

# *Sunnyside Valley Irrigation District*

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## *2016-2017 Pipe Materials Bid Package*

Sealed bids will be received until 11:00 am.  
September 30th, 2016

at

Sunnyside Valley Irrigation District Field Office  
1105 Yakima Valley Hwy.  
P.O. Box 239  
Sunnyside, WA 98944  
509-837-6980

**Project Contact: David Felman**

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# Instructions to Bidders

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## **01. General**

Contract documents and specifications are on file and may be reviewed at the Sunnyside Valley Irrigation District Field Office located at 1105 Yakima Valley Hwy, Sunnyside, WA 98944. Contract documents may be requested by phone: (509) 837-6980. Addenda will be e-mailed or faxed to bidders who have signed for or requested contract documents through this office. Addenda, if necessary, will be sent and posted no later than 10:00am on September 29th, 2016. Questions received after 3:00 pm on September 28th, 2016 will go unanswered.

## **02. Location & Delivery**

At the suppliers' expense, materials for all schedules will be delivered to the storage yard adjoining the Sunnyside Valley Irrigation District office which is located at 120 S. 11<sup>th</sup> Street, Sunnyside, WA 98944. A 24-hour notice period is required prior to delivery of goods. Any delivery made in an enclosed trailer will need to have all materials accessible to unload with a forklift from the back of trailer.

## **03. Examination of Plans, Specifications and Site**

Bidders shall satisfy themselves as to existing conditions by personal examination of plans, specifications and site of proposed delivery, and by any other examination and investigation which they may desire to make as to the nature of issues to be encountered.

## **04. Proposals**

Proposals shall be made on the forms included herewith and shall be addressed to the Sunnyside Valley Irrigation District, 1105 Yakima Valley Hwy, PO Box 239, Sunnyside, WA 98944. Proposals shall be in a sealed envelope and shall be mailed or delivered to the above address to arrive not later than 11:00 a.m. on September 30th, 2016.

No proposal may be withdrawn after the time set for the bid opening or before award of contract unless said award is delayed for a period exceeding thirty (30) days.

A sales tax rate of 7.9% will be used to calculate total price for materials for all schedules.

## **05. Bid Proposal Deposit**

As a guarantee of good faith and as required by law, each bid shall be accompanied by a bid proposal deposit in the form of a cashier's check or Bidder's bond, payable to the order of the Sunnyside Valley Irrigation District, for an amount not less than five (5) percent of the total amount of the bid. Deposits of the three low bidders will be retained until a contract has been entered into between the successful bidder and the Sunnyside Valley Irrigation District, and until a performance and payment bond in an amount of twenty-five percent (25%) of the contract price has been filed as required under these contract documents.

Deposits of other bidders will be returned as soon as it is determined that they are not one of the three low bidders.

## **06. Award of Contract**

The successful bidder will not be selected until the Sunnyside Valley Irrigation District (Owner) is satisfied that the lowest responsible bidder can supply all the specified materials within the given timeframe. The award of the bid will be announced on October 4, 2016. **Completion of the work within the time stated is essential.** Prior commitments of the bidder, failure to complete other work on time, or reasonable doubt as to whether the bidder would complete the work on time would be cause for the rejection of any bid. In addition, the Owner may determine any bidder not to be responsible in accordance with RCW 43.19.1911(9) and/or any other presiding legal authority. The right is reserved by Owner to waive any irregularities in the bidding, to reject any or all proposals, to accept any proposal, to re-advertise for new proposals, or to otherwise carry out the work.

Owner will evaluate and award each schedule separately. **Bidders are not required to bid all schedules.** No bidder may withdraw their bid proposal after the time set for the opening thereof, or before award of contract, unless the award is delayed for a period exceeding thirty (30) days. No alterations to the bid documents will be accepted.

**07. Failure to Execute Contract**

In the event the successful bidder fails to furnish an approved performance bond and to sign the contract within ten (10) working days after notification of award, an amount equal to five (5) percent of the amount of the bid shall be forfeited to Owner as liquidated damages. Said liquidated damages shall be paid from the check or bid bond filed by the bidder. Other proposals will then be reconsidered for award by Owner.

