1. REQUESTED MOTION:		Agenda Item	Sum <u>mary</u>	Blue Sheet No.	20020448	
1. REQUESTED MOTION:		Agenda Item Summary Blue Sheet No. 20020448				
A ACCURATE AND A DESCRIPTION OF THE CONTRACTOR	•			•		
ACTION REQUESTED: Approve the award of Formal Request for Appurtenances) for the Lee County Utili Waterworks) for the purchase and deliver come from the individual department or d	ties Divisio y of items α ivision's bι	n to the low quoter r s listed on the attach adget whom will be r	neeting specific ed Lee County esponsible for r	ations, SEMSCO, a Division of Clayton Fabulation Sheet for \$195,190.00 grand	Group (Ferguson total price. Funding will	
shall be in effect for one (1) year, or until		are taken and award	led.			
WHY ACTION IS NECESSAR  The expenditures for this project necessita		of a formal written of	motation as out	ined within Section 9 of the Lee County	Purchasing and	
Payment Procedures Manual.						
WHAT ACTION ACCOMPLIS	HES: Est	ablishes a contract for	or the purchase	of underground parts and related items for	or Herons Glen, Del Vera	
Waterline project.  2. DEPARTMENTAL CATEG	ODV: 10			3. MEETING DATE:		
COMMISSION DISTRICT #		010	D	05-14-20	102	
4 ACENDA.	5 DEC	UIREMENT/P	IIDDASE.	6. REQUESTOR OF INFOR		
4. AGENDA:	S. KEQ (Specif		<u>om Ose</u> ;	o. REQUESTOR OF INFOR	WIATION.	
X CONSENT	(Specij.	STATUTE		A. COMMISSIONER		
ADMINISTRATIVE		ORDINANCE		B. DEPARTMENT / /		
APPEALS	X	ADMIN. CODE	AC-4-1	C. DIVISION / Utili	ties	
PUBLIC		OTHER		BY: Rick Diaz, Dir	ector	
WALK ON				\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1240	
TIME REQUIRED:					1 2 9 8 7	
7. BACKGROUND:  On March 26, 2002, the Division of Purchasing received sealed quotations. On that date, four (4) responses were received. The quotations have been thoroughly reviewed and a recommendation is being made to award the quotation to the low quoter meeting proffications, SEMSCO for the purchase and delivery of items as listed on the attached Lee County Tabulation Sheet for \$195,190.00 grand total price. As of April 18, 2002, SEMSCO has been purchased by Ferguson Waterworks; Ferguson Waterworks will honor all pricing, quotes and contracts.  Funding will come from the individual department or division's budget whom will be responsible for monitoring their individual expenditures. Term of this quotation shall be in effect for one (1) year, or until new quotes are taken and awarded.  ATTACHMENTS:  (1) Tabulation Sheet  (2) Specifications  (3) Awarded Vendor's Submitted Quotation  (4) Department Recommendation  (5) SEMSCO letter dated 4.19.02  Funding source will be 505280 and 506410 fund 48700						
(5) SEMSCO letter dated 4.19.02  8. MANAGEMENT RECOMM	END <u>a</u> T	IONS:				
		9. RECOMME	NDFD APP	ROVAL:		
		J. ILICONALIE		MO 72311		
A B	C	D E		F	G	
<b>-</b> n	uman	Other Coun		<b>Budget Services</b>	County Manager	
Director or Re-	sources	Attorn	1ey	Ohn 4/30		
1 Aya 423.00		7.80	AOA	MOM Risk GC	100 > 3	
	4 M	C offer	10 11/102	Ann 184/30 6.90	00 3-07	
10. <u>dommission action</u> :						
APPROVED DENIED DEFERRED OTHER  APPROVED Dote: 4 29 02 There  245pm COUNTY ADMIN. FORWARDED TO:  4/29/23 3000					ADMIN. ADMIN. ODD TO:	

FORMAL QUOTATION #Q-020294		LEE COUNTY, FLORIDA TABULATION SHEET				
OPENING DATE: 3/26/02 BUYER: CHERI ALEXANDER		FOR HERONS GLEN (PURCHASE OF HYDRANTS, DI PIPE & FITTINGS, WATER VALVES & APPURTENANCES)				
VENDORS	SEMSCO	US FILTER DIST GROUP	FERGUSON ENT INC	HUGHES SUPPLY INC		
COMMODITY CODE 89000						
Addendum #1 acknowledgement	YES	YES	YES	YES		
Addending #1 acknowledgement	1.03	1123	1123	11.5		
1. FIRE HYDRANT, VALVE & VALVE BOX	\$1,005.00	\$1,074.82	\$1,090.00	\$1,120.00		
2. 16" GATE VALVE W/BOX	\$2,005.00	\$1,864.19	\$2,131.00	\$2,100.00		
3. 12" X 6" TEE	\$105.00	\$157.91	\$141.51	\$150.00		
4. 16" -45 ELBOW	\$208.00	\$222.93	\$279.84	\$290.00		
5. 12" DIP WATER MAIN, CL350	\$12.82	\$11.39	\$13.50	\$13.90		
6. 16" DIP WATER MAIN, CL250	\$16.89	\$17.54	\$16.99	\$18.80		
7. SAMPLING TAP-1" CORP & CURB STOP	\$32.50	\$155.00	\$44.25	\$42.00		
8. 12" C-900	\$5.58	\$7.18	\$6.79	\$7.15		
9. DETECT TAPE	\$10.00	\$0.02	0.022	0.025		
10. 16" RESTRAINTS FOR DI PIPE	\$180.00	\$216.37	\$215.00	\$215.50		
20. 10 RESSITE MATERIAL	<b>4100.00</b>	ψεχοιστ	ψ <b>π</b> 13.00	, , , , , , , , , , , , , , , , , , ,		
11. MJ ACCESSORY KTS, 16" MEGALUG	\$85.00	\$106.46	\$110.00	\$120.00		
12. 16" X 12" MJ REDUCERS	\$160.00	\$241.97	\$215.71	\$211.00		
13. 12" SLEEVE, MJ	\$63.00	\$96.53	\$84.80	\$88.00		
14. MJ ACCESSORY KITS, 12" MEGALUG	\$48.00	\$62.56	\$66.00	\$69.00		
15. 16" x 1" DOUBLE STRAP SADDLE	\$39.00	\$57.49	\$46.00	\$51.00		
16. POLY TUBING, 1"	\$0.11	\$0.33	\$35/c	\$0.28		
			İ		:	
17. PVC SCHEDULE 80, S X T ADAPTER	\$1.00	\$0.39	\$3.00	\$2.80		
18. SCHEDULE 40, 1" PIPE	\$0.07	\$0.20	\$20/c	\$0.18		
19. SCHEDULE 40, 1" 90 DEGREE S X S	\$0.20	\$0.45	\$0.46	\$0.40		
20. MI ACCESSORY KITS, 6" MEGALUG	_\$15.00 _	\$23.47	\$25.50	\$25.00		
GRAND TOTAL OF ITEMS 1- 20:	195,190.00	204,200.81	198,351.02	217,903.10		
DEL HATER MATERIAL CALLES TO A STATE OF THE		7 70 14	STOCK TO 10	2.		
DELIVER WITHIN CALENDAR DAYS DELIVER WITH OWN VEHICLES	5 YES/NO *	7 TO 14 YES	DAYS YES/NO *	YES		
LOCAL VENDOR PREFERENCE	YES	NO	YES YES	YES	M. AMPT	
MODIFICATIONS	NO	NO	NONE	NONE		
QUOTE SIGNED	YES	YES	YES	YES		
SUBMITTALS	YES	YES	YES	YES .		
NO BIDS						
MCWANE CAST IRON PIPE CO				: 	·	
*DI PIPE DIRECT FROM MFG.						
POSTING TIME/DATE						
FROM:/						
UNTIL:/						
BY:		1				





PROJECT NO.: Q-020294

OPEN DATE: MARCH 26, 2002

AND TIME: 2:30 P.M.

PRE-BID DATE: None scheduled

AND TIME:

LOCATION: Purchasing

# REQUEST FOR QUOTATIONS

## TITLE:

# HERONS GLEN (PURCHASE OF HYDRANTS, DI PIPE & FITTINGS, WATER VALVES & APPURTENANCES)

REQUESTER: LEE COUNTY BOARD OF COUNTY COMMISSIONERS

DIVISION OF PURCHASING

3434 HANCOCK BRIDGE PKWY, 3<sup>RD</sup> FLOOR

P.O. BOX 398

FORT MYERS, FL 33902-0398

BUYER:

CHERI ALEXANDER, C.P.M., CPPB

PURCHASING AGENT

PHONE NO.: (941) 689-7385

#### **GENERAL CONDITIONS**

Sealed Quotations will be received by the DIVISION OF PURCHASING, until 2:30pm on the date specified on the cover sheet of this "Request for Quotations", and opened immediately thereafter by the Purchasing Director or designee.

Any question regarding this solicitation should be directed to the Buyer listed on the cover page of this solicitation, or by calling the Division of Purchasing at (941) 689-7385.

#### 1. <u>SUBMISSION OF QUOTE:</u>

- a. Quotations shall be sealed in an envelope, and the outside of the envelope should be marked with the following information:
  - 1. Marked with the words "Sealed Quote"
  - 2. Name of the firm submitting the quotation
  - 3. Title of the quotation
  - 4. Quotation number
- b. The Quotation shall be submitted in triplicate as follows:
  - 1. The original consisting of the Lee County quotes forms completed and signed.
  - 2. A copy of the original quote forms for the Purchasing Director.
  - 3. A second copy of the original quote forms for use by the requesting department.
- c. The following should be submitted along with the quotation in a separate envelope. This envelope should be marked as described above, but instead of marking the envelope as "Sealed Quote", please indicate the contents; i.e., literature, drawings, submittals, etc. This information should be submitted in duplicate.
  - 1. Any information (either required or in addition to that asked for by the specifications) necessary to analyze your quotation; i.e., required submittals, literature, technical data, financial statements.
  - 2. Warranties and guarantees against defective materials and workmanship.
- d. ALTERNATE QUOTE: If the vendor elects to submit more than one quote, then the quotes should be submitted in separate envelopes and marked as indicated above. The second, or alternate quote should be marked as "Alternate".
- e. **QUOTES RECEIVED LATE:** It is the quoter's responsibility to ensure that his quote is received by the Division of Purchasing Services prior to the opening date and time specified. Any quote received after the opening date and time will be promptly returned to the quoter unopened. Lee County will not be responsible for quotes received late because of delays by a third party delivery service; i.e., U.S. Mail, UPS, Federal Express, etc.
- f. QUOTE CALCULATION ERRORS: In the event there is a discrepancy between the total quoted amount or the extended amounts and the unit prices quoted, the unit prices will prevail and the corrected sum will be considered the quoted price.
- g. **PAST PERFORMANCE:** All vendors will be evaluated on their past performance and prior dealings with Lee County (i.e., failure to meet specifications, poor workmanship, late delivery, etc.).
- h. WITHDRAWAL OF QUOTE: No quote may be withdrawn for a period of 90 days after the scheduled time for receiving quotes. A quote may be withdrawn prior to the quote-opening date and time. Such a request to withdraw should be made in writing to the Purchasing Director, who will approve or disapprove of the request.

- i. COUNTY RESERVES THE RIGHT: The County reserves the right to waive minor informalities in any quote; to reject any or all quotes with or without cause; and/or to accept the quote that in its judgment will be in the best interest of the County of Lee.
- j. **EXECUTION OF QUOTE:** All quotes shall contain the signature of an authorized representative of the quoter in the space provided on the quote proposal form. All quotes shall be typed or printed in ink. The bidder may not use erasable ink. All corrections made to the quote shall be initialed.

#### 2. ACCEPTANCE

The materials and/or services delivered under the quote shall remain the property of the seller until a physical inspection and actual usage of these materials and/or services is accepted to the County and is to be in compliance with the terms herein, fully in accord with the specifications and of the highest quality. In the event the materials and/or services supplied to the County are found to be defective or do not conform to specifications, the County reserves the right to cancel the order upon written notice to the seller and return such product to the seller at the seller's expense.

#### 3. **SUBSTITUTIONS**

Whenever in these specifications a brand name or make is mentioned, it is the intention of the County only to establish a grade or quality of materials and not to rule out other brands or makes of equality. However, if a product other than that specified is quote, it is the vendor's responsibility to name such product with his quote and to prove to the County that said product is equal to the product specified. Lee County shall be the sole judge as to whether a product being offered by the quoter is actually equivalent to the one being specified by the detailed specifications. (Note: This paragraph does not apply when it is determined that the technical requirements of this solicitation require only a specific product as stated in the detailed specifications.

#### 4. RULES, REGULATIONS, LAWS, ORDINANCES & LICENSES

The awarded vendor shall observe and obey all laws, ordinances, rules, and regulations, of the federal, state, and local government, which may be applicable to the supply of this product or service.

- a. Occupational License Vendor shall submit within 10 calendar days after request,
- b. Specialty License(s) Vendor shall possess at the time of the opening of the quote all necessary permits and/or license required for the sale of this product and/or service and upon the request of the County provide copies of licenses and/or permits within 10 calendar days after request.

#### 5. RECYCLED PRODUCTS

It is the Lee County Board of County Commissioners' stated policy objective to "Ensure all departments are aware of the availability of recycled products..." (Administrative Code #AC-10-4). In an effort to provide the utmost opportunity for the use of recycled products by Lee County, vendors should list on their letterhead, all necessary information regarding any applicable recycled products they have available. Recycled products should meet all other specifications listed and have a minimum of 50%-recycled content. Whenever fiscally feasible, available recycled products will be purchased.

#### 6. <u>WARRANTY/GUARANTY</u> (unless otherwise specified)

All materials and/or services furnished under this quote shall be warranted by the vendor to be free from defects and fit for the intended use.

#### 7. PRE-BID CONFERENCE

A pre-bid conference will be held at the location, date, and time specified on the cover of this solicitation. Pre-bid conferences are generally <u>non-mandatory</u>, but it is highly recommended that everyone planning to submit a quote attend.

In the event a pre-bid conference is classified as <u>mandatory</u>, it will be so specified on the cover of this solicitation and it will be the responsibility of the quoter to ensure that they are represented at the pre-bid. Only those quoters who attend the pre-bid conference will be allowed to quote on this project.

#### 8. BIDDERS LIST MAINTENANCE

A bidder should respond to "Request for Quotations" in order to be kept on the Bidder's List. Failure to respond to three different "request for quotations" may result in the vendor being removed from the Bidder's List. A bidder may do one of the following, in order to respond properly to the request:

- a. Submission of a quotation prior to the quote receipt deadline.
- b. Submission of a "no bid" notice prior to the quote receipt deadline.

#### 9. LEE COUNTY PAYMENT PROCEDURES

All vendors are requested to mail one original invoice and one invoice copy to:

Lee County Finance Department Post Office Box 2238 Fort Myers, FL 33902-2238

All invoices will be paid as directed by the Lee County payment procedure unless otherwise differently stated in the detailed specification portion of this quote.

Lee county will not be liable for request of payment deriving from aid, assistance, or help by any individual, vendor, quoter, or bidder for the preparation of these specifications.

Lee County is generally a tax-exempt entity subject to the provisions of the 1987 legislation regarding sales tax on services. Lee County will pay those taxes for which it is obligated, or it will provide a Certificate of Exemption furnished by the Department of Revenue. All contractors or quoters should include in their quote all sales or use taxes, which they will pay when making purchases of material or subcontractor's services.

#### 10. LEE COUNTY BID PROTEST PROCEDURE

Any contractor/vendor/firm that has submitted a formal bid/quote/proposal to Lee County, and who is adversely affected by an intended decision with respect to the award of the formal bid/quote/proposal, shall file with the County's Purchasing Director or Public Works Director a written "Notice of Intent to File a Protest" not later than seventy-two (72) hours (excluding Saturdays, Sundays and Legal Holidays) after receipt of a "Notice of Intended Decision" from the County with respect to the proposed award of the formal bid/quote/proposal.

The "Notice of Intent to File a Protest" is one of two documents necessary to perfect Protest. The second document is the "Formal Written Protest", both documents are described below.

The "Notice of Intent to File a Protest" document shall state all grounds claimed for the Protest, and clearly indicate it as the "Notice of Intent to File a Protest". Failure to clearly indicate the Intent to file the Protest shall constitute a waiver of all rights to seek any further remedies provided for under this Protest Procedure.

The "Notice of Intent to File a Protest' shall be received ("stamped in") by the Purchasing Director or Public Works Director not later than Four o'clock (4:00) PM on the third working day following the day of receipt of the County's Notice of Intended Decision.

The affected party shall then file its Formal Written Protest within ten (10) calendar days after the time for the filing of the Notice of Intent to File a Protest has expired. Except as provided for in the paragraph below, upon filing of the Formal Written Protest, the contractor/vendor/firm shall post a bond, payable to the Lee County Board of County Commissioners in an amount equal to five percent (5%) of the total bid/quote/proposal, or Ten Thousand Dollars (\$10,000.00), whichever is

less. Said bond shall be designated and held for payment of any costs that may be levied against the protesting contractor/vendor/firm by the Board of County Commissioners, as the result of a frivolous Protest.

A clean, Irrevocable Letter of Credit or other form of approved security, payable to the County, may be accepted. Failure to submit a bond, letter of credit, or other approved security simultaneously with the Formal Written Protest shall invalidate the protest, at which time the County may continue its procurement process as if the original "Notice of Intent to File a Protest" had never been filed.

Any contractor/vendor/firm submitting the County's standard bond form (CSD: 514), along with the bid/quote/proposal, shall not be required to submit an additional bond with the filing of the Formal Written Protest.

The Formal Written Protest shall contain the following:

- County bid/quote/proposal identification number and title.
- Name and address of the affected party, and the title or position of the person submitting the Protest.
- A statement of disputed issues of material fact. If there are no disputed material facts, the Formal Protest must so indicate.
- A concise statement of the facts alleged, and of the rules, regulations, statues, or constitutional provisions, which
  entitle the affected party to relief.
- All information, documents, other materials, calculations, and any statutory or case law authority in support of the grounds for the Protest.
- A statement indicating the relief sought by the affected (protesting) party.
- Any other relevant information that the affected party deems to be material to Protest.

Upon receipt of a timely filed "Notice of Intent to File a Protest", the Purchasing Director or Public Works Director (as appropriate) may abate the award of the formal bid/quote/proposal as appropriate, until the Protest is heard pursuant to the informal hearing process as further outlined below, except and unless the County Manager shall find and set forth in writing, particular facts and circumstances that would require an immediate award of the formal bid/quote/proposal for the purpose of avoiding a danger to the public health, safety, or welfare. Upon such written finding by the County Manager, the County Manager may authorize an expedited Protest hearing procedure. The expedited Protest hearing shall be held within ninety-six (96) hours of the action giving rise to the contractor/vendor/firm's Protest, or as soon as may be practicable for all parties. The "Notice of Intent to File a Protest" shall serve as the grounds for the affected party's presentation and the requirements for the submittal of a formal, written Protest under these procedures, to include the requirement for a bond, shall not apply.

The Dispute Committee shall conduct an informal hearing with the protesting contractor/vendor/firm to attempt to resolve the Protest, within seven working days (excluding Saturdays, Sundays and legal holidays) from receipt of the Formal Written Protest. The Chairman of the Dispute Committee shall ensure that all affected parties may make presentations and rebuttals, subject to reasonable time limitations, as appropriate. The purpose of the informal hearing by the Dispute Committee, the protestor and other affected parties is to provide and opportunity: (1) to review the basis of the Protest; (2) to evaluate the facts and merits of the Protest: and (3) to make a determination whether to accept or reject the Protest.

Once a determination is made by the Dispute Committee with respect to the merits of the Protest, the Dispute Committee shall forward to the Board of County Commissioners its recommendations, which shall include relevant background information related to the procurement.

Upon receiving the recommendation from the Dispute Committee, the Board of County Commissioners shall conduct a hearing on the matter at a regularly scheduled meeting. Following presentations by the affected parties, the Board shall render its decision on the merits of the Protest.

If the Board's decision upholds the recommendation by the Dispute Committee regarding the award, and further finds that the Protest was either frivolous and/or lacked merit, the Board, at its discretion, may assess costs, charges, or damages associated with any delay of the award, or any costs incurred with regard to the protest. These costs, charges or damages may be deducted from the security (bond or letter of credit) provided by the contractor/vendor/firm. Any costs, charges or damages assessed by the Board in excess of the security shall be paid by the protesting contractor/vendor/firm within thirty (30) calendar days of the Board's final determination concerning the award.

All formal bid/quote/proposal solicitations shall set forth the following statement:

"FAILURE TO FOLLOW THE BID PROTEST PROCEDURE REQUIREMENTS WITHIN THE TIMEFRAMES AS PRESCRIBED HEREIN AND ESTABLISHED BY LEE COUNTY BOARD OF COUNTY COMMISSIONERS, FLORIDA, SHALL CONSTITUTE A WAIVER OF YOUR PROTEST AND ANY RESULTING CLAIMS."

#### 11. PUBLIC ENTITY CRIME

Any person or affiliate as defined by statute who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid or a contract to provide any goods or services to the County; may not submit a bid on a contract with the County for the construction or repair of a public building or a public work; may not submit bids or leases of real property to the County; may not be awarded or perform works as a contractor, supplier, subcontractor, or consultant under a contract with the County, and may not transact business with the County in excess of \$15,000.00 for a period of 36 months from the date of being placed on the convicted vendor list.

#### 12. **QUALIFICATION OF QUOTERS** (unless otherwise noted)

Quotes will be considered only from firms normally engaged in the sale and distribution or provision of the services as specified herein. Quoters shall have adequate organization, facilities, equipment, and personnel to ensure prompt and efficient service to Lee County. The County reserves the right before recommending any award to inspect the facilities and organization; or to take any other action necessary to determine ability to perform is satisfactory, and reserves the right to reject quotes where evidence submitted or investigation and evaluation indicates an inability of the quoter to perform.

#### 13. MATERIAL SAFETY DATA SHEETS

In accordance with Chapter 443 of the Florida Statues, it is the vendor's responsibility to provide Lee County with Materials Safety Data Sheets on quoted materials, as may apply to this procurement.

#### 14. MISCELLANEOUS

If a conflict exists between the General Conditions and the detailed specifications, then the detailed specifications shall prevail.

#### 15. WAIVER OF CLAIMS

Once this contract expires, or final payment has been requested and made, the awarded contractor shall have no more than 30 days to present or file any claims against the County concerning this contract. After that period, the County will consider the Contractor to have waived any right to claims against the County concerning this agreement.

