the specifications. He shall be responsible for all violations of the law for any cause in connection with the construction of the work caused by obstructing streets or sidewalks or otherwise, and he shall give all requisite notice to public authorities.

15. Modifications of Proposal

No oral or telephone proposals for modifications will be considered. However, telegraphic will be considered when bids are in due form and telegram is received not less than one hour before bid opening schedule. Successful bidder may be required to enter into a formal contract; however, in the absence of such a requirement, it is agreed by the bidder that this bid, together with a Notice of Award of Contract in the form of a Purchase Order, signed by the Owner will constitute a contract binding both parties thereto.

16. Documents

All drawings, specifications, and other contract documents shall be returned to the Owner in an unutilated condition, without any marks or annotations, not more than seven (7) days after bids are opened.

17. Interpretation of Documents

The documents forming the contract are complementary and what is called for by one shall be as binding as if it were called for by all. They are intended to include all detail of labor and material reasonably necessary for the proper execution of the work. Should there be any discrepancy between the specifications and the plan, the specifications shall have precedence. Should there be any discrepancy between the special provisions and the "Standard Requirements", the special provisions shall apply.

18. Definition of Terms

In the Contract Documents the following terms shall be understood as herein below defined:

- (A) "Owner" means a political subdivision of the state that is eligible to receive a loan or grant from the state's Financial Assistance Program. Eligible entities include counties, towns and municipalities, rural water districts, irrigation districts, rural sewage districts, public works authorities, water conservancy districts and school districts.
- (B) "Contractor" means the individual, firm or corporation awarded the general contract for the work contemplated. The term contractor is mentioned herein as masculine singular merely for convenience and without special significance.
- (C) "Project" means any engineering undertaking which qualifies for a loan or grant from the state's Financial Assistance Program. Eligible projects include water supply reservoirs, storage tanks, water treatment systems, water distribution systems, wastewater collection systems, wastewater treatment systems and storm sewer pipes.
- (D) "Engineer" means the Owner's consultant that prepares contract documents for the work contemplated.
- (E) "Government" or "State" (referred to in earlier text) means the State of Oklahoma acting through the Oklahoma Water Resources Board.
- (F) "Bidder" means any person, firm, or corporation submitting a Bid for the project.
- (G) "Bid" means the offer or proposal of the Bidder submitted on the prescribed forms which consist of the Bid Proposal and Bid & Schedule. The Bid shall set forth the prices for work to be performed.
- (H) "Work" means all labor necessary to produce the construction required by the Contract Documents, and all materials and equipment incorporated or to be incorporated in the Project.

19. Materials and Workmanship

The intent of the plans and specifications is to provide for the construction and completion in every detail of the work described therein, and it is understood that the Contractor will furnish all labor and materials, tools, equipment, transportation and necessary supplies such as may be required to execute the contract in a satisfactory and workmanlike manner and in accordance with the plans, specifications, and terms of the contract. Unless otherwise specified, all materials shall be new. All materials shall be of the best of the several kinds called for and it is intended that only the best methods and materials, as recognized by usage in first class work, shall be used. All workmanship shall be of the highest quality in every particular. Only workmen skilled in their respective lines shall be employed in order to achieve the above results. The Contractor shall at all times maintain strict discipline and good order among his employees.

20. Time for Completion and Liquidated Damages

Time is of the essence on this contract. The Contractor shall at all times carry on the work diligently and without delay and shall punctually fulfill all requirements herein made of him.

The date of beginning and the time for completion of the WORK are essential conditions of the CONTRACT DOCUMENTS and the WORK embraced shall be commenced on a date specified in the NOTICE TO PROCEED.

The CONTRACTOR will proceed with the WORK at such rate of progress to insure full completion within the CONTRACT TIME. It is expressly understood and agreed, by and between the CONTRACTOR and the OWNER, that the CONTRACT TIME for the completion of the WORK described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the WORK.

If the CONTRACTOR shall fail to complete the WORK within the CONTRACT TIME, or extension of time granted by the OWNER, then the CONTRACTOR will pay to the OWNER the amount for liquidated damages as specified in the BID for each calendar day that the CONTRACTOR shall be in default after the time stipulated in the CONTRACT DOCUMENTS.

The CONTRACTOR shall not be charged with liquidated damages or any excess cost when the delay in completion of the WORK is due to the following and the CONTRACTOR has promptly given WRITTEN NOTICE of such delay to the OWNER or ENGINEER:

- (A) To any preference, priority or allocation order duly issued by the OWNER.
- (B) To unforeseeable causes beyond the control and without the fault or negligence of the CONTRACTOR, including but not restricted to, acts of God, or of the public enemy, acts of the OWNER, acts of another CONTRACTOR in the performance of a contract with the OWNER, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and abnormal and unforeseeable weather; and
- (C) To any delays of SUBCONTRACTORS occasioned by any of the causes specified in paragraphs (A) and (B) above.

21. Royalties and Patents

The Contractor shall pay all royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and shall save harmless from loss on account thereof. The Contractor shall protect from damage all water, sewer, gas, steam or other pipes or conduits, all hydrants and all other property that is liable to become displaced or damaged by the execution of the work, and when so ordered the Contractor shall suspend any work that may be subject to damage by climatic conditions.

22. Inspection

A representative of the Owner shall be present at all time that work is in progress. Any work completed without the inspector on site or improperly done shall be removed and replaced at the Contractors expense. The Contractor shall notify the Owner at least two days prior to commencing work. If work progress is delayed due to weather or material shortages, two days notice will be given in advance of returning to work, unless otherwise authorized by the Owner.

23. Correction of Work After Final Payment

Neither the final certificate of payment nor any provision in the Contract Documents shall relieve the Contractor of responsibility for faulty materials or workmanship and; unless otherwise specified, he shall remedy any defect due thereto and pay for any damages to other work resulting therefrom, which may appear within a period of one (1) year from the date of acceptance of the completed building or installation. The Owner shall give notice of observed defects with reasonable promptness.

24. Superintendents

The Contractor shall keep on this work, during its progress, a competent superintendent, who shall represent the Contractor in his absence. Important directions to the superintendent shall be confirmed in writing by the Contractor.

25. Owner's Rights

If the Contractor should be adjudged as bankrupt, or if he should make a general assignment for the benefit of his creditors, or if a receiver should be appointed on account of his insolvency, or if he should persistently or repeatedly refuse or should fail, except in cases for which extension of time is provided, to supply enough properly skilled workmen or proper materials to carry on this work as required by the contract, or if he should fail to make prompt payment to subcontractors for materials, or labor, or persistently disregard Laws, Ordinances or the instructions of the Owner's representatives or otherwise be guilty of substantial violation of any provision of the contract, then the Owner may without prejudice to any other right or remedy and after giving the Contractor seven (7) days written notice, terminate the agreement with the Contractor and take possession of the premises and of all materials and appliances thereon and finish the work by whatever method it may deem expedient. In such case the Contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the contract price shall exceed the expense of finishing the work, including compensation for additional managerial and administrative services, such excess shall be paid to the Contractor. If such expense shall exceed such unpaid balance, the Contractor shall pay the difference to the Owner. The expense incurred by the Owner as herein provided, and the damage incurred through the Contractor's default, shall be certified by the Engineer or Owner's representative.

26. Corrections of Work Before Final Payment

The Contractor shall promptly remove from the premises all materials condemned by the Owner's representative as failing to conform to the contract, whether incorporated in the work or not, and the Contractor shall promptly replace and re-execute his own work in accordance with the contract and without expense to the Owner and shall bear the expense of making good all work of other contractors destroyed or damaged by such removal or replacement.

27. Use of Premises

The Contractor shall confine his apparatus, storage of materials, and operation of his work to the limits indicated by the Law, Ordinances, Permits or directions of the Owner, and shall not unreasonably encumber the premises with his materials. The Contractor shall enforce the Owner's instructions regarding signs, advertisements, fires, and smoking.

28. Protection

The Contractor shall protect from damage all buildings, trees, shrubs, lawns, and landscape work, and shall provide guards and covering for them. Any such property damage shall be repaired or replaced at the Contractor's expense. Smoking on certain parts of the site premises shall be prohibited and signs to that effect shall be posted conspicuously. Fires shall not be built on the premises except with the express consent of the State.

29. Cutting, Patching and Excavation

The Contractor shall do all cutting, fitting or patching of his work that may be required to make its several parts come together properly and fit it to receive or be received by work of other contractors shown upon or reasonably implied by the Drawings and Specifications for the completed structure, and he shall make good after them as the Owner's representative may direct.

The Contractor shall do all cutting of walls and pavements that may be necessary to install the work and shall, after the equipment is installed, restore such surfaces to an approved condition.

All excavating necessary to the execution of this contract shall be done by the Contractor, who shall also furnish all labor necessary to backfill properly all excavation as the equipment is installed and inspected.

30. Payment to Contractor

Partial payment shall be due the Contractor each month during the course of construction for work performed during the preceding calendar month. The Contractor shall submit to the Owner an application for each payment and, if required, receipts or other vouchers showing his payment for material and labor, including payment to subcontractors. Such

applications shall be submitted by the thirtieth (30th) of each month and the Contractor shall submit to the Engineer, a schedule of values of the various parts of the work, aggregating the total sum of the contract. Kingfisher County will pay \$750,000 of contracted price, the RWD is responsible for the remaining balance.

31. Retainage

Ten percent (10%) of all monies earned by the Contractor, as approved by the Engineer will be retained by the Owner until at least 50% of the project is completed. With satisfactory progress being made as determined by the Owner, and upon approval of the Surety Company, the retainage will then be reduced to 5% of the amount earned to date.

Interest shall be paid to the Contractor at the rate of three-fourths percent (3/4%) per month on the final payment if the payment is delayed more than thirty days after the contract is completed, accepted and all required materials, certificates and other required documentation have been furnished to the Owner by the Contractor.

32. Protection of Workmen & Property

The Contractor shall erect and maintain good and sufficient guards, barricades and signals at all unsafe places at or near the work, and shall in all cases, maintain safe passageways at all road crossings, crosswalks, and street intersections; and shall do all other necessary things to prevent accident, injury or loss of any kind.

33. Responsibility for Damages

The Contractor shall be responsible for all damage to property, injury to persons, and loss, expense, inconvenience, and delay that may be caused by or result from the carrying out of the work to be done under this contract, or from any act, omission, or neglect of the Contractor, his subcontractors or employees.

The Contractor shall indemnify and save harmless the Owner, Engineer and the Government from all suits or actions of every name and description brought forth on account of damage or injury, loss, expense, inconvenience, or delay received or sustained by any person or damage caused to any property, which damage, injury, loss, expense, inconvenience or delay may have been caused by or may have resulted from the carrying out of the work to be done under this contract, or from any act, omission, or neglect of the Contractor, his subcontractor or his employees; provided however, that the Owner shall promptly call to the attention of the Contractor any claim filed with the Owner for any such injury or damage, and if suit or action be commenced to recover for any such claim or damage, that Owner shall, before time for answer expires or before default has been entered, furnish the Contractor or his surety with a copy of the complaint. In case there should be any suits or actions, so much of the money due to the Contractor under and by virtue of the contract as shall be considered necessary by the Engineer, may be retained by the Owner until such suits or actions shall have been settled or until the interests of the Owner, or of the persons concerned, have been otherwise satisfactorily protected.

34. Personal Liability of Public

In carrying out the provisions hereof, or in exercising any power or authority granted to him by the contract, there will be no liability upon the employees of the Owner personally or officials of the Government it being always understood that in such matters they act as the agents and representatives of the Owner.

35. Hours of Labor

The Law of the State of Oklahoma prohibits the employment of labor for more than eight (8) hours in any one day or for more than forty-eight (48) hours in any one week, except in cases of emergency when other competent help is not available, and in such case the Contractor is required to pay all said employees time and a half wages for all overtime.

36. Liability for Claims

The Contractor shall promptly, as due, make payments to all persons supplying labor or materials for the prosecution of the work provided for in this contract, and shall also pay all contributions or amounts due the State Industrial Accident Fund and the Unemployment Compensation Fund from such Contractor or subcontractor in connection with the performance of this work.

The Contractor shall not permit any lien or claim to be filed or prosecuted against the Owner or Government on account of any labor or materials furnished. Should the Contractor fail, neglect or refuse to make prompt payment of any claim for labor or services, furnished by any person in connection with this contract as said claim becomes due, whether said services and labor be performed for said Contractor or subcontractor, then in such event, the Owner may pay such claim to the person furnishing such labor or services and charge the amount thereof against funds due or to become due the Contractor by reason of this contract, but the payment of any such claim in the manner herein authorized shall not relieve the Contractor or his surety from his or its obligation with respect to any unpaid claims.

37. Medical Care

The Contractor shall promptly, as due, make payment to any persons, co-partnership, association or corporation furnishing medical, surgical and hospital care or other necessary care and attention incident to sickness and injury of the employees of such Contractor of all sums which the Contractor agrees to pay for such services and all moneys which the Contractor may deduct from the wages of his employees for such services, and any contract entered into pursuant thereto, and all moneys collected or deducted from the wages of said employees pursuant to any laws, contract or agreement for the purpose of providing or paying for such services.

38. Assignment

The Contractor shall not assign the contract or sublet it as a whole without written consent of the Owner nor shall the Contractor assign any moneys due or to become due to him hereunder, without previous consent of the Owner.

39. Purchase of Materials

Preference shall be given to materials and products manufactured in the State of Oklahoma. (61 O.S. 1981, Sec. 9 & 10)

40. Prosecution of the Work

Contractor shall commence work on this project within ten (10) days after receiving the Notice to Proceed. The work shall be continuously carried to completion subject to the provisions of the contract. The progress of the work shall be at a rate sufficient to complete the contract within the time specified unless otherwise agreed with the Owner.

41. Cleaning

The Contractor shall keep the work site clean at all times and shall remove all rubbish daily. Upon completion of the work, the Contractor shall remove all rubbish from the site and all tools, equipment and surplus materials, and shall leave the site "broom clean". Under no circumstances shall the Contractor dispose of anything on any property, both private or public, without the written consent of the landowner and prior approval of the Owner. All trash and waste materials shall be disposed of at the proper landfill facilities. In case of dispute, the Owner may remove the materials or trash and charge the cost to the Contractor.

42. Taxes

Without additional expense to the Owner the Contractor shall be liable for all applicable Federal, State and local taxes. Rural Water Districts are exempt from State and Federal Taxes.

43. Salvage

All material removed from a renovation project shall be coordinated with the Owner. If the Owner wants to keep the salvaged material, then the Contractor shall move it to the area designated by the Owner. If the Owner does not want the salvaged material, then the Contractor shall remove it from the premises and dispose of it.

44. Ownership of Drawings

All shop drawings, miscellaneous drawings or documents prepared by the Contractor, subcontractor, or material supplier to be used in the construction of the project described in the specifications shall become the property of the Owner. All documents, drawings, shop drawings, etc., shall be, upon request, delivered to the Owner at any time during the progress of the project.

45. Subcontracting

The contractor may utilize the services of specialty subcontractors on those parts of the work which, under normal contracting practices, are performed by specialty subcontractors. The contractor shall not award work to subcontractor(s) in excess of fifty (50) percent of the contract price without prior written approval of the owner. The contractor shall be fully responsible to the owner for the acts and omissions of his subcontractor(s), and of persons either directly or indirectly employed by them as he is for the acts and omissions of persons directly employed by him.