**08. Corrections, Interpretations and Addenda**

Any omissions, discrepancies or need for interpretation should be brought in writing to the attention of the Owner. Written addenda to clarify questions which arise will then be issued.

All interpretation or explanations of the contract documents shall be in the form of an addendum, and no oral statements by Owner, or other representative of Owner shall, in any way, modify the contract documents, whether made before or after awarding the contract.

**09. Completion Time**

Contractor shall be required to have the contract completed by November 23rd, 2016.

**10. Bidder's Responsibility Statement**

It is the responsibility of each bidder to ascertain if the bid package contains all of the documents. If documents are missing, it is the sole responsibility of the bidder to contact the Owner to obtain the missing documents prior to bid opening time.

**11. Bid Package Checklist**

The Following are required as a minimum for a complete bid:

- Non-Collusion and Debarment Affidavit
- Bid Bond / Cashier's Check
- Signed Proposal Form
- Schedule of Prices
- Acknowledgement of Receipt of Addenda (if applicable)

**12. Payment of Invoice**

After acceptance of delivery of materials by SVID, the Supplier shall provide SVID with an invoice setting forth the quantity of goods delivered, and the total price. All invoices received by SVID by the end of the month are paid by SVID on the 10<sup>th</sup> of the following month.

**NON-COLLUSION AND DEBARMENT AFFIDAVIT**

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STATE OF WASHINGTON  
COUNTY OF \_\_\_\_\_

I, the undersigned, an authorized representative of \_\_\_\_\_

*(Firm, Association or Corporation)*

being first duly sworn on oath hereby certify that the bid submitted is a genuine and not a sham or collusive bid, or made in the interest or on behalf of any person not therein named; and I further state that the said firm, association or corporation (hereinafter referred to as "Firm") has not directly or indirectly induced or solicited any bidder on the above work or supplies to put in a sham bid, or any other person or corporation to refrain from bidding; and that said Firm, has not in any manner sought by collusion to secure to the Firm, an advantage over other bidder or bidders.

I further certify that, except as noted below, the Firm or any person in a controlling capacity associated therewith or any position involving the administration of federal funds; is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any federal agency; has not been suspended, debarred, voluntarily excluded or determined ineligible by any federal agency within the past 3 years; does not have a proposed debarment pending; and has not been indicted, convicted or had a civil judgment rendered against said person or Firm, by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three years.

I further certify that all subcontractors providing work or purchases over \$25,000 meet the above conditions. I will document by using this form and the subcontractor signature block below.

Exceptions noted:

Bidder's Signature \_\_\_\_\_

I certify that I know or have satisfactory evidence that \_\_\_\_\_ signed this instrument, on oath stated that (he/she) was authorized to execute the instrument and acknowledged it as the \_\_\_\_\_ (title) of \_\_\_\_\_ to be the free and voluntary act of such party of the uses and purposes mentioned in the instrument.

Dated:  
Signature of Notary Public

(Seal or stamp) My appointment expires:

Sub Contractor Firm \_\_\_\_\_

Sub Contractor Signature \_\_\_\_\_

I certify that I know or have satisfactory evidence that \_\_\_\_\_ signed this instrument, on oath stated that (he/she) was authorized to execute the instrument and acknowledged it as the \_\_\_\_\_ (title) of \_\_\_\_\_ to be the free and voluntary act of such party of the uses and purposes mentioned in the instrument.

Dated:  
Signature of Notary Public  
(Seal or stamp) My appointment expires:

**Sunnyside Valley Irrigation District**  
120 S. 11th Street  
P.O. Box 239  
Sunnyside, WA 98944  
(509) 837-6980

**Proposal**

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To: **Sunnyside Valley Irrigation District**

The undersigned hereby certify that \_\_\_\_\_ ha\_\_ personally read and thoroughly understand the specifications and contract governing the furnishing of materials and the method by which payment will be made for said work hereby propose\_\_ to undertake to supply the materials embraced in this improvement in accordance with said specifications and contract documents, and at the attached schedule of rates and prices.