#### 16. <u>AUTHORITY TO PIGGYBACK</u>

It is hereby made a precondition of any quote and a part of these specifications that the submission of any quote in response to this request constitutes a quote made under the same conditions, for the same price, and for the same effective period as this quote, to any other governmental entity.

#### 17. COUNTY RESERVES THE RIGHT

#### a) State Contract

If applicable, the County reserves the right to purchase any of the items in this quote from State Contract Vendors if the prices are deemed lower on State Contract than the prices we receive in this quotation.

#### b) Any Single Large Project

The County, in its sole discretion, reserves the right to separately quote any project that is outside the scope of this quote, whether through size, complexity, or dollar value.

#### c) <u>Disadvantaged Business Enterprises</u>

The County, in its sole discretion, reserves the right to purchase any of the items in this quote from Disadvantage Business Enterprise vendor if the prices are determined to be in the best interest of the County, to assist the County in the fulfillment of any of the County's grant commitments to federal or state agencies.

The County further reserves the right to purchase any of the items in this quote from DBE's to fulfill the County's state policy toward DBE's as outlined in County Ordinance 88-45 and 90-04, as amended.

#### d) Anti-Discrimination

The vendor for itself, its successors in interest, and assignees, as part of the consideration there of covenant and agree that:

In the furnishing of services to the County hereunder, no person on the grounds of race, religion, color, age, sex, national origin, handicap or marital status shall be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination.

The vendor will not discriminate against any employee or applicant for employment because of race, religion, color, age, sex, national origin, handicap or marital status. The vendor will make affirmative efforts to insure that applicants are employed and that employees are treated during employment without regard to their race, religion, color, age, sex, national origin, handicap or marital status. Such action shall include, but not be limited to, acts of employment, upgrading, demotion or transfer; recruitment advertising; layoff or termination, rates of pay or other forms of compensation and selection for training, including apprenticeship.

Vendor agrees to post in a conspicuous place, available to employees and applicants for employment, notices setting forth the provisions of this anti-discrimination clause.

Vendor will provide all information and reports required by relevant regulations and/or applicable directives. In addition, the vendor shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the County to be pertinent to ascertain compliance. The vendor shall maintain and make available relevant data showing the extent to which members of minority groups are beneficiaries under these contracts.

Where any information required of the vendor is in the exclusive possession of another who fails ore refuses to furnish this information, the vendor shall so certify to the County its effort made toward obtaining said information. The vendor shall remain obligated under this paragraph until the expiration of three (3) years after the termination of this contract.

In the event of breach of any of the above anti-discrimination covenants, the County shall have the right to impose sanctions as it may determine to be appropriate, including withholding payment to the vendor or canceling, terminating, or suspending this contract, in whole or in part.

Additionally, the vendor may be declared ineligible for further County contracts by rule, regulation or order of the Board of County Commissioners of Lee County, or as otherwise provided by law.

The vendor will send to each union, or representative of workers with which the vendor has a collective bargaining agreement or other contract of understanding, a notice informing the labor union of worker's representative of the vendor's commitments under this assurance, and shall post copies of the notice in conspicuous places available to the employees and the applicants for employment.

The vendor will include the provisions of this section in every subcontract under this contract to insure its provisions will be binding upon each subcontractor. The vendor will take such actions with respect to any subcontractor, as the contracting agency may direct, as a means of enforcing such provisions, including sanctions for non-compliance.

#### 18. <u>AUDITABLE RECORDS</u>

The awarded vendor shall maintain auditable records concerning the procurement adequate to account for all receipts and expenditures, and to document compliance with the specifications. These records shall be kept in accordance with generally accepted accounting methods, and Lee County reserves the right to determine the record-keeping method required in the event of non-conformity. These records shall be maintained for two years after completion of the project and shall be readily available to County personnel with reasonable notice, and to other persons in accordance with the Florida Public Disclosure Statues.

#### 19. **DRUG FREE WORKPLACE**

Whenever two or more quotes/proposals, which are equal with respect to price, quality and service, are received for the procurement of commodities or contractual services, a quote/proposal received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. In order to have a drug-free workplace program, a business shall comply with the requirements of Florida Statutes 287.087.

#### 20. REQUIRED SUBMITTALS

Any submittals requested should be returned with the quote response. This information may be accepted after opening, but no later than 10 calendar days after request.

#### 21. <u>TERMINATION</u>

Any agreement as a result of this quote may be terminated by either party giving thirty (30) calendar days advance written notice. The County reserves the right to accept or not accept a termination notice submitted by the vendor, and no such termination notice submitted by the vendor shall become effective unless and until the vendor is notified in writing by the County of its acceptance.

The Purchasing Director may immediately terminate any agreement as a result of this quote for emergency purposes, as defined by the Lee County Purchasing and Payment Procedure Manual.

Any vendor who has voluntarily withdrawn from a formal quote/proposal without the County's mutual consent during the contract period shall be barred from further County procurement for a period of 180 days. The vendor may apply to the Board of Lee County Commissioners for waiver of this debarment. Such application for waiver of debarment must be coordinated with and processed by Purchasing.

#### 22. **CONFIDENTIALITY**

Vendors should be aware that all submittals (including financial statements) provided with a quote/proposal are subject to public disclosure and will <u>not</u> be afforded confidentiality.

#### 23. ANTI-LOBBYING CLAUSE

All firms are hereby placed on formal notice that neither the County Commissioners nor candidates for County Commission, nor any employees from the Lee County Government, Lee County staff members, nor any members of the Qualification/Evaluation Review Committee are to be lobbied, either individually or collectively, concerning this project. Firms and their agents who intend to submit qualifications, or have submitted qualifications, for this project are hereby placed on *formal notice* that they are *not* to contact County personnel for such purposes as holding meetings of introduction, meals, or meetings relating to the selection process outside of those specifically scheduled by the County for negotiations. Any such lobbying activities may cause immediate disqualification for this project.

#### 24. INSURANCE (AS APPLICABLE)

Insurance shall be provided, per the attached insurance guide. Upon request, an insurance certificate complying with the attached guide may be required prior to award.

#### LEE COUNTY, FLORIDA PROPOSAL QUOTE FORM FOR HERONS GLEN CHASE OF HYDRANTS, DI PIPE & FIT

### (PURCHASE OF HYDRANTS, DI PIPE & FITTINGS, WATER VALVES & APPURTENANCES)

DATE S	SUBMITTED:
VENDO	DR NAME:
TO:	The Board of County Commissioners Lee County Fort Myers, Florida
_	carefully examined the "General Conditions", and the "Detailed Specifications", all of which are contained herein, the gned proposes to furnish the following, which meet these specifications:

The undersigned acknowledges receipt of Addenda numbers:

Item No.	Lee County Commodity Code	Description	Cost	(X) Estimated Quantity	= Total Cost
1.		FIRE HYDRANT, VALVE & VALVE BOX	\$	2 each.	\$
2.		16" GATE VALVE W/BOX	\$	4 each	\$
3.		12" x 6" TEE	\$	2 each	\$
4.		16" – 45 ELBOW	\$	2 each	\$
5.		12" DIP WATER MAIN, CL350	\$	20 LF	\$
6.		16" DIP WATER MAIN, CL250	\$	10,700 LF	\$
7.		SAMPLING TAP-1" CORP & CURB STOP	\$	10 each	\$
8.		12" C-900	\$	40 FT	\$
9.	<del></del>	DETECT TAPE	\$	11,000 FT	\$
10.		16" RESTRAINTS FOR DI PIPE	\$	3 each	\$
11.		MJ ACCESSORY KITS, 16"	\$	12 each	\$
12.		16" x 12" MJ REDUCERS	\$	2 each	\$
13.		12" SLEEVE, MJ	\$	2 each	\$
14.		MJ ACCESSORY KITS, 12"	\$	8 each	\$
15.		16" x 1" DOUBLE STRAP SADDLE	\$	10 each	\$
16.		POLY TUBING, 1"	\$	100 FT	\$
17.		PVC SCHEDULE 80, S X T ADAPTER	\$	10 each	\$
18.		SCHEDULE 40, 1" PIPE	\$	20 FT	\$
19.		SCHEDULE 40, 1" 90 DEGREE S X S	\$	20 each	\$
20.		MJ ACCESSORY KITS, 6" MEGALUG	\$	6 each	\$
		GRAND TOTAL OF ITEMS 1 –20:			\$

TO BE DELIVERED WITHIN \_\_\_\_\_ CALENDAR DAYS AFTER RECEIPT OF AWARD AND PURCHASE ORDER.

#### WILL YOU DELIVER WITH YOUR OWN VEHICLES AS OPPOSED TO COMMON CARRIER?

YES NO	
Is your firm interested in being considered for the Local Vendor Preference? Yes	No
If yes, then read the paragraph entitled "Local Vendor Preference" included in these specifications. Preference Questionnaire and return with your quotation.	Also complete the Local Vendor
Quoters should carefully read all the terms and conditions of the specifications. Any representation o quote may be grounds to reject the quote.	f deviation or modification to the
Are there any modifications to the quote or specifications: Yes No	
Failure to clearly identify any modifications in the space below or on a separate page may be ground nonresponsive or to have the award of the quote rescinded by the County.	nds for the quoter being declared

#### **MODIFICATIONS:**

11

Quoter shall submit his/her quote on the County's Proposal Quote Form, including the firm name and authorized signature. Any blank spaces on the Proposal Quote Form, qualifying notes or exceptions, counter offers, lack of required submittals, or signatures, on County's Form may result in the Quoter/Quote being declared non-responsive by the County.

#### ANTI-COLLUSION STATEMENT

THE BELOW SIGNED QUOTER HAS NOT DIVULGED TO, DISCUSSED OR COMPARED HIS QUOTE WITH OTHER QUOTERS AND HAS NOT COLLUDED WITH ANY OTHER QUOTER OR PARTIES TO A QUOTE WHATSOEVER. NOTE: NO PREMIUMS, REBATES OR GRATUITIES TO ANY EMPLOYEE OR AGENT ARE PERMITTED EITHER WITH, PRIOR TO, OR AFTER ANY DELIVERY OF MATERIALS. ANY SUCH VIOLATION WILL RESULT IN THE CANCELLATION AND/OR RETURN OF MATERIAL (AS APPLICABLE) AND THE REMOVAL FROM THE MASTER BIDDERS LIST.

	FIRM NAME
	BY (Printed):
	BY (Signature):
	TITLE:
	FEDERAL ID # OR S.S.#
	ADDRESS:
	PHONE NO.:
FA	AX NO.:
	GER NO.:
LEE COUNTY OCCUPATIONAL LICENS	SE NUMBER:
REVISED: 7/28/00	

# LEE COUNTY, FLORIDA DETAILED SPECIFICATIONS FOR HERONS GLEN (PURCHASE OF HYDRANTS, DI PIPE & FITTINGS, WATER VALVES & APPURTENANCES)

#### SCOPE

The intent of this request for quotations is to establish a contract for the purchase of underground parts and related items for the Herons Glen, Del Vera Waterline project for the Lee County Board of County Commissioners, Utilities Division (installation will be completed by Lee County staff).

#### TERM OF QUOTE

This quote shall be in effect for 1 year, or until new quotes are taken and awarded.

#### BASIS OF AWARD

The basis of award for this quote will be to the lowest responsive, responsible quoter meeting specifications for items as listed on the Proposal Quote Form, page 10.

Lee County reserves the right, at the Purchasing Director's discretion, not to award certain items listed.

Lee County reserves the right to reject unbalanced quotes (a quote where a normally low cost item is priced well out of the normal range).

#### REQUIRED SUBMITTALS

Vendors may be asked to provide additional information. If requested, vendors should furnish the information within 10 calendar days of a request.

#### REGULAR DEALER

Proposals will be considered only from firms that qualify as a "regular dealer".

A "regular dealer" means a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials or supplies required for the performance of the contract are bought, kept in stock, and regularly sold to the public in the usual course of business. To be a regular dealer, the firm must engage in, as its principal business and in its own name, the purchase and sale of the products in question.

#### **DELIVERY**

All items will be picked up on an as-needed basis or delivered F.O.B. Destination as directed at no additional cost to Lee County. Prices shall include all costs of packaging, loading, transporting, delivery and unloading, inclusive of inside delivery if requested. County employees picking up items <u>must</u> provide the vendor with a Purchase Order Number. <u>No sale</u> shall be transacted without a purchase order number being given to the vendor.

There shall be no minimum dollar amount required per purchase.

If your firm is out of the local calling area, it is required that you have a toll free number or that collect calls be accepted from Lee County for the placement of orders.

It is desired to have delivery of stock items within one (1) working day, and non-stock items within five (5) working days from placement of an order. In the event of an emergency situation, same-day availability will be required. Lee County reserves the right to purchase materials on an emergency basis from other sources. In the space provided on the Proposal Quote Form, specify your firm's delivery time frame for stock and non-stock items. Should the awarded vendor not be able to deliver the items in the time specified on the Proposal Quote Form, Lee County reserves the right to purchase the items elsewhere. The quoter further understands and agrees that failure to consistently deliver items within the time specified on the Proposal Quote Form may be cause to disqualify a low quoter at any time.

#### DESIGNATED CONTACT

The awarded vendor shall appoint a person or persons to act as a primary contact for all County departments. This person or back up shall be readily available during normal work hours by phone or in person, and shall be knowledgeable of the terms and procedures involved.

#### LOCAL BIDDER'S PREFERENCE

Note: In order for your firm to be considered for the local vendor preference, you must complete and return the attached "Local Vendor Preference Questionnaire" with your quotation.

The Lee County Local Bidder's Preference Ordinance No. 00-10 is being included as part of the award process for this project. As such, Lee County at its sole discretion, may choose to award a preference to any qualified "Local Contractor/Vendor" in an amount not to exceed 3 % of the total amount quoted by that firm.

"Local Contractor / Vendor" shall mean: a) any person, firm, partnership, company or corporation whose principal place of business in the sole opinion of the County, is located within the boundaries of Lee County, Florida; or b) any person, firm, partnership, company or corporation that has provided goods or services to Lee County on a regular basis for the preceding consecutive five (5) years, and that has the personnel, equipment and materials located within the boundaries of Lee County sufficient to constitute a present ability to perform the service or provide the goods.

The County reserves the exclusive right to compare, contrast and otherwise evaluate the qualifications, character, responsibility and fitness of all persons, firms, partnerships, companies or corporations submitting formal bids or formal quotes in any procurement for goods or services when making an award in the best interests of the County.

#### **BACKORDERS**

Backorders will generally be allowed, subject to the department's approval. Backorders must be held to a minimum. It is desired that 90% of backordered items be shipped within five (5) working days after receipt of the first order.

#### **BRAND NAMES**

Whenever in these specifications a brand name or make is mentioned, it is the intention of the County only to establish a grade or quality of material, and not to rule out other brands or makes of equality.

#### **SAMPLES**

Upon request, quoters are to furnish samples of commodities at no expense; unused samples may be picked up from Lee County for return to quoter at no charge to Lee County.

#### **QUANTITY PRICE BREAKS**

If your firm can offer quantity price breaks to Lee County on any items listed, specify item(s), quantity breaks and pricing on company letterhead. The discounts offered on the Proposal Quote Form will form the basis of award.

#### FUEL PRICE ADJUSTMENTS

There will be no fuel price adjustments or surcharges for this contract.

#### **TOLLS**

Lee County will not pay for or reimburse awarded vendors for any bridge tolls.

#### **CONTRACT**

A purchase order will serve as the contract.

#### MAJOR BREAKDOWNS/NATURAL DISASTERS

Lee County requires that the awarded vendor provide the name of a contact person and phone number which will afford Lee County access twenty-four hours per day, 365 days per year, to Terry Russe, Facilities Management, 338-3362, in the event of major breakdowns or natural disasters.

#### **TECHNICAL SPECIFICATIONS**

As per the Lee County BOCC, Utilities Operations Manual, for the purchase of hydrants, ductile iron pipe & fittings, water valves & appurtenances. Lee County Utilities Staff will install specified items for the Herons Glen, Del Vera Waterline project.

WATER VALVES AND APPURTENANCES (Section 15100)

#### PART 1 GENERAL

#### 1.1 SCOPE OF WORK

A. Furnish all materials, equipment, and incidentals required herein.

#### 1.2 REFERENCES

A. Codes, specifications, and standards referred to by number or title form a part of this Section to the extent required by the references to codes, specifications, and standards. Latest revisions, as of the date of bid opening, apply, unless otherwise noted on the Drawings or specified in this Section.

#### B. Standards

Designation	Title
ANSI/AWWA	Rubber-Gasket Joints for Ductile-Iron and
C111/A21.11	Gray-Iron Pressure Pipe and Fittings
ANSI/AWWA C500	Gate Valves
ANSI/AWWA C509	Resilient-Seated Gate Valves 3 through 12 NPS, for Water and Sewage Systems
ANSI/B16.1	Cast Iron Pipe Flanges and Flanged Fittings, Class 125
ANSI/B16.3	Malleable Iron Threaded Fittings, Class 150 and 300
ANSI/B16.5	Pipe Flanges and Flanged Fittings, Steel Nickel Alloy and Other Special Alloys
ASTM A276	Specification for Stainless and Heat-Resisting Steel Bars and Shapes

ASTM A231

Specification for Steel Casting, Austenitic, for High-Temperature Service

ASTM A743

Specification for Castings, Iron-Chromium, Iron-Chromium-Nickel, and Nickel-Base

Corrosion-Resistant for General Application

MSS SP-60 Connecting Flange Joint Between Tapping Sleeves and Tapping Valves

#### 1.3 DEFINITIONS

A. References to valve sizes on the Drawings and in the Specifications are intended to be nominal size, and shall be interpreted as nominal size.

#### 1.4 SUBMITTALS

- A. General: as specified in:
  - 1. General Conditions:
  - 2. Supplementary General Conditions;

#### 1.5 QUALITY ASSURANCE

A. Testing: Test valves as specified in this Section.

#### PART 2 PRODUCTS

#### 2.1 GENERAL:

- A. All valves and appurtenances shall be of the size shown on the Drawings and as far as possible all equipment of the same type shall be from one manufacturer.
- B. All valves and appurtenances shall have the name of the maker and the working pressure for which they are designed cast in raised letters upon some appropriate part of the body.

#### 2.2 MANUFACTURERS

A. U.S. Pipe Metroseal 250, McWayne, American or equal by U.S. manufacturer.

#### 2.3 DESIGN

- A. Resilient, Wedge or Gate Valves and Boxes
  - 1. Valves for pipe less than 2" in diameter shall conform to the requirements of AWWA C509 (latest revision) and shall be cast iron, single wedge, non-rising stem, screwed bonnet, 125 pounds S.P., 200 pounds W.O.G with stuffing box repackable under pressure and all parts renewable. Ends shall be as shown or indicated on the drawings.
  - 2. Resilient, wedge or gate valves 2" in diameter and larger shall be cast or ductile iron body, non-rising stem, bronze mounted gate valves, mechanical joint conforming to requirements of the AWWA Standard C509 and shall be provided with a 2" square operating nut. Valves shall be resilient, wedge, or gate type and shall turn to the left (counter clockwise) to open. The wedge or gate shall be cast iron or ductile iron per ASTM A536, minimum 65,000 psi strength and, completely encapsulated with urethane rubber, permanently bonded to the wedge or gate

to meet ASTM test for rubber metal bond, ASTM D429. The valve stems for non-rising stem assemblies shall be cast bronze with integral collars in full compliance with AWWA. The NRS stem stuffing box shall be the O-ring seal type with two rings located above thrust collar; the two rings shall be replaceable with valve fully open and subjected to full rated working pressure.

3. There shall be two low torque thrust bearings located above and below the stem collar. The stem nut shall be independent of wedge and shall be made of solid bronze. There shall be a smooth unobstructed waterway free of all pockets, cavities and depressions in the seat area. The body and bonnet shall be coated with fusion bonded epoxy both interior and exterior. The valve shall be designed and tested to be opened and closed under a differential pressure of 150 psi or greater.

#### B. Valves for Buried Service

- 1. Valves for buried service shall meet all the requirements as specified herein for interior except that buried valves shall have mechanical joint ends.
- 2. All buried valves shall have cast-iron three piece valve boxes, valve boxes shall be provided with suitable heavy bonnets to extend to such elevation at the finished grade surface as directed by the ENGINEER. The barrel shall be two-piece, screw type, having 50" shaft. The upper section shall have a flange at the bottom having sufficient bearing area to prevent settling, shall be designed so as to prevent the transmission of surface loads directly to the valve or piping, and shall be complete with cast iron covers. Covers shall have "WATER" cast into the top. The covers shall be so constructed as to prevent tipping or rattling. Valve boxes shall be manufactured by OPELIKA FOUNDRY COMPANY, Opelika, Alabama or TYLER PIPE DIVISION, Tyler, Texas or approved equal.
- 3. One tee-handled wrench of suitable length shall be furnished to operate each valve with a valve box.
- 4. Where valves are located out of pavement, the boxes shall be adjusted to finished grade and a concrete slab two feet square and six inches thick shall be poured around the box.
- 5. Valve boxes shall be of the heavy duty, traffic bearing cast iron, adjustable screw type with a drop cover. The valve box assembly shall consist of a bottom section, top section and cover which is cast from gray iron, formulated to ASTM specification A-48 latest revision, class 30 minimum and shall be free from blowholes, shrinkage or other imperfections not true to pattern. The shaft size shall be 5 1/4" and the adjustable length shall be from 18" to 24". The wall thickness shall be 3/16" ± 1/16". The weight of the assembly shall be 61 pounds ± 2 pounds, with the cover weight being a minimum of 12 pounds.
- 6. The name of the manufacturer and foundry of origin shall be cast into each of the components of the assembly in legible form. The assembly shall be suitable for highway traffic wheel loads of 16,000 pounds and shall withstand a proof load test of 25,000 pounds without failure or permanent deflection, as per Federal Specification RR-F-621-C, latest revision. The valve box shall be cast, machined, assembled, and packaged within the United States and shall fully comply with the Buy American provisions of Public Law 102-240, enacted 12/18/91.

#### C. Gate Valves Greater Than 20 Inches

- 1. Valves larger than 20" in diameter and larger shall be approved by the County and shall be epoxy-coated, cast or ductile iron body mechanical joint type conforming to requirements of the AWWA Standards and shall be provided with a 2" square operating nut.
- 2. 20" or larger resilient gate valve must have a 4" bypass line and 4" gate valve. If a Metroseal 250 or approved equal resilient gate valve is used, the 4" bypass line and 4" gate valve is not required. Butterfly valves may be used for valves greater than 24" without the 4" bypass line and 4" gate valve.