The contractor shall cause appropriate provisions to be inserted in all subcontracts relative to work to bind subcontractor(s) to the contractor by the terms of the contract documents insofar as applicable to the work of subcontractor(s) and to give the contractor the same power as regards terminating any subcontract that the owner may exercise over the contractor under any provision of the contract documents. Nothing contained in this contract shall create any contractual relation between any subcontractor and the owner.



**CERTIFICATE OF APPROVAL**

I, the undersigned \_\_\_\_\_ the duly authorized and acting legal representative of Okarche RWD Inc. Oklahoma, do hereby certify as follows:

I have examined the construction contract between the contractor, \_\_\_\_\_ and the above named entity, and the surety bonds given by the contractor in connection with the performance of said contract, and the manner of execution of the contract and surety bonds; and I am of the opinion that each of the aforesaid agreements has been duly executed by the proper parties thereto, acting through their duly authorized representatives; that said representatives have full power and authority to execute said agreements on behalf of the respective parties named therein; and that the foregoing contract and surety bonds constitute valid and legally binding obligations upon the parties executing the same in accordance with the terms, conditions, and provisions thereof.

Dated this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_

\_\_\_\_\_  
Attorney

\_\_\_\_\_ County, Oklahoma

**NOTICE OF AWARD**

TO:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**PROJECT DESCRIPTION:**

**48,090 L.F. 6" PE DR 11 Complete in Place, 9 - 6" Gate Valves, 7 - Connections to Existing  
Water Lines, 2,600 L.F. Directional Bore for Creek Crossings, 475 L.F. Road Bores and Casing  
and all appurtenances**

The OWNER has considered the BID submitted by you for the above described WORK in response to its Advertisement for Bids dated \_\_\_\_\_, 2022, and Information for Bidders.

You are hereby notified that your BID has been accepted for items in the amount \$ \_\_\_\_\_

You are required by the Information for Bidders to execute the Agreement and furnish the required Contractor's Performance Bond, Statutory Bond, Maintenance Bond and Certificate of Insurance within ten (10) calendar days from the date of this Notice, said OWNER will be entitled to consider all your rights arising out of the OWNER's acceptance of your BID as abandoned and as a forfeiture of your BID BOND. The OWNER will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the OWNER.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 2022.

Owner: Okarche RWD Inc.

By: \_\_\_\_\_  
(Signature)

Name: \_\_\_\_\_  
(Print or Type)

Title \_\_\_\_\_  
(Print or Type)

**ACCEPTANCE OF NOTICE**

Receipt of the above NOTICE OF AWARD is hereby acknowledged by \_\_\_\_\_ this the \_\_\_\_\_ day of \_\_\_\_\_, 2022.

By: \_\_\_\_\_  
(Signature)

Title \_\_\_\_\_  
(Print or Type)

**NOTICE TO PROCEED**

To: \_\_\_\_\_ Date: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**PROJECT:**  
48,090 L.F. 6" PE DR 11 Complete in Place, 9 - 6" Gate Valves, 7 - Connections to Existing  
Water Lines, 2,600 L.F. Directional Bore for Creek Crossings, 475 L.F. Road Bores and Casing  
and all appurtenances

You are hereby notified to commence **WORK** in accordance with the Agreement dated \_\_\_\_\_ on or before  
\_\_\_\_\_, 2022, and you are to complete the **WORK** within 30 consecutive calendar days thereafter.  
The date completion of all **WORK** is therefore \_\_\_\_\_ 2022.

Owner: Okarche RWD Inc.  
By: \_\_\_\_\_  
(Signature)  
Name: \_\_\_\_\_  
(Print or Type)  
Title \_\_\_\_\_  
(Print or Type)

**ACCEPTANCE OF NOTICE**

Receipt of the above **NOTICE OF PROCEED** is hereby acknowledged by \_\_\_\_\_ this  
the \_\_\_\_\_ day of \_\_\_\_\_, 2022.

By: \_\_\_\_\_  
(Signature)  
Title \_\_\_\_\_  
(Print or Type)

**RELEASE OF CLAIMANTS**

Date: \_\_\_\_\_

Project:

48,090 L.F. 6" PE DR 11 Complete in Place, 9 - 6" Gate Valves, 7 - Connections to Existing  
Water Lines, 2,600 L.F. Directional Bore for Creek Crossings, 475 L.F. Road Bores and Casing  
and all appurtenances

Dear Sir:

I hereby acknowledge receipt of \_\_\_\_\_ ---Dollars (\$\_\_\_\_\_) in full payment of my contracted dated \_\_\_\_\_, for improvement work which I did for you and which is described in my contract.

I Certify that I have paid in full for all materials purchased and all labor employed in the performance of this contract and that there are no claims against me as an employer under this contract on account of injuries sustained by workmen employed by me thereunder. I hereby release you from any claims arising by virtue of this contract.

**WARNING**

The making of any false statement or misrepresentation herein may be a crime punishable under Title 18 U.S.C. §1001 which provides in part: "Whoever, in any matter within the jurisdiction of any department or agency of the United States knowingly and wilfully...makes false representation, or makes or uses any false writing or document knowing the same to contain any false, fictitious or fraudulent statement or entry, shall be fined not more than \$10,000.00 or imprisoned not more than five years, or both."

Sincerely,

\_\_\_\_\_  
Contractor

## SECTION 10000 - METHOD OF PAYMENT

### PART 1 - GENERAL REQUIREMENTS

1. All construction progress payment shall be handled as follows:
  - A. The contractor shall prepare the attached pay estimate and submit it to the engineer's field inspector.
  - B. The inspector shall check the estimate for accuracy and completeness and recommend any changes.
  - C. The Contractor shall make the revisions to the estimate and resubmit 5 copies to the inspector, who in turn, shall forward it to the Engineer for review and approval.
2. Project Overview
  - A. 48,090 L.F. 6" PE DR 11 Complete in Place, 9 - 6" Gate Valves, 7 - Connections to Existing Water Lines, 2,600 L.F. Directional Bore for Creek Crossings, 475 L.F. Road Bores and Casing and all appurtenances

### PART 2 - MEASUREMENT AND PAYMENT

#### 2.1 6" PE DR 11 200 - L.F.

Payment for this item shall be for actual linear foot installed. This item shall also include but not be limited to the following: Tracer Wire, Disinfection testing, Leakage testing, tees, elbows, couplings, anchors, all materials needed for connection to existing lines and weights for creek crossings. Installation shall be in accordance with plans and specifications.

#### 2.2 Gate Valves with Boxes - Each

Payment for this item shall be for actual valve installed. This item shall also include but not be limited to the following: thrust blocking, valve and cast iron box. Valves and installation shall be in accordance with plans and specifications. Valves with thrust blocking shall be wrapped in "Visqueen" to prevent cement from touching the valves and bolts.

#### 2.3 Connections to Existing Water Lines - Each

Payment for this item shall be for actual connection to existing water line made. This item shall include, but not be limited to the following: all necessary connections, cutting and capping of existing lines that will no longer be in service. Connections and Capping shall be in accordance with plans and specifications.

2.4 Fire Hydrants and Valve - Each

Payment for this item shall be for actual Fire Hydrant and valve installed. This item shall also include but not be limited to the following: thrust blocking, valve and cast iron box, hydrant. Hydrant and Valves and installation shall be in accordance with plans and specifications. Valves with thrust blocking shall be wrapped in "Visqueen" to prevent cement from touching the valves and bolts.

2.5 Boring for Road Crossing and Creek Crossing - L.F.

Payment for this item shall be for actual linear foot Bored. This item shall also include but not be limited to the following: Tracer Wire, Disinfection testing, Leakage testing, tees, elbows, couplings, anchors, all materials needed for connection to existing lines and weights for creek crossings. Installation shall be in accordance with plans and specifications.

END OF SECTION

## SECTION 10010 - COORDINATION AND MEETINGS

### PART 1 - GENERAL

#### 1.1 SECTION INCLUDES

- A. Coordination
- B. Field Engineering
- C. Alteration Procedures
- D. Cutting and Patching
- E. Preconstruction Conference
- F. Progress Meetings

#### 1.2 COORDINATION

- A. Coordinate scheduling, submittals, and Work of the various Sections of specifications to assure efficient and orderly sequence of demolition.
- B. Coordinate completion and cleanup of Work of separate Sections in preparation for Substantial Completion.

#### 1.3 FIELD ENGINEERING

- A. Maintain a complete and accurate log of survey work as it progresses.
- B. Verify location of survey control points prior to starting work.
- C. Promptly notify Engineer of any discrepancies discovered.
- D. Contractor shall locate and protect survey control and reference points. Contractor shall report immediately to Engineer whenever any control or reference point is lost or destroyed or requires relocation.
- E. Verify control datum for survey is that shown on Drawings.
- F. Provide field engineering services. Utilize recognized engineering survey practices. Establish elevations, lines, and levels utilizing recognized engineering survey practices.

#### 1.4 ALTERATION PROJECT PROCEDURES

- A. Remove, cut, and patch work in a manner to minimize damage and to provide a means of restoring products and finishes to original specified condition.
- B. Patch or replace portions of existing surfaces which are damaged, lifted, discolored, or showing other imperfections.

## 1.5 CUTTING AND PATCHING

- A. Employ skilled and experienced installer to perform cutting and patching.
- B. Execute Work by methods which will avoid damage to other Work, and provide proper surfaces to receive patching and finishing.
- C. Cut rigid materials using masonry saw or core drill.
- D. Identify any hazardous substance or condition exposed during the Work to the Engineer for decision or remedy.

## 1.6 PRECONSTRUCTION CONFERENCE

- A. Engineer will schedule a conference after Notice of Award.
- B. Attendance Required: Owner, Engineer and Contractors.
- C. Agenda:
  - 1. Execution of Owner-Contractor Agreement
  - 2. Submission of executed bonds and insurance certificates.
  - 3. Distribution of Contract Documents.
  - 4. Submission of list of Subcontractors, Schedule of Values, and progress schedules.
  - 5. Designation of personnel representing the parties in Contract, and the Engineer.
  - 6. Procedures for processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders and Contract closeout procedures.
  - 7. Scheduling.

## 1.7 PROGRESS MEETINGS

- A. Schedule and administer meetings throughout progress of the Work at maximum monthly intervals.
- B. Make arrangements for meetings, prepare agenda with copies for participants, preside at meetings, record minutes, and distribute copies within two days to Engineer, Owner, Other Contractors, subcontractors, suppliers, participants, and those affected by decisions made.



C. Attendance Required: Job Superintendent, major subcontractors, Owner, Engineer, Resident Project Representative, as appropriate to agenda for each meeting.

D. Agenda:

1. Review minutes of previous meetings.
2. Review of Work progress.
3. Field observations, problems, and decisions.
4. Identification of problems which impede planned progress.
5. Review of submittals schedule and status of submittals.
6. Maintenance of progress schedule.
7. Corrective measures to regain projected schedules.
8. Plan progress during succeeding work period.
9. Coordination of projected progress with Owner's operations and between the various Contractors.
10. Maintenance of quality and work standards.
11. Effect of proposed changes on progress schedule and coordination.
12. Other business relating to Work.

END OF SECTION

## SECTION 10011 - SUBMITTALS

### PART 1 - GENERAL

#### 1.8 SECTION INCLUDES

- A. Submittal procedures.
- B. Demolition progress schedules.
- C. Shop drawings.

#### 1.9 SUBMITTAL PROCEDURES

- A. Transmit each submittal with Engineer approved form.
- B. Sequentially number the transmittal forms. Resubmittals to have original number with an alphabetic suffix.
- C. Identify Project, Contractor, Subcontractor or supplier; pertinent Drawing sheet and detail numbers, and specification Section number, as appropriate.
- D. Apply Contractor's stamp, signed or initialed by authorized Contractor personnel, certifying that review, verification of Products required, field dimensions, adjacent construction Work, and coordination of information, is in accordance with the requirements of the Work and Contract Documents. Application of the stamp with signature or initials filled in shall be conclusive as to the making of such certification.
- E. Schedule submittals to expedite the Project, and deliver them to Engineer at business address. Coordinate submission of related items.
- F. Identify variations from Contract Documents and Product or system limitations.
- G. Provide space for Contractor and Architect/Engineer review stamps.
- H. Revise and resubmit submittals as required, identify all changes made since previous submittal by specific notation or color highlighting on the drawings or product data.
- I. Distribute copies of reviewed submittals to concerned parties. Instruct parties to promptly report any inability to comply with provisions.

#### 1.10 DEMOLITION PROGRESS SCHEDULES

- A. Submit initial progress schedule in duplicate within 15 days after date of Owner-Contractor Agreement for Engineer review.
- B. Revise and resubmit as required.
- C. Submit revised schedules bi-weekly, identifying changes since previous version.

- D. Indicate submittal dates required for shop drawings, product data, samples, and product delivery dates, including those furnished by Owner.

1.11 SHOP DRAWINGS

- A. Submit the number of opaque reproductions which Contractor requires, plus two copies which will be retained by Engineer.
- B. After review, reproduce and distribute in accordance with paragraph on Procedures above and for Record Documents described in Section 01700 - Contract Closeout.

END OF SECTION

## SECTION 10012 - QUALITY CONTROL

### PART 1 - GENERAL

#### 1.12 SECTION INCLUDES

- A. Quality assurance/control
- B. References

#### 1.13 QUALITY ASSURANCE/CONTROL

- A. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances codes, or specified requirements indicate higher standards or more precise workmanship.
- B. Utilize workers qualified to produce workmanship of specified quality.

#### 1.14 REFERENCES

- A. Conform to reference standard by date of issue current on date for receiving bids.
- B. Should specified reference standards conflict with Contract Documents, request clarification from Engineer before proceeding.
- C. The contractual relationship of the parties to the Contract shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.

END OF SECTION

## SECTION 10013 - CONTRACT CLOSEOUT

### PART 1 - GENERAL

#### 1.15 SECTION INCLUDES

- A. Closeout Procedures.
- B. Final Cleaning.
- C. Project Record Documents.

#### 1.16 RELATED SECTIONS

- A. Section 01300 - Submittals

#### 1.17 CLOSEOUT PROCEDURES

- A. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Engineer's inspection.
- B. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due.
- C. Make all submittals not previously made.

#### 1.18 FINAL CLEANING

- A. Execute final cleaning prior to final inspection.
- B. Clean site; sweep paved areas, rake clean landscaped surfaces.
- C. Remove waste and surplus materials from the site.

#### 1.19 PROJECT RECORD DOCUMENTS

- A. Maintain on site, one set of the following record documents; record actual revisions to the Work:
  - 1. Contract Drawings.
  - 2. Specifications
  - 3. Addenda.
  - 4. Change Orders and other Modifications to the Contract.
  - 5. Reviewed shop drawings.
- B. Store Record Documents separate from documents used for demolition.
- C. Record information concurrent with demolition progress.

- D. Record Documents and Shop Drawings: Legibly mark each item to record actual demolition including:
  - 1. Measured horizontal and vertical locations of underground pipelines and appurtenances, referenced to permanent surface improvements.
- E. Submit documents to Engineer.

END OF SECTION

## SECTION 10014 - MATERIAL AND EQUIPMENT

### PART 1 - GENERAL

#### 1.1 SECTION INCLUDES

- A. Products.
- B. Transportation and Handling.
- C. Storage and protection.
- D. Product options.
- E. Substitutions.

#### 1.2 RELATED SECTIONS

- A. Section 01300 - Submittals

#### 1.3 PRODUCTS

- A. Products: Means new material, machinery, components, equipment, fixtures, and systems forming the Work. Does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work. Products may also include existing materials or components required for reuse.
- B. Do not use materials and equipment removed from existing premises, except as specifically permitted by the Contract Documents.
- C. Provide interchangeable components of the same manufacturer, for similar components.