Note:

1. If the supplier is a co-partnership, so state, giving firm name under which the business is transacted.
2. If the supplier is a corporation, its duly authorized officials must execute this proposal.

\_\_\_\_\_  
*(Supplier)*

By: \_\_\_\_\_  
*(Authorized Officer)*

\_\_\_\_\_  
*(Address)*

\_\_\_\_\_  
*(Address)*

\_\_\_\_\_  
*(Date)*

**Sunnyside Valley Irrigation District**  
120 South 11<sup>th</sup> St.  
P.O. Box 239  
Sunnyside, WA 98944  
(509) 837-6980

**PURCHASE AGREEMENT**  
(Goods and Materials)

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**SUNNYSIDE VALLEY IRRIGATION DISTRICT**, hereafter referred to as “SVID”, agrees to purchase from \_\_\_\_\_, hereafter referred to as “Supplier”, the goods and materials, hereafter “goods”, set forth on the attached bid schedule(s) subject to the terms and conditions of this agreement below:

1. The goods to be delivered by the Supplier shall conform to the specifications contained in SVID’s Pipe Specifications, which is made part of this agreement.
2. At the suppliers’ expense, materials for all schedules will be delivered to the storage yard adjoining the Sunnyside Valley Irrigation District office which is located at 120 S. 11<sup>th</sup> Street, Sunnyside, WA 98944. A 24-hour notice period is required prior to delivery of goods. **No nesting of pipe shall be allowed. Goods are to be delivered from October 31 to November 23, 2016, between 8:00 a.m. and 2:00 p.m., Monday through Friday (excluding holidays). A 24-hour notice shall be required prior to delivery of goods.**
3. After acceptance of delivery of goods by SVID, the Supplier shall provide an invoice setting forth the quantity of goods delivered to SVID, the unit prices, and the total price. SVID will confirm the quantities delivered and for all invoices received by the end of the month will pay the invoice on the 10<sup>th</sup> day of the following month. The acceptance of delivery by the District shall not be deemed to be a final acceptance of the goods for any purpose, including defective or non-conforming goods.
4. Upon delivery of the goods and acceptance of delivery by the District, title to the goods shall pass to SVID free and clear of any liens or encumbrances. Upon completion of delivery of goods and MSDS sheets, SVID agrees to pay the Supplier the total contract price in the amount of \_\_\_\_\_ including sales tax.
5. The Supplier warrants that the goods conform to specifications issued by the District and are fit for the uses or purposes disclosed by the District. The Supplier further warrants that the goods are free from defects, either obvious or latent.
6. In the event any of the goods fail to comply with the specifications or the warranties of the Supplier, at its option, SVID may require the Supplier to replace the defective or non-conforming goods with conforming goods or SVID may purchase goods to replace the defective or non-conforming goods. In the event SVID purchases replacement goods, the supplier shall refund any money paid to it by SVID on the account of the defective or non-conforming goods, and in the event the replacement goods are more costly than the goods provided by the Supplier, the Supplier shall reimburse SVID for the excess cost of purchasing the replacement goods.

7. The Supplier shall be responsible for any damages resulting to SVID from any non-conforming or defective goods, including any consequential damages, and the Supplier shall defend and indemnify SVID from any claims, damages, litigation, expenses or costs, including fees which SVID may incur as a result of the defective or non-conforming goods.
8. This agreement and the attachments hereto as well as the Requests for Proposals, constitute the entire agreement between the parties. Any amendments to this agreement shall be in writing and signed by both parties. This agreement may not be modified by language contained in the Supplier's invoice, documents of delivery, or title documents.
9. The Supplier may deal with the following named SVID employee with regard to the **performance** under this agreement or other employees who may be designated in writing by SVID. SVID Contact: **David Felman**
10. The Supplier may deal with the following named SVID employee with regard to **delivery**. SVID Contact: **Chris Gardner**
11. In the event either party must bring an action to enforce any of the items or conditions of this agreement, the prevailing party shall be entitled to recovery of all costs of such action, including reasonable attorney fees. For the purposes of this section the term "action" shall include an arbitration hearing.
12. This agreement shall be interpreted and enforced in accordance with the laws of the State of Washington.