#### D. Check Valves

- 1. Check valves smaller than 4" shall have a bronze body with a bronze disk. Check valves shall absolutely prevent the return of water back through the valve when the inlet pressure decreases below the delivery pressure.
- 2. The valve must be full opening, tight seating and its seat right shall be renewable and must be securely held in place by a threaded joint; the valve disc shall be bronze and shall be suspended from a non-corrosive shaft which will pass through a stuffing box.
- 3. The check valve 4" and larger shall be a rubber flapper type swing check valve and the body and cover shall be cast iron construction meeting ASTM A126 Class B or Ductile Iron construction. The flapper shall be Buna-N having an "O" ring seating edge and be internally reinforced with steel.
- 4. Flapper to be captured between the body and the body cover in a manner to permit the flapper to flex from closed to full open position during flow through the valve. Flapper shall be easily removed without need to remove valve from line. Check Valves to have full pipe size flow area. Seating surface to be on a 45° angle requiring the flapper to travel only 35° from closed to full open position, for minimum head loss and non-slam closure.
- 5. Non-slam closing characteristic shall be provided through a short 35° disc stroke and a memory flex disc return action.
- 6. When essential to create backflow thru the check valve, i.e.; to prime or backflush a clogged pump, an external backflow device shall be included.
- 7. Valve exterior to be painted Phenolic Primer Red Oxide for high resistance to corrosion.
- 8. Materials of construction shall be certified in writing to conform to A.S.T.M. specified above.
- 9. Valve shall be APCO Series 100 Rubber Flapper Swing Check Valve, as manufactured by Valve & Primer Corporation, Schaumburg, Illinois, U.S.A or Series 500 swing flex valve as manufactured by Val-Matic Valve and Manufacturing Corporation or approved equal.

#### E. Backflow Prevention Devices

1. Backflow prevention devices for fire protection systems which do not utilize chemical additives or an auxiliary water supply shall be double detector—check valve assemblies, shall be USC approved, painted red, and meet all requirements of ANSI/AWWA C510—For all other applications, backflow prevention devices shall be reduced pressure principle assemblies and shall be USC approved, and shall meet all requirements of ANSI/AWWA C511 and the Southern Standard Plumbing Code. Refer to Section 9 of the Lee County Utilities Operations Manual for details and Section 17196.

#### F. Air Release Valves

1. Air release valves shall be of the short body, automatic type as shown on the Lee County Standard Detail No. 9.27 in the Operations Manual. The valve body shall be cast iron construction, ASTM A126, Class B, and all internal working parts shall be 300 Series stainless steel, and BUNA-N orifice button. The inlet openings shall be 1" NPT screwed connection. The venting orifice shall be 3/16" in diameter and shall be installed to vent a minimum of 1 foot above the flood elevation. Air release valves shall be the 400 series SARV as manufactured by Valve and Primer Corporation, Schaumburg, Illinois, or approved equal.

#### G. Tapping Valves and Sleeves

1. Tapping valves shall be of non-rising stem type of O-Ring seals and conform to the applicable requirement as specified above for valves and shall have one flange joint end and mechanical joint end.

- 2. Valve end connecting to tapping sleeve shall have a flange for bolting to the sleeve. The flange shall have a tongue which fits a recess in sleeve. Tongues shall meet the requirements of MSS SP-60. Resilient-seated gate valves having a port diameter equal to or exceeding 1/4 inch over nominal diameter shall not require a tongue. Flange dimensions and drilling shall meet the requirements of ANSI B16.1. Mechanical joints shall meet the requirements of ANSI/AWWA C111/A21.11. A full nominal diameter cutter shall be used for tapping.
- 3. Tapping valves 16" and smaller, shall be installed vertically. Tapping valves larger than 16" shall be installed horizontally and shall have bypass valves. Tapping valves installed horizontally shall have rollers and tracks. Valves 16" and larger, shall have gear operators with enclosed gear cases suitable for buried service. Gear cases shall be extended type or totally enclosed type. Extended type gear cases shall have bolted side plates to cover stem and stuffing box.

#### PART 3 EXECUTION

#### 3.1 INSTALLATION

A. Flanged joints shall be made with Series 300, stainless steel bolts. All exposed bolts shall be made with Series 300 stainless steel bolts.

#### 3.2 SHOP PAINTING

A. Ferrous surfaces of valves and appurtenances shall receive a coating of epoxy in accordance with AWWA Standard C550 and meets or exceeds all test requirements including the Food and Drug Administration Document Title 21 of the Federal Regulations on Food Additives, Section 175.000 entitled "Resinous and Polymeric Coating"; Impact Test Requirement in accordance with the ASTM D2794.

#### DUCTILE IRON PIPE AND FITTING (Section 02630)

#### **GENERAL**

#### <del>1.1</del>3.3

A. Furnish all materials, equipment, and incidentals required - ductile iron pipe, fittings and appurtenances as shown on the Drawings and as specified herein.

#### 1.33.4 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

- A. Commercial Standards: (Latest Revision)
  - 1. ANSI/AWWA C104/A21.4 Cement-Mortar Lining for Ductile-Iron Pipe and Fittings for Water.
  - 2. ANSI/AWWA C105/A21.5 Polyethylene Encasement for Ductile-Iron Piping for Water and Other Liquids.
  - 3. ANSI/AWWA C110/A21.10 Ductile-Iron Fittings, 3 in. Through 48 Inches, for Water and Other Liquids. (C110 2-48 inches).
  - 4. ANSI/AWWA C111/A21.11 Rubber Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.
  - 5. ANSI/AWWA C115/A21.15 Flanged Ductile-Iron Pipe with Threaded Flanges.

- 6. ANSI/AWWA C150/A21.50 Thickness Design of Ductile-Iron Pipe.
- 7. ANSI/AWWA C151/A21.51 Ductile-Iron Pipe, Centrifugally Cast for Water or Other Liquids.
- 8. ANSI/AWWA C153/A21.53 Ductile-Iron Compact Fittings, 3 inches through 16 inches, for Water and Other Liquids.
- 9. AWWA C600

Installation of Ductile Iron Water Mains and Their Appurtenances.

10. AWWA F477

Method for Obtaining Hydrostatic Design Basis for Thermoplastic Pipe Material

#### 1.43.5 CONTRACTOR SUBMITTALS

- A. Shop Drawings: Submit shop drawings of pipe and fittings in accordance with the requirements in the General Conditions, the requirements of the referenced standards and the following supplemental requirements as applicable:
  - 1. Certified dimensional drawings of all valves, fittings, and appurtenances.
  - 2. For pipe 48 inches in diameter and larger, a line layout and marking diagram shall indicate the specific number and location (station) of each fitting.
  - 3. In all cases, a line layout to indicate the limits of each reach of restrained joints, or of concrete encasement shall be supplied.
- B. Certifications: Furnish a certified affidavit of compliance for all pipe and other products or materials furnished under this Section of the Specifications, which indicates that all tests have been made and that all results comply with the requirements of AWWA C151, including but not necessarily limited to the following:
  - 1. Acceptance Tests.
  - 2. Hydrostatic Tests.
  - 3. Low Temperature Impact Tests.
- C. Additional Documentation: Foundry records shall be furnished in the form of written transcripts upon request.
- D. All expenses incurred for certification, testing, and data submittal shall be borne by the Supplier.

#### 4.53.6 QUALITY ASSURANCE

- A. Inspection: All pipe shall be available for inspection at the place of manufacture prior to shipping in accordance with the provisions of the referenced standards. Notify the ENGINEER in writing not less than 10 calendar days prior to the shipping of the pipe.
- B. The ENGINEER shall be given access to all areas where manufacturing and testing is performed and shall be permitted to make all inspections necessary to confirm manufacturer compliance with these Specifications.
- C. Tests: Except as modified herein, all materials used in the manufacture of the pipe shall be tested in accordance with the requirements of the referenced standards as applicable.
- D. Provide data on material tests at no additional cost to the OWNER.
- E. In addition to those tests specifically required, the ENGINEER may request additional samples of any material including lining and coating samples for testing by the OWNER. The additional samples shall be furnished at no additional cost to the OWNER.

#### **4.63.7** CORROSION PROTECTION

- A. The allowed force main pipe materials are polyvinyl chloride (PVC) or high density polyethylene (HDPE) or fiberglass. Use of ductile iron pipe (DIP) and DIP fittings are not allowed without the specific approval of Lee County Utilities. Where a force main is expected to flow full pipe at all times, DIP may be used after specific approval by Lee County Utilities. The DIP pipe will be required to have a Polybond Plus lining or approved equal. The Polybond Plus lining consist of a minimum of 60 mils thick polyethylene lining with a fusion bonded epoxy primer layer to the DIP pipe. This lining must extend through the bell of the pipe to a point under the sealing gasket. To ensure a holiday-free lining, documentation must be provided, prior to shipment, showing each section of the lined pipe has passed the holiday testing at production per ASTM G62 with a minimum of 10,000 volt charge.
- B. If specifically approved by Lee County Utilities for use, exterior protection shall be provided for underground ductile iron pipe and fittings within areas of severe corrosive conditions. This shall be accomplished by the installation of polyethylene encasement through the area of concern. The soil test evaluation to determine the necessity for extra protection in suspect areas shall be those set forth in ANSI Standard A21.5. Additionally, where other existing utilities are known to be cathodically protected, ductile iron pipe crossing said utility shall be protected for a distance of 20 feet to each side. If ductile iron pipe is to be installed parallel to and within 10 feet of cathodically protected pipe, then protection shall be provided for the entire length. Steel pipe shall not be installed in severe corrosion areas.

#### PART 2PART 4 PRODUCTS

#### **2.14.1** GENERAL

- A. Cement mortar lined ductile iron pipe shall conform to ANSI/AWWA C151 and C104, subject to the following supplemental requirements. The pipe shall be of the diameter and class shown, shall be furnished complete with rubber gaskets as indicated in the Contract Documents, and all specials and fittings shall be provided as required under the Contract Documents.
- B. Markings: Legibly mark specials 48 inches in diameter and larger in accordance with the laying schedule and marking diagram. All fittings shall be marked at each end with top field centerline.
- C. Handling and Storage: The pipe shall be handled by wide slings, padded cradles, or other devices designed and constructed to prevent damage to the pipe and its lining. The use of equipment or handling, which might injure the pipe and its lining, will not be permitted. Stockpiled pipe shall be suitably supported and shall be secured to prevent accidental rolling. All other pipe handling equipment and methods shall be acceptable to the ENGINEER.
- D. Laying lengths: Maximum pipe laying lengths shall be 20 feet.
- E. Finish: The pipe shall have smooth dense interior surfaces and shall be free from fractures, excessive interior surface crazing and roughness, in accordance with ANSI/AWWA C104.
- F. Closures and Correction Pieces: Closures and correction pieces shall be provided as required so that closures may be made due to different headings in the pipe laying operation and so that correction may be made to adjust the pipe laying to conform to pipe stationing shown on the Drawings or line layouts where applicable.

#### 1.24.2 PIPE DESIGN CRITERIA

- A. General: Ductile Iron pipe shall be designed in accordance with the requirements of ANSI/AWWA C150 as applicable and as modified in this Section.
- B. Pipe Wall Thickness for Internal Pressure: The pipe shall be designed with a net thickness to withstand the design internal pressure in accordance with the hoop stress formula. In addition to the requirements of the Section, the minimum wall thickness shall be in accordance with the minimum thickness wall depicted in table 50.5 of ANSI/AWWA C150.

- C. Ductile Iron Pipe shall be a minimum of Class 50 or pressure Class 250 and will be accepted in any diameter for use within the water distribution system.
- D. All aboveground water main pipe shall be painted blue. The pipe wall thickness shall not be less than that required by a working pressure of 250 psi in laying condition Type 4 "B" with 5-foot cover in conformance with ANSI Standard A21.50.

#### 4.34.3 MATERIALS

- A. Ductile Iron Pipe: Pipe materials shall conform to the requirements of ANSI/AWWA C151.
- B. Cement: Cement for mortar lining shall conform to the requirements of ANSI/AWWA C104; provided that cement for mortar lining shall by Type II or V. A fly ash or pozzolan shall not be used.
- C. Adapters to connect ductile iron pipe or fittings to pipe or fittings of dissimilar materials shall be supplied by the CONTRACTOR in accordance with the pipe manufacturer recommendations, and as approved by the ENGINEER.

#### 1.44.4 SPECIALS AND FITTINGS

- A. Fittings for ductile iron pipe shall conform to the requirements of ANSI/AWWA C153/A21.53 or ANSI/AWWA C110/A21.10 for diameters 3 inches through 48 inches and shall have a minimum pressure rating of 250 psi. Ductile iron fittings shall be cement lined, seal coated and outside coated as specified. Ductile Iron fittings larger than 48 inches shall conform to the above referenced standard with the necessary modifications for the larger size manufacturer's standard.
- B. All above-ground fittings in direct contact with wastewater shall be HDPE or ductile iron flanged joints with a minimum pressure rating of 250 psi conforming to ANSI A21.10. If above-ground ductile iron fitting is used, the fitting shall be lined with Protecto 401 applied in strict accordance with the manufacturers specifications to a dry film thickness of 40 mils. All DIP fittings for wastewater service shall have an internal fusion bonded epoxy coating to a minimum of 20 mil thickness. All above-ground fittings shall have a factory applied exterior epoxy coating in accordance with AWWA C550.

#### 1.54.5 DESIGN OF PIPE

- A. General: The pipe furnished shall be ductile iron pipe, mortar-lined, with rubber gasketed joints.
- B. The pipe shall be designed, manufactured, tested, inspected, and marked according to applicable requirements previously stated and except as hereinafter modified, shall conform to ANSI/AWWA C151.
- C. Pipe Dimensions: The pipe shall be of the diameter and class shown. The minimum wall thickness for each pipe size shall be as specified herein or shown on the Drawings.
- D. Fitting Dimensions: The fittings shall be of the diameter shown and class specified.
- E. Joint Design: Ductile Iron pipe and fittings shall be furnished with mechanical joints, push-on joints and flanged joints as follows:
  - 1. For buried pipe applications, unless otherwise indicated, mechanical and push-on joints shall conform to ANSI/AWWA C111/A21.11, with the minimum pressure rating of 250 psi.
  - 2. For above-ground or buried vault applications, unless otherwise indicated, flanged joints shall conform to ANSI/AWWA C115/A21.15, with the minimum pressure rating of 250 psi. All above-ground fittings shall be painted blue.

- F. Restraining Devices: Restraining joints shall be placed at all bends, tees, plugs, reducers, and other fittings to provide lateral support, and shall conform to the details shown on the drawings in Sections 9 of the Lee County Utilities Operations Manual. Concrete thrust blocks may be utilized as additional restraint if approved by Lee County Utilities.
  - 1. Joint restraint devices for ductile iron mechanical joint pipe and ductile iron mechanical joint fittings to ductile iron pipe shall be EBAA Iron Inc., Series 1100 Megalug (R), Star Pipe Products, L.P., or approved equal.
  - 2. Bell joint restraint devices for ductile iron push joint pipe shall be EBAA Iron Inc., Series 1700 Megalug (R) for bell restraint, Star Pipe Products L.P., or approved equal.
- G. For bell-and-spigot ends with rubber gaskets, the clearance between the bells and spigots shall be such that when combined with the gasket groove configuration and the gasket itself will provide watertight joints under all operating conditions when properly installed. Require the pipe manufacturer to submit details complete with significant dimensions and tolerances and also to submit performance data indicating that the proposed joint has performed satisfactorily under similar conditions. In the absence of a history of field performance, the results of a test program shall be submitted.
- H. Gaskets shall be a Buna N, Neoprene, or a Nitryl-based rubber product approved by the County. Gaskets shall have clean tips unless otherwise specified. Elastomeric gaskets conforming to ASTM F-477 shall also be acceptable.
- 1. Shop-applied interior linings and exterior coatings shall be applied evenly to the nominal thickness specified. Holiday free cement is not possible to manufacture. Exterior coatings: asphalt coating for buried pipe or primed pipe cannot be furnished holiday free.

#### **1.64.6** CEMENT-MORTAR LINING

- A. Cement-Mortar Lining For Shop Application: Except as otherwise provided herein, interior surfaces of all ductile iron pipe shall be cleaned and lined in the shop with cement-mortar lining applied centrifugally in conformity with ANSI/AWWA C104. Ductile-Iron pipe fittings need not have the cement-mortar lining applied centrifugally. The lining machines shall be of a type that has been used successfully for similar work. Every precaution shall be taken to prevent damage to the lining. If lining is damaged or found faulty at delivery site, the damaged or unsatisfactory portions shall be repaired in the filed in accordance with ANSI/AWWA C104.
- B. The nominal wet lining thickness shall be as follows:

Nominal Factory Nominal Replacement				
Nominal Pipe	Applied Lining	Lining		
Diameter (in.)	Thickness (in.)	Thickness (in.)		
3-12	1/8	1/8		
14-24	3/16	3/16		
30-64	1/4	1/4		

C. Protection of Pipe Lining/Interior: All shop-applied cement mortar lining shall be given a seal coat of asphaltic material in conformance with ANSI/AWWA C104.

#### 1.74.7 EXTERIOR COATING OF PIPE

A. Exterior Coating of Exposed Piping: The exterior surfaces of pipe which will be exposed to the atmosphere inside structures or above ground shall be thoroughly cleaned and then given a shop coat of rust-inhibitive primer conforming to the requirements of Section 09900, "Painting and Coating". All above-ground pipe shall be painted blue.

#### NOTE:

Where severely corrosive soils and other adverse conditions occur, this coating may not provide the desired protection. In such cases, a heavier coating, polyethylene wrap, cathodic protection or a combination of these may be required. To determine the protection needed, an investigation should be made of the following items.

- a. Experience with existing installations in the area, if any
- b. Soil resistivity
- c. Soil Ph
- d. Oxidation-reduction potential of the soil
- e. Sulfides
- f. Moisture content
- g. Soil description
- h. Existence of stray direct currents
- i. Possible cathodic interference

To use the polyethylene wrap, refer to ANSI A21.5 for Polyethylene Encasement for Ductile-Iron Piping for Water and Other Liquids.

Edit this Section if additional protection is needed. Also edit Sections 02650 "Laying and Jointing Buried Pipelines". A section on cathodic protection of buried ductile-iron pipe may be also required.

B. Exterior Coating of Buried Piping: The exterior coating shall be an asphaltic coating approximately 1 mil thick, conforming to ANSI/AWWA C151.

#### 1.84.8 CORROSION PROTECTION

- A. The allowed force main pipe materials are polyvinyl chloride (PVC) or high density polyethylene (HDPE) or fiberglass. Use of ductile iron pipe (DIP) and DIP fittings are not allowed without the specific approval of Lee County Utilities. Where a force main is expected to flow full pipe at all times, DIP may be used after specific approval by Lee County Utilities. The DIP pipe will be required to have a Polybond Plus lining or approved equal. The Polybond Plus lining consist of a minimum of 60 mils thick polyethylene lining with a fusion bonded epoxy primer layer to the DIP pipe. This lining must extend through the bell of the pipe to a point under the sealing gasket. To ensure a holiday-free lining, documentation must be provided, prior to shipment, showing each section of the lined pipe has passed the holiday testing at production per ASTM G62 with a minimum of 10,000 volt charge.
- B. If specifically approved by Lee County Utilities for use, exterior protection shall be provided for underground ductile iron pipe and fittings within areas of severe corrosive conditions. This shall be accomplished by the installation of polyethylene encasement through the area of concern. The soil test evaluation to determine the necessity for extra protection in suspect areas shall be those set forth in ANSI Standard A21.5. Additionally, where other existing utilities are known to be cathodically protected, ductile iron pipe crossing said utility shall be protected for a distance of 20 feet to each side. If ductile iron pipe is to be installed parallel to and within 10 feet of cathodically protected pipe, then protection shall be provided for the entire length. Steel pipe shall not be installed in severe corrosion areas.

#### PART 3PART 5 EXECUTION

#### <del>3.1</del>5.1

A. Handling and Storage: All pipe, fittings, etc., shall be carefully handled and protected against damage, impact shocks, and free fall and in accordance with ANSI/AWWA C600. Pipe shall not be placed directly on rough rocky ground but in such instances shall be supported in a manner which will protect the pipe against injury whenever stored at such trench site or elsewhere. No pipe shall be installed where the lining or coating show defects that may be harmful as determined by the ENGINEER. Such damaged lining or coating shall be repaired, or a new undamaged pipe shall be furnished and installed.

- B. All pipe damaged prior to Substantial Completion or during warrantee period shall be repaired or replaced by the CONTRACTOR.
- C. Inspect each pipe and fitting prior to installation to insure that no damaged portions of the pipe get installed.
- D. Before placement of pipe in the trench, each pipe or fitting shall be thoroughly cleaned of any foreign substance, which may have collected therein and shall be kept clean at all times thereafter. For this purpose, the openings of all pipes and fittings in the trench shall be closed during any interruption to the work.

#### **1.35.2** PIPE APPURTENANCES

- A. Valves: All valves shall be handled in a manner to prevent any injury or damage to any part of the valve. Adjust all stem packing and operate each valve prior to installation to insure proper operation.
- B. All valves shall be installed so that the valve stems are plumb and in the location shown on the Drawings.
- C. Mechanical joints consisting of bell, socket, gland, gasket, bolts, and nuts shall conform to ANSI Standard A21.11. Bolts and nuts shall be high strength, low alloy, Cor-Ten, T-Head Type having hexagonal nuts. Bolts and nuts shall be machined through and nuts shall be tapped at right angles to a smooth bearing surface. Single sealed gasket push-on type joints shall conform to the requirements of ANSI A21.11 and shall be Tyton, Fastite, Superbelltite, Alltite, or approved equal.
- D. Mechanical joint retainer glands may be used to restrain mechanical joint pipe and fittings to the plain end of ductile iron pipe and fittings when used in conjunction with thrust blocks of reduced size. The Utilities ENGINEER must approve thrust block size. Joint flexibility shall be maintained.

#### 1.45.3 TESTING AND DISINFECTION

A. Test completed water pipeline in accordance with Section 02676. Disinfect completed water pipeline in accordance with Section 2675.