#### 1.4 TRANSPORTATION AND HANDLING

- A. Transport and handle Products in accordance with manufacturer's instructions.
- B. Promptly inspect shipment to assure that products comply with requirements, quantities are correct, and products are undamaged.
- C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

#### 1.5 STORAGE AND PROTECTION

- A. Store and protect Products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive Products in weather-tight, climate controlled enclosures.
- B. For exterior storage of fabricated Products place on sloped supports above ground.

- C. Cover Products subject to deterioration with impervious sheet covering. Provide ventilation to avoid condensation.
- D. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
- E. Provide equipment and personnel to store Products by methods to prevent soiling, disfigurement, or damage.
- F. Arrange storage of Products to permit access for inspection. Periodically inspect to assure Products are undamaged and are maintained under specified conditions.

## 1.6 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Any Product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Products of manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions (the words "or equal"): Submit a request for substitution for any manufacturer not named.

## 1.7 SUBSTITUTIONS

- A. Engineer will consider requests for Substitutions only within 15 days after date of the Notice to Proceed.
- B. Substitutions may be considered when a Product becomes unavailable through no fault of the Contractor.
- C. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents.
- D. A request constitutes a representation that the Contractor:
  - 1. Has investigated proposed Product and determined that it meets or exceeds the quality level of the specified Product.
  - 2. Will provide the same warranty for the Substitution as for the specified Product.
  - 3. Will coordinate installation and make changes to other Work which may be required for the Work to be complete with no additional cost to Owner.



4. Waives claims for additional costs or time extension which may subsequently become apparent.
- E. Substitutions will not be considered when they are indicated or implied on shop drawings or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.
- F. Substitution Submittal Procedure:
1. Submit three copies of request for Substitution for consideration. Limit each request to one proposed Substitution.
  2. Submit shop drawings, Product data, and certified test results attesting to the proposed Product equivalence.
  3. The Engineer will notify Contractor, in writing, of decision to accept or reject request.

END OF SECTION

## SECTION 10022 - TRENCH EXCAVATION AND BACKFILL

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. The Contractor shall furnish all labor, equipment, and materials to excavate and backfill trenches for installation of pipe and appurtenances as shown on the plans or as directed by the Engineer.

#### 1.2 QUALITY ASSURANCE

- A. The Owner's Representative shall be the final judge of suitability of all materials used in the backfill.
- B. Materials that fail to meet the requirements of the specification, whether in stockpiles or in place, shall be removed.

#### 1.3 PROTECTION

##### A. Protection of Existing Improvements:

1. Protection shall be provided to prevent damage to existing improvements indicated to remain in place on the Owner's property and adjoining properties.
2. Damaged improvements shall be restored to their original condition, as acceptable to parties having jurisdiction.
3. Land areas outside the limits of permanent work performed under this Contract shall be preserved in their present condition. The Contractor shall confine his construction activities to areas defined for work on the drawings or specifically assigned by the Owner's Representative for his use.

##### B. Protection of Existing Utilities:

1. The Contractor shall verify all existing utility locations either shown or not shown on the drawings.
2. The Contractor shall immediately notify the Owner's Representative and applicable utility company of any damages to existing utilities.
3. Repairs to damaged utilities shall be made in accordance with the requirements of the Owner's Representative and applicable utility company at no extra cost to the Owner.

4. The Contractor shall coordinate with the Owner and the applicable utility company for shutoff of, or connection to, active utilities. Existing utility services shall not be interrupted, except as authorized in writing by the Owner's Representative.
- C. Protection of Work Site: The Contractor shall provide barricades or other type protectors necessary to warn and prevent unauthorized personnel from entering work sites.

#### 1.4 JOB CONDITIONS

A. Classification of Excavation:

1. No classification shall be made to differentiate the various surface and subsurface conditions the Contractor may encounter during his performance under this Contract.
2. It is the Contractor's sole responsibility to verify the site surface and subsurface conditions.

B. Dewatering:

1. Trenching shall be performed in such manner that the trench and the area immediately surrounding the trench will be continually and effectively drained by gravity or temporary pumps.
2. Water shall not be permitted to accumulate in trenches.
3. Trenches shall be drained by methods which prevent the softening of the pipe bedding.

C. Shoring:

1. Shoring, including sheet piling, shall be furnished and installed as necessary to protect workers, banks, adjacent paving, structures, and utilities.
2. Shoring, bracing, and sheeting shall be removed as trenches are backfilled, in a manner to prevent caving.

- D. Blasting shall not be permitted, unless authorized in writing by the Owner's Representative.

## PART 2 - MATERIALS

- A. Select Soil Backfill
  - 1. Backfill placement and material for rigid pipe shall be as described in ASTM C-12 (ANSI A106.2) or WPCF No. 9.
  - 2. Backfill placement and material for semi-rigid pipe shall be as described in ASTM D-2680.
  - 3. Backfill placement and material for flexible pipe shall be as described in ASTM D-2321.
- B. Suitable material which is unsuitable due to excess moisture content will not be classified as unsuitable material unless it cannot be dried by manipulation, aeration, or blending with other materials to the satisfaction of the Owner's Representative.
- C. Unsuitable materials shall include those materials that are determined by the Owner's Representative to be inadequate for providing a stable backfill.
- D. Expansive clay soils shall be classified as unsuitable unless treated or mixed in a manner approved by the Owner's Representative.

### 2.2 SELECTION OF BORROW MATERIAL

- A. Borrow material, if required, shall be selected to meet requirements and conditions of the particular backfill for which it is to be used.
- B. For borrow material obtained outside the limits of the project site, the Contractor shall obtain the right to procure material and shall pay all royalties and other charges involved.

## PART 3 - EXECUTION

### 3.1 TRENCH EXCAVATION

- A. Trench excavation, regardless of material encountered, shall be performed to the depths indicated or as otherwise specified.
- B. During excavation, material suitable for backfilling shall be piled in an orderly manner a sufficient distance from the banks of the trench to avoid overloading and to prevent slides or cave-ins.
- C. Excavated materials not required or suitable for backfill shall be removed and wasted as directed by the Owner or his authorized representative.

- D. Excavation shall be made by open cut, with as little trench opened at one time as possible.
- E. Trench walls shall be vertical from the bottom of the trench to at least one foot above the top of the pipe. The remainder of the trench shall be excavated such that the walls are at a slope flat enough to prevent collapse of the trench. Shoring shall be used as necessary to protect workers, banks, adjacent paving, structures, and utilities.
- F. Trench Width
  - 1. Trenches shall be wide enough to allow for the proper laying of pipes and conduits. Unless otherwise indicated on the drawings or directed by the Owner's Representative, the bottom of the trench shall conform the detailed drawing on the plans.
  - 2. Where only a small amount of sheeting and shoring is required, which will not interfere with the work, the maximum trench widths shall be the same as where no sheeting and shoring are required.
- G. Excavation for manholes, valves, and other appurtenances shall be sufficient to allow a minimum 12 inch clearance around the appurtenance.
- H. Wet or otherwise unstable materials encountered in the bottom of the trench shall be over-excavated to allow for construction of a stable pipe bedding. The over-excavation shall be backfilled with coarse aggregate, consisting of a well-graded crushed stone, crushed gravel, or gravel having hard, strong, durable particles free of deleterious substances. The aggregate shall range in size from ¼-inch to 1-inch.
- I. If contractor over-excavates, the space below the bedding shall be filled with coarse aggregate as described in (H), above.
- J. Hand digging will be required where necessary to protect trees, shrubs, utility lines, etc.

### 3.2 DEPTH OF BURY

- A. Unless otherwise indicated on the Drawings or directed by the Owner's Representative, trenches shall be excavated to a depth that will provide not less than the following cover over the top of the pipe or conduit from finished grade:
  - 1. Water Lines - 3 feet
  - 2. Sanitary Sewers - 3 feet

- B. In addition to the above requirements, trenches shall be excavated to a depth that will avoid interference with other utilities.

### 3.3 TRENCH BACKFILL

- A. General: Backfill shall not be placed until all testing has been completed to the satisfaction of the Owner's Representative.
- B. Initial Backfill
  1. Select soil backfill shall be placed from the top of the haunching to six (6) inches above the top of the pipe or conduit.
  2. Each lift shall not exceed six (6) inches and shall be compacted by hand. Mechanical tamping may be used except when installing plastic or fiberglass pipe or when use of mechanical tampers is not recommended by the pipe manufacturer.
  3. Initial backfill shall be placed simultaneously on both sides of the pipe to prevent displacement.
- C. Final Backfill
  1. Trenches shall not be backfilled until required pressure tests are performed.
  2. Trenches shall be backfilled with select soil backfill and brought to the subgrade elevation required for surface construction or topsoiling.
  3. Backfill shall be placed in successive horizontal layers of inches to 12 inches in loose depth for the full width of the trench and lightly compacted.
  4. Rolling equipment shall not be used until a minimum of two feet of backfill material has been placed over the top of the pipe. If a hydro hammer is used to compact the backfill, a minimum of three feet of cover is required.
- D. Backfill around fire hydrants, valves, cleanouts and similar appurtenances shall conform to trench backfill requirements, except as modified on the Plans.

END OF SECTION

## SECTION 10106 - GENERAL CONSTRUCTION INFORMATION

### 1.1 RIGHT OF WAY AND FENCES

The Right of Way in some cases has been obtained from private land owners but in most cases is standard street right of way in town. The contractor shall not deliberately damage private property in the construction of water lines. He shall construct the lines with a minimum of inconvenience to the private property owner and in no case shall the owner be deprived from the use of his driveway or land.

When it is necessary to cross fences, the Contractor shall carefully remove the fence and upon completion of the ditch or lines, he shall replace the fence in as equal or better condition. If necessary, he shall build wire gates in order to protect the owners livestock and shall keep gates closed at all times. If necessary to cut the fence, the splice shall be made with the same type of wire as the original fence.

In general, when pipe lines are constructed within Highway Right of Way, the lines shall be placed within 4 feet of the Right of Way and never in the Highway Barrow ditch along the Highway paved shoulder.

### 1.2 BARRICADES AND WARNING SIGNS

Where work is carried on in or adjacent to any street, alley, road, highway or public place, the Contractor shall, at his own expense, furnish and erect such barricades, fences, lights and danger signals, shall provide watchmen and take such other precautionary measures for the protection of persons or property and of the work as are necessary. From sunset to sunrise, the Contractor shall furnish and maintain at least two (2) lights at each barricade. A sufficient number of barricades shall be erected to keep vehicles from being driven on or into any work under construction. The Contractor shall furnish watchmen in sufficient numbers to protect any new work. Failure to comply with this requirement will result in the Engineer shutting down the work until the Contractor shall have provided the necessary protection. Work along State or Federal Highways shall be signed, barricaded, and protected according to ODOT regulations and as directed by ODOT Representatives.

### 1.3 HIGHWAY AND ROAD CROSSINGS

All highway and road crossing materials shall be furnished and installed as indicated on the Plans.

### 1.4 CASING

Steel casing for the highway, street and railroad crossings shall be the sizes and lengths shown on the Plans. Generally, 18" steel casing and smaller shall be 1/4" wall thickness. All casing, unless indicated elsewhere, shall be standard mill pipe, sound, clean, free from large amounts of pitting, used pipe. A neoprene seal shall be installed on each end of the casing. For highway crossing, a two inch vent shall be installed from the end of the casing immediately inside the seal) and brought to the surface, three feet

above the ground surface on the R/W line. An insect screen will be secured to the end of the vent and a sign attached.

#### 1.5 CONNECTIONS TO EXISTING LINES

The contractor shall connect new lines to existing lines as indicated on the drawings. The drawings represent the best available information the size, type and location of existing system components. The Contractor shall verify the type and size of pipe and the configuration before ordering fittings. The contract will be adjusted (increased or decreased) where the drawings do not accurately depict the actual field conditions, however there shall be no additional compensation made to the Contractor because the incorrect fittings were ordered. Except as noted, the Contractor may either cut in a tee and valve or use a tapping sleeve and valve where appropriate.

#### 1.6 DRIVEWAY CROSSINGS

Drives shall be replaced equal to that which existed prior to construction. Concrete and asphalt drives shall be sawed, and where practical, concrete drives shall be removed and replaced to the nearest construction joint. Backfill material beneath paved drives shall be hydraulically settled clean river sand, and/or clean class A crushed stone.

#### 1.7 SURVEYING AND STAKING

The new water line is to be located far enough away from the existing highways so that the line will not be located under pavement in the event the highways are widened in the future, and deep enough so that the right of way work for future highway construction will not expose the line.

In areas where the line is located in highway right of way, the line must be laid as close as possible to the right of way four (4) feet inside the right of way and with a minimum of three (3) feet of cover.

The plans contain sufficient reference and information to permit the Bidders to locate the line accurately enough for bidding purposes. The Owner will work with the Contractor as construction progresses to determine the precise location of the lines and to adjust the alignment as may be required.

It will be the responsibility of the Contractor to provide construction staking throughout the limits of the project, if required.

#### 1.8 CLEANUP AND RESTORATION OF DISTURBED AREAS

In embankment areas within State Highway right of way where excavation is required to construct the water line, the Contractor shall furnish embankment protection to prevent any sliding failures that may occur.

All backfill in State Highway right of way shall be compacted to 90% Standard Proctor Density.



Where water lines and appurtenances are located in public right of way that is maintained by the City, County or State, the Contractor shall remove all surface debris and smooth the area with a small bulldozer or box blade as may be appropriate.

Where construction disturbs yards or other areas that are privately maintained, the Contractor shall make an extra effort to restore these areas as neatly as possible to pre-construction condition within 10 to 15 days after the installation of the line. It will not be necessary to restore ground cover, however, rocks, large clods, and other undesirable debris shall be removed from the construction area and every effort shall be made to restore the topsoil removed to permit construction. Disturbed areas shall be hand raked to break up any large clods and blend the disturbed area with the surrounding area.

#### 1.9 STREET, ROAD OR HIGHWAY CROSSING

Where required by the State, County, or Local authority having jurisdiction there over the traffic be maintained over any construction work in a public street, road, or highway, and such traffic cannot be maintained on the highway, and such traffic cannot be maintained on the alignment of the original roadbed or pavement, the Contractor shall, at his own expense, construct and maintain detour around any construction work requiring such detour during the time that it is necessary to obstruct traffic over such street, road, or highway.

Such detour shall include a bridge, if necessary, across the site of the pipe trench and all necessary barricades, guard rails, approaches, suitable lights, signals, signs and other devices and precautions necessary for the protection of the work and safety of the public in accordance with the authority having jurisdiction over the street, road, or highway. All signs, lighting, and signals shall be in accordance with the Manual on Uniform Traffic Control Devices (MUTCD).

All public streets, highways and roads which are closed to traffic, under authority of proper permit, shall be protected in accordance with the requirements of the authority by means of effective barricades on which shall be placed acceptable warning signs, highway or street on each side of the blocked portion of such public thoroughfare.

All barricades and obstructions shall be illuminated by means of yellow flashing lights at night. All lights used for this purpose shall be kept lit at all times.

Materials stored upon or alongside public streets and highways shall be so conducted as to cause the minimum obstruction and inconvenience to the traveling public.

All barricades, signs, yellow lights and other protective devices shall be installed and maintained in conformity with applicable statutory requirements.