DATED this \_\_\_\_\_ day of October, 2016.

**SUNNYSIDE VALLEY IRRIGATION DISTRICT**

**SUPPLIER**

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

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

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

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



**Sunnyside Valley Irrigation District**  
120 S. 11th Street  
P.O. Box 239  
Sunnyside, WA 98944  
509-837-6980

**NOTICE OF AWARD**

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TO: \_\_\_\_\_

FROM: **Sunnyside Valley Irrigation District**

RE: Schedule(s) \_\_\_\_\_

DATE: \_\_\_\_\_

This Notice is to advise you that the Sunnyside Valley Irrigation District has accepted your bid for the above-described Schedules.

In accordance with the bid documents you have ten (10) working days from the date of this Notice of Award to complete all of the preconditions provided for in the bid documents, including the execution of the contract.

This is **not** a Notice to Proceed with the performance of the work under the contract. When you have complied with the requirements set forth in the contract documents a Notice to Proceed will be issued to you.

You are required to return an acknowledged copy of this Notice of Award to the Sunnyside Valley Irrigation District.

**Sunnyside Valley Irrigation District**

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

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

Receipt of Notice of Award is hereby acknowledged.

**Supplier**

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

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

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

**PERFORMANCE AND PAYMENT BOND**

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KNOW ALL MEN BY THESE PRESENTS: THAT whereas **SUNNYSIDE VALLEY IRRIGATION DISTRICT**, Sunnyside, Washington, a municipal corporation has awarded to:

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*(Contractor)*

hereinafter designated as the “Principal” a contract for work items, which contract consists of the Proposal/Agreement, together with the Contract Documents, Specifications, Addenda and Plans, all as hereto attached and made a part hereof, and more particularly described as:

**2016-2017 SVID Pipe Materials**

and whereas said principal is required under the terms of said contract to furnish a bond for the faithful performance of said contract:

NOW, THEREFORE, we the Principal and \_\_\_\_\_, a corporation, organized and existing under and by virtue of the laws of the State of Washington, and duly authorized to do business in the State of Washington as surety, are firmly bound unto Sunnyside Valley Irrigation District in the sum of \_\_\_\_\_ dollars (\$\_\_\_\_\_) 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 if the above bonded principal, his or its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and agreements in said contract, and shall faithfully perform all the provisions of such contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements of any and all duly authorized modifications of said contract that may hereafter be made, at the time and in the manner therein specified; and shall pay all laborers, mechanics, subcontractors and materialmen, and all persons who shall supply such person or persons, or subcontractors, with provisions and supplies for the carrying on of such work on his or their parts; and shall indemnify and hold harmless the Owner's Engineer, its officers and agents, from any loss or damage occasioned to any person or property by reason of any carelessness or negligence on the part of said principal, or any subcontractor, in the performance of said contract or any modifications thereof; and shall further indemnify and save harmless Sunnyside Valley Irrigation District, its officers and agents, from any damage or expense by reason of failure of performance as required by said contract, or any modifications thereof, or from defects appearing or developing in the material or workmanship provided or performed under said contract within a period of one year after acceptance thereof by Sunnyside Valley Irrigation District, then this obligation shall become null and void, otherwise it shall be and remain in full force and effect.

And said surety, for value received, hereby further stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any change, extension of time, alternations or additions to the terms of the contract or the work or to the specifications. This Bond is provided pursuant to and shall be

construed in accordance with RCW 39.08.

IN WITNESS THEREOF, the said Principal and the said surety caused this bond and three (3) counterparts thereof to be signed and sealed by their duly authorized officers, this \_\_\_\_\_ day of \_\_\_\_\_, 2016.