#### HYDRANTS (SECTION 02645)

#### PART 6 GENERAL

- 6.1 DESCRIPTION OF REQUIREMENTS
  - A. Furnish fire hydrants where shown on the Drawings or directed by the ENGINEER.
- 6.2 QUALITY ASSURANCE
  - A. Provide manufacturer's certificate those products meet or exceed minimum requirements as specified.
- 6.3 SUBMITTALS
  - A. Submit manufacturer's certificates on conformance.

B. Shop Drawings: Submit manufacturer's drawings and data sheets for material to be supplied under this Section. Indicate sizes and types to be installed.

#### 6.4 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. During loading, transportation and unloading, exercise care to prevent damage to materials.
- B. Handling: Fire hydrants should be unloaded carefully. The hydrant should be carefully lowered from the truck to the ground, not dropped. Only hoists and slings with adequate load capacity to handle the weight of the hydrant shall be used.
- C. Storage: Should be stored in the fully closed position to prevent entry of foreign material that could cause damage to the seating surfaces. Whenever practical, hydrants should be stored indoors. If outside storage is required, means should be provided to protect the operating mechanism. In outside storage, parts and flanges should be protected from the weather and foreign materials.

#### PART 7 PRODUCTS

#### 7.1 FIRE HYDRANTS

- A. Fire hydrants shall be of the compression type with break away upper sections capable of ready replacement without loss in the event of traffic damage. Each hydrant shall have a 6" bottom inlet connection and valve opening at least 5-1/4 inches in diameter. Hydrants shall turn to the left (counter clockwise) to open. Each hydrant shall be fitted with one 4-1/2-inch pumper connection and two 2-1/2 inch hose connections, both having threads that conform to the Fire Division Standard for the area. Hose caps shall be chained to the hydrant barrel and fitted with nuts similar to the hydrant operating nuts. Each hydrant shall have a barrel of sufficient length to bring the bottom of the 6" pipe connection 3 feet below the surface of the finished ground. Each hydrant shall be made in at least two sections bolted together. All interior working parts of the hydrant shall be removable from the top of the hydrant to allow repairs without removing the hydrant barrel after it has been installed. Hydrants shall have renewable O-ring stem seals. Hydrant barrels shall be painted AWWA Safety Yellow. They shall be designed for a working pressure of 150 psi and will conform to AWWA Standard C502, "Fire Hydrants for Ordinary Water Works Service".
- B. Hydrant shall have no drain parts. If parts exist, they shall be plugged with a threaded plug.
- C. Operating stem shall be equipped with anti-friction thrust bearing to reduce operating torque and assure easy opening. Stops shall be provided to limit stem travel. Stem threads shall be enclosed in a permanently sealed lubricant reservoir with O-ring seals.
- D. Hydrants shall be designated for 150 psi working pressure and shop tested to 300 psi pressure with main valve both opened and closed. Under test the valve shall not leak, the automatic drain shall function and there shall be no leakage into the bonnet.
- E. Hydrant guard posts (bollards) shall be 6-inch diameter Class 50 ductile iron pipe.
- F. Acceptable models include:
  - 1. Mueller Centurion A-423
  - 2. Kennedy K-81A
  - 3. American Darling LCU B84B
  - 4. Clow Medallion
  - 5. U. S. Pipe Metropolitan 250 Model 94

#### ATTACHMENT A

# LOCAL VENDOR PREFERENCE QUESTIONNAIRE (LEE COUNTY ORDINANCE NO. 00-10)

Instructions: Please complete either Part A or B whichever is applicable to your firm

PART A: VENDOR'S PRINCIPAL PLACE OF BUSINESS IS LOCATED WITHIN LEE COUNTY (Only complete Part A if your principal place of business is located within the boundaries of Lee County)

	-
What is the size of this facility (i.e. sales area size, warehouse, storage yard, etc.)	_
VENDOR'S PRINCIPAL PLACE OF BUSINESS IS NOT LOCATED WIT	- - Thin Lee County or Does NO
HAVE A PHYSICAL LOCATION WITHIN LEE COUNTY (Please co w many employees are available to service this contract?	mplete this section.)
scribe the types and amount of equipment you have available to service this	s contract.
	- -
scribe the types and amount of material stock that you have available to ser	vice this contract.
ave you provided goods or services to Lee County on a regular basis for the preced	
Yes No	
yes, please provide your contractual history with Lee County for the past five, cons necessary.	secutive years. Attach additional pages
_ av	Yes Noes, please provide your contractual history with Lee County for the past five, cons

#### GUIDE "B"

#### INSURANCE REQUIREMENTS FOR PRODUCTS

Your certificate of insurance must meet the following requirements

Requirement #1:

The Lee County Board of County Commissioners shall be added as an

additional insured on the comprehensive general liability policy.

Requirement #2:

Certificate holder shall be listed as follows:

Lee County Board of County Commissioners

C/O Lee County Purchasing

P.O. Box 398

Fort Myers, FL 33902

Requirement #3:

Each policy shall provide a 30 day notification clause in the event of cancellation, non-renewal or adverse change.

This Standard Insurance Language is to be utilized for Contracts, or Agreements meeting these circumstances. Certain conditions and/or exposures may not relieve or limit the liability of the vendor. These requirements may not be sufficient or adequate to protect the vendor's interests or liabilities, but are merely minimums.

#### Circumstances

Project is for vendors providing a tangible product, and not labor, such as, but not limited to , hardware, supplies, and other merchandise.

#### Worker's Compensation

Does not apply.

#### Commercial General Liability

Coverage shall apply to premised and/or operations, products and/or completed operations, independent contractors, contractual liability, and broad form property damage exposures with minimum limits of:

\$100,000 bodily injury per person (BI)

\$300,000 bodily injury per occurrence (BI)

\$100,000 property damage (PD) or

\$300,000 combined single limit (CSL) of BI and PD

#### **Business Automobile Liability**

If the vendor indicates on the price page that vehicles other than their own (common carrier) will be used for delivery, then the following Automobile Liability will not be required.

Coverage shall apply to owned vehicles and/or hired and non-owned vehicles and employee non-ownership use with minimum limits of:

\$100,000 bodily injury per person (BI)

\$300,000 bodily injury per occurrence (BI)

\$100,000 property damage (PD) or

\$300,000 combined single limit (CSL) of BI and PD

#### Certificate of Insurance

An original hand signed certificate shall be on file with and approved by the Lee County Risk Management Office prior to the commencement of any work activities.

In the event the insurance coverage expires prior to the completion of the project, a renewal certificate shall be on file with Risk Management at least 15 days prior to the expiration date.

Revised 10/18/00

#### LEE COUNTY PURCHASING SERVICES - BIDDERS CHECK LIST

	Flease read carefully and return with your bid proposal.  f each of the following items as the necessary action is completed:  1. The Quote has been signed.
	2. The Quote prices offered have been reviewed.
	3. The price extensions and totals have been checked.
	4. The original (must be manually signed) and 2 copies of the quote have been submitted.
	5. Three (3) identical sets of descriptive literature, brochures and/or data (if required) have been submitted under separate cover.
	6. All modifications have been acknowledged in the space provided.
	7. All addendums issued, if any, have been acknowledged in the space provided.
	8. Erasures or other changes made to the quote document have been initialed by the person signing the quote.
** * .	9. Bid Bond and/or certified Check, (if required) have been submitted with the quote in amounts indicated.
	10. Any Delivery information required is included.
_	11. The mailing envelope has been addressed to:  Lee County Purchasing Services  P.O. Box 398  or  3434 Hancock Bridge Pkwy 3 <sup>rd</sup> FL  Ft. Myers, FL 33902-0398  N. Ft. Myers, FL 33903
	12. The mailing envelope MUST be sealed and marked with:  Quote Number  Opening Date and/or Receiving Date
·	13. The quote will be mailed or delivered in time to be received no later than the specified opening date and time. (Otherwise quote cannot be considered or accepted.)
	14. If submitting a "NO BID" please write quote number here and check one of the following:  Do not offer this product Insufficient time to respond.  Unable to meet specifications (why)  Unable to meet bond or insurance requirement.  Other:
	Company Name and Address:

#### LEE COUNTY, FLORIDA PROPOSAL QUOTE FORM FOR

#### HERONS GLEN

(PURCHASE OF HYDRANTS, DI PIPE & FITTINGS, WATER VALVES & APPURTENANCES)

DATE SUBMITTED: 3/26/02	Clarification:
VENDOR NAME: SEMSCO	VENDOR-SEMSCO/Greg
TO: The Board of County Commissioners Lee County Fort Myers, Florida	Item#9: 11 rolls @ 10.00 ea.

Having carefully examined the "General Conditions", and the "Detailed Specifications", all of which are contained herein, the Undersigned proposes to furnish the following, which meet these specifications:

The undersigned acknowledges receipt of Addenda numbers:

¥.	T 7	<u> </u>	.0			
Item No.	Lee County Commodity Code	Description	Cost	(X) Estimated Quantity	= Total Cost	!
1.		FIRE HYDRANT, VALVE & VALVE BOX	\$ 1,005.00	2 each.	\$2.40.45	
2.		I6" GATE VALVE W/BOX	\$ 7	4 each	\$ 2,010,00	
3.		12" x 6" TEE	\$ 2,005.00	2 each	\$ 8,020,00	
			105.00	Z Cacii	210.00	
4.		16"-45 ELBOW	\$ 208,00	2 each	\$ 416.00	
5.		12" DIP WATER MAIN, CL350	\$ 12.82	20 LF	\$ 256,40	
6.	<del></del>	16" DIP WATER MAIN, CL250	\$ 16.89	10,700 LF	\$180,723.00	
7.		SAMPLING TAP-1" CORP & CURB STOP	\$ 32.50	10.each	\$ 325.00	
8.		12" C-900 ,	\$ 5.58	40 FT	\$ 22.3.20	
9.		DETECT TAPE	\$ 10.00	11,000 FT	\$ 110,00	<b>O</b>
10.		16" RESTRAINTS FOR DI PIPE	\$ 180,00	3 each	\$ 540.00	
11.		MJ ACCESSORY KITS, 16" MEGALUG	\$ 85.00	12 each	\$1,020.00	
12.		16" x 12" MJ REDUCERS	\$ 160.00	2 each	\$ 320,00	
13.		12" SLEEVE, MJ	\$ 63.00	2 cach	\$ 126,00	
14.	<u> </u>	MI ACCESSORY KITS, 12" MEGALUG	\$ 48.00	8 each	\$ 384.00	
15.		16" x 1" DOUBLE STRAP SADDLE	\$ 39.00	10 each	\$ 390,00	
16. 17.		POLY TUBING, I"	\$ .//	100 FT	\$ 11.00	
18.		PVC SCHEDULE 80, S X T ADAPTER	\$ 1.00	10 cach	\$ 10,00	
19.		SCHEDULE 40, 1" PIPE .	\$ .07	20 FT	\$ 1.40	
20.		SCHEDULE 40, 1" 90 DEGREE S X S	\$ .20	20 cach	\$ 4.00	
		MJ ACCESSORY KITS, 6" MEGALUG	\$ 15.00	6 each	\$ 90.00	
	<del></del>	GRAND TOTAL OF ITEMS 1 -20:		<u> </u>	\$195 190:00	>
	<del></del>					

TO BE DELIVERED WITHIN CALENDAR DAYS AFTER RECEIPT OF AWARD AND PURCHASE ORDER.

RECEIVED DATE: 03/22 15:57'02 FROM :2396897390

#### LEE COUNTY, FLORIDA PROPOSAL QUOTE FORM FOR

#### HERONS GLEN

(PURCHASE OF HYDRANTS, DI PIPE & FITTINGS, WATER VALVES & APPURTENANCES)

DATE	SUBMITTED: 3/26/02
VENDO	OR NAME: SEMSCO
TO:	The Board of County Commissioners Lee County

Having carefully examined the "General Conditions", and the "Detailed Specifications", all of which are contained herein, the

Undersigned proposes to furnish the following, which meet these specifications:

The undersigned acknowledges receipt of Addenda numbers:

Fort Myers, Florida

Item	Lee County	Description	Ψ.	Cost	(X) Estimated	- Total Cod
No.	Commodity	Description	1	Cost	Quantity	= Total Cost
_ `	Code				Quantity	
1.		FIRE HYDRANT, VALVE & VALVE BOX	\$	1,005.00	2 each.	\$ 2,010.00
2.		16" GATE VALVE W/BOX		2,005.00		\$8020.00
3.		12" x 6" TEE	\$	- 1	2 each	· e
			1	105.00	22 00071	" 210.00
4.		16"-45 ELBOW	\$	208,00	2 each	\$ 416.00
5.		12" DIP WATER MAIN, CL350	\$	12.82	20 LF	\$ 256,40
6.		16" DIP WATER MAIN, CL250	\$	16.89	10,700 LF	\$180,723.0
7.		SAMPLING TAP-1" CORP & CURB STOP	\$	Í	10 each	c
			1	32.50		325.00
8.		12" C-900 ,	\$	. سر بر	40 FT	\$
]				5.58		223.20
9.		DETECT TAPE	S		11 000 770	
			3	10.00	11,000 FT	\$ 110,00
10.		16" RESTRAINTS FOR DI PIPE	\$	180,00	3 each	\$ 540.00
11.		MJ ACCESSORY KITS, 16" MEGALUG	\$	85.00	12 each	\$1,020,00
12.		16" x 12" MJ REDUCERS	\$	160.00	2 each	\$ 320,00
13.	'	12" SLEEVE, MJ	\$	63.00	2 cach	\$ 126,00
14.		MJ ACCESSORY KITS, 12" MEGALUG	\$	48.00	8 each	\$ 384.00
15.		16" x 1" DOUBLE STRAP SADDLE	\$	39.00	10 each	\$ 390.00
16.		POLY TUBING, I"	\$	.11	100 FT	\$ 11.00
17.	***********	PVC SCHEDULE 80, S X T ADAPTER	\$	1.00	10 each	\$ 10.00
18,		SCHEDULE 40, 1" PIPE	\$	.07	20 FT	\$ 1.40
19.		SCHEDULE 40, 1" 90 DEGREE S X S	\$	. 20	20 each	\$ 4,00
20.		MJ ACCESSORY KITS, 6" MEGALUG	\$	15.00	6 each	\$ 90.00
		GRAND TOTAL OF ITEMS 1 –20:		·····		5/95/90.

TO BE DELIVERED WITHIN \_\_\_\_\_CALENDAR DAYS AFTER RECEIPT OF AWARD AND PURCHASE ORDER. 10 A

RECEIVED DATE: 03/22 15:57'02 FROM: 2396897390

FORMAL QUOTATION NO.: Q-020294

WILL TOO DELIVER WI	IN TOUR OWN	VEHICLES F	dacoaro es	TO COMMON CA	DOIN, WIT WIT
	YES	<u> </u>	NO	V /	he direct shipped The MANNEROTHAR.
Is your firm interested in be	ing considered fo	or the Local Ve	ndor Preferen	ce? Yes	No
If yes, then read the paragr Preference Questionnaire as	-		ference" inclu	ded in these specifi	ications. Also complete the Local Vendor
Quoters should carefully requote may be grounds to rej		nd conditions o	of the specifica	ations. Any represe	entation of deviation or modification to the
Are there any modifications	to the quote or s	pecifications:	Yes	No	
Failure to clearly identify a nonresponsive or to have the					be grounds for the quoter being declared
MODIFICATIONS.					•

11

Quoter shall submit his/her quote on the County's Proposal Quote Form, including the firm name and authorized signature. Any blank spaces on the Proposal Quote Form, qualifying notes or exceptions, counter offers, lack of required submittals, or signatures, on County's Form may result in the Quoter/Quote being declared non-responsive by the County.

#### ANTI-COLLUSION STATEMENT

THE BELOW SIGNED QUOTER HAS NOT DIVULGED TO, DISCUSSED OR COMPARED HIS QUOTE WITH OTHER QUOTERS AND HAS NOT COLLUDED WITH ANY OTHER QUOTER OR PARTIES TO A QUOTE WHATSOEVER. NOTE: NO PREMIUMS, REBATES OR GRATUITIES TO ANY EMPLOYEE OR AGENT ARE PERMITTED EITHER WITH, PRIOR TO, OR AFTER ANY DELIVERY OF MATERIALS. ANY SUCH VIOLATION WILL RESULT IN THE CANCELLATION AND/OR RETURN OF MATERIAL (AS APPLICABLE) AND THE REMOVAL FROM THE MASTER BIÐDERS LIST.

FIRM NAME SENSCO				
BY (Printed): GReg STACY				
BY (Signature):				
TITLE: Salesman				
FEDERAL ID # OR S.S.# 04-30-21-921				
ADDRESS: 17323 JEAN STREET				
FT. Myens, FL. 33912				
PHONE NO.: (941) 433-0555				
FAX NO.: (941) 433-0405				
CELLULAR PHONE/PAGER NO.: (941) 980 - 5130				
LEE COUNTY OCCUPATIONAL LICENSE NUMBER: 820674				
E-MAIL ADDRESS: GSTACY@ Clayfon Supply. Com				
REVISED: 7/28/00				

# LEE COUNTY, FLORIDA DETAILED SPECIFICATIONS FOR HERONS GLEN (PURCHASE OF HYDRANTS, DI PIPE & FITTINGS, WATER VALVES & APPURTENANCES)

#### SCOPE

The intent of this request for quotations is to establish a contract for the purchase of underground parts and related items for the Herons Glen, Del Vera Waterline project for the Lee County Board of County Commissioners, Utilities Division (installation will be completed by Lee County staff).

#### TERM OF QUOTE

This quote shall be in effect for 1 year, or until new quotes are taken and awarded.

#### BASIS OF AWARD

The basis of award for this quote will be to the lowest responsive, responsible quoter meeting specifications for items as listed on the Proposal Quote Form, page 10.

Lee County reserves the right, at the Purchasing Director's discretion, not to award certain items listed.

Lee County reserves the right to reject unbalanced quotes (a quote where a normally low cost item is priced well out of the normal range).

#### REOUIRED SUBMITTALS

Vendors may be asked to provide additional information. If requested, vendors should furnish the information within 10 calendar days of a request.

#### REGULAR DEALER

Proposals will be considered only from firms that qualify as a "regular dealer".

A "regular dealer" means a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials or supplies required for the performance of the contract are bought, kept in stock, and regularly sold to the public in the usual course of business. To be a regular dealer, the firm must engage in, as its principal business and in its own name, the purchase and sale of the products in question.

#### DELIVERY

All items will be picked up on an as-needed basis or delivered F.O.B. Destination as directed at no additional cost to Lee County. Prices shall include all costs of packaging, loading, transporting, delivery and unloading, inclusive of inside delivery if requested. County employees picking up items <u>must</u> provide the vendor with a Purchase Order Number. <u>No sale</u> shall be transacted without a purchase order number being given to the vendor.

There shall be no minimum dollar amount required per purchase.

If your firm is out of the local calling area, it is required that you have a toll free number or that collect calls be accepted from Lee County for the placement of orders.

It is desired to have delivery of stock items within one (1) working day, and non-stock items within five (5) working days from placement of an order. In the event of an emergency situation, same-day availability will be required. Lee County reserves the right to purchase materials on an emergency basis from other sources. In the space provided on the Proposal Quote Form, specify your firm's delivery time frame for stock and non-stock items. Should the awarded vendor not be able to deliver the items in the time specified on the Proposal Quote Form, Lee County reserves the right to purchase the items elsewhere. The quoter further understands and agrees that failure to consistently deliver items within the time specified on the Proposal Quote Form may be cause to disqualify a low quoter at any time.

#### **DESIGNATED CONTACT**

The awarded vendor shall appoint a person or persons to act as a primary contact for all County departments. This person or back up shall be readily available during normal work hours by phone or in person, and shall be knowledgeable of the terms and procedures involved.

#### LOCAL BIDDER'S PREFERENCE

Note: In order for your firm to be considered for the local vendor preference, you must complete and return the attached "Local Vendor Preference Questionnaire" with your quotation.

The Lee County Local Bidder's Preference Ordinance No. 00-10 is being included as part of the award process for this project. As such, Lee County at its sole discretion, may choose to award a preference to any qualified "Local Contractor/Vendor" in an amount not to exceed 3 % of the total amount quoted by that firm.

"Local Contractor / Vendor" shall mean: a) any person, firm, partnership, company or corporation whose principal place of business in the sole opinion of the County, is located within the boundaries of Lee County, Florida; or b) any person, firm, partnership, company or corporation that has provided goods or services to Lee County on a regular basis for the preceding consecutive five (5) years, and that has the personnel, equipment and materials located within the boundaries of Lee County sufficient to constitute a present ability to perform the service or provide the goods.

The County reserves the exclusive right to compare, contrast and otherwise evaluate the qualifications, character, responsibility and fitness of all persons, firms, partnerships, companies or corporations submitting formal bids or formal quotes in any procurement for goods or services when making an award in the best interests of the County.

#### **BACKORDERS**

Backorders will generally be allowed, subject to the department's approval. Backorders must be held to a minimum. It is desired that 90% of backordered items be shipped within five (5) working days after receipt of the first order.

#### **BRAND NAMES**

Whenever in these specifications a brand name or make is mentioned, it is the intention of the County only to establish a grade or quality of material, and not to rule out other brands or makes of equality.

#### **SAMPLES**

Upon request, quoters are to furnish samples of commodities at no expense; unused samples may be picked up from Lee County for return to quoter at no charge to Lee County.

#### **QUANTITY PRICE BREAKS**

If your firm can offer quantity price breaks to Lee County on any items listed, specify item(s), quantity breaks and pricing on company letterhead. The discounts offered on the Proposal Quote Form will form the basis of award.

#### FUEL PRICE ADJUSTMENTS

There will be no fuel price adjustments or surcharges for this contract.

#### **TOLLS**

Lee County will not pay for or reimburse awarded vendors for any bridge tolls.

#### **CONTRACT**

A purchase order will serve as the contract.

#### MAJOR BREAKDOWNS/NATURAL DISASTERS

Lee County requires that the awarded vendor provide the name of a contact person and phone number which will afford Lee County access twenty-four hours per day, 365 days per year, to Terry Russe, Facilities Management, 338-3362, in the event of major breakdowns or natural disasters.

#### TECHNICAL SPECIFICATIONS

As per the Lee County BOCC, Utilities Operations Manual, for the purchase of hydrants, ductile iron pipe & fittings, water valves & appurtenances. Lee County Utilities Staff will install specified items for the Herons Glen, Del Vera Waterline project.