#### 1.10 RIGHT OF WAY

Any right of way used by the Contractor beyond that specified herein or shown on the plans shall be at the Contractor's expense and he shall make arrangements with the

property owner before entering upon any property he may desire to use beyond the right of way provided under this project.

County roads, State Highways and City Street right of way shall be used as is necessary, in the opinion of the Engineer, or the Owner's Representative for the proper conduct of the work. Permission must first be obtained from the governing authority.

#### 1.11 PROTECTION OF WORKERS AND PERSONNEL

The Contractor shall take such action as may be required for protection of workers in accordance with current OSHA rules and regulations, and such action as may otherwise be required to protect and facilitate work within excavations. The Contractor may provide sheeting and shoring or cut walls of excavations back on suitable slopes, as may be appropriate.

#### 1.12 CULVERTS, DITCHES, CURBS, SIDEWALKS, DRIVEWAYS, ETC.

After the pipeline has been installed and the backfilling completed, the Contractor shall replace in kind, to line and grade, all street and highway culverts, ditches, sidewalks, driveways, curbs, and all other structures that may have been removed or otherwise damaged in any way by operations in the performance of this contract. All gutters and drainage ditches shall be carefully restored to their original condition.

#### 1.13

"All iron and steel products used in this project for the construction, alteration, maintenance or repair of a public water system or water treatment plant shall be produced in the United States in accordance with the Consolidated Appropriation Act of 2014. Such products include lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete and construction materials."

END OF SECTION

## SECTION 10200 - WATER PIPE AND FITTINGS

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

The work of this section consist of furnishing and installing PVC and Ductile Iron pipe and fittings at the locations shown on the plans and in accordance with these specifications.

#### 1.2 QUALITY ASSURANCE

- A. PVC Pipe: Pipe shall be as manufactured by Manville, Clow or approved equal. The contractor shall furnish an affidavit from the manufacturer that pipe meets the requirements of these specifications. All pipe shall be marked showing the following:

Manufacturer's Name or Trademark  
Nominal Pipe Size and Size Base  
Material Code  
SDR Number  
Pressure Rating  
ASTM Designation  
NSF Certification

- B. Ductile Iron Pipe: Pipe shall be as manufactured by U.S. Steel, Clow or approved equal. All pipe shall be marked showing the following:

Manufacturer's Name or Trademark  
Pipe Class  
Pipe diameter (nominal)  
Date of manufacture

- C. Fittings: Fittings for PVC and Ductile Iron Pipe shall be manufactured by Clow, U.S. Pipe.

#### 1.3 PRODUCT HANDLING

- A. Handle pipe carefully to insure delivery at the project site in sound, undamaged condition. The Owner or engineer will reject damaged pipe on-site. The contractor shall replace damaged pipe at no additional expense to the Owner.
- B. Pipe shall not be stored directly on the ground. Adequately support piping to prevent warpage. Use and maintain protective covers where pipe may be damaged by direct sunlight.

## PART 2 - MATERIALS

### 2.1 PVC PIPE

Polyvinyl Chloride (PVC) pipe shall conform to the provisions of ASTM D-2241 for pressure rated pipe or AWWA C-900. The size shall be as shown on the Plans. All joints shall be integrally formed, rubber gasket, push-on type. Minimum pressure ratings shall be as follows:

Nominal Size ASTM D-2241 or AWWA C-900

Pipe Size	Pressure
2"	200 psi
4"	200 psi
6"	200 psi
8"	200 psi
10"	200 psi
12"	200 psi

### 2.2 Polyethylene Pipe

High Density Polyethylene Water transmission and distribution pipe shall meet the specifications and requirements of American Water Works Association Standard C906 in sizes 4" to 54" and be joined by means of zero leak-rate butt fusion and approved mechanical joints, . The polyethylene pipe and fittings shall be made from prime virgin resins exhibiting a cell classification of PE 345434C as defined in ASTM D3350 with an established hydrostatic-design-basis of 1600 psi for water at 73 degree F. The resin shall be listed by the PPI (Plastic Pipe Institute) in its pipe-grade registry "TR-4". Pipe O.D. sizes 4" and 6" shall be steel pipe sizes (IPS), and all pipes shall be suitable for use as a fluid pressure conduit. Peak flow velocity of 5 ft/sec shall be used in the hydraulic engineering design.

The net pressure capability shall be the working pressure rating (WPR) as follows:

DR 13.5=WPR @ 130 psi    DR 11=WPR @ 160 psi    DR 9=WPR @ 200 psi

The wall thickness shall follow the Dimension Ration(DR) system prescribed in AWWA C906. Laying lengths ar 40 ft. standard. the pipe is to be joined by heat fusion, flanges or other mechanical joint systems proven for HDPE pipes. Both pipe and fittings must be NSF listed by the manufacture and bear the "NSF-pw" logo or mark.

Pipe and fittings must be marked as prescribed by AWWA C906 and NSF. This will include nominal size, OD base (ie: 12" ductile iron pipe sizing, DIPS), dimension ratio, pressure

class, WPR, AWWA-C906, manufacture's name, manufacture's production code including day, month, year extruded.

Each manufacture shall have an approved in-house QA/QC program providing compliance to the testing specifications and requirements of AWWA Standard C906 for both pipe and fittings.

All pipe and fittings shall have a date stamp less than six (6) months old. All pipe is to be welded by a certified welder using the manufactures recommended procedures.

## 2.3 DUCTILE IRON PIPE

Ductile iron pipe shall conform to AWWA C151 (ANSI A21.51). Pipe shall be Class 50 for 6-inch and larger, and Class 52 for pipe less than 6-inch. Pipe joints shall be as follows:

Joints for buried service shall be mechanical or slip-on. Gasket shall be of the same manufacturer as the pipe.

Joints for building or vault service shall be flanged per AWWA C115 (ANSI A21.15), Class 250.

All pipe shall have a cement mortar lining per AWWA C104 (ANSI A21.4), minimum 1/16-inch thick.

## 2.4 FITTINGS

Fittings for PVC and Ductile Iron pipe shall conform to the provisions of AWWA C110. All fittings shall have the same joints as adjacent pipe and adequate for 250 psi working pressure. All fittings shall have a cement mortar lining per AWWA C104 (ANSI A21.4), minimum 1/16-inch thick.

## 2.5 TRACER WIRE

Trace wire shall be 14 ga. and standard for the industry.

## PART 3 - EXECUTION

### 3.1 INSTALLATION OF PIPE IN TRENCHES

#### A. General Requirements for All Pipe

- (1) Pipe and fittings shall be installed on the grades and lines shown on the plans. Thoroughly clean pipe interiors of foreign matter before installation. When work is not in progress, securely close open ends of pipe and fittings. All pipe and fittings shall be new and free of blemishes.
- (2) Thrust blocks: Install thrust blocks at all tees, elbows, bends, crosses, reducers, and dead ends as shown on the plans or as recommended by the pipe manufacturer.

- (3) Inspection: Inspect pipe for defects before lowering into trench. Defective, damaged, or unsound pipe will be rejected.
- (4) Pipe Cutting: Cutting for closure or other reasons shall be done neatly by methods which will not damage pipe, lining or coating. Sharp edges shall be smoothed to prevent damage to gaskets.

### 3.2 INSTALLATION OF PIPE IN VAULTS OR BUILDINGS

#### A. General Requirements for All Pipe

- (1) Pipe and fittings shall be installed on the lines shown on the Plans. Thoroughly clean pipe interiors of foreign matter before installation. Inspect pipe for defects before installation. Defective, damaged or unsound pipe will be rejected.
- (2) Pipe shall be run parallel with or at right angles to the adjacent walls or floors, except when not possible due to conflicts with other facilities.
- (3) Pipe Cutting: Cutting for closure or other reasons shall be done neatly by methods which will not damage pipe, lining or coating.
- (4) Joints: All pipe shall have flanged joints unless otherwise shown on the plans or approved by the Engineer.
- (5) Provisions for maximum flexibility are not always shown and the Contractor may add flexible joints where required, and approved by the Engineer.
- (6) All pipe shall be carefully aligned and shall be installed in a neat manner. The bolts in the flange joints shall be drawn up uniformly and tightly around the flange without overstraining the flanges. All joints shall be made watertight.
- (7) Pipe Embedded in Concrete: All pipe and fittings embedded in concrete shall be accurately located and shall be securely held in place to prevent displacement when concrete is placed. Such embedded items shall be thoroughly cleaned of rust, grease.
- (8) Cleanup: After the pipe has been installed, tested, and disinfected the contractor shall thoroughly clean all parts of the building or vault. All pipe shall be cleaned of grease, metal cuttings and other debris.

"All iron and steel products used in this project for the construction, alteration, maintenance or repair of a public water system or water treatment plant shall be produced in the United States in accordance with the Consolidated Appropriation Act of 2014. Such products include lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete and construction materials."

END OF SECTION

## SECTION 10201 - GATE VALVES

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

The contractor shall furnish all labor, equipment and materials to install gate valves and appurtenances at locations shown on the plans or directed by the Engineer.

#### 1.2 SUBMITTALS

Furnish three sets of shop drawings or catalog cuts and complete maintenance data.

#### 1.3 QUALITY ASSURANCE

Valves and appurtenances shall be manufactured by AVK or approved equal.

### PART 2 - MATERIALS

#### 2.1 GENERAL

- A. All valves shall have the name of the manufacturer and the size of the valve cast on the body or bonnet or shown on a permanently attached plate in raised letters.
- B. Valves for vault or building service shall be complete with all necessary operating hand wheels, chain wheels, extension stems, floor stands, worm and gear operators, operating nuts, chains, and wrenches which are required for proper completion of the valve installation.
- C. Valves for buried service shall be complete with gravel or concrete support pad, and two-piece valve box set in a 16-inch x 16-inch x 6-inch thick concrete pad. Concrete shall be 3000 psi at 28 days.

#### 2.2 VALVES

- A. Vault or Building Service: The valve shall be Polyethylene with flanged ends and conforming to AWWA C500. Design working pressure shall be 150 psi. The valve shall open counterclockwise and be operated by handwheel, unless otherwise noted.
- B. Buried Service: The valve shall be Polyethylene with mechanical joint ends. The valve shall open counterclockwise and have a 2-inch square operating nut.

#### 2.3 T-HANDLE OPERATING WRENCHES

Operating wrenches shall be 4-feet total length as manufactured by Mueller or approved equal.

## 2.4 VALVE BOXES

The box shall be of sufficient length to reach from the pipe to at least one-inch above the final ground surface elevation.

The box shall be two-piece sliding type, cast iron, with 5/8-inch shaft. Extension pieces, if required, shall be the manufacturer's standard type. The word WATER or "W" shall be cast into the top of the lid, as appropriate for the service. Units shall be Mueller, Claw, or approved equal.

## 2.5 VALVE OPERATORS

- A. All valve operators shall open by turning counterclockwise.
- B. Valve operators shall be self-locking type to prevent creeping.

## 2.6 EXTENSION STEMS FOR VALVE OPERATORS (Buried Service)

Where the depth of the valve is such that its centerline is more than 4 feet below grade, operating extension stems shall be provided to bring the operating nut to a point 6-inches below the surface of the ground and/or box cover. Extension stems shall be constructed of steel and shall be complete with 2-inch square operating nut.

## 2.7 EXTENSION BONNETS FOR VALVE OPERATORS

Bonnet and stem shall be constructed of steel and given manufacturer's standard paint system. Bonnets shall be as supplied by Pratt, Allis Chalmers, or approved equal.

## 2.8 FLOOR STANDS AND EXTENSION STEMS

Floor stands shall be non-rising stem, indicating type, complete with all necessary steel extension stems, couplings, hand wheels, stem guide brackets, and special yoke attachments as required by the valves and recommended and supplied by the stand manufacturer. Stem guides shall be spaced so that the stem L/R ratio does not exceed 200. Provide all necessary anchor bolts in Type 316 stainless steel. Floor stands shall be cast iron. All equipment shall be as supplied by Clow Corporation, Mueller Co. or approved equal.

## 2.9 VALVE SUPPORT PAD

All buried valves shall be supported by a concrete or gravel pad. The pad shall be at least 6-inches thick measured from the bottom of the valve. The horizontal dimensions of the pad shall be 6-inches greater than the largest centerline. Concrete shall be at least 3000 psi at 28 days. Gravel shall be clean, durable, and well-graded from 1/4-inch to one-inch.



## **PART 3 - EXECUTION**

### **3.1 BURIED VALVES**

Install valves in the line at locations indicated on the plans, unless otherwise directed, and set plumb on concrete or gravel pad. All foreign matter shall be removed from the valve interior prior to installation.

### **3.2 VALVES IN VAULTS OR BUILDINGS**

Install in the lines as indicated on the drawings, unless otherwise directed. The value shall be oriented to provide easy access to the handwheel. All foreign matter shall be removed from the interior prior to installation.

### **3.3 PRESSURE TEST**

Gate valve test shall be a part of the test on the companion water line(s).

### **3.4 DISINFECTION**

Gate valve disinfection shall be with the part of the disinfection of the companion water line(s).

"All iron and steel products used in this project for the construction, alteration, maintenance or repair of a public water system or water treatment plant shall be produced in the United States in accordance with the Consolidated Appropriation Act of 2014. Such products include lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete and construction materials."

**END OF SECTION**

## SECTION 10207 - HYDROSTATIC TESTING OF POTABLE LINES

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

The work of this section shall consist of testing water lines and related valves and fittings.

#### 1.2 QUALITY ASSURANCE

- A. Flow meters shall record the actual volume plus or minus 2 percent.
- B. Test gauges shall be ANSI B40.1, Grade 2A. Dial range shall be twice the required test pressure.

#### 1.3 JOB CONDITIONS

- A. Testing shall not be performed until each system has been flushed and cleaned.
- B. Potable water lines shall be pressure tested before disinfecting.

### PART 2 - MATERIALS

Not Applicable

### PART 3 - EXECUTION

#### 3.1 GENERAL

- A. Provide test equipment including test pumps, gauges, instruments, and other equipment required.
- B. Water shall be furnished by the owner.
- C. All testing shall be performed in the presence of the Engineer or Inspector.
- D. Test time will be accrued only while full test pressure is on system.
- E. For buried service, lines shall be tested after backfill and proper compaction of trenches.

#### 3.2 PROCEDURE

- A. Test shall be in accordance with AWWA C600.
- B. The pipe shall be slowly filled with water. All air shall be eliminated by installing taps, if necessary, at the highest elevation and afterwards tightly plugged.

- C. Raise the internal pressure by pumping in water to 150 psi for a duration of two hours.
- D. Maintain the test pressure by pumping in metered quantities of makeup water. Leakage should not exceed ten gallons per inch diameter per mile of pipe per 24 hours.

Leakage is defined as the quantity of water supplied into the new pipe, or valved section of it, necessary to maintain the specified test pressure.

- E. Maintain test pressure within 5 psi for the 2 hour duration.

### 3.3 ACCEPTANCE

- A. No pipe installation shall be accepted until the leakage does not exceed the amount specified in 3.2 D above.
- B. Replace leaking fittings, valves, lengths, of pipe or other appurtenances.
- C. Do not use paints, asphalts, tars, or other types of pipe compounds to eliminate leaks.

END OF SECTION

## SECTION 10208 - DISINFECTION OF POTABLE LINES

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

The work of this section consist of disinfecting all portions of the water system, including interior and buried piping, valves, stops, and any portion of the existing connecting system that might have become contaminated during construction activities.

#### 1.2 SUBMITTALS

Submit plan for gathering, transporting, and disposing of chlorine solutions and surplus materials after use.