\_\_\_\_\_  
(Principal)

By \_\_\_\_\_  
Title \_\_\_\_\_

ATTEST (If Corporation)

WITNESSES (If Individual or Partnership)

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

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

CORPORATE SEAL

By \_\_\_\_\_  
Title \_\_\_\_\_

APPROVED AS TO FORM

Surety \_\_\_\_\_  
By \_\_\_\_\_ By \_\_\_\_\_  
(Attorney for \_\_\_\_\_)

Address of local office and agent of Surety Company is:

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

**Sunnyside Valley Irrigation District**  
120 S. 11th Street  
P.O. Box 239  
Sunnyside, WA 98944  
509-837-6980

**NOTICE TO PROCEED**

---

TO: \_\_\_\_\_

FROM: **Sunnyside Valley Irrigation District**  
120 S. 11th Street  
P.O. Box 239  
Sunnyside, WA 98944  
509-837-6980

RE: Schedule(s) \_\_\_\_\_

DATE: \_\_\_\_\_

In accordance with the contract, which you entered into with the Sunnyside Valley Irrigation District for the above-described Schedule(s), this is your **Notice to Proceed** with your work in accordance with the contract documents. As provided in the contract documents you have until November 23rd, 2016 to complete your work under this contract. All Bid item are to be delivered to ...

**Sunnyside Valley Irrigation District**

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

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

Ron C. Cowin, P.E.  
Title: Assistant Manager - Engineering

## MATERIAL SPECIFICATIONS

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### PVC PIPE AND FITTINGS

Scope – This specification covers the quality of the following Bid Proposal Items: C905 PVC, PIP PVC PIPE, IPS PVC PIPE, PVC TEES, PVC REDUCERS, PVC RDCR BUSH, PVC ANGLES, PVC FLANGES, and PVC ADAPTORS.

1. 12” and smaller PVC pipe and fittings shall be IPS.
2. 15” to 27” PVC pipe and fittings shall be PIP.
3. 30” and larger PVC pipe and fittings shall be C905.
4. Pipe and Fittings – PVC pipe and fittings shall conform to or exceed the requirements of the specifications listed below:
  - PIP and IPS – (PVC 1120), **No “Burnt Pipe” shall be accepted.**
  - Standards Materials – ASTM D-1784
  - Product Design – SCS 430 DD, ASTM D-2241, ASTM D-1785, ASTM D-2672
  - Gasket Joint – ASTM D-3139
  - Gasket ASTM F-477; **Rieber Gaskets shall be required on all gasket fittings.**
  - All gaskets shall have **Durometer in range of 40-60.**
  - Gasket Material – SBR, IR, EPDM
  - Cell Class – 12454-A or B
5. All PVC pipe and fittings to be bid with and include **Rieber gaskets.**
6. **PIPE JOINT LUBRICANT:** Phoenix 27-XL lubricant will be required. All wipe on lubricant to be supplied in **gallon** containers (8lbs).
7. All fittings (Diameter of 15” or larger) shall be rated at minimum of 125 PSI and (Diameter of 12” or smaller) shall be Schedule 40. Any fitting that can be molded, instead of spliced together, shall be preferred. All fittings shall be delivered as a complete unit.
8. **PVC ANGLES:** All 8” and smaller angles shall be molded angles. Angles may **not** have glued in extensions.
9. **PVC REDUCERS** shall transition gradually and be of the cone style.
10. **PVC RDCR BUSH** (PVC REDUCERS BUSHING) 10” and smaller shall be the molded bushing type with an external taper (Male x Female).
11. **PVC FLANGES** shall have free moving collars (VAN Stone Type – Female).
12. **PVC ADAPTORS** 10” and smaller shall be Gasket x Slip (Female x Female).

## VALVES AND VENTS

Scope – This specification covers the quality of the following Bid Proposal Items: AIR VENTS, AIR RELEASES, PRESSURE RELIEFS, BUTTERFLY VALVES, & GATE VALVES.