WATER VALVES AND APPURTENANCES (Section 15100)

#### PART 1 GENERAL

#### 1.1 SCOPE OF WORK

A. Furnish all materials, equipment, and incidentals required herein.

#### 1.2 REFERENCES

A. Codes, specifications, and standards referred to by number or title form a part of this Section to the extent required by the references to codes, specifications, and standards. Latest revisions, as of the date of bid opening, apply, unless otherwise noted on the Drawings or specified in this Section.

#### B. Standards

Designation	Title
ANSI/AWWA	Rubber-Gasket Joints for Ductile-Iron and
C111/A21.11	Gray-Iron Pressure Pipe and Fittings
ANSI/AWWA C500	Gate Valves
ANSI/AWWA C509	Resilient-Seated Gate Valves 3 through 12 NPS, for Water and Sewage Systems
ANSI/B16.1	Cast Iron Pipe Flanges and Flanged Fittings, Class 125
ANSI/B16.3	Malleable Iron Threaded Fittings, Class 150 and 300
ANSI/B16.5	Pipe Flanges and Flanged Fittings, Steel Nickel Alloy and Other Special Alloys
ASTM A276	Specification for Stainless and Heat-Resisting Steel Bars and Shapes

ASTM A231

Specification for Steel Casting, Austenitic, for High-Temperature Service

ASTM A743

Specification for Castings, Iron-Chromium, Iron-Chromium-Nickel, and Nickel-Base Corrosion-Resistant for General Application

Corrosion-Resistant for General Application

MSS SP-60 Connecting Flange Joint Between Tapping Sleeves and Tapping Valves

#### 1.3 DEFINITIONS

A. References to valve sizes on the Drawings and in the Specifications are intended to be nominal size, and shall be interpreted as nominal size.

#### 1.4 SUBMITTALS

- A. General: as specified in:
  - 1. General Conditions:
  - 2. Supplementary General Conditions;

#### 1.5 QUALITY ASSURANCE

A. Testing: Test valves as specified in this Section.

#### PART 2 PRODUCTS

#### 2.1 GENERAL:

- A. All valves and appurtenances shall be of the size shown on the Drawings and as far as possible all equipment of the same type shall be from one manufacturer.
- B. All valves and appurtenances shall have the name of the maker and the working pressure for which they are designed cast in raised letters upon some appropriate part of the body.

#### 2.2 MANUFACTURERS

A. U.S. Pipe Metroseal 250, McWayne, American or equal by U.S. manufacturer.

#### 2.3 DESIGN

#### A. Resilient, Wedge or Gate Valves and Boxes

- 1. Valves for pipe less than 2" in diameter shall conform to the requirements of AWWA C509 (latest revision) and shall be cast iron, single wedge, non-rising stem, screwed bonnet, 125 pounds S.P., 200 pounds W.O.G with stuffing box repackable under pressure and all parts renewable. Ends shall be as shown or indicated on the drawings.
- 2. Resilient, wedge or gate valves 2" in diameter and larger shall be cast or ductile iron body, non-rising stem, bronze mounted gate valves, mechanical joint conforming to requirements of the AWWA Standard C509 and shall be provided with a 2" square operating nut. Valves shall be resilient, wedge, or gate type and shall turn to the left (counter clockwise) to open. The wedge or gate shall be cast iron or ductile iron per ASTM A536, minimum 65,000 psi strength and, completely encapsulated with urethane rubber, permanently bonded to the wedge or gate

to meet ASTM test for rubber metal bond, ASTM D429. The valve stems for non-rising stem assemblies shall be cast bronze with integral collars in full compliance with AWWA. The NRS stem stuffing box shall be the O-ring seal type with two rings located above thrust collar; the two rings shall be replaceable with valve fully open and subjected to full rated working pressure.

3. There shall be two low torque thrust bearings located above and below the stem collar. The stem nut shall be independent of wedge and shall be made of solid bronze. There shall be a smooth unobstructed waterway free of all pockets, cavities and depressions in the seat area. The body and bonnet shall be coated with fusion bonded epoxy both interior and exterior. The valve shall be designed and tested to be opened and closed under a differential pressure of 150 psi or greater.

#### B. Valves for Buried Service

- 1. Valves for buried service shall meet all the requirements as specified herein for interior except that buried valves shall have mechanical joint ends.
- 2. All buried valves shall have cast-iron three piece valve boxes, valve boxes shall be provided with suitable heavy bonnets to extend to such elevation at the finished grade surface as directed by the ENGINEER. The barrel shall be two-piece, screw type, having 50" shaft. The upper section shall have a flange at the bottom having sufficient bearing area to prevent settling, shall be designed so as to prevent the transmission of surface loads directly to the valve or piping, and shall be complete with cast iron covers. Covers shall have "WATER" cast into the top. The covers shall be so constructed as to prevent tipping or rattling. Valve boxes shall be manufactured by OPELIKA FOUNDRY COMPANY, Opelika, Alabama or TYLER PIPE DIVISION, Tyler, Texas or approved equal.
- 3. One tee-handled wrench of suitable length shall be furnished to operate each valve with a valve box.
- 4. Where valves are located out of pavement, the boxes shall be adjusted to finished grade and a concrete slab two feet square and six inches thick shall be poured around the box.
- 5. Valve boxes shall be of the heavy duty, traffic bearing cast iron, adjustable screw type with a drop cover. The valve box assembly shall consist of a bottom section, top section and cover which is cast from gray iron, formulated to ASTM specification A-48 latest revision, class 30 minimum and shall be free from blowholes, shrinkage or other imperfections not true to pattern. The shaft size shall be 5 1/4" and the adjustable length shall be from 18" to 24". The wall thickness shall be 3/16" ± 1/16". The weight of the assembly shall be 61 pounds ± 2 pounds, with the cover weight being a minimum of 12 pounds.
- 6. The name of the manufacturer and foundry of origin shall be cast into each of the components of the assembly in legible form. The assembly shall be suitable for highway traffic wheel loads of 16,000 pounds and shall withstand a proof load test of 25,000 pounds without failure or permanent deflection, as per Federal Specification RR-F-621-C, latest revision. The valve box shall be cast, machined, assembled, and packaged within the United States and shall fully comply with the Buy American provisions of Public Law 102-240, enacted 12/18/91.

#### C. Gate Valves Greater Than 20 Inches

- 1. Valves larger than 20" in diameter and larger shall be approved by the County and shall be epoxy-coated, cast or ductile iron body mechanical joint type conforming to requirements of the AWWA Standards and shall be provided with a 2" square operating nut.
- 2. 20" or larger resilient gate valve must have a 4" bypass line and 4" gate valve. If a Metroseal 250 or approved equal resilient gate valve is used, the 4" bypass line and 4" gate valve is not required. Butterfly valves may be used for valves greater than 24" without the 4" bypass line and 4" gate valve.

#### D. Check Valves

- 1. Check valves smaller than 4" shall have a bronze body with a bronze disk. Check valves shall absolutely prevent the return of water back through the valve when the inlet pressure decreases below the delivery pressure.
- 2. The valve must be full opening, tight seating and its seat right shall be renewable and must be securely held in place by a threaded joint; the valve disc shall be bronze and shall be suspended from a non-corrosive shaft which will pass through a stuffing box.
- 3. The check valve 4" and larger shall be a rubber flapper type swing check valve and the body and cover shall be cast iron construction meeting ASTM A126 Class B or Ductile Iron construction. The flapper shall be Buna-N having an "O" ring seating edge and be internally reinforced with steel.
- 4. Flapper to be captured between the body and the body cover in a manner to permit the flapper to flex from closed to full open position during flow through the valve. Flapper shall be easily removed without need to remove valve from line. Check Valves to have full pipe size flow area. Seating surface to be on a 45° angle requiring the flapper to travel only 35° from closed to full open position, for minimum head loss and non-slam closure.
- 5. Non-slam closing characteristic shall be provided through a short 35° disc stroke and a memory flex disc return action.
- 6. When essential to create backflow thru the check valve, i.e.; to prime or backflush a clogged pump, an external backflow device shall be included.
- 7. Valve exterior to be painted Phenolic Primer Red Oxide for high resistance to corrosion.
- 8. Materials of construction shall be certified in writing to conform to A.S.T.M. specified above.
- 9. Valve shall be APCO Series 100 Rubber Flapper Swing Check Valve, as manufactured by Valve & Primer Corporation, Schaumburg, Illinois, U.S.A or Series 500 swing flex valve as manufactured by Val-Matic Valve and Manufacturing Corporation or approved equal.

#### E. Backflow Prevention Devices

1. Backflow prevention devices for fire protection systems which do not utilize chemical additives or an auxiliary water supply shall be double detector check valve assemblies, shall be USC approved, painted red, and meet all requirements of ANSI/AWWA C510 For all other applications, backflow prevention devices shall be reduced pressure principle assemblies and shall be USC approved, and shall meet all requirements of ANSI/AWWA C511 and the Southern Standard Plumbing Code. Refer to Section 9 of the Lee County Utilities Operations Manual for details and Section 17196.

#### F. Air Release Valves

1. Air release valves shall be of the short body, automatic type as shown on the Lee County Standard Detail No. 9.27 in the Operations Manual. The valve body shall be cast iron construction, ASTM A126, Class B, and all internal working parts shall be 300 Series stainless steel, and BUNA-N orifice button. The inlet openings shall be 1" NPT screwed connection. The venting orifice shall be 3/16" in diameter and shall be installed to vent a minimum of 1 foot above the flood elevation. Air release valves shall be the 400 series SARV as manufactured by Valve and Primer Corporation, Schaumburg, Illinois, or approved equal.

#### G. Tapping Valves and Sleeves

1. Tapping valves shall be of non-rising stem type of O-Ring seals and conform to the applicable requirement as specified above for valves and shall have one flange joint end and mechanical joint end.

- Valve end connecting to tapping sleeve shall have a flange for bolting to the sleeve. The flange shall have a tongue which fits a recess in sleeve. Tongues shall meet the requirements of MSS SP-60. Resilient-seated gate valves having a port diameter equal to or exceeding 1/4 inch over nominal diameter shall not require a tongue. Flange dimensions and drilling shall meet the requirements of ANSI B16.1. Mechanical joints shall meet the requirements of ANSI/AWWA C111/A21.11. A full nominal diameter cutter shall be used for tapping.
- 3. Tapping valves 16" and smaller, shall be installed vertically. Tapping valves larger than 16" shall be installed horizontally and shall have bypass valves. Tapping valves installed horizontally shall have rollers and tracks. Valves 16" and larger, shall have gear operators with enclosed gear cases suitable for buried service. Gear cases shall be extended type or totally enclosed type. Extended type gear cases shall have bolted side plates to cover stem and stuffing box.

#### PART 3 EXECUTION

#### 3.1 INSTALLATION

A. Flanged joints shall be made with Series 300, stainless steel bolts. All exposed bolts shall be made with Series 300 stainless steel bolts.

#### 3.2 SHOP PAINTING

A. Ferrous surfaces of valves and appurtenances shall receive a coating of epoxy in accordance with AWWA Standard C550 and meets or exceeds all test requirements including the Food and Drug Administration Document Title 21 of the Federal Regulations on Food Additives, Section 175.000 entitled "Resinous and Polymeric Coating"; Impact Test Requirement in accordance with the ASTM D2794.

**DUCTILE IRON PIPE AND FITTING (Section 02630)** 

#### **GENERAL**

#### <u>1.13.3</u>

A. Furnish all materials, equipment, and incidentals required - ductile iron pipe, fittings and appurtenances as shown on the Drawings and as specified herein.

#### 1.33.4 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

- A. Commercial Standards: (Latest Revision)
  - ANSI/AWWA C104/A21.4 Cement-Mortar Lining for Ductile-Iron Pipe and Fittings for Water.
  - 2. ANSI/AWWA C105/A21.5 Polyethylene Encasement for Ductile-Iron Piping for Water and Other Liquids.
  - 3. ANSI/AWWA C110/A21.10 Ductile-Iron Fittings, 3 in. Through 48 Inches, for Water and Other Liquids. (C110 2-48 inches).
  - 4. ANSI/AWWA C111/A21.11 Rubber Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.
  - 5. ANSI/AWWA C115/A21.15 Flanged Ductile-Iron Pipe with Threaded Flanges.

- 6. ANSI/AWWA C150/A21.50 Thickness Design of Ductile-Iron Pipe.
- 7. ANSI/AWWA C151/A21.51 Ductile-Iron Pipe, Centrifugally Cast for Water or Other Liquids.
- 8. ANSI/AWWA C153/A21.53 Ductile-Iron Compact Fittings, 3 inches through 16 inches, for Water and Other Liquids.
- 9. AWWA C600

Installation of Ductile Iron Water Mains and Their Appurtenances.

10. AWWA F477

Method for Obtaining Hydrostatic Design Basis for Thermoplastic Pipe Material

#### 4.43.5 CONTRACTOR SUBMITTALS

- A. Shop Drawings: Submit shop drawings of pipe and fittings in accordance with the requirements in the General Conditions, the requirements of the referenced standards and the following supplemental requirements as applicable:
  - 1. Certified dimensional drawings of all valves, fittings, and appurtenances.
  - 2. For pipe 48 inches in diameter and larger, a line layout and marking diagram shall indicate the specific number and location (station) of each fitting.
  - 3. In all cases, a line layout to indicate the limits of each reach of restrained joints, or of concrete encasement shall be supplied.
- B. Certifications: Furnish a certified affidavit of compliance for all pipe and other products or materials furnished under this Section of the Specifications, which indicates that all tests have been made and that all results comply with the requirements of AWWA C151, including but not necessarily limited to the following:
  - 1. Acceptance Tests.
  - 2. Hydrostatic Tests.
  - 3. Low Temperature Impact Tests.
- C. Additional Documentation: Foundry records shall be furnished in the form of written transcripts upon request.
- D. All expenses incurred for certification, testing, and data submittal shall be borne by the Supplier.

#### 4.53.6 QUALITY ASSURANCE

- A. Inspection: All pipe shall be available for inspection at the place of manufacture prior to shipping in accordance with the provisions of the referenced standards. Notify the ENGINEER in writing not less than 10 calendar days prior to the shipping of the pipe.
- B. The ENGINEER shall be given access to all areas where manufacturing and testing is performed and shall be permitted to make all inspections necessary to confirm manufacturer compliance with these Specifications.
- C. Tests: Except as modified herein, all materials used in the manufacture of the pipe shall be tested in accordance with the requirements of the referenced standards as applicable.
- D. Provide data on material tests at no additional cost to the OWNER.
- E. In addition to those tests specifically required, the ENGINEER may request additional samples of any material including lining and coating samples for testing by the OWNER. The additional samples shall be furnished at no additional cost to the OWNER.

#### 4.63.7 CORROSION PROTECTION

- A. The allowed force main pipe materials are polyvinyl chloride (PVC) or high density polyethylene (HDPE) or fiberglass. Use of ductile iron pipe (DIP) and DIP fittings are not allowed without the specific approval of Lee County Utilities. Where a force main is expected to flow full pipe at all times, DIP may be used after specific approval by Lee County Utilities. The DIP pipe will be required to have a Polybond Plus lining or approved equal. The Polybond Plus lining consist of a minimum of 60 mils thick polyethylene lining with a fusion bonded epoxy primer layer to the DIP pipe. This lining must extend through the bell of the pipe to a point under the sealing gasket. To ensure a holiday-free lining, documentation must be provided, prior to shipment, showing each section of the lined pipe has passed the holiday testing at production per ASTM G62 with a minimum of 10,000 volt charge.
- B. If specifically approved by Lee County Utilities for use, exterior protection shall be provided for underground ductile iron pipe and fittings within areas of severe corrosive conditions. This shall be accomplished by the installation of polyethylene encasement through the area of concern. The soil test evaluation to determine the necessity for extra protection in suspect areas shall be those set forth in ANSI Standard A21.5. Additionally, where other existing utilities are known to be cathodically protected, ductile iron pipe crossing said utility shall be protected for a distance of 20 feet to each side. If ductile iron pipe is to be installed parallel to and within 10 feet of cathodically protected pipe, then protection shall be provided for the entire length. Steel pipe shall not be installed in severe corrosion areas.

#### PART 2PART 4 PRODUCTS

#### 2.14.1 GENERAL

- A. Cement mortar lined ductile iron pipe shall conform to ANSI/AWWA C151 and C104, subject to the following supplemental requirements. The pipe shall be of the diameter and class shown, shall be furnished complete with rubber gaskets as indicated in the Contract Documents, and all specials and fittings shall be provided as required under the Contract Documents.
- B. Markings: Legibly mark specials 48 inches in diameter and larger in accordance with the laying schedule and marking diagram. All fittings shall be marked at each end with top field centerline.
- C. Handling and Storage: The pipe shall be handled by wide slings, padded cradles, or other devices designed and constructed to prevent damage to the pipe and its lining. The use of equipment or handling, which might injure the pipe and its lining, will not be permitted. Stockpiled pipe shall be suitably supported and shall be secured to prevent accidental rolling. All other pipe handling equipment and methods shall be acceptable to the ENGINEER.
- D. Laying lengths: Maximum pipe laying lengths shall be 20 feet.
- È. Finish: The pipe shall have smooth dense interior surfaces and shall be free from fractures, excessive interior surface crazing and roughness, in accordance with ANSI/AWWA C104.
- F. Closures and Correction Pieces: Closures and correction pieces shall be provided as required so that closures may be made due to different headings in the pipe laying operation and so that correction may be made to adjust the pipe laying to conform to pipe stationing shown on the Drawings or line layouts where applicable.

#### 4.24.2 PIPE DESIGN CRITERIA

- A. General: Ductile Iron pipe shall be designed in accordance with the requirements of ANSI/AWWA C150 as applicable and as modified in this Section.
- B. Pipe Wall Thickness for Internal Pressure: The pipe shall be designed with a net thickness to withstand the design internal pressure in accordance with the hoop stress formula. In addition to the requirements of the Section, the minimum wall thickness shall be in accordance with the minimum thickness wall depicted in table 50.5 of ANSI/AWWA C150.

- C. Ductile Iron Pipe shall be a minimum of Class 50 or pressure Class 250 and will be accepted in any diameter for use within the water distribution system.
- D. All aboveground water main pipe shall be painted blue. The pipe wall thickness shall not be less than that required by a working pressure of 250 psi in laying condition Type 4 "B" with 5-foot cover in conformance with ANSI Standard A21.50.

#### 1.34.3 MATERIALS

- A. Ductile Iron Pipe: Pipe materials shall conform to the requirements of ANSI/AWWA C151.
- B. Cement: Cement for mortar lining shall conform to the requirements of ANSI/AWWA C104; provided that cement for mortar lining shall by Type II or V. A fly ash or pozzolan shall not be used.
- C. Adapters to connect ductile iron pipe or fittings to pipe or fittings of dissimilar materials shall be supplied by the CONTRACTOR in accordance with the pipe manufacturer recommendations, and as approved by the ENGINEER.

#### 4.44.4 SPECIALS AND FITTINGS

- A. Fittings for ductile iron pipe shall conform to the requirements of ANSI/AWWA C153/A21.53 or ANSI/AWWA C110/A21.10 for diameters 3 inches through 48 inches and shall have a minimum pressure rating of 250 psi. Ductile iron fittings shall be cement lined, seal coated and outside coated as specified. Ductile Iron fittings larger than 48 inches shall conform to the above referenced standard with the necessary modifications for the larger size manufacturer's standard.
- B. All above-ground fittings in direct contact with wastewater shall be HDPE or ductile iron flanged joints with a minimum pressure rating of 250 psi conforming to ANSI A21.10. If above-ground ductile iron fitting is used, the fitting shall be lined with Protecto 401 applied in strict accordance with the manufacturers specifications to a dry film thickness of 40 mils. All-DIP-fittings-for-wastewater service-shall have an internal fusion bonded epoxy-coating to a minimum of 20-mil thickness.—All above-ground fittings shall have a factory applied exterior epoxy coating in accordance with AWWA C550.

#### **1.54.5** DESIGN OF PIPE

- A. General: The pipe furnished shall be ductile iron pipe, mortar-lined, with rubber gasketed joints.
- B. The pipe shall be designed, manufactured, tested, inspected, and marked according to applicable requirements previously stated and except as hereinafter modified, shall conform to ANSI/AWWA C151.
- C. Pipe Dimensions: The pipe shall be of the diameter and class shown. The minimum wall thickness for each pipe size shall be as specified herein or shown on the Drawings.
- D. Fitting Dimensions: The fittings shall be of the diameter shown and class specified.
- E. Joint Design: Ductile Iron pipe and fittings shall be furnished with mechanical joints, push-on joints and flanged joints as follows:
  - 1. For buried pipe applications, unless otherwise indicated, mechanical and push-on joints shall conform to ANSI/AWWA C111/A21.11, with the minimum pressure rating of 250 psi.
  - 2. For above-ground or buried vault applications, unless otherwise indicated, flanged joints shall conform to ANSI/AWWA C115/A21.15, with the minimum pressure rating of 250 psi. All above-ground fittings shall be painted blue.

- F. Restraining Devices: Restraining joints shall be placed at all bends, tees, plugs, reducers, and other fittings to provide lateral support, and shall conform to the details shown on the drawings in Sections 9 of the Lee County Utilities Operations Manual. Concrete thrust blocks may be utilized as additional restraint if approved by Lee County Utilities.
  - 1. Joint restraint devices for ductile iron mechanical joint pipe and ductile iron mechanical joint fittings to ductile iron pipe shall be EBAA Iron Inc., Series 1100 Megalug (R), Star Pipe Products, L.P., or approved equal.
  - 2. Bell joint restraint devices for ductile iron push joint pipe shall be EBAA Iron Inc., Series 1700 Megalug (R) for bell restraint, Star Pipe Products L.P., or approved equal.
- G. For bell-and-spigot ends with rubber gaskets, the clearance between the bells and spigots shall be such that when combined with the gasket groove configuration and the gasket itself will provide watertight joints under all operating conditions when properly installed. Require the pipe manufacturer to submit details complete with significant dimensions and tolerances and also to submit performance data indicating that the proposed joint has performed satisfactorily under similar conditions. In the absence of a history of field performance, the results of a test program shall be submitted.
- H. Gaskets shall be a Buna N, Neoprene, or a Nitryl-based rubber product approved by the County. Gaskets shall have clean tips unless otherwise specified. Elastomeric gaskets conforming to ASTM F-477 shall also be acceptable.
- 1. Shop-applied interior linings and exterior coatings shall be applied evenly to the nominal thickness specified. Holiday free cement is not possible to manufacture. Exterior coatings: asphalt coating for buried pipe or primed pipe cannot be furnished holiday free.