#### 1.3 QUALITY ASSURANCE

All mains and appurtenances shall be disinfected in accordance with ODEQ's rules for Public Water Supply Operation OAC 252:630.

### PART 2 - MATERIALS

#### 2.1 CHLORINE COMPOUNDS

Chlorine-bearing compounds such as calcium hypochlorite or sodium hypochlorite may be used. These compounds must be able to produce approximately 65 percent available chlorine.

#### 2.2 CHLORINE SOLUTIONS

Mixtures of liquid chlorine and water or gaseous chlorine and water may be used. Mixtures shall be applied by means of a solution-feed chlorinating device.

### PART 3 - EXECUTION

Water with 50 to 100 parts per million of chlorine shall be allowed to stand 24 hours and develop a residual of at least 10 parts per million of chlorine.

END OF SECTION

# PLANS FOR WATER LINE EXTENSION OKARCHE RWC

PREPARED BY:

  
MICHAEL D. BROWN, P.E.

APPROVED BY:

CHAIRMAN

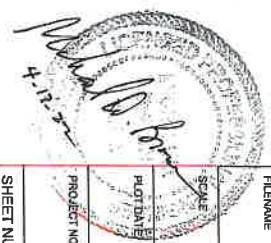
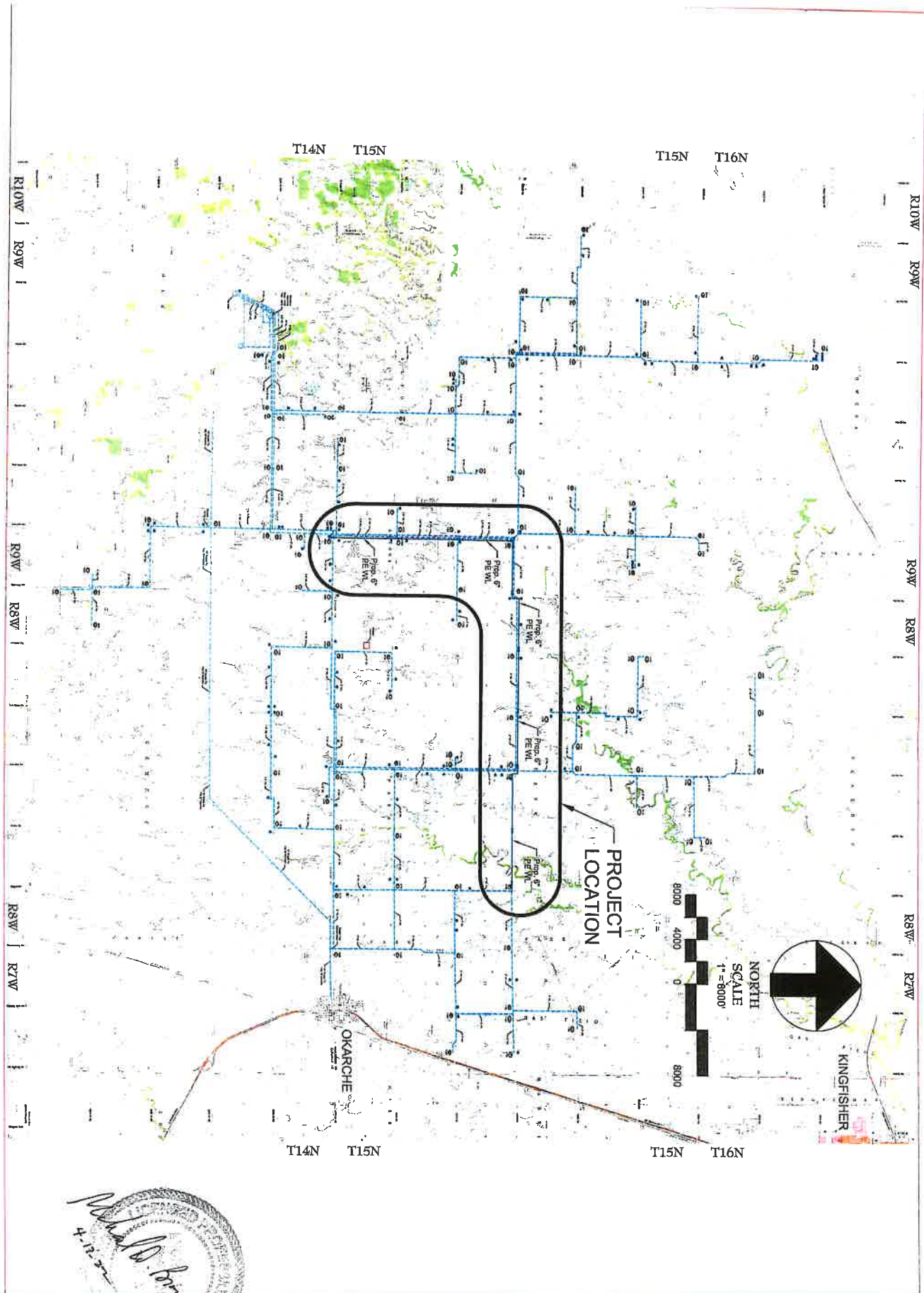
4-17-22  
DATE

DATE



**Brown Engineering, P.C.**  
**Civil & Environmental**

P.O. Box 579 Stillwater, Oklahoma 74076-0579  
PHONE: (405) 372-4848 FAX: (405) 372-7055  
CA NO. 2659



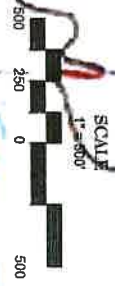
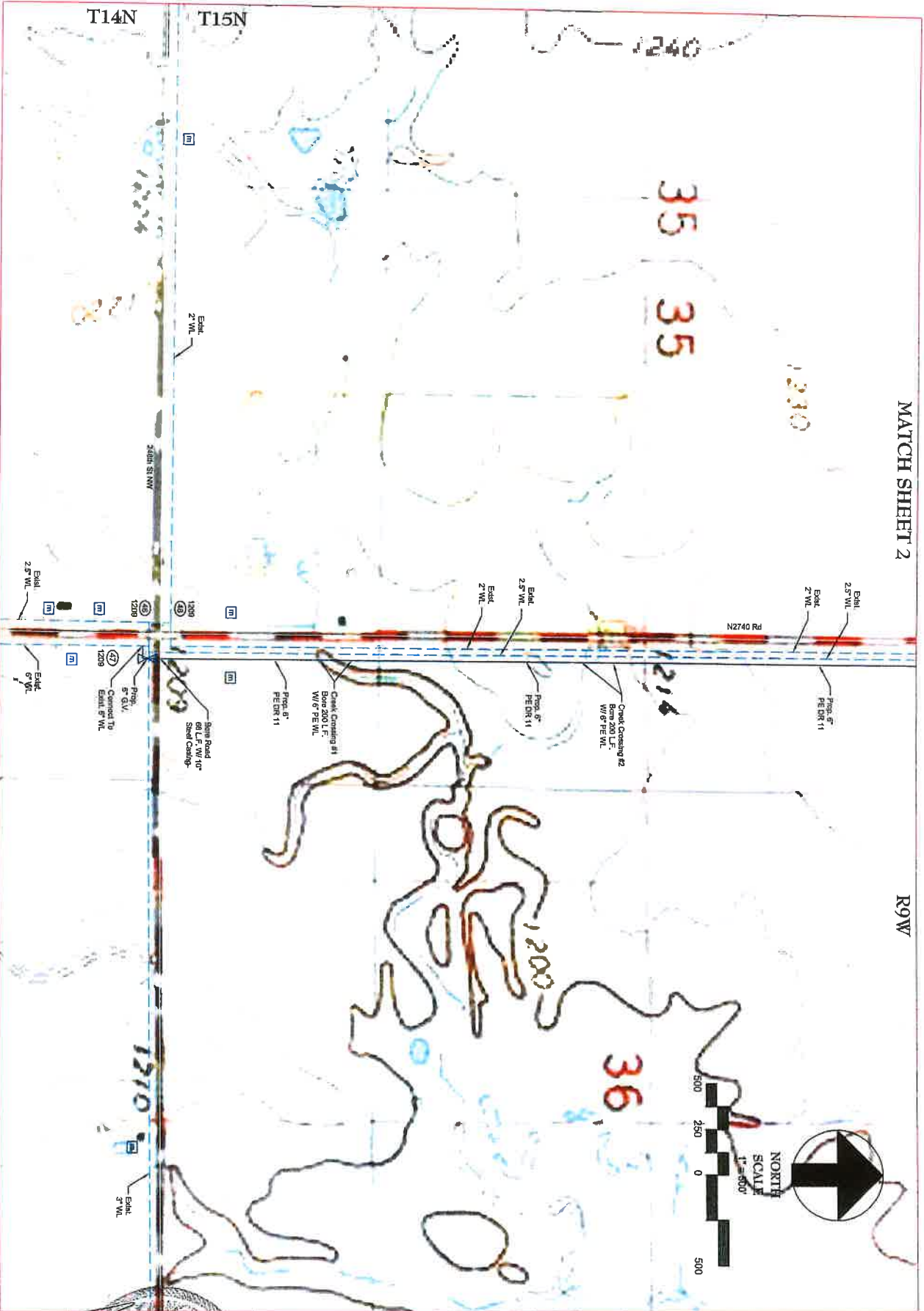
SHEET NUMBER	PROJECT NO.	SCALE	FILENAME
	PROJ0000	1" = 8000'	Location
LOCATION	PROJECT NO.	PILOT DATE	Location
	02-24-22		

**B** **E** **Brown Engineering, P.C.**  
**Civil & Environmental Engineering**  
 PHONE: (405) 372-4848 FAX: (405) 372-7055  
 P.O. Box 579 Stillwater, Oklahoma 74076-0579  
 CA NO. 2659

LOCATION  
 OKARCHE RWC

MATCH SHEET 2

R9W

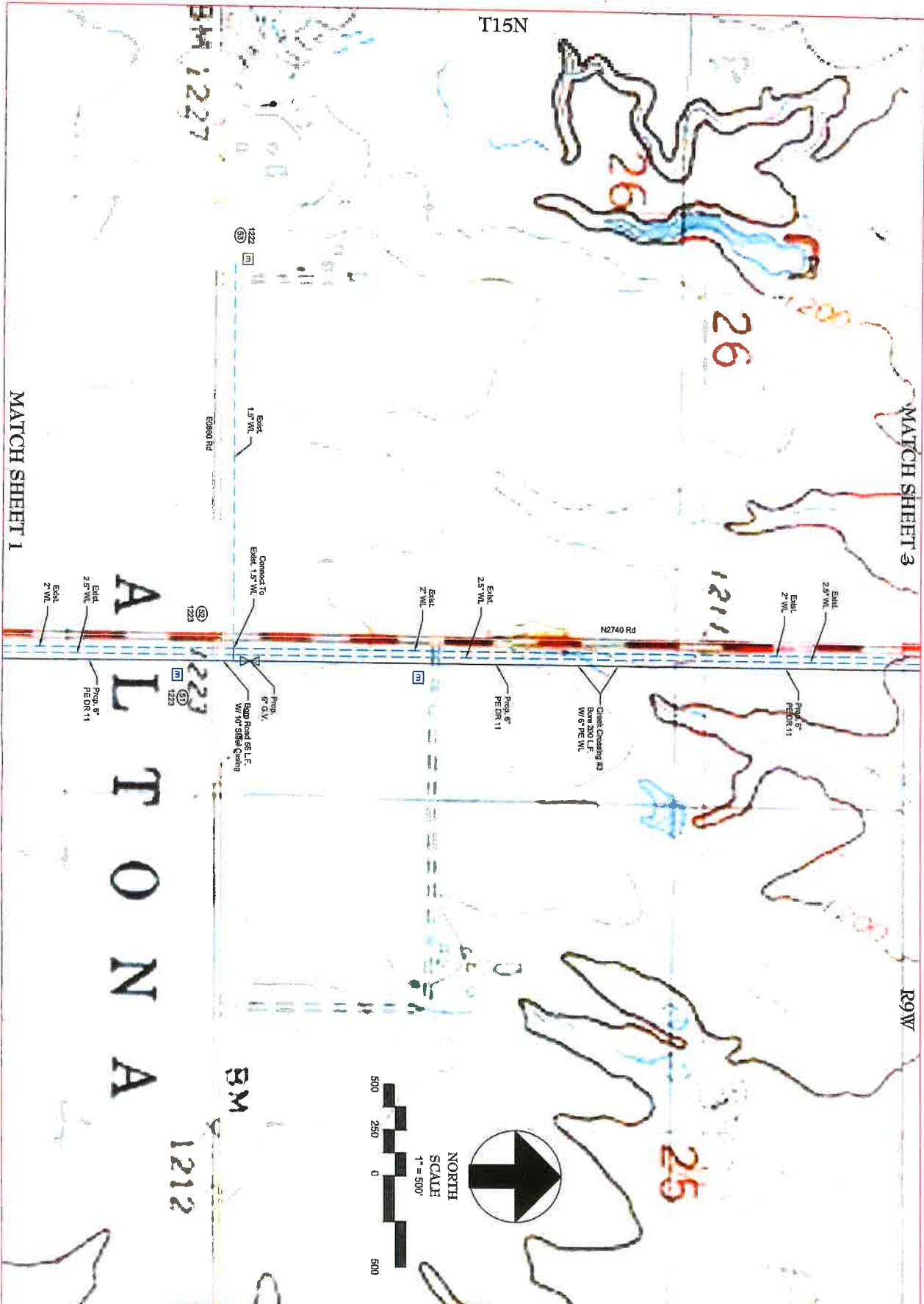


FILE NAME	SCALE
PROJECT NO.	T = 500'
PROJ. DATE	02/25/22
SHEET NUMBER	PROJ. 1348
1 OF 15	

**B E** Brown Engineering, P.C.  
 Civil & Environmental Engineering

PHONE: (405) 372-4848 FAX: (405) 372-7055  
 P.O. Box 579 Stillwater, Oklahoma 74076-0579  
 CA NO. 2659

WATER LINE EXTENSION  
 OKARCHE RWC



PROJECT NO. PROJ.0000			<b>Brown Engineering, P.C.</b> Civil & Environmental Engineering
			PHONE: (405) 372-4848 FAX: (405) 372-7055 P.O. Box 579 Stillwater, Oklahoma 74076-0579 CA NO. 2659
SHEET NUMBER 2 OF 15			