1. **AIR VENTS** shall have a ball valve with seat in cast aluminum body with National Standard pipe threads for attachment. Air vents 2” and smaller shall be rated for use to 150 psig. Air vents larger than 2” shall be rated to 100 psig (all metal).
2. **AIR RELEASE (Type II)** valves shall be lever types for continuous air release under line pressures ranging from **0 psig to 30 psig**. The air release valves shall be the Apco Brand 1” model # **50.97** Air Release valve, with a **3/32”** orifice, or equal (all metal).

### 3. **PRESSURE RELIEF**

Valves 4” and smaller shall be of the external spring type in galvanized steel housing and shall have a factory preset cracking pressure of 90 psi. A pin or jam nut to prevent tampering will lock the pressure adjustment preset at factory. Threads shall be National Standard pipe threads (all metal).

Valves 6” and larger shall be CLA-VAL 650-01 or approved equal.

- Pattern – Globe
- Pressure Class – 150psi
- Flanged
- Trim Material – Standard
- Adjustment Range – 0-75psi

### 4. **BUTTERFLY VALVES:**

- Resilient Seat – 150 PSIG, Non Shock.
- Body Style: Wafer.
- Body: Cast Steel, Cast Iron or Ductile Iron with locating lugs for alignment during installation.
- Disc: Nickel-plated Ductile Iron; Ductile Iron or Cast Iron with 316 Stainless Steel seating edge; or 316 Stainless Steel.
- Seat: EPDM or Buna N.
  - **Seat on 2” BFV must have a O.D. equal to or greater than 3-3/8”**
- Stem: Two piece design.
- Bushings: Bronze or Nylon.
- Shaft: Stainless Steel.
- Butterfly valve shall be worm gear operated completely enclosed gearbox of Cast Iron, with Hardened Steel worm and Ductile Iron worm gear and shall be fully gasketed for outdoor service.
- Buried Service Butterfly Valves shall have a fully enclosed worm gear operator with a grease filled Cast Iron housing, Hardened Steel and Ductile Iron gears, cover gasketed and sealed, indicator plate sealed and a 2” square operating nut installed on the gearbox shaft.

### 5. **CHECK VALVES:** APCO DDCV or approved equal

- Body: Cast Steel, Cast Iron or Ductile Iron with locating lugs for alignment during installation.
- Door: AL Bronze ASTM B148 C95200 or equal
- Door Lug Bearing: Teflon/Phenolic
- Spring: Stainless Steel ASTM A313 T316
- Hinge Pin: Stainless Steel ASTM A276 T316

- Hinge Pin Retainer: Steel
- Stop Pin: Stainless Steel ASTM A276 T316
- Stop Pin Retainer: Steel
- Lifting Eye Bolt: Steel

- 6. STANDARD GATE VALVES** – Gate valves shall be “Apollo” Valve, model 106T or better, have a non-rising stem gate with seal, and machined gate and gate seal. Working pressure: 150 psig. Material shall consist of brass, bronze, or stainless steel. Threads shall be National Standard pipe threads (Female).
- 7. RESILIENT SEAT GATE VALVES** – Valves shall be Kennedy AWWA C515 resilient wedge gate valves, style 7561 or equal.
- 8. BALL VALVES** – Ball valves shall be industrial two-piece forged brass ball valves precision machined for maximum strength, durability and maintenance free operation with 150 psi working pressure ratings, reinforced PTFE seats, chrome plated ball for long life, separate pack nut to permit handle removal under pressure and bottom loaded stem for safety. Corrosion-resistant steel handle shall have a vinyl grip and ¼-inch twin stop for positive control. Valves operate in either direction. Vacuum rating to 25 in. Hg. Temperature range is 20 to 425°F. NPT threads. Full port to 2 inches. With female pipe threads on both ends of valve.

## STEEL PIPE, FLANGES AND FITTINGS

Scope – This specification covers the quality of the following Bid Proposal Items: STEEL PIPE, STEEL FLANGES, STEEL FITTINGS & ETC.

1. **Steel pipe** shall be Schedule 40 unless otherwise noted in schedule of prices.
  - All 2” and larger shall be standard strength welded steel pipe, butt-end conforming to ASTM specifications A53B or A120. Steel pipe shall not be coated.
  - Steel Bollards to be saw cut. Note: Remove burrs and grind ends smooth.
  