#### 1.64.6 CEMENT-MORTAR LINING

- A. Cement-Mortar Lining For Shop Application: Except as otherwise provided herein, interior surfaces of all ductile iron pipe shall be cleaned and lined in the shop with cement-mortar lining applied centrifugally in conformity with ANSI/AWWA C104. Ductile-Iron pipe fittings need not have the cement-mortar lining applied centrifugally. The lining machines shall be of a type that has been used successfully for similar work. Every precaution shall be taken to prevent damage to the lining. If lining is damaged or found faulty at delivery site, the damaged or unsatisfactory portions shall be repaired in the filed in accordance with ANSI/AWWA C104.
- B. The nominal wet lining thickness shall be as follows:

Nominal Factory Nominal Replacement							
Nominal Pipe	Applied Lining	Lining					
Diameter (in.)	Thickness (in.)	Thickness (in.)					
3-12	1/8	1/8					
14-24	3/16	3/16					
30-64	1/4	1/4					

C. Protection of Pipe Lining/Interior: All shop-applied cement mortar lining shall be given a seal coat of asphaltic material in conformance with ANSI/AWWA C104.

#### **1.74.7** EXTERIOR COATING OF PIPE

A. Exterior Coating of Exposed Piping: The exterior surfaces of pipe which will be exposed to the atmosphere inside structures or above ground shall be thoroughly cleaned and then given a shop coat of rust-inhibitive primer conforming to the requirements of Section 09900, "Painting and Coating". All above-ground pipe shall be painted blue.

#### NOTE:

Where severely corrosive soils and other adverse conditions occur, this coating may not provide the desired protection. In such cases, a heavier coating, polyethylene wrap, cathodic protection or a combination of these may be required. To determine the protection needed, an investigation should be made of the following items.

- a. Experience with existing installations in the area, if any
- b. Soil resistivity
- c. Soil Ph
- d. Oxidation-reduction potential of the soil
- e. Sulfides
- f. Moisture content
- g. Soil description
- h. Existence of stray direct currents
- i. Possible cathodic interference

To use the polyethylene wrap, refer to ANSI A21.5 for Polyethylene Encasement for Ductile-Iron Piping for Water and Other Liquids.

Edit this Section if additional protection is needed. Also edit Sections 02650 "Laying and Jointing Buried Pipelines". A section on cathodic protection of buried ductile-iron pipe may be also required.

B. Exterior Coating of Buried Piping: The exterior coating shall be an asphaltic coating approximately 1 mil thick, conforming to ANSI/AWWA C151.

#### **1.84.8** CORROSION PROTECTION

- A. The allowed force main pipe materials are polyvinyl chloride (PVC) or high density polyethylene (HDPE) or fiberglass. Use of ductile iron pipe (DIP) and DIP fittings are not allowed without the specific approval of Lee County Utilities. Where a force main is expected to flow full pipe at all times, DIP may be used after specific approval by Lee County Utilities. The DIP pipe will be required to have a Polybond Plus lining or approved equal. The Polybond Plus lining consist of a minimum of 60 mils thick polyethylene lining with a fusion bonded epoxy primer layer to the DIP pipe. This lining must extend through the bell of the pipe to a point under the sealing gasket. To ensure a holiday-free lining, documentation must be provided, prior to shipment, showing each section of the lined pipe has passed the holiday testing at production per ASTM G62 with a minimum of 10,000 volt charge.
- B. If specifically approved by Lee County Utilities for use, exterior protection shall be provided for underground ductile iron pipe and fittings within areas of severe corrosive conditions. This shall be accomplished by the installation of polyethylene encasement through the area of concern. The soil test evaluation to determine the necessity for extra protection in suspect areas shall be those set forth in ANSI Standard A21.5. Additionally, where other existing utilities are known to be cathodically protected, ductile iron pipe crossing said utility shall be protected for a distance of 20 feet to each side. If ductile iron pipe is to be installed parallel to and within 10 feet of cathodically protected pipe, then protection shall be provided for the entire length. Steel pipe shall not be installed in severe corrosion areas.

#### PART 3PART 5 EXECUTION

#### 3<del>.1</del>5.1

A. Handling and Storage: All pipe, fittings, etc., shall be carefully handled and protected against damage, impact shocks, and free fall and in accordance with ANSI/AWWA C600. Pipe shall not be placed directly on rough rocky ground but in such instances shall be supported in a manner which will protect the pipe against injury whenever stored at such trench site or elsewhere. No pipe shall be installed where the lining or coating show defects that may be harmful as determined by the ENGINEER. Such damaged lining or coating shall be repaired, or a new undamaged pipe shall be furnished and installed.

- B. All pipe damaged prior to Substantial Completion or during warrantee period shall be repaired or replaced by the CONTRACTOR.
- C. Inspect each pipe and fitting prior to installation to insure that no damaged portions of the pipe get installed.
- D. Before placement of pipe in the trench, each pipe or fitting shall be thoroughly cleaned of any foreign substance, which may have collected therein and shall be kept clean at all times thereafter. For this purpose, the openings of all pipes and fittings in the trench shall be closed during any interruption to the work.

#### 4.35.2 PIPE APPURTENANCES

- A. Valves: All valves shall be handled in a manner to prevent any injury or damage to any part of the valve. Adjust all stem packing and operate each valve prior to installation to insure proper operation.
- B. All valves shall be installed so that the valve stems are plumb and in the location shown on the Drawings.
- C. Mechanical joints consisting of bell, socket, gland, gasket, bolts, and nuts shall conform to ANSI Standard A21.11. Bolts and nuts shall be high strength, low alloy, Cor-Ten, T-Head Type having hexagonal nuts. Bolts and nuts shall be machined through and nuts shall be tapped at right angles to a smooth bearing surface. Single sealed gasket push-on type joints shall conform to the requirements of ANSI A21.11 and shall be Tyton, Fastite, Superbelltite, Alltite, or approved equal.
- D. Mechanical joint retainer glands may be used to restrain mechanical joint pipe and fittings to the plain end of ductile iron pipe and fittings when used in conjunction with thrust blocks of reduced size. The Utilities ENGINEER must approve thrust block size. Joint flexibility shall be maintained.

#### 1.45.3 TESTING AND DISINFECTION

A. Test completed water pipeline in accordance with Section 02676. Disinfect completed water pipeline in accordance with Section 2675.

#### **HYDRANTS (SECTION 02645)**

#### PART 6 GENERAL

- 6.1 DESCRIPTION OF REQUIREMENTS
  - A. Furnish fire hydrants where shown on the Drawings or directed by the ENGINEER.
- 6.2 QUALITY ASSURANCE
  - A. Provide manufacturer's certificate those products meet or exceed minimum requirements as specified.
- 6.3 SUBMITTALS
  - A. Submit manufacturer's certificates on conformance.

B. Shop Drawings: Submit manufacturer's drawings and data sheets for material to be supplied under this Section. Indicate sizes and types to be installed.

#### 6.4 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. During loading, transportation and unloading, exercise care to prevent damage to materials.
- B. Handling: Fire hydrants should be unloaded carefully. The hydrant should be carefully lowered from the truck to the ground, not dropped. Only hoists and slings with adequate load capacity to handle the weight of the hydrant shall be used.
- C. Storage: Should be stored in the fully closed position to prevent entry of foreign material that could cause damage to the seating surfaces. Whenever practical, hydrants should be stored indoors. If outside storage is required, means should be provided to protect the operating mechanism. In outside storage, parts and flanges should be protected from the weather and foreign materials.

#### PART 7 PRODUCTS

#### 7.1 FIRE HYDRANTS

- A. Fire hydrants shall be of the compression type with break away upper sections capable of ready replacement without loss in the event of traffic damage. Each hydrant shall have a 6" bottom inlet connection and valve opening at least 5-1/4 inches in diameter. Hydrants shall turn to the left (counter clockwise) to open. Each hydrant shall be fitted with one 4-1/2-inch pumper connection and two 2-1/2 inch hose connections, both having threads that conform to the Fire Division Standard for the area. Hose caps shall be chained to the hydrant barrel and fitted with nuts similar to the hydrant operating nuts. Each hydrant shall have a barrel of sufficient length to bring the bottom of the 6" pipe connection 3 feet below the surface of the finished ground. Each hydrant shall be made in at least two sections bolted together. All interior working parts of the hydrant shall be removable from the top of the hydrant to allow repairs without removing the hydrant barrel after it has been installed. Hydrants shall have renewable O-ring stem seals. Hydrant barrels shall be painted AWWA Safety Yellow. They shall be designed for a working pressure of 150 psi and will conform to AWWA Standard C502, "Fire Hydrants for Ordinary Water Works Service".
- B. Hydrant shall have no drain parts. If parts exist, they shall be plugged with a threaded plug.
- C. Operating stem shall be equipped with anti-friction thrust bearing to reduce operating torque and assure easy opening. Stops shall be provided to limit stem travel. Stem threads shall be enclosed in a permanently sealed lubricant reservoir with O-ring seals.
- D. Hydrants shall be designated for 150 psi working pressure and shop tested to 300 psi pressure with main valve both opened and closed. Under test the valve shall not leak, the automatic drain shall function and there shall be no leakage into the bonnet.
- E. Hydrant guard posts (bollards) shall be 6-inch diameter Class 50 ductile iron pipe.
- F. Acceptable models include:
  - 1. Mueller Centurion A-423
  - 2. Kennedy K-81A
  - 3. American Darling LCU B84B
  - 4. Clow Medallion
  - 5. U. S. Pipe Metropolitan 250 Model 94

#### ATTACHMENT A

# LOCAL VENDOR PREFERENCE QUESTIONNAIRE (LEE COUNTY ORDINANCE NO. 00-10)

Instructions: Please complete either Part A or B whichever is applicable to your firm

PARTA;	VENDOR S PRINCIPAL I	LACE OF BUSINESS	DIS FOCKLED M	THE COUNTY	(Опу соприсе Рап А
	if your principal place	of business is located	d within the boun	ndaries of Lee County	)

<ol> <li>What is the physical location of your principal place of business that is located within the boundaries of Lee Count Florida?</li> </ol>
ZEWICO
17323 JEAN STREET
FT. Myers, Fl. 33912
2. What is the size of this facility (i.e. sales area size, warehouse, storage yard, etc.)
oblive = 1,600 sq. ft. (warshouse = 4,800 sq. ft.
oblive = 1,600 sq. ft. (warshouse = 4,800 sq. ft. YARD = 99,900 Sq. ft.
PART B: VENDOR'S PRINCIPAL PLACE OF BUSINESS IS NOT LOCATED WITHIN LEE COUNTY OR DOES NO HAVE A PHYSICAL LOCATION WITHIN LEE COUNTY (Please complete this section.)
1. How many employees are available to service this contract?/
2. Describe the types and amount of equipment you have available to service this contract.
We care a full live of products to
we carry a full live of groducts to service The underground utility
Service ICe underground Utility
industry.
Describe the types and amount of material stock that you have available to service this contract.
we Stock every iten quoted.
Have you provided goods or services to Lee County on a regular basis for the preceding, consecutive five years?
Yes
If yes, please provide your contractual history with Lee County for the past five, consecutive years. Attach additional pages if necessary.
ANNUAL Supply of Corner tod HOPE DROINAGE Pipe.  PUC Pine Electro Fusion Machine, Electric Unive exercison etc
PUC Pine Electro Fusion Machine, Electric valve exercison etc

#### GUIDE "B"

#### INSURANCE REQUIREMENTS FOR PRODUCTS

Your certificate of insurance must meet the following requirements

Requirement #1:

The Lee County Board of County Commissioners shall be added as an

additional insured on the comprehensive general liability policy.

Requirement #2:

Certificate holder shall be listed as follows:

Lee County Board of County Commissioners

C/O Lee County Purchasing

P.O. Box 398

Fort Myers, FL 33902

Requirement #3:

Each policy shall provide a 30 day notification clause in the event of cancellation,

non-renewal or adverse change.

This Standard Insurance Language is to be utilized for Contracts, or Agreements meeting these circumstances. Certain conditions and/or exposures may not relieve or limit the liability of the vendor. These requirements may not be sufficient or adequate to protect the vendor's interests or liabilities, but are merely minimums.

#### Circumstances

Project is for vendors providing a tangible product, and not labor, such as, but not limited to , hardware, supplies, and other merchandise.

#### Worker's Compensation

Does not apply.

#### Commercial General Liability

Coverage shall apply to premised and/or operations, products and/or completed operations, independent contractors, contractual liability, and broad form property damage exposures with minimum limits of:

\$100,000 bodily injury per person (BI)

\$300,000 bodily injury per occurrence (BI)

\$100,000 property damage (PD) or

\$300,000 combined single limit (CSL) of BI and PD

#### **Business Automobile Liability**

If the vendor indicates on the price page that vehicles other than their own (common carrier) will be used for delivery, then the following Automobile Liability will not be required.

Coverage shall apply to owned vehicles and/or hired and non-owned vehicles and employee non-ownership use with minimum limits of:

\$100,000 bodily injury per person (BI)

\$300,000 bodily injury per occurrence (BI)

\$100,000 property damage (PD) or

\$300,000 combined single limit (CSL) of BI and PD

#### Certificate of Insurance

An original hand signed certificate shall be on file with and approved by the Lee County Risk Management Office prior to the commencement of any work activities.

In the event the insurance coverage expires prior to the completion of the project, a renewal certificate shall be on file with Risk Management at least 15 days prior to the expiration date.

Revised 10/18/00

#### LEE COUNTY PURCHASING SERVICES - BIDDERS CHEĆK LIST

IMPORTANT: Please read carefully and return with your bid proposal.  Please check off each of the following items as the necessary action is completed:  1. The Quote has been signed.
2. The Quote prices offered have been reviewed.
3. The price extensions and totals have been checked.
4. The original (must be manually signed) and 2 copies of the quote have been submitted.
5. Three (3) identical sets of descriptive literature, brochures and/or data (if required) have been submitted unde separate cover.
6. All modifications have been acknowledged in the space provided.
7. All addendums issued, if any, have been acknowledged in the space provided.
8. Erasures or other changes made to the quote document have been initialed by the person signing the quote.
9. Bid Bond and/or certified Check, (if required) have been submitted with the quote in amounts indicated.
11. The mailing envelope has been addressed to:  Lee County Purchasing Services  P.O. Box 398  Or  3434 Hancock Bridge Pkwy 3 <sup>rd</sup> FL  Ft. Myers, FL 33902-0398  N. Ft. Myers, FL 33903
12. The mailing envelope MUST be sealed and marked with:  Quote Number  Opening Date and/or Receiving Date
13. The quote will be mailed or delivered in time to be received no later than the specified opening date and time (Otherwise quote cannot be considered or accepted.)
14. If submitting a "NO BID" please write quote number here and check one of the following:  Do not offer this product Insufficient time to respond.  Unable to meet specifications (why)  Unable to meet bond or insurance requirement.  Other:
Company Name and Address:  SENSCO  17323 Jean Staref



17323 Jean Street Ft. Myers, FL 33912 (941) 433-0555 \* (941) 433-0405 FAX

## **SUBMITTAL**

# HERONS GLEN PURCHASE OF HYDRANTS, DI PIPE & FITTINGS, WATER VALVES & APPURTENANCES



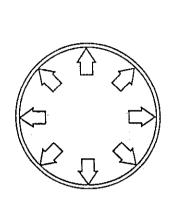
## **CONTRACTOR**

# LEE COUNTY BOARD OF COUNTY COMMISSIONERS

Piping and Accessory Products for Waterworks, Wastewater, and Drainage Installations
Tampa \* Orlando \* West Palm Beach \* Ft. Lauderdale \* Miami \* Ft. Myers \* Sarasota \* Jacksonville \* Alabama

#### AMERICAN Ductile Iron Pipe for Water or Other Liquids ANSI/AWWA C151/A21.51

WORKING PRESSURES AND MAXIMUM DEPTHS OF COVER for Standard Pressure Classes



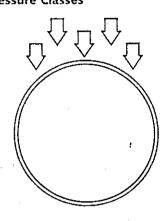


Table No. 3-11

Size in.	Pressure† Class	Nominal Thickness	LAYING CONDITIONS Maximum Depth of Cover in Feet‡							
	psi	în.	Type 1	Type 2	Type 3	Type 4	Type 5			
4	350	0.25	53	61	69	85	100‡			
6	350	0.25	26	31	37	47	'65			
8	350	0.25	16	20	25	34	50			
10_	350	0.26	11"	15	19	28	45			
(12)=	> 350	0.28	10**	15	19	28	44			
14	250	0.28	tt	11**	15	23	36			
	300	0.30	++	13	17	26	42			
	350	0.31	† †	14	19	27	44			
(16)	250	0.30	††	11**	15	24	34			
	300	0.32	††	13	17	26	39			
	350	0.34	††	15	20	28	44			
18	250	0.31	††	10**	14	22	31			
	300	0.34	††	13	17	26.	36			
	350	0.36	††	15	19	28	41			
20	250	0.33	††	10	14	22	30			
	300	0.36	11	13	17	26	35			
	350	0.38		15	19	28	38			
24	200	0.33	l†	8,,	12	17	25			
	250	0.37	l ii	11	15	20	29			
• .	300	0.40	ii ii	13	17	24	32			
	350	0.43	11	15	19	28	37			

See notes at end of table.

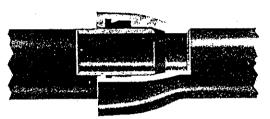
†Calculated depth of cover exceeds 100 feet.

#### AMERICAN DUCTILE IRON PIPE



#### AMERICAN Joints for Pipe and Fittings

#### AMERICAN Fastite® Joint



The AMERICAN Fastite Joint, furnished in sizes 4" through 64", is a rubber ring compression-type joint used extensively in underground service.

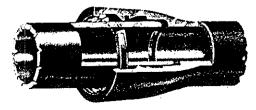
See pages 2-5 through 2-15 and Sections 3, 4, 7 and 9.

#### AMERICAN Fastite® Joint with Fast-Grip® Gasket, 4"-16"



The AMERICAN Fast-Grip Gasket furnished in sizes 4"-16" provides field adaptable joint restraint in a standard AMERICAN Fastite Bell. See Sections 4 and 9.

#### AMERICAN Flex-Ring® Joint, 4"-12"



The AMERICAN Flex-Ring Joint provides flexible joint restraint against thrust due to internal water working pressure or external forces.

See Sections 4 and 9.

#### SERIES 2500 RESILIENT WEDGE VALVE



#### **FEATURES**

The Series 2500 Ductile Iron 250 p.s.i.g. Resilient Wedge Gate Valve is designed for use in drinking water, sewage, fire protection systems as well as irrigation and backflow control systems.

#### **Ductile Iron Construction**

The ductile iron body, bonnet and wedge provides strength and a pressure rating that meets or exceeds the requirements of AWWA C515. Strength more than doubles that provided by cast iron designs and the pressure rating is 250 p.s.i.g. All this strength and higher pressure rating is provided in a compact, lightweight, and easy to handle ductile valve.

#### **Fusion Bonded Epoxy**

The Series 2500 valve is fully epoxy coated both on the interior as well as the exterior. The fusion bonded coating is applied prior to assembly so that even the bolt holes and body-to-bonnet flange surfaces are fully epoxy coated.

Triple O-ring Stem Seals

This valve features triple O-ring stem seals. Two O-rings are located above and one O-ring is located below the thrust collar. The lower two O-rings provide a permanently sealed lubrication chamber that will make the valve easier to operate over a longer period of time. The upper O-ring assures that sand, dirt or grit cannot enter the valve to cause damage to the lower O-rings. This is especially important for buried and sewage service applications.

#### **Thrust Washers**

Two thrust washers are used. One Is located above and one is located below the thrust collar. These thrust washers assure easy operation at all times.

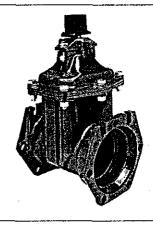
#### No Flat Gaskets

The body-to-bonnet and bonnetto-bonnet cover seals are pressure energized O-rings. This eliminates the need for excessive bolt loading which is required by designs that use flat gaskets. The O-rings are reusable which eliminates down time during any needed repair.

The Series 2500 Resillent Wedge Gate Valve is furnished in configurations that are listed by Underwriters Laboratories, Inc. and approved by Factory Mutual Research Corp.

### The Series 2500 Ductile Iron Resilient Wedge Gate Valve has these standard features:

- · UL Listed-FM Approved
- · Seat Tested 250 p.s.l.g.
- Fusion Bonded Epoxy Coating Complies With ANSI/AWWA C550
- 250# Raised Face Flanges Available
- Ductile Iron Body, Bonnet and Wedge, Operating nut
- · Shell Tested 500 p.s.i.g.
- · 250 p.s.i.g. Pressure Rating
- Rubber Encapsulated Wedge
- · Triple O-ring Stem Seals
- Smooth (No Pocket) Waterway
- · 100% Leak-Tight Closure
- NSF Standard 61 Certified
- AWWA C515



#### **SPECIFICATIONS**

Valves 2"-30" shall be resilient wedge type rated for 250 p.s.i.g. cold water working pressure. All ferrous components shall be ductile iron. Valves 4"-16" shall be in full compliance with AWWA C515. The words "D.I." or "Ductile Iron" shall be cast on the valve or stamped on a permanently attached corrosion resistant metal tag. The wedge shall be ductile iron encapsulated with nitrile rubber (2"-12" sizes) or SBR rubber (14"-30" sizes).

The wedge shall be symmetrical and seal equally well with flow in either direction.

Valves shall be NSF Standard 61

certified.

Bolting materials shall develop the physical strength requirements of ASTM A307 and may have either regular square or hexagonal heads with dimensions conforming to ANSI B18.2.1. Metric size, socket head cap screws therefore are not allowed.

Operating nut shall be constructed of ductile iron and shall have four flats at stem connection to assure even input torque to the stem.

All gaskets shall be pressure energized O-rings.

Stem shall be sealed by three O-rings. The top two O-rings shall be

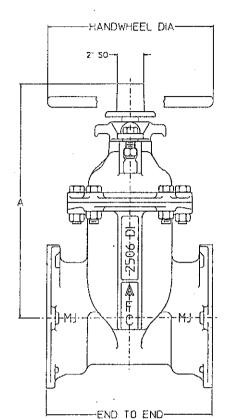
replaceable with valve fully open and while subject to full rated working pressure. O-rings set in a cartridge shall not be allowed.

Valve shall have thrust washers located with (1) above and (1) below the thrust collar to assure trouble-free operation of the valve.