WATER LINE EXTENSION  
 OKARCHE RWC



Gas Well

MATCH SHEET 4

R9W

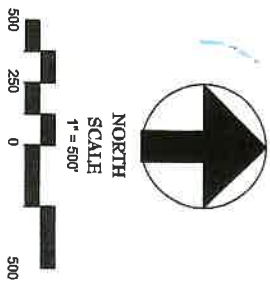
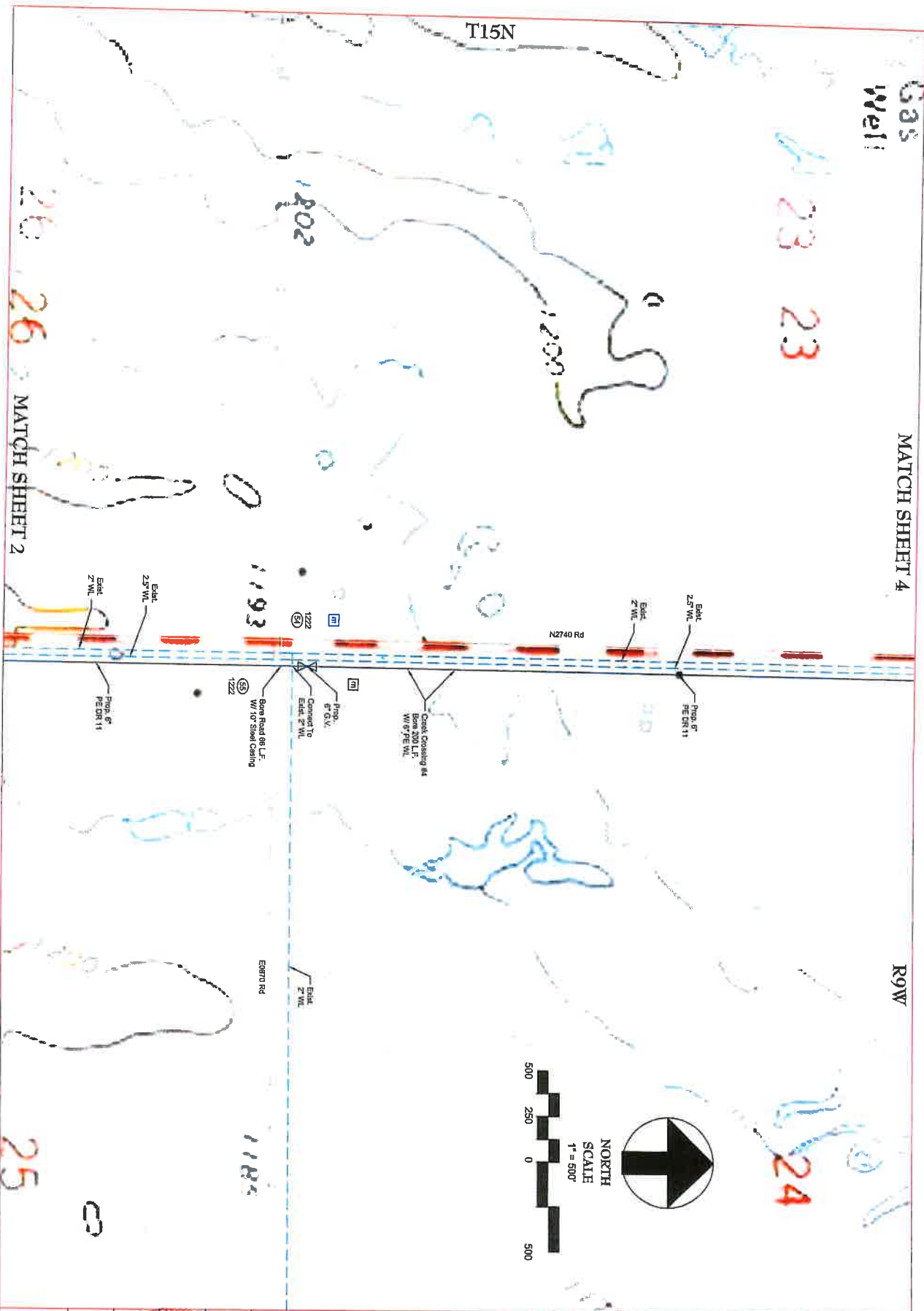
23 23

24

T15N

26 26

MATCH SHEET 2



<p>SHEET NUMBER 3 OF 15</p>		<p><b>BE</b> Brown Engineering, P.C. Civil &amp; Environmental Engineering</p> <p>PHONE: (405) 372-4848 FAX: (405) 372-7055 P.O. Box 529 Stillwater, Oklahoma 74076-0529 CA NO. 2659</p>	<p>WATER LINE EXTENSION OKARCHE RWC</p>
---------------------------------	--	--	---

G&S  
Well

14 14

1185

13



T15N

MATCH SHEET 3

R9W

OKARCHE

MATCH SHEET 5



**Brown Engineering, P.C.**  
Civil & Environmental Engineering

PHONE: (405) 372-4848 FAX: (405) 372-7055  
P.O. Box 579 Stillwater, Oklahoma 74076-0579  
CA. NO. 2659



PROJECT NO.	PROJ. NO.
0035322	PROJ. NO. 000

SHEET NUMBER  
4 OF 15

WATER LINE EXTENSION

OKARCHE RWC

T15N

MATCH SHEET 4

R9W

R8W

N2760 Rd

Exact  
1.5" WL  
Prop. 6"  
PE DR 11  
Bore Road 88 L.F.  
W/ 10" Steel Casing

Connect to  
Exact 1.5" WL  
1179

Prop. 6"  
PE DR 11  
Exact 2" WL  
Bore Road 88 L.F.  
W/ 10" Steel Casing

E680 Rd

Open  
Creek Crossing  
W/ 6" PE WL

Prop. 1"  
PE DR 11  
Exact 2" WL

Bore Road 88 L.F.  
Prop. 6"  
PE DR 11  
W/ 10" Steel Casing

1188

18

500  
250  
0  
500



MATCH SHEET 6



**Brown Engineering, P.C.**  
Civil & Environmental Engineering

PHONE: (405) 372-4848 FAX: (405) 372-7055  
P.O. Box 579 Stillwater, Oklahoma 74076-0579  
CA NO. 2659

WATER LINE EXTENSION  
OKARCHE RWC

FILENAME: PROJ00000

PROJECT NO: PROJ00000

DATE: 02/28/2022

SCALE: 1" = 500'

PLANT: [Signature]

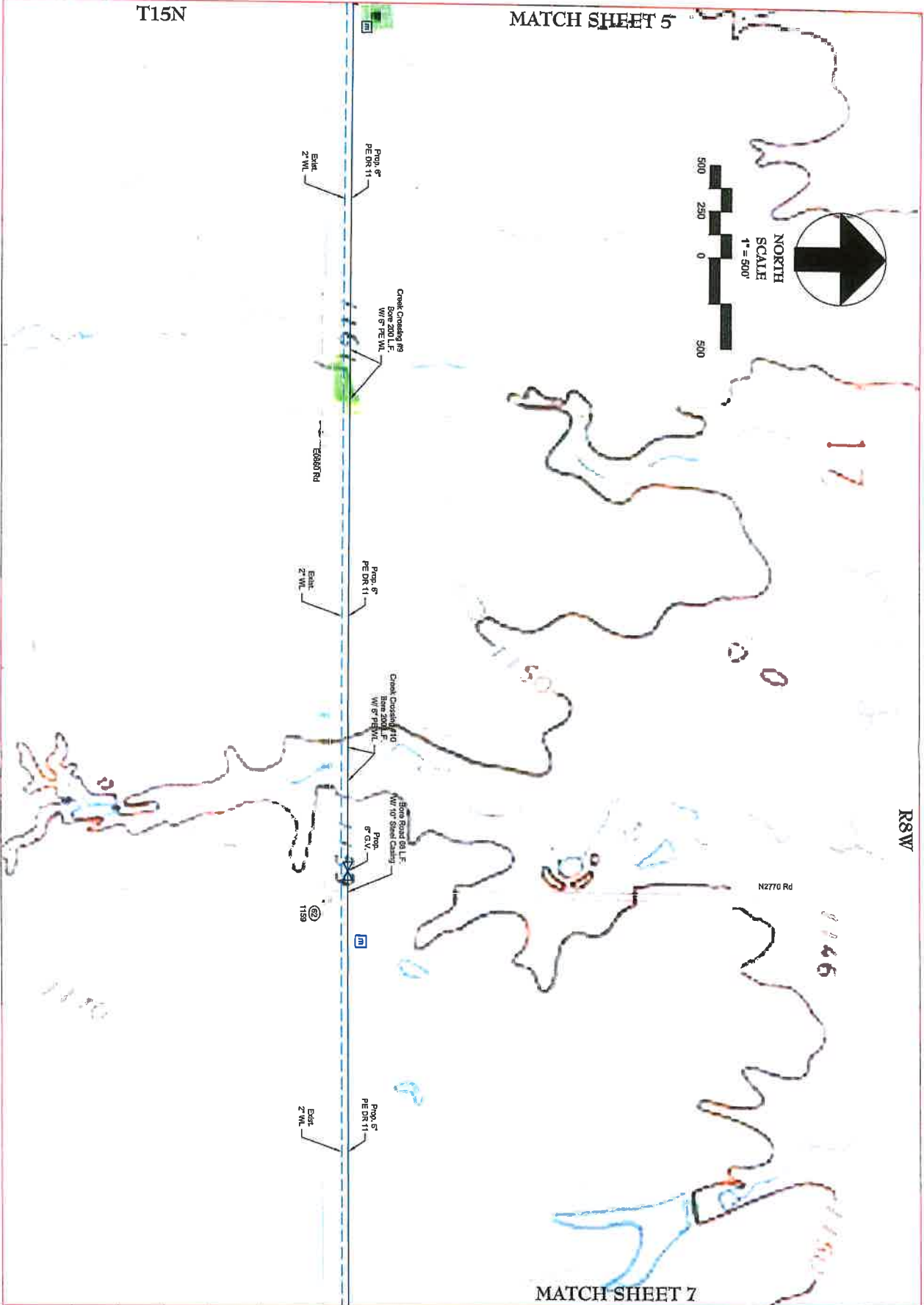
DATE: 02/28/2022

PROJECT: PROJ00000

SHEET NUMBER  
5 OF 15

T15N

MATCH SHEET 5



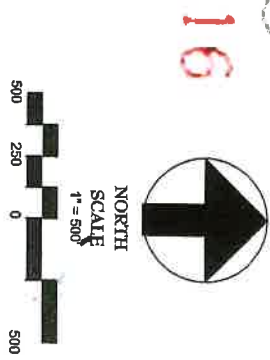
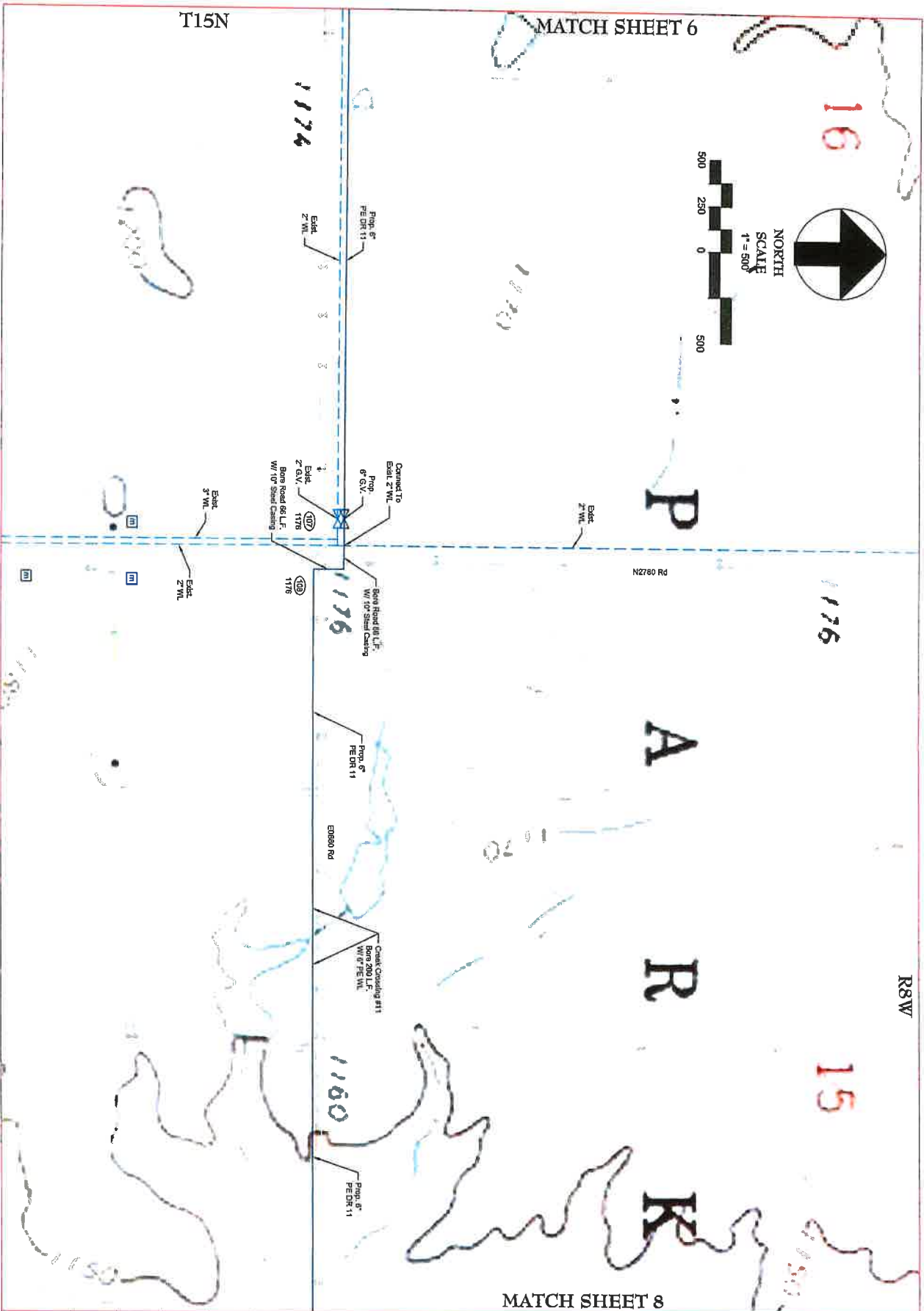
MATCH SHEET 7

PROJECT NO.	02-25-22
PROJ. NO.	1159
PROJ. NAME	WATER LINE EXTENSION
DATE	11-17-20
SCALE	1" = 500'
PLANT	1159
SHEET NUMBER	6 OF 15

**B E** Brown Engineering, P.C.  
Civil & Environmental Engineering

PHONE: (405) 372-4848 FAX: (405) 372-7055  
P.O. Box 579 Stillwater, Oklahoma 74076-0579  
CA NO. 2659