2. **Galvanized Steel pipe and fittings** shall be Schedule 40.
  - Galvanized steel pipe and fittings shall conform to ASTM A53/A53M. Hot dip galvanizing shall be completed in conformance with ASTM A123/A123M. Piping shall be capable of the hydrostatic working pressures of no less than 150 psi.
  
3. **Steel Flanges** shall be AWWA Class D steel rings.
  - All Flanges shall be Butt Weld types.
  
4. **Steel Flanged Coupling Adapter** : Romac FC400 or approved equal
  - Flanges: AWWA C207 Class D
  - Flanged Body: Beveled, flared or formed carbon steel with minimum yield of 30,000psi
  - End Rings: Contoured rolled mill section carbon steel.
  - Gaskets: Must meet the requirements of AWWA C219 and ASTM D2000.
  - Flanged Coupling Adapter must be epoxy-coated with 316 Stainless bolt pack complete.
  
5. **Steel Compression Couplers-Long Bodied**
  - Steel couplers are specified as steel compression couplers such as GHEEN, PIERCE WEDGE TYPE, etc.
  - A minimum 125 psi rating with a body length of 18”
  - Couplers must be bolt on double flange with wedge gasket at each end.
  - Couplers must be epoxy-coated with galvanized bolt pack complete.
  
6. **Pipe Restraining System for IPS to IPS such as Romac “600” series, etc**
  - Ductile iron, meeting or exceeding ASTM A 536, Grade 65-45-12
  - Clamping bolts will be high strength low alloy steel per AWWA C111
  - Clamping nuts will be ANSI B 18.2.2
  - Restraining rods, t-bolts and nuts will be high strength, low alloy steel per AWWA C111
  - Restraining rods will be **26” long** and have the necessary t-bolts and nuts to assemble completely.



**7. Tubular Polyethylene Protection For Steel Pipe such as Polywrap, etc.**

- 8 mil minimum, linear low density, flat tube, polyethylene film meeting or exceeds AWWA C105-99, ANSI A21,5-99, ASTM D4976 and NT4112-99.

**8. Steel Tapping Saddle (to fit 15”and 18” PVC PIP) such as FTS420T-15.80 or 19.90 X 4” FIP**

- Fabricated steel tapping saddle body made of carbon steel, A-36 or equal
- Outlet has NPT(IP) female threads
- Bolts and nuts to be trackhead bolts, heavy hex nuts, ¾” UNC rolled thread stainless steel.
- Gaskets will be SBR per ASTM D 2000 MBA 710, compounded for water service use
- Saddle will be fusion epoxy 8-12 mil. Lined and coated

**9. Cast Iron Valve Box Assembly**

- Valve box Cover :
  - i. “IRRI” labeled on the top of lid
  - ii. Locking lid
  - iii. Cover diameter : 6-3/4”
  - iv. Material : Cast Iron
- Valve box Top :
  - i. Overall length : 18-1/8”
  - ii. Inside diameter of top : 6-1/8”
  - iii. Material : Cast Iron
- Valve box Bottom :
  - i. Overall length : 36”
  - ii. Material : Cast Iron
  - iii. Coating : Painted

**10. Red Rubber Gasket**

- Color : Red
- Thickness (Inches) : 1/8”
- 125-150# Full Face
- Durometer Hardness /Shore A+/-5 : 75
- ASTM D-1330-66, Class II, ASTM D-2000, and TYPE AA

**Perforated High Density Polyethylene (HDPE) Pipe**

1. Pipe ends must be bell-and-spigot
2. Gasketed design
3. Corrugated pipe with perforations
4. Pipe dimensions and manufacturing requirements of pipe and fittings must meet AASHTO M294.