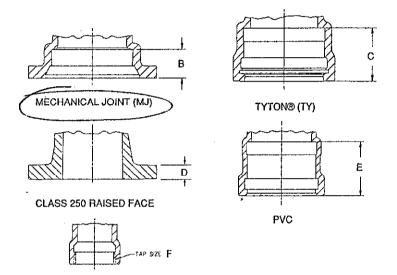
All internal and external surfaces of the valve body and bonnet shall have a fusion bonded epoxy coating, complying with ANSI/AWWA C550, applied electrostatically prior to assembly.

Valves shall be American Flow Control's Series 2500 Ductlie Iron Resilient Wedge Gate Valve.

#### SERIES 2500 RESILIENT WEDGE VALVE



		SUBMI	MAL C	ATA				
VALVE SIZE	2	2-1/2	3	4	6	8	10	12
QUANTITY								
NRS	OS&`	<b>/</b>						
DIRECTION OF	OPENIN	G		CCW			_CW	
END CONNECT	ION						_	
INDICATOR POST FLANGEYES							_NO	
OTHER REQUIRE	MENTS.						_ ·	



THREADED (S	CREW)
-------------	-------

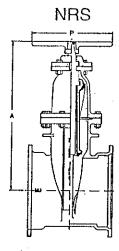
OPTIONAL END CONNECTIONS

DIMENSION	VALVE SIZE								
	2"	2-1/2"	3"	4" .	6"	8″	10"	12"	
End to End - MJ x MJ	8-1/4	-	8-5/8	11	12	12-1/2	14-3/4	16-5/8	
End to End - FL x FL	7	7-1/2	- 8	9	10-1/2	11-1/2	13	14	
End to End - 1Y x TY	-	-	-	13-1/2	16-7/8	18-1/2	20-1/2	22-3/8	
End to End - FL x MJ	_	-	-	10	11-1/4	12	13-7/8	15-5/16	
End to End - FL x TY	-	-	-	11-1/4	13-11/16	15	16-3/4	18-3/16	
End to End - FL x MJ Tapping	_	-	_	10-1/8	11-1/4	12-5/8	13-7/8	15-5/16	
End to End - PVC x PVC	10-3/4	11-1/8	11-3/8	+	-	-		-	
End to End - Threaded	6-1/4	7-3/8	7-3/8	-	-	-	-	-	
End to End - Class 250 Flange	-	-	11-1/8	12	15-7/8	16-1/2	18	19-3/4	
A	9-1/4	11-1/32	11-27/32	13-3/8	16-3/4	20-3/16	24-1/8	27-1/2	
В	2-1/2	-	2-1/2	2-1/2	2-1/2	2-1/2	2-1/2	2-1/2	
С	-	<b>-</b>	-	4	5-7/32	5-1/2	5-5/8	5-5/8	
D	_	-	1-1/8	1-1/4	1-7/16	1-5/8	1-7/8	2	
E	3-3/4	4	4	4	5-7/32	5-1/2	-	-	
F	2 NPT	2-1/2 NPT	3 NPT	-	-	-	_	_	
Handwheel Diameter	8	8	8	10	12	14	16	16	
No. of Turns to Open	11	11	13	13	19	26	32	38	

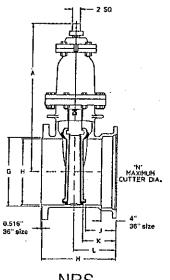
- 1. Valves 3"-12" meet or exceed requirements of AWWA C-515.
- 2. 250 p.s.l.g. rated working pressure.
- 3. 4" through 12" valves may be ordered in configurations which are UL Listed and FM Approved.
- 4. Fusion bonded epoxy coating meets or exceeds requirements of AWWA C550.
- 5. Flanged ends are in accordance with ANSI/AWWA C110/A21.10 (ANSI B16.1, Class 125).
- 6. Threaded ends are in accordance with ANSI B16.4, Class 125.
- 7. Mechanical joint ends are in accordance with ANSI/AWWA C111/A21.11.
- 8. Tylon® ends and push-on ends are in accordance with ANSI/AWWA C111/A21.11 for cast iron (C) size PVC or ductile iron pipe.
- 9. PVC ends for steel (IPS) sizes of PVC or steel plpe.
- 10.4" through 12" valves are certified to ANSI/NSF Standard 61.

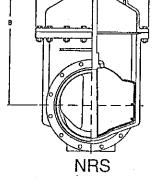
#### 14"-36" SERIES 2500 RESILIENT WEDGE VALVE

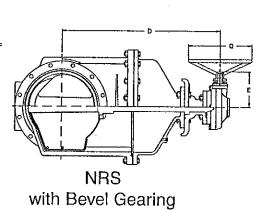




	14"	16"	18"	20"	24"	30"	36"
Α	33-1/4	36-3/4	39-5/8	43-1/4	51-1/4	N/A	N/A
В	39-13/16	43-3/8	47-3/16	47-3/4	55-7/8	71	83
С	8-5/8	8-5/8	10-13/16	10-13/16	10-13/16	13-1/8	14
D	35-9/16	39-1/8	42-3/8	43	51-1/8	62-5/8	74-5/16
E	7-5/8	7-5/8	8-7/8	8-7/8	8-7/8	13 1/16	14-7/8
F	26	28-1/4	32 .	34-1/2	<b>3</b> 9	49	58
G	14-15/16	16-15/16	18-15/16	20-15/16	24-15/16	30-15/16	36-15/16
Н	14-3/16	16-3/16	18-1/8	20-1/8	24-1/8	30-7/32	36-3/16
J	7-5/8	7-9/16	8-7/16	8-9/16	9	13-3/8	13-15/16
K	8-5/16	8-3/16	9-1/8	9-1/4	10-1/8	14-1/8	15
L	10-1/4	10-7/16	11-7/16	11-11/16	12-3/4	16-7/8	18-3/4
М	17-3/4	18-7/16	19-15/16	20-11/16	22-3/4	29-7/8	33-3/4
N	14	16	18	20	24	30	36
Р	20	20	20	28	28	28	_
Q	12	12	12	20	20	20	20







NRS
Tapping Valve

with Spur Gearing

#### **SPECIFICATIONS**

Valves shall be resilient wedge type rated for 250 p.s.i.g. cold water working pressure. Valve body, bonnet, wedge, and operating nut shall be constructed of ductile Iron. The exterior of the ductile Iron wedge shall be fully encapsulated with rubber.

The wedge shall be symmetrical and seal equally well with flow in either direction.

Operating nut shall be constructed

of ductile iron and shall have four flats at stem connection to assure even input torque to the stem.

All gaskets shall be pressure energized O-rings.

Stem shall be sealed by three Orings. The top two Orings shall be replaceable with valve fully open and while subject to full rated working pressure. Orings set in a cartriage shall not be allowed.

Valve shall have thrust washers

located with (1) above and (1) below the thrust collar to assure trouble-free operation of the valve.

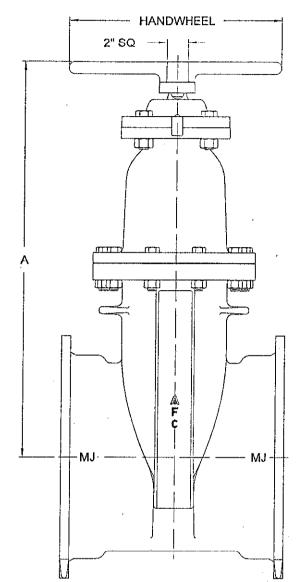
All internal and external surfaces of the valve body and bonnet shall have a fusion bonded epoxy coating, complying with ANSI/AWWA C550, applied electrostatically prior to assembly.

Valves shall be American Flow Control's Series 2500 Ductile Iron Resilient Wedge Gate Valve.



# AG.

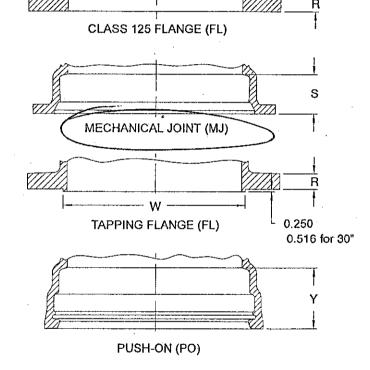
#### 14"-36" SERIES 2500 RESILIENT WEDGE VALVE



#### **SUBMITTAL DATA**

VALVE SIZE	14"	16"	18"	20"	24"	30"	36"
QUANTITY	-						
NRSW/	SPUR G	EARS_	ν	V/BEVE	L GEAR	S	
OPERATING N	UT	HAN	OWHEE	L	···		
DIRECTION OF	OPENI	NG	LEF1		RIGHT		
END CONNECT	гю`и				17		
OTHER REQUI	REMEN	гs					

NOTE: VALVES 18" AND LARGER ARE RECOMMENDED TO BE FURNISHED WITH GEARS



#### OPTIONAL END CONNECTIONS

DIMENSION	VALVE SIZE									
	14"	16"	18"	20"	24"	30"	36"			
END TO END - FL x FL	15	16	17	18	20	26	30			
LAY LENGTH - MJ x MJ	13-1/4	13-5/8	15-3/4	16-1/4	18-1/4	25-1/2	29-1/2			
LAY LENGTH - PO x PO	10-7/8	13-3/8	N/A	N/A	N/A	N/A	-			
LAY LENGTH - FL x MJ	14-1/8	14-13/16	16-3/8	17-1/8	19-1/8	25-3/4	29-3/4			
LAY LENGTH - FL x MJ Tapping	14-1/8	14-13/16	16-3/8	17-1/8	19-1/8	25-3/4	29-3/4			
A	33-1/4	36-3/4	39-5/8	43-1/4	51-1/4	N/A	_			
R	1-3/8	1-7/16	1-9/16	1-11/16	1-7/8	2-1/8	2-3/8			
S	3-5/8	3-5/8	3-5/8	3-5/8	3-5/8	4-13/32	4			
Υ	5-5/8	5-5/8	N/A	N/A	N/A	N/A				
W .	14-15/16	16-15/16	18-15/16	20-15/16	24-15/16	30-15/16	36-15/16			
HANDWHEEL DIAMETER	20	20	20	28	28	N/A				
No. Turns to Open (no gears)	44	50	56	62	73	N/A	672 (w/gears)			
WEIGHT (MJ x MJ)	670#	820#	1100#	1520#	2300#	4100#	7450			



#### **FEATURES**

American Flow Control's

American Darling B-84-B hydrant
incorporates over 80 years of experience in design, manufacture and
field experience. This experience
means dependable and efficient
operation when needed.

Introduced in 1984, the **B-84-B** hydrant is rated at 200 psi and is seat tested at 400 psi. This hydrant meets or exceeds all requirements of AWWA C502 for dry barrel hydrants. The B-84-B hydrant is listed by Underwriters Laboratories, Inc., as meeting their standard UL 246, latest edition. The Factory Mutual Research Corporation has approved the B-84-B. Both Underwriters Laboratories and Factory Mutual Research Corporation require that we consistently manufacture and test our

hydrants in full compliance with their stringent requirements. Our facilities are subject to periodic inspections to assure we are in compliance with their standards.

The B-84-B hydrant is loaded with the features you expect from a high quality fire hydrant. The all bronze seat and drain ring assure that the B-84-B hydrant is easily repaired by just one person.

- The B-84-B hydrant has these standard features:
- Positive compression, fast closing drains
- Travel stop located on upper rod in top of hydrant
- Bronze-to-bronze seating
- · UL listed & FM approved
- Easy 360° rotation of nozzle section
- Short, lightweight, disassembly wrench
- Ductile Iron M.J. shoe
- Centrifugally cast high strength ductile iron, lower barrel
- Lubrication chamber sealed from water and debris by 3 O-rings

#### BENEFITS

#### Spring Loaded Multi-Port Drains

There are two drain ports and four drain outlets as a standard feature on the B-84-B hydrant. The rod spring assures drains close after approximately three turns of the operating nut. This important safety feature prevents wash-outs that can happen on hydrant designs that do not have this important feature.

#### Sealed Lubrication Chamber

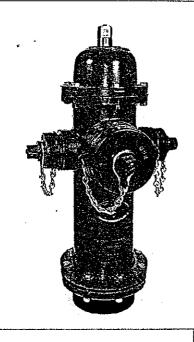
Seals operating threads from water and debris which greatly reduces routine maintenance.

## Factory Mutual Approved and Underwriters Laboratories Listed

The statement that our standard production B-84-B hydrant complies with both UL 246 and Factory Mutual Research Corporation's standard Indicates our total dedication to excellence.

#### **Top Travel Stop Nut**

Helps prevent stem buckling and damage to bronze components which may occur if excessive torque is applied in the full open position.



#### SAMPLE SPECS

Fire hydrants shall meet or exceed AWWA C502, latest revision, and shall comply with Factory Mutual Research Corp. and Underwriters Laboratories UL 246 Standard. Rated working pressure shall be 200 psi, test pressure shall be 400 psi, and hydrants shall include the following specific design criteria:

The main valve closure shall be of the compression type. Traffic feature

to be designed for easy 360 degree rotation of nozzle section during field installation.

The main valve opening shall not be less than 5½" and be designed so that removal of all working parts can be accomplished without excavating. The bronze seat shall be threaded into mating threads of bronze. The draining system of the hydrant shall be bronze and positively activated by the main operating rod. Hydrant

drains shall close completely after no more than three turns of the operating nut. There shall be a minimum of (2) internal ports and (4) drain port outlets to the exterior of the hydrant. Drain shutoff to be by direct compression closure.

Friction loss not to exceed 3.0 psi at 1000 gpm through 4½" pumper nozzle. Hydrants shall be equal to American Flow Control's American Darling B-84-B.

# Tyler/Union

685U SERIES CAST IRON TWO-PIECE VALVE BOXES

for 4" through 12" valves, 51/4" shaft, screw-type

LEVEL TWO - Parts Not Assembled/Less Lids

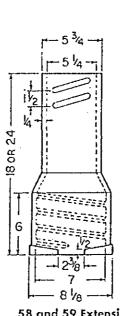
#### TOPS & BOTTOMS

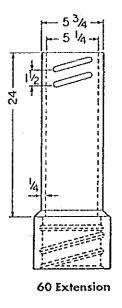
		Tops (less lids)			Bottoms		•	Extensions
Box (Components)	Assy Height	UPC No. 670610	Lgi	Wt	UPC No. 670610	Lgt	Wt	UPC No. 670610
> 461-S (10T + 15B)	19-22	144939	101	22	145004	1 <i>5</i> B	27	
462-S (10T + 24B)	27-32	144939	10T	22	145011	24B	35	
562-S (16T + 24B)	27-37	14A946	16T	36	145011	24B	35	
563-S (16T + 30B)	33-43	144946	161	36	144991	30B	42	
564-S (16T - 36B)	39-50	144946	16T	36	. 145028	36B	49	1
662-S (26T - 30B)	36-52	144953	26T	51 °	144991	30B	42	1
664-S (26T + 36B)	39-60	144953	26T	51	145028	36B	49	1
666-S (26T + 24B + #60 Ext)	51-71	144953	26T	51	145011	24B	35	145059
668-S (26T + 36B + #60 Ext)	62-82	144953	26T	51	145028	36B	49	145059



#### **EXTENSIONS**

Item/Description	UPC No. 670610	Height Increase	Wt
#58 Screw-Type	145141	14	29
#59 Screw-Type	145158	18	30
#60 Screw-Type	145059	24	37





58 and 59 Extension

#### LEVEL THREE - Crates of tops and bottoms, not assembled, less lids. Easy to handle, ships from stock. TOPS OR BOTTOMS

, •		Tops (less lids)		Bottoms					
Box (Components)	Assy Height	UPC No. 670610	Lg†	Wı	Qiy	UPC No. 670610	l.gt	Wt	Qty
461-S (10T + 15 B)	19-22	376910	10T	1760	80	376941	1 <i>5</i> B	1080	40
462-S (10T + 24B)	27-32	376910	101	1760	80	376958	24B	1050	30
562-S (16T + 24B)	27-37	376927	16T	2160	60	376958	24B	1050	30
563-S (16T + 30B)	33-43	376927	16T	2160	60	376965	30B	1260	30
564-S (16T + 36B)	39-50	376927	16T	2160	60	376972	36B	1470	30
662-S (26T + 30B)	36-52	376934	26T	1530	30	376965	30B	1260	30
664-S (26T + 36B)	39-60	376934	26T	1530	30	376972	36B	1470	30
666-S (26T + 24B + #60 Ext)	*51-71	376934	26T	1530	30	376958	24B	1050	30
668-S (26T + 36B + #60 Ext)	*62-82	376934	26T	1530	30	376972	36B	1470	30

\*Extensions (Required on 666-S & 668-S)

#60 Screw-Type

24" Height Increase

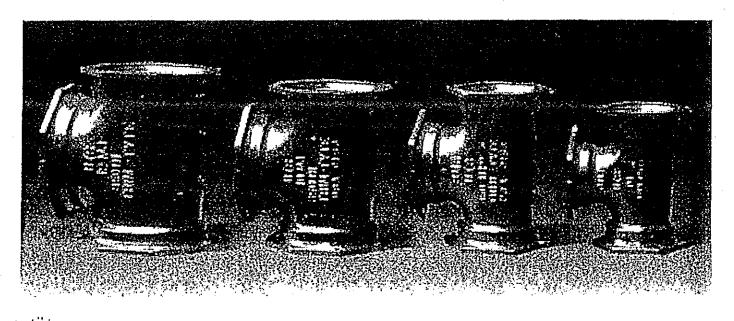
376989

1080

NOTES: To get equal numbers, order two crates of bottoms for each crate of tops for 4615, 5625, 5635 and 5645. Order lids separately, see above.



# PERMAFUSE® Epoxy Coated Ductile Iron Fittings



U.S. Pipe's TRIM TYTE® and TRIM TYTON®
Fittings are now available with our
METROSEAL® Valve tested
PERMAFUSE® Epoxy Coatings

www.uspipe.com email: info@uspipe.com

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NEW · IDEAS · ARE · FLOWING · AT · U.S. PIPE

# Features and Benefits of U.S. Pipe's PERMAFUSE® Epoxy Coated Ductile Iron Fittings

Mechanical Joint and TYTON\* Fittings, available in sizes 4"-16", in accordance with ANSI/AWWA C153/A21.53

PERMAFUSE Epoxy Coatings meet or exceed ANSI/AWWA C550 and C116/A21.116 requirements

NSF 61 approved for drinking water service

Nominal coating and lining thickness 6-8 mils

Larger sizes, flanged fittings and AWWA C110 fittings with PERMAFUSE available upon request

PERMAFUSE Epoxy Coatings are tightly adherent, provide a smooth surface and can be applied to inside and outside surfaces

PERMAFUSE Epoxy Coatings have been used successfully for many years on resilient seated gate valves.

Suitable for water and many wastewater applications

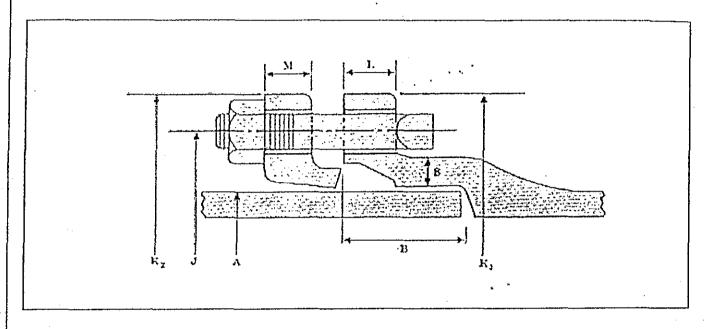
#### Suggested Specification Wording

Ductile iron fittings shall be coated with a 6-8 mil nominal thickness fusion bonded epoxy conforming to the requirements of ANSI/AWWA C550 and C116/A21.116.



# Mechanical Joint Fittings Thicknesses, Dimensions and Weights of 3" through 48" Fittings Conform to ANSI/AWWA C110/A21.10

#### Standard Mechanical Joint Dimensions



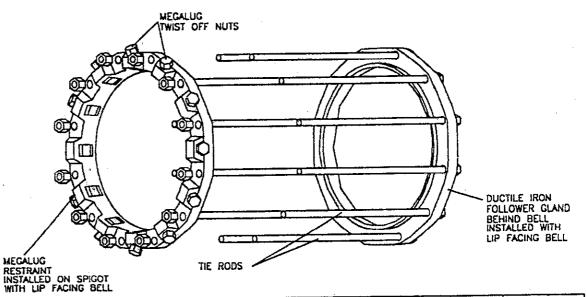
,				Dimen	sions in Ir	iches						Wt. In Pounds	
Size	Plain									Bolts			Gland
in Inches	End A	$_{ m B}$	J	K <sub>1</sub>	К2	J,	М	S	No.	Size	Length	Bell	Bolts Gasket
<del></del>			i	<del></del>	<del></del>			ļ	110.			} <del></del>	
3	3.96	2.50	6.19	7.69	7.69	.94	.62	.52	4	5/8	3	11	. 7
4	4.80	2,50	7.50	9.12	9.12	1.00	.75	.65	4	3/4	3 1/2	16	10
- 6	6.90	2.50	9.50	11.12	11.12	1.06	.88	.70	6	3/4	3 1/2	23	16
8	9.05	2.50	11.75	13.37	13.37	1.12	1.00	.75	6	3/4	4	31	25
10	11.10	2.50	14.00	15.69	15.62	1.19	1.00	.80	8	3/4	4	41	30
12	13.20	2.50	16.25	17.94	17.88	1.25	1.00	.85	8	3/4	4	51	40
14	15.30	3.50	18.75	20.31	20.25	1.31	1.25	.89	10	3/4	4 1/2	79	45
<b>1</b> 6	17.40	3.50	21.00	22.56	22.50	1.38	1.31	.97	12	3/4	4 1/2	97	55
18	19.50	3.50	23.25	24.83	24.75	1.44	1.38	1.05	12	3/4	4 1/2	117	65
20	21.60	3.50	25.50	27.08	27.00	1.50	1.44	1.12	14	3/4	4 1/2	140	85
24	25.80	3,50	30.00	31.58	31.50	1.62	1.56	1.22	16	3/4	5	185	105
*30	32.00	4.00	36.88	39.12	39.12	1.81	1.31	1.50	20	1	6	315	165
*36	38.30	4,00	43.75	46.00	46.00	2.00	1.55	1.80	24	1	6	445	235
**42	44.50	4.00	50.62	53.12	53.12	2.00	2.00	1.95	28	1 1/4	6	570	400
**48	50.80	4.00	57.50	60.00	60.00	2.00	2.00	2.20	32	1 1/4	6	725	475

The bolt holes in the fitting flanges straddle the vertical center line when the fitting is positioned to change the fluid flow in a horizontal direction. \*30" and 36" Mechanical Joint glands are furnished Ductile Iron only. The bolts used with these glands are shorter than the standard 6" length bolts of ANSI/AWWA C110/A21.10. If 30" and 36" glands or plugs with standard A21.10 flange thicknesses are used, 6" bolts will be required. \*\*42" and 48" Mechanical Joint glands are furnished Ductile Iron only.