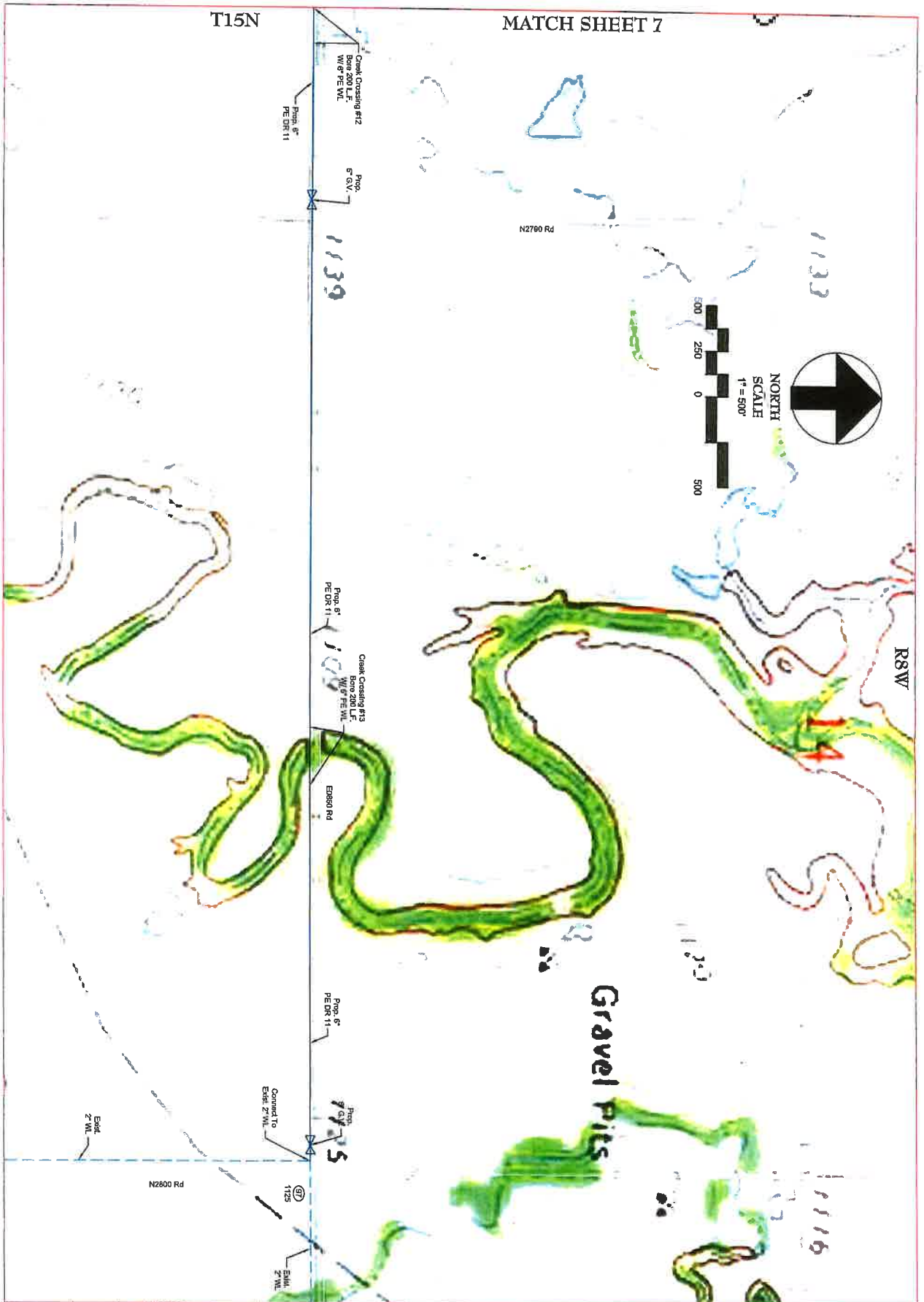
WATER LINE EXTENSION  
OKARCHE RWC



<p><b>B E</b> Brown Engineering, P.C. Civil &amp; Environmental Engineering</p> <p>PHONE: (405) 372-4848 FAX: (405) 372-7055 P.O. Box 579 Stillwater, Oklahoma 74076-0579 CA NO. 2659</p>		<p>WATER LINE EXTENSION OKARCHE RWC</p>	
<p>FILENAME</p>	<p>SCALE</p>	<p>PROJECT NO.</p>	<p>SHEET NUMBER</p>
<p>1176</p>	<p>1" = 50'</p>	<p>170.00000</p>	<p>7 OF 15</p>

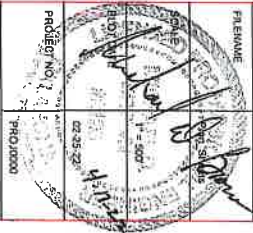
T15N

MATCH SHEET 7



**Brown Engineering, P.C.**  
 Civil & Environmental Engineering

PHONE: (405) 372-4848 FAX: (405) 372-7055  
 P.O. Box 579 Stillwater, Oklahoma 74076-0579  
 CA NO. 2659

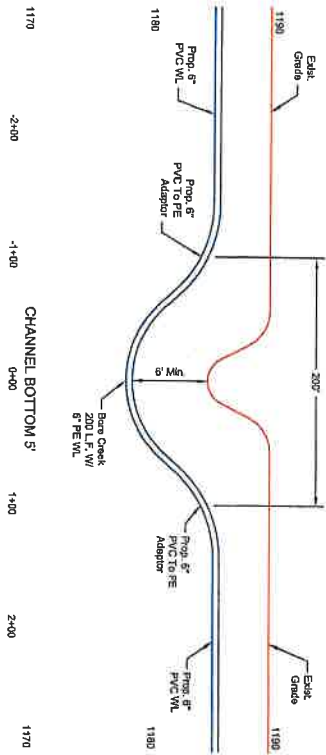


SHEET NUMBER

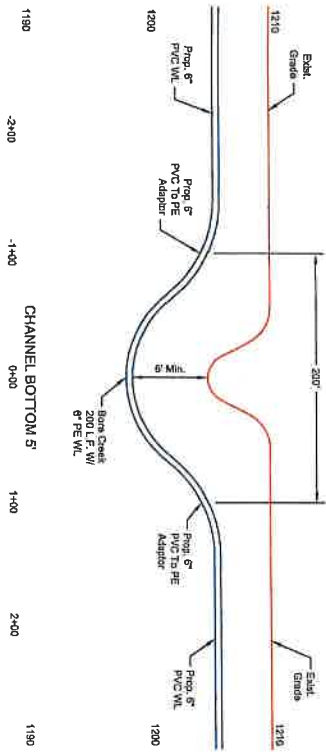
8 OF 15

WATER LINE EXTENSION  
 OKARCHE RWC

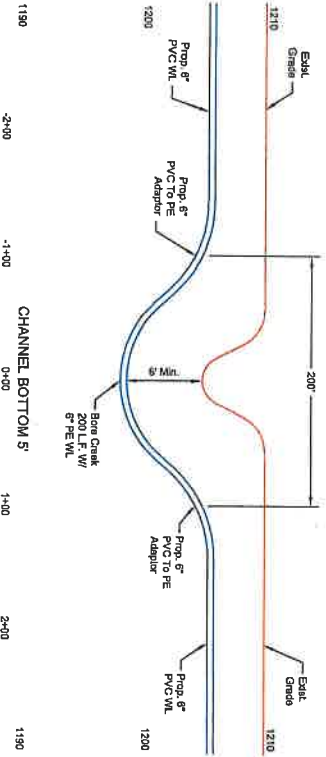
CREEK CROSSING #4



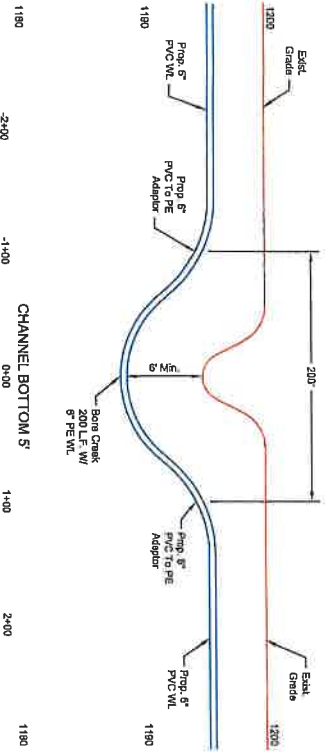
CREEK CROSSING #3



CREEK CROSSING #2



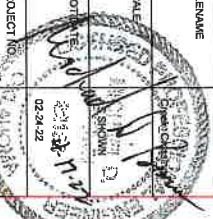
CREEK CROSSING #1



CREEK CROSSINGS  
OKARCHE RWC

**B E** Brown Engineering, P.C.  
Civil & Environmental Engineering

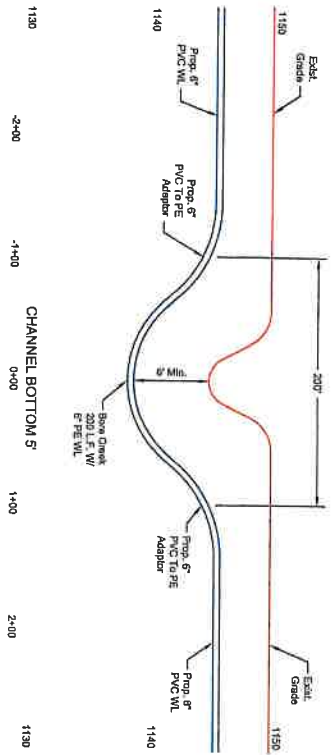
PHONE: (405) 372-4848 FAX: (405) 372-7055  
P.O. Box 579 Stillwater, Oklahoma 74076-0579  
CA NO. 2659



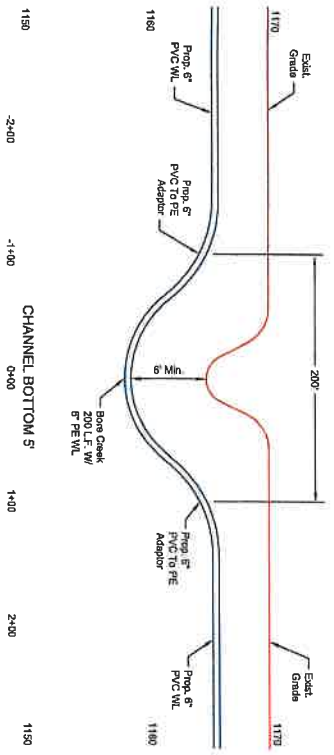
PROJECT NO. 2659

SHEET NUMBER 9 OF 15

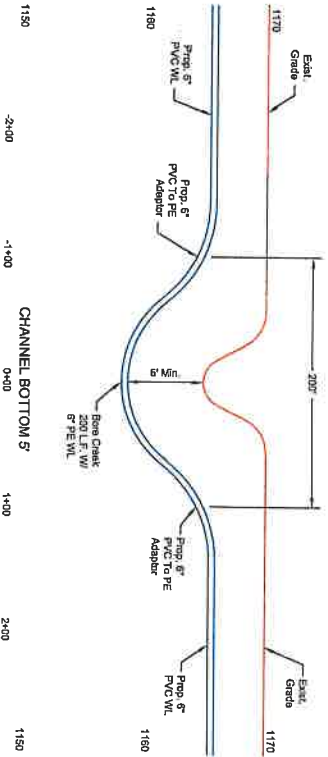
CREEK CROSSING #8



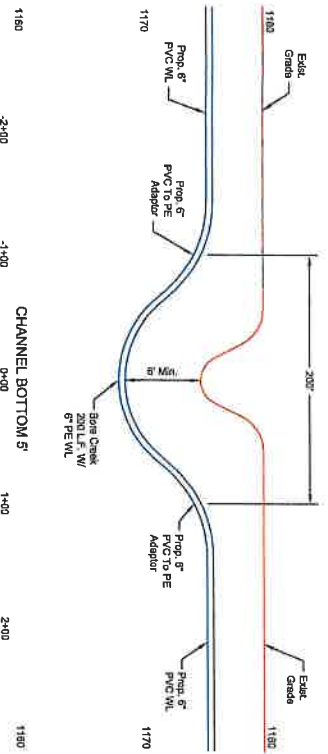
CREEK CROSSING #7



CREEK CROSSING #6



CREEK CROSSING #5



CREEK CROSSINGS  
OKARCHE RWC

**B E** Brown Engineering, P.C.  
Civil & Environmental Engineering

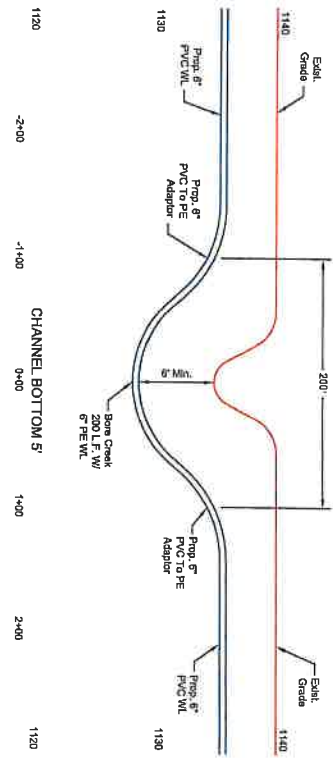
PHONE: (405) 372-4848 FAX: (405) 372-7055  
P.O. Box 579 Stillwater, Oklahoma 74076-0579  
CA NO. 2659



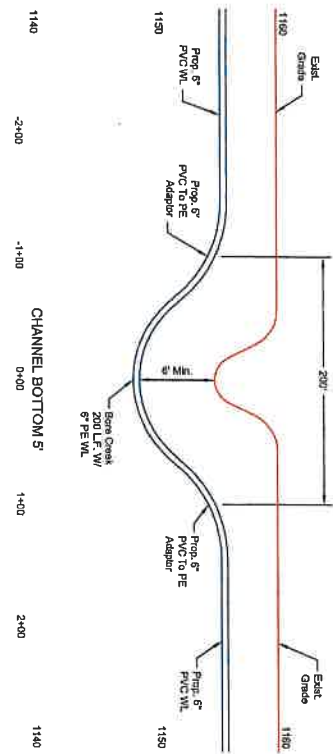
FILE NAME: Creek Crossings  
SCALE: As Shown  
PROJECT NO.: PROJ00000  
SHEET NUMBER: 10 OF 15



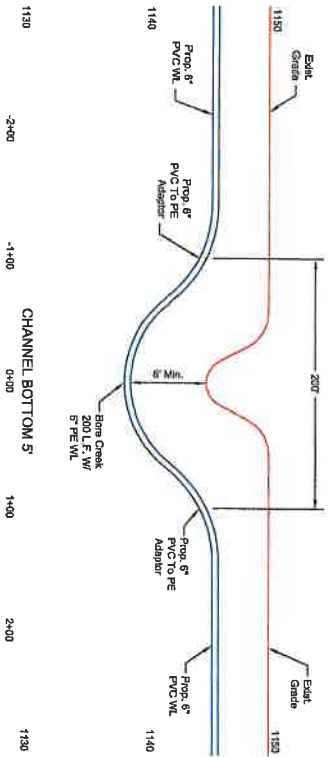
CREEK CROSSING #12



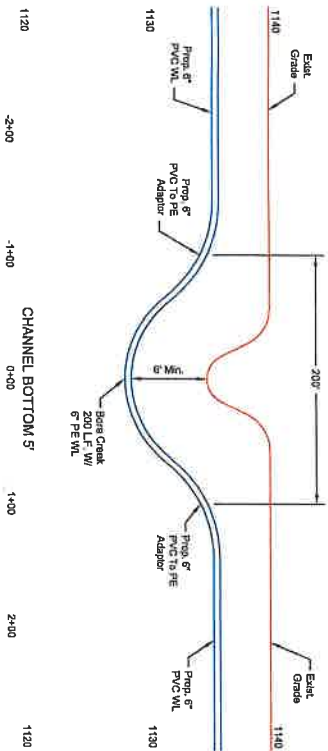
CREEK CROSSING #11



CREEK CROSSING #10



CREEK CROSSING #9



CREEK CROSSINGS  
OKARCHE RWC



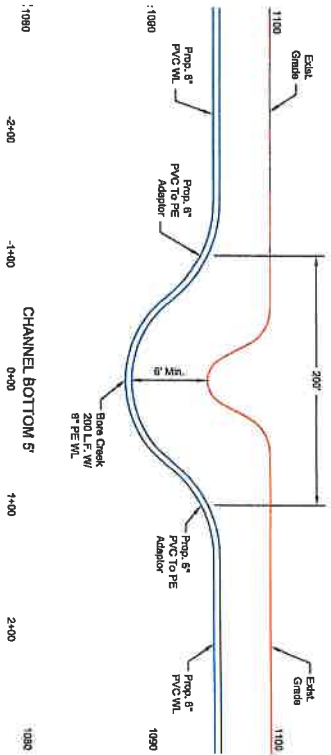
**Brown Engineering, P.C.**  
Civil & Environmental Engineering

PHONE: (405) 372-4848 FAX: (405) 372-7055  
P.O. Box 579 Sullwater, Oklahoma 74076-0579  
CA NO. 2659