## MISCELLANEOUS

5. **GLUE** (Solvent cement) shall be brand name **UNI-WELD 1700, Weld-on number 711, or equal which meets ASTM D-2564**. All solvent cement to be supplied in **gallon** containers.
6. **PRIMER** (Solvent cement) shall be brand name **UNI-WELD 8700, Weld-on p-70, or equal which meets ASTM D-2564**. All solvent cement to be supplied in **gallon** containers.
7. **TRACE WIRE** (locator wire) shall be # 14 AWG, single conductor solid, bare annealed copper, 30-Volt construction, water-resistant insulation, in **2500 ft coils**. The coating shall be blue in color.
8. **DIRECT BURY SPLICE ENCLOSURES** shall be the **Spears brand DS-500** Splice Wire Connector, no exceptions.

***SCHEDULE OF PRICES***

Bid Proposal - Schedule A (Perforated HDPE Pipe)								
Item	Size	Specification	Material	Type	Units	Qty	Unit Price	Total Price
HDPE PIPE								
1	8"	Perforated bell & Spigot	HDPE	G	FT	340		
2	12"	Perforated bell & Spigot	HDPE	G	FT	720		
3	15"	Perforated bell & Spigot	HDPE	G	FT	100		
4	18"	Perforated bell & Spigot	HDPE	G	FT	960		
5	24"	Perforated bell & Spigot	HDPE	G	FT	1440		
6	30"	Perforated bell & Spigot	HDPE	G	FT	1240		
<b>Subtotal (Items 1-6)</b>								
<b>Sales tax @ 7.9%</b>								
<b>Total Bid Amount</b>								

Bid Proposal - Schedule B (PIP & C905 PVC Pipe)								
Item	Size	Specification	Material	Type	Units	Qty	Unit Price	Total Price
PVC PIPE								
1	15"	100 psi	PIP PVC	G	FT	200		
2	36"	100 psi	C905 PVC	G	FT	260		
<b>Subtotal (Items 1-2)</b>								
<b>Sales tax @ 7.9%</b>								
<b>Total Bid Amount</b>								

Bid Proposal - Schedule C (IPS, PIP & C905 PVC Fittings)								
Item	Size	Specification	Material	Type	Units	Qty	Unit Price	Total Price
ELBOWS								
1	8"	45	IPS PVC	SXS	EA	3		
2	36"	11.25	C905 PVC	GXG	EA	1		
3	36"	22.5	C905 PVC	GXG	EA	2		
4	36"	45	C905 PVC	GXG	EA	1		
TEE'S								
5	36"x36"x12"	Tee	C905xIPS	GxS	EA	1		
CONCENTRIC REDUCERS								
6	18"x12"		PIP x IPS	SXS	EA	1		
<b>Subtotal (Items 1-6)</b>								
<b>Sales tax @ 7.9%</b>								
<b>Total Bid Amount</b>								

<b>Bid Proposal - Schedule D (Valves, Vents, and Fittings)</b>								
<b>Item</b>	<b>Size</b>	<b>Specification</b>	<b>Material</b>	<b>Type</b>	<b>Units</b>	<b>Qty</b>	<b>Unit Price</b>	<b>Total Price</b>
COMPRESSION COUPLER								
1	15"	Lg Bodied Comp. Coupl	Steel		EA	2		
2	21"	Lg Bodied Comp. Coupl	Steel		EA	2		
3	36"	Lg Bodied Comp. Coupl	Steel		EA	1		
TRACE WIRE								
4	2500 ft reel	#14 AWG, blue insul.	Solid Copp.		EA	2		
<b>Subtotal (Items 1-4)</b>								
<b>Sales tax @ 7.9%</b>								
<b>Total Bid Amount</b>								

<b>Bid Proposal Schedule Totals</b>		
<b>Schedule A</b>		
	Subtotal (Items 1-6)	
	Sales tax @ 7.9%	
	Total Bid Amount	
<b>Schedule B</b>		
	Subtotal (Items 1-2)	
	Sales tax @ 7.9%	
	Total Bid Amount	
<b>Schedule C</b>		
	Subtotal (Items 1-6)	
	Sales tax @ 7.9%	
	Total Bid Amount	
<b>Schedule D</b>		
	Subtotal (Items 1-4)	
	Sales tax @ 7.9%	
	Total Bid Amount	