# MEGALUG SERIES 1700

RESTRAINT FOR

DUCTILE IRON PUSH ON JOINTS



- NOTE: 1. THE INSTALLATION OF THE DUCTILE IRON GLAND BEHIND THE BELL REQUIRES SLIDING THE GLAND ALONG THE LENGTH OF THE PIPE. DUE TO POSSIBLE OVALITY OF THE PIPE, IT IS REQUIRED TO USE GAUGED FULL LENGTH PIPE TO MINIMIZE THE CHANCE OF INTERFERENCE. 2. THE RESTRAINT RING AND THE BELL RING ARE MADE
  - OF DUCTILE IRON CONFORMING TO ASTM A536. THE TIE BOLTS ARE MADE OF LOW ALLOY STEEL

#### INSTALLATION INSTRUCTIONS

- 1. INSTALL THE DUCTILE IRON GLAND BEHIND THE BELL WITH THE LIP EXTENSION TOWARD THE BELL.
- 2. PLACE THE MEGALUG RESTRAINT GLAND ON THE SPIGOT WITH THE LIP EXTENSION TOWARD THE BELL.

  3. ASSEMBLE THE PUSH ON JOINT PER THE PIPE
- MANUFACTURERS INSTRUCTIONS.
- 4. POSITION THE MEGALUG RESTRAINT HARNESS ON THE SPIGOT SUCH THAT THE BOLT HOLES ARE IN ALIGNMENT AND THE DISTANCE BETWEEN THE HOLES IS SUITABLE FOR THE BOLT LENGTH. PROPER SPACING WILL ALLOW SEVERAL THREADS OF THE BOLTS TO EXTEND BEYOND THE BOLT NUTS.
- 5. INSTALL THE BOLTS AND NUTS IN EACH OF THE BOLT HOLES. (THE BOLTS IN THE 4, 6, 8, AND 10 INCH SIZES SHOULD BE SPACED EVENLY.)
- 6. ACTIVATE THE MEGALUG RESTRAINT BY TIGHTENING THE TORQUE LIMITING TWIST OFF NUTS IN A CLOCKWISE DIRECTION UNTIL ALL WEDGES ARE IN FIRM CONTACT WITH THE PIPE SURFACE. CONTINUE TIGHTENING IN AN ALTERNATE MANNER UNTIL ALL OF THE NUTS ARE TWISTED OFF.
- 7. TIGHTEN THE BOLT NUTS UNTIL THE GLAND BEHIND THE BELL IS IN FIRM CONTACT WITH THE BACK OF THE BELL.

SIZE	PART	RATED	NO. OF	BOLT	BOLT	BOLT
	NUMBER	PRESSURE PSI	BOLTS	LENGTH	DIA.	CLEARANCE
3 4 6 8 10 12 14 16 18 20 24 30 36	1703 1704 1706 1708 1710 1712 1714 1716 1718 1720 1724 1730 1736	350 350 350 350 350 350 350 250 250 250 250	2 2 4 6 8 10 12 12 14 16 20 24	12 12 12 12 17 17 17 17 17 17 17	5/8 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4 1	5.4 6.6 8.6 10.9 13.1 15.4 17.9 20.1 22.4 24.6 29.1 35.8 42.6



P.O. BOX 877 EASTLAND, TEXAS 76448 1-800-633-9190

MEGALUG® RESTRAINT HARNESS FOR PUSH ON JOINT DUCTILE IRON PIPE DRAWN BY: DDS/ML SCALE: NTS MAT L: DATE: 1 - 10 - 97

2/18/97 DOD

PAGE 1 OF 1

DRAWING NUMBER ML\1700

# MEGALUG® SERIES 1100 Mechanical Joint Restraint for Ductile Iron Pipe

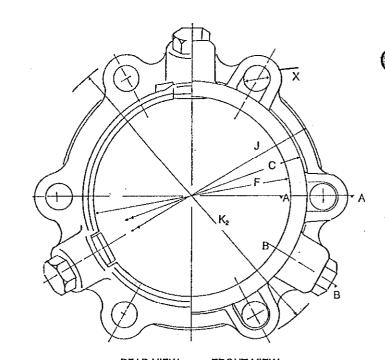
#### SAMPLE SPECIFICATION

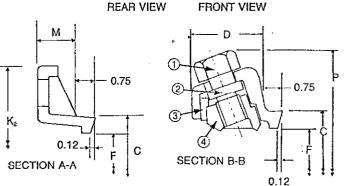
Mechanical joint restraint shall be incorporated into the design of the follower gland. The restraining mechanism shall consist of individually actuated wedges that increase their resistance to pull-out as pressure or external forces increase. The device shall be capable of full mechanical joint deflection during assembly and the flexibility of the joint shall be maintained after burial. The joint restraint ring and its wedging components shall be made of grade 60-42-10 ductile iron conforming to ASTM A536-84. The wedges shall be ductile iron heat treated to a minimum hardness of 370 BHN. Dimensions of the gland shall be such that it can be used with the standardized mechanical joint bell conforming to ANSI/AWWA C111/A21.11 and ANSI/AWWA C153/A21.53 of the latest revision. Torque limiting twist-off nuts shall be used to insure proper actuation of the restraining wedges. The mechanical joint restraint shall be available in the three through forty-eight inch sizes. They shall have a rated working pressures of 350 psi in sizes sixteen inch and smaller and 250 psi in sizes eighteen inch through forty-eight inch. The devices shall be Listed by Underwriters Laboratories up through the twenty-four inch size and Approved by Factory Mutual up through the twelve inch size. The restraint shall be the Series 1100 MEGALUG® restraint as produced by EBAA Iron, Inc. or approved equal.

#### BRIEF SPECIFICATIONS FOR 1100 SERIES

NOMINAL PIPE SIZE	SERIES NUMBER	APPROX. SHIPPING WT. (LBS.)	RATED PRESSURE 2:1
3	1103	6.50	350
4	1104	7.00	350
6	1106	12.00	350
8	1108	15.50	<b>3</b> 50
<u>10</u>	1110	24.25	350
12	1112	34.00	350
14	1114	48.50	350
(16)	1116	56.00	350
18	1118	59.00	250
20	1120	74.50	230
24	1124	139.00	250
30	1130	199.00	250
36	1136 -	230.00	250
43	. 1142	383.00	250
48	1148	472.00	250

- For test pressures above the rated pressures shown, consult the engineering department of EBAA Iron, Inc., for recommendations, EBAA Seal gaskets are provided with the 30" through 48" MEGALUG restraints. Also provided with the 42" and 48" sizes are extra length T-bolts. The gaskets and bolts are provided to facilitate easier assembly of the mechanical joint and are required on the above referenced sizes to obtain the pressure ratings and safety factors shown.
- For projects using large diameter restraints, please contact this office for our our design recommendations.
- All of the Megalug components are made of ductile iron. The wedges are heat treated to a hardness range of 370 to 470 BHN. The product is coated with the same asphaltic coating specified for the pipe and fittings.
- The 1100 Series is intended for use on ductile iron pipe. The restraint can be used on grey iron pipe if the pipe is not severely corroded and is in sound condition and has an outside diameter that can be accommodated. For more information on the use of the MEGALUG restraint on grey iron pipe ask for Connections<sup>TM</sup> Bulletin number DI-1.
- The 1100 series should not be used on plain end fittings.
- If you experience the need to install the 1100 series in an unconventional manner please consult EBAA Iron for recommendations.
- LISTINGS AND APPROVALS FOR SERIES 1100 MEGALUG Sizes 3" through 24" are listed by Underwriters Laboratories, Inc., category HJKF "Fittings, Retainer Type," with a deflection angle of five degrees (3" through 12") and two and a half degrees (14" through 24"). The listing file number is EX2836. Sizes 3" through 12" are Factory Mutual approved.





① NUT

③SPACER

(2) SHOULDER BOLT (4) WEDGE

SERIES	C	a	F	J	М	х	NO. OF WEDGES	NO. OF BOLTS	P	P W/NUTS TWISTED OFF	К,
1103	4,84	2.27	4.06	6.19	0.62	3/4	2	4	9.36	9.06	7.69
1104	5.92	2.27	4.90	7.50	0.75	η,	2	4	10.20	9.90	9.12
1106	8.02	2.27	7.00	9.50	0.88	7/4	а	6	12.30	12.00	11.12
1108	10.17	2.31	9.15	11.75	1,00	7/.	- 4	Б	14.45	14.15	13.37
1110	12.22	2.37	11.20	14.00	1.00	7/.	6	8	16.50	16.20	15.62
1112	14.32	2.37	13.30	16.25	1.25	7/4	8	8	18.60	18.30	17.88
1114	16.40	2.69	15.44	18.75	1.50	7/4	10	10	20.64	20.94	20.25
1116	18.50	2.69	17.54	21.00	1.56	η,	12	12	22.60	22.90	22.50
1118	20.60	2.69	19.64	23.25	1.63	7/2	12	12	24.70	25.00	24.75
1120	22,70	2.69	21.74	25.50	1.69	7/,	14	14	26.80	27.10	27.00
1124	26.90	3.20	25.94	30.00	1.81	7,	16	16	32.94	32.64	31.50
1130	33.29	3.20	32.17	36.88	2.25	14,	20	20	39.17	38.87	39.12
1136	39.59	3.20	38.47	43.75	2.25	14.	24	24	45.47	45.17	46.00
1142	45.79	4.56	44.67	50.62	3.88	14,	28	28	55.87	55.57	53.48
1148	52.09	4.56	50.97	57.50	3.88	11/4	32	32	62.17	61.87	60.36



P. O. Box 857 Eastland, Texas 76448 USA

CALL TOLL FREE 800-433-1716

Phone: 817/629-1731 Telefax: 817/629-8931

# Ford Iron Service Saddles Styles F202, FS202 & FC202

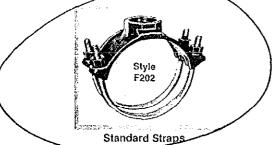
Double Strap Saddles for 3/4" through 2-1/2" Taps

Ford Double Strapped or Banded Saddles are recommended for larger taps and for use on larger O.D. pipe. Double strap saddles equalize the pressure on the pipe and can be used on asbestos-cement, cast or ductile iron pipe.

The FS and FC styles are recommended for use in highly corrosive areas and the stainless steel bands are especially recommended for use on PVC pipe. Ford Styles FS and FC Saddles should be pre-sized when used on PVC pipe. Pre-sized saddles will conform to the pipe O.D. without placing undue stress on the PVC pipe. A separate listing of FS202 and FC202 Saddles sized for C900 PVC is shown on page 21. The Ford Meter Box Company endorses full compliance with the standard tapping practices and recommended material requirements for tapping PVC pipe outlined in Uni-Bell Handbook of PVC Pipe and AWWA Manual M23.

The open and closed lug design allows pre-assembly of the straps, thus ensuring a safe yet simple installation. The heavy duty gasket assures the saddle will maintain pressure in excess of the pipe rating.

Ford's convenient marking system quickly and easily identifies the type of thread in the boss. For AWWA tapered thread the top edge of the boss has a groove around the outside edge while the boss for iron pipe thread is smooth. Some epoxy coated saddles (FC202 Style) might have an ink stamp only to designate AWWA tapered threads.







rd Straps Stainless Band

Stainless Band & Epoxy Coated

To Order: Select the Catalog Number below for the desired pipe O.D. Range and complete the Catalog Number by adding the Outlet Thread Tap Code from the bottom of page 16. Example: A standard Double Strap Saddle for 6.90 Ductile Iron Pipe with a 2" CC thread tap would be F202-760-CC7.

	Nom.	PIPE	CATALOG	CATALOG	CATALOG	PKG. QTY.	PKG. QTY.	APPROX.
	PIPE	O.D.	Number	Number	Nимвен	3/4" & 1"	1-1/4" - 2-1/2"	Wt.
	SIZE	RANGE	STANDARD STRAP	STAINLESS BAND	EPOXY COATED	TAPS	TAPS	LBS.
	2"	2.35-2.50	F202-250-Tap	FS202-250-Tap	FC202-250-Tap	8		2.8
	2-1/2"	2.75-2.90	F202-290-Tap	FS202-290-Tap	FC202-290-Tap	8	_	2.8
	3"	* 3.46-3.80	F202-380-Tap	FS202-380-Tap	FC202-380-Tap	6	*6	4.8
	J	* 3.80-4.25	F202-425-Tap	FS202-425-Tap	FC202-425-Tap	6_	*6	5.5
		* 4.26-4.73	F202-473-Tap	FS202-473-Tap	FC202-473-Tap	6	*6	5.4
	4"	** 4.50-4.80	F202-480-Tap	FS202-480-Tap	FC202-480-Tap	6	6	5.4
		4.74-5.26	F202-526-Tap	FS202-526-Tap	FC202-526-Tap	6	6	5.4
		5.94-6.69	F202-669-Tap	FS202-669-Tap	FC202-669-Tap	5	4	5.7
	6"	6.63-6.90	F202-690-Tap	FS202-690-Tap	FC202-690-Tap	- 5	4	5.7
		6.84-7.60	F202-760-Tap	FS202-760-Tap	FC202-760-Tap	4	4	6.7
		7.93-8.71	F202-871-Tap	FS202-871-Tap	FC202-871-Tap	5	4	6,8
	8"	<b>A</b> 8.63-9.05	F202-905-Tap	FS202-905-Tap	FC202-905-Tap	5	4	8.2
1		8.99-9.79	F202-979-Tap	FS202-979-Tap	FC202-979-Tap	5	4	8.4
		10.00-10.75	F202-1075-Tap	FS202-1075-Tap	FC202-1075-Tap	3	5	9.4
	10"	10.75-11.10	F202-1110-Tap	FS202-1110-Tap	FC202-1110-Tap	4	4	9.0
		11.10-12.12	F202-1212-Tap	FS202-1212-Tap	FC202-1212-Tap	3	3	10.8
		12.00-12.75	F202-1275-Tap	FS202-1275-Tap	FC202-1275-Tap	3	3	11.0
	12"	** 12.75-13.20	F202-1320-Tap	FS202-1320-Tap	FC202-1320-Tap	3	3	9.0
		13.20-14.38	F202-1438-Tap	FS202-1438-Tap	FC202-1438-Tap	3	3	12.8
	14"	15.30-16.25	F202-1625-Tap	FS202-1625-Tap	FC202-1625-Tap	1	3	11.9
	14"	16.30-17.25	F202-1725-Tap	FS202-1725-Tap	FC202-1725-Tap	1_	1	12.9
	- 401	17.40-18.40	F202-1840-Tap	)FS202-1840-Tap	FC202-1840-Tap	1_	1	13.1
	<b>→</b> 16"	18.50-19.25	P202-1925-Tap	FS202-1925-Tap	FC202-1925-Tap	1	1	12.9
	18"	19.50-20.50	F202-2050-Tap	FS202-2050-Tap	FC202-2050-Tap	1_	1	13.1
	20"	21.20-22.20	F202-2220-Tap	FS202-2220-Tap	FC202-2220-Tap	1	1	13.2
	20"	22.50-23.50	F202-2350-Tap	FS202-2350-Tap	FC202-2350-Tap	1_	1	13.3
	0.49	23.80-24.80	F202-2480-Tap	FS202-2480-Tap	FC202-2480-Tap	1	1	13.4
	24"	25.60-26.50	F202-2650-Tap	FS202-2650-Tap	FC202-2650-Tap	1	1	13.9
	30"	31.74-32.74	F202-3274-Tap	FS202-3274-Tap	FC202-3274-Tap	1	1	14.8

<sup>\*</sup> Saddles for this pipe range are not available with 2" CC or 2-1/2" IP threads.

Note: The table of Outlet Thread Tap Codes for Double Strap Saddles and for Double Strap Saddles for C900 PVC pipe is at the bottom of the next page.

<sup>\*\*</sup> These saddles with 1-1/4" - 2-1/2" taps fit the top of the listed range only. Example: F202-1320-CC7 fits 13.20 Pipe O.D. only.

<sup>▲</sup> This Saddle with 2" CC or 2-1/2" IP fits 9.05" O.D. Pipe only.

# Ford Corporation Stops and Ford Ballcorp Corporation Stops

With Pack Joint for Copper or Plastic Tube (CTS)

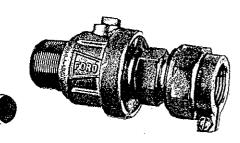
#### F1000 - AWWA/CC Taper Thread Inlet by Pack Joint Outlet for Copper or Plastic Tubing (CTS)



Catalog	<b>3.</b> 据扩展的 3.	Description	2 人名马勒德罗	Body Outlet	Approx.	Std. Pkg.
Number 🎘	⊹Valve Size 🦠	∌Inlet Size :	Outlet Size &	Threads 👫	Wt. Lbs.	Qty.
F1000-1	1/2"	1/2"	1/2"	1/2" Flare Copper	.5	20
F1000-2	5/8"	5/8"	· 5/8"	5/8" Flare Copper	1.0	5
F1000-23	5/8"	5/8"	3/4"	3/4" Flare Copper	1.4	5
F1000-3	3/4"	3/4"	3/4"	3/4" Flare Copper	1.7	5
F1000-34	3/4"	3/4"	1"	1" Flare Copper	1.9	4
F1000-4	1"	1"	1"	1" Flare Copper	2.7	4
F1000-45	1"	1"	1-1/4"	1-1/4" Flare Copper	3.2	. 4

Grip Joint for CTS can be ordered by adding "-G" to the Catalog Number.

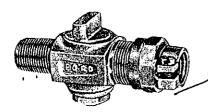
#### FB1000 Ballcorp- AWWA/CC Taper Thread Inlet by Pack Joint Outlet for Copper or Plastic Tubing (CTS)



Catalog 🧐	0条平台灣機	Description *		/ Body Outlet ﴾ €	Approx.	Std. Pkg.
Number &	Valve Size	Injet Size	*Outlet Size	Marcads Threads	Wt. Lbs.	Oly.
FB1000-3	3/4"	3/4"	3/4"	3/4" Flare Copper	1.8	6
FB1000-34	3/4"	3/4"	1"	1" Flare Copper	2.1	-
FB1000-4	1"	1"	1"	1" Flare Copper	2.6	6
FB1000-45	1"	1"	1-1/4"	1-1/4" Flare Copper	3.3	1
FB1000-5	1-1/4"	1-1/4"	1-1/4"	1-1/4" Flare Copper	4.9	-
FB1000-56	1-1/4"	1-1/4"	1-1/2"	1-1/2" Flare Copper	5.7	+
FB1000-6	1-1/2"	1-1/2"	1-1/2"	1-1/2" Flare Copper	6.9	1
FB1000-67	1-1/2"	1-1/2"	2"	2" Flare Copper	8.5	1
FB1000-7	2"	2"	2"	2" Flare Copper	11.1	1
FB1000-78	2"	2"	2-1/2"	2-1/2" Flare Copper	10.9	1

Grip Joint for CTS (except 2-1/2" CTS) can be ordered by adding "-G" to the Catalog Number.

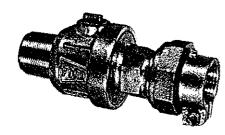
#### F1100 - Male Iron Pipe Thread Inlet by Pack Joint Outlet for Copper or Plastic Tubing (CTS)



Catalog		Description	. અફેક્સના અંદા <i>સ</i> ો	Body Outlet	Approx.	Std. Pkg.
Number	Valve Size	Inlet Size	Outlet Size	Threads	Wt. Lbs.	素Qty.図
F1100-1	1/2"	1/2"	1/2"	1/2" Flare Copper	.8	20
F1100-3	3/4"	3/4"	3/4"	3/4" Flare Copper	1.6	5
F1100-34	3/4"	3/4"	1"	1" Flare Copper	1.6	4
F1100-4	1"	1"	1"	1" Flare Copper	2.6	4
F1100-45	1"	1"	1-1/4"	1-1/4" Flare Copper	3.1	4

Grlp Joint for CTS can be ordered by adding "-G" to the Catalog Number.

#### FB1100 Ballcorp - Male Iron Pipe Thread Inlet by Pack Joint Outlet for Copper or Plastic Tubing (CTS)



	3	Description	**************************************	Body Outlet	Approx.	Std. Pkg.
160	Valve Size	Inlet Size	Outlet Size	Threads 💮	Wt. Lbs.	Qty.
3	3/4"	3/4"	3/4"	3/4" Flare Copper	1.6	6
34	3/4"	3/4"	1"	1" Flare Copper	2.0	<del>-</del>
4	1"	1"	1"	1" Flare Copper	2.5	4
45	1"	1"	1-1/4"	1-1/4" Flare Copper	3.2	1
5	1-1/4"	1-1/4"	1-1/4"	1-1/4" Flare Copper	4.9	-
56	1-1/4"	1-1/4"	1-1/2"	1-1/2" Flare Copper	5.6	-
6	1-1/2"	1-1/2"	1-1/2"	1-1/2" Flare Copper	7.0	1
67	1-1/2"	1-1/2"	2"	2" Flare Copper	8.4	1
7	2"	2"	2"	2" Flare Copper	11.0	1
78	2"	2"	2-1/2"	2-1/2" Flare Copper	10.7	1
	3 34 4 45 5 5 6 6 7	Valve Size  3	Valve Size	Valve Size         Inlet Size         Outlet Size           3         3/4"         3/4"           34         3/4"         1"           4         1"         1"         1"           45         1"         1"         1-1/4"           5         1-1/4"         1-1/4"         1-1/4"           56         1-1/4"         1-1/2"         1-1/2"           6         1-1/2"         1-1/2"         2"           7         2"         2"         2"	Valve Size         Inlet Size         Outlet Size         Threads           3         3/4"         3/4"         3/4" Flare Copper           34         3/4"         1"         1" Flare Copper           4         1"         1"         1" Flare Copper           45         1"         1" 1-1/4" 1-1/4" 1-1/4" Flare Copper           5         1-1/4" 1