FILENAME: *025247*  
SCALE: *AS SHOWN*  
PROJECT NO: *025247*  
PROJECTION: *AS SHOWN*  
PROJIONOR: *AS SHOWN*

SHEET NUMBER  
11 OF 15

CREEK CROSSING #13



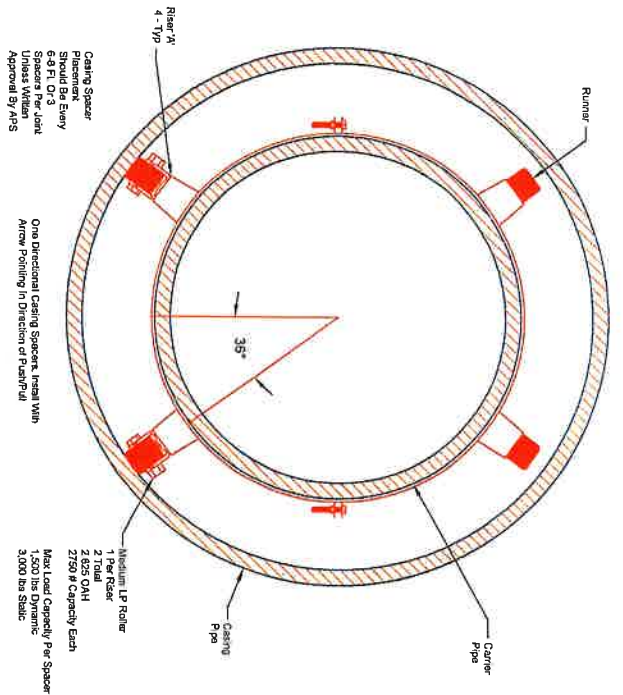
**Brown Engineering, P.C.**  
Civil & Environmental Engineering

PHONE: (405) 372-4848 FAX: (405) 372-7055  
P.O. Box 579 Stillwater, Oklahoma 74076-0579  
CA NO. 2659

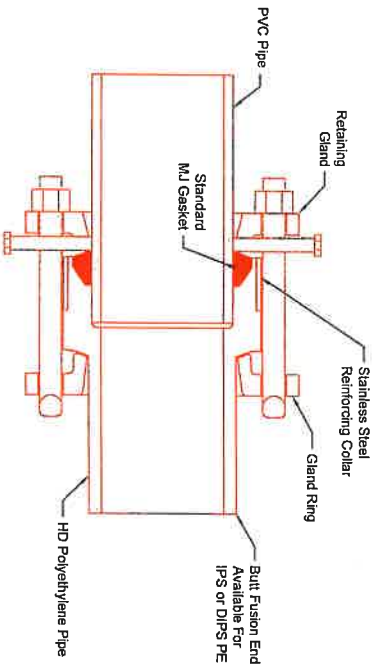
FILE NAME	Creek Crossing
SCALE	AS SHOWN
PROJECT NO.	06296248
PROJECT NAME	PROJ0000
SHEET NUMBER	12 OF 15

CREEK CROSSINGS  
OKARCHE RWC

- NOTES:
- The Contractor is responsible for obtaining all permits necessary to complete construction.
  - All construction to meet most current Oklahoma Department of Environmental Quality Standards.
  - Existing paving disturbed during construction of utilities must be repaired to ODOT standards.
  - Utility trenches which cross existing or proposed paving must be compacted to 95% standard proctor density.
  - All PVC pipe to be SDR-21 Class 200 unless otherwise instructed by the Engineer. In no case shall the wall thickness of the pipe be less than 0.09 inches.
  - All Ductile Iron pipe shall be class 50 unless otherwise instructed by the Engineer.
  - All PVC push-on joints shall be integrally formed, rubber Gasket.
  - A continuous and uniform bedding shall be provided in the trench for all buried pipe. Backfill material shall be tamped in layers around the pipe.
  - All water mains shall be covered with atleast 30 inches of earth or with sufficient insulation to prevent freezing.
  - All tees, bends, plugs and hydrants shall be provided with reaction blocking, tie rods or joints that prevent movement.
  - Water mains shall be pressure and leakage tested in accordance with AWWA C600. Leakage shall not exceed ten gallons per inch diameter per mile of pipe per 24 hours at 150 psi testing pressure.
  - All mains and appurtenances shall be disinfected in accordance with current AWWA standards. Following disinfection in accordance with AWWA standards, obtain safe bacteriological samples on 2 consecutive days before placing the water line into service.
  - Water mains shall be located at least 10 feet horizontally from any existing or proposed sewer lines, storm sewers, raw water lines, oil and gas lines, and buried electric lines.
  - PVC water lines shall be located at least 50 feet horizontally from any gasoline storage tank.
  - Water lines shall be located at 15 feet from all parts of septic tanks and absorption fields, or other sewage treatment and disposal systems.
  - Water mains crossing sewers shall be laid to provide a minimum vertical distance of 24 inches between the outside of the water main and the outside of the sewer.
  - Bores with HDPE pipe must be in the ground for at least 24 hours prior to connection to PVC pipe.
  - Best Management Practices will be included in the contract documents regarding soil erosion. Silt fences will be required as necessary at the construction site. Bare Ground will be returned to grass by seeding or slab sodding.



APOGEEAERO CASING SPACER DETAIL  
NTS



MJ ADAPTOR FOR JOINING PVC PIPE TO HD POLYETHYLENE PIPE

DETAILS

OKARCHE RWC



**Brown Engineering, P.C.**  
Civil & Environmental Engineering

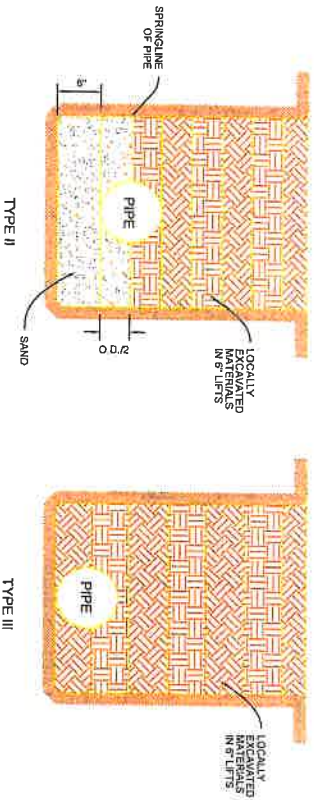
PHONE: (405) 372-4848 FAX: (405) 372-7055  
P.O. Box 579 Stillwater, Oklahoma 74076-0579  
CA NO. 2659

FILE NAME	SCALE	DATE	DESIGNED BY
PROJECT NO.	AS NOTED	02-24-02	PRODUCED BY
PROJ. NO.	PROJ. NO.	PROJ. NO.	PROJ. NO.

SHEET NUMBER

13 OF 15

**BEDDING DETAILS**

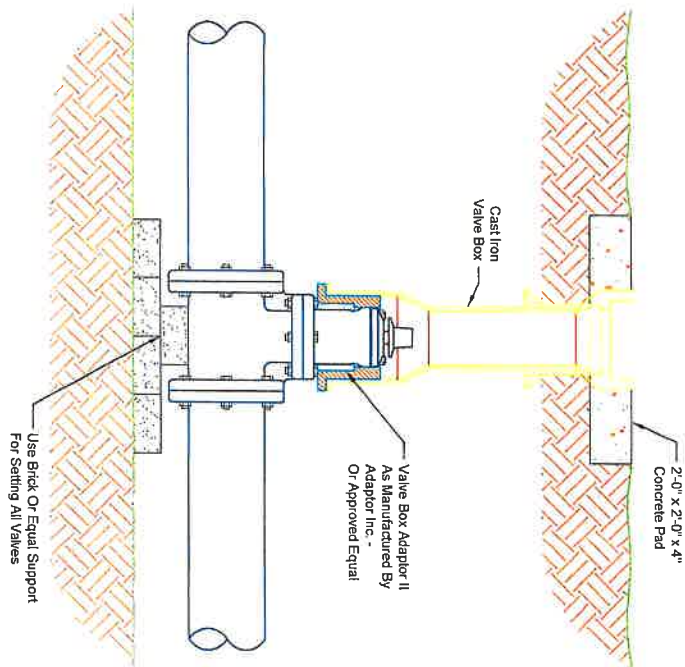


UNLESS OTHERWISE SPECIFIED, TYPE III SHALL BE USED FOR P.V.C. AND FOR DUCTILE IRON, EXCEPT WHEN ROCK AND/OR STONES ARE ENCOUNTERED THEN TYPE II SHALL BE USED. PIPE SHALL BE LAID IN ACCORDANCE WITH CURRENT AMWA STANDARDS. LOCALLY EXCAVATED MATERIALS MAY BE USED IN ROCK AREA IF THE SOIL IS FREE OF STONES.

**TRENCH SCHEDULE**

PIPE DIAMETER IN INCHES	TRENCH WIDTH IN FEET
2	2.0
3	2.0
4	2.0
6	2.0
8	2.2
10	2.2
12	2.2
15	2.6
18	2.9
21	3.3
24	3.8

**VALVE SETTING DETAIL**  
1" = 1'-0"



**DETAILS**  
**OKARCHE RWC**

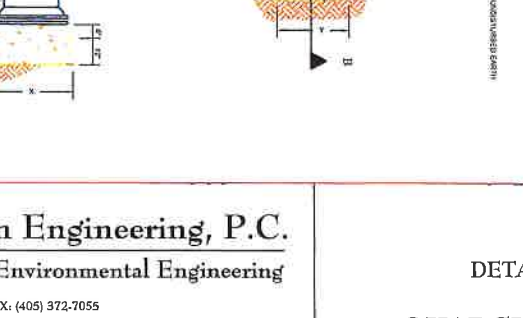
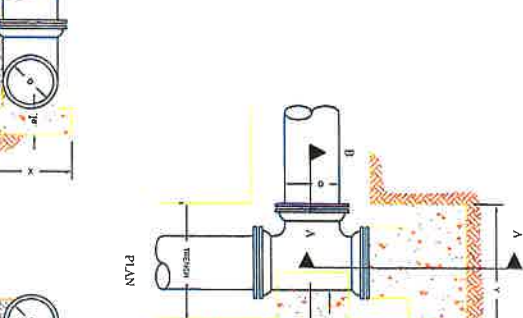
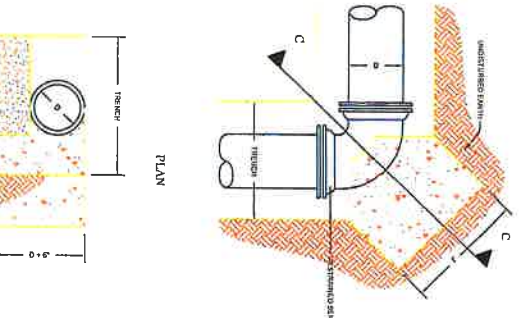
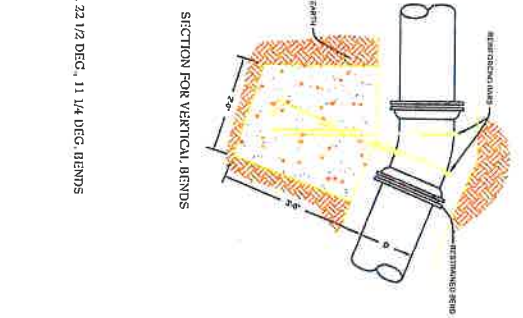
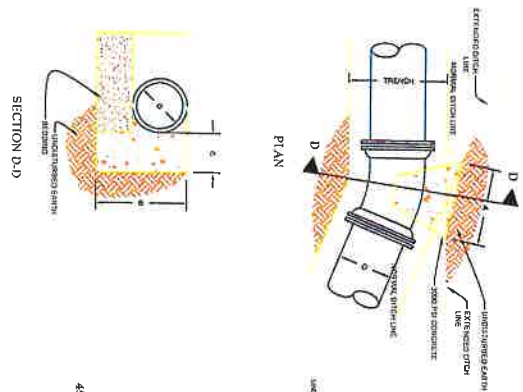


**Brown Engineering, P.C.**  
Civil & Environmental Engineering

PHONE: (405) 372-4848 FAX: (405) 372-7055  
P.O. Box 579 Stillwater, Oklahoma 74076-0579  
CA NO. 2659

FILENAME	PROJECT NO	PROJ0000
SCALE	PILOT	AS NOTED
DATE	DATE	DATE
4/10/23	4/10/23	4/10/23
SHEET NUMBER	14 OF 15	

DETAILS  
OKARCHE RWC



45 DEG. 22 1/2 DEG., 11 1/4 DEG. BENDS

DIMENSIONS FOR CONCRETE ANCHORAGES

PIPE DIA.	TRENCH WIDTH	45 DEG. BEND			22 1/2 DEG. BEND			11 1/4 DEG. BEND			TEE OR PLUG		
		A	B	C	A	B	C	A	B	C	X	Y	
36	60	7'-0"	3'-0"	2'-0"	6'-0"	3'-0"	2'-0"	6'-0"	3'-0"	2'-0"	4'-0"	3'-4"	6'-5"
30	54	5'-0"	2'-6"	1'-6"	5'-0"	2'-6"	1'-6"	4'-6"	2'-6"	1'-6"	3'-6"	3'-0"	5'-0"
24	48	3'-6"	1'-6"	1'-0"	3'-6"	1'-6"	1'-0"	3'-6"	1'-6"	1'-0"	2'-6"	2'-0"	4'-0"
20	44	3'-0"	1'-2"	1'-0"	3'-0"	1'-2"	1'-0"	3'-0"	1'-2"	1'-0"	2'-0"	1'-6"	4'-1"
18	40	2'-6"	1'-0"	1'-0"	2'-6"	1'-0"	1'-0"	2'-6"	1'-0"	1'-0"	1'-6"	1'-6"	3'-5"
16	36	2'-0"	1'-0"	1'-0"	2'-0"	1'-0"	1'-0"	2'-0"	1'-0"	1'-0"	1'-6"	1'-6"	3'-5"
12	28	2'-0"	1'-0"	1'-0"	2'-0"	1'-0"	1'-0"	2'-0"	1'-0"	1'-0"	1'-6"	1'-6"	2'-8"
10	24	1'-6"	1'-0"	1'-0"	1'-6"	1'-0"	1'-0"	1'-6"	1'-0"	1'-0"	1'-6"	1'-6"	2'-4"
8	20	1'-2"	1'-0"	1'-0"	1'-2"	1'-0"	1'-0"	1'-2"	1'-0"	1'-0"	1'-6"	1'-6"	2'-4"
6	16	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	1'-6"	2'-1"

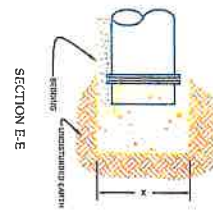
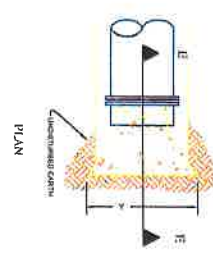
SECTION C-C  
90 DEG. BENDS

SECTION B-B

TEES

SECTION A-A

HORIZONTAL CONCRETE THRUST BLOCKING



FILE NAME: PROJ2000  
SCALE: 1/8" = 1'-0"  
DATE: 02/24/02  
PROJECT NO.: 02/24/02  
PLOT DATE: 02/24/02  
SHEET NUMBER: 15 OF 15

**BE** Brown Engineering, P.C.  
Civil & Environmental Engineering  
PHONE: (405) 372-4848 FAX: (405) 372-7055  
P.O. Box 579 Stillwater, Oklahoma 74076-0579  
CA NO. 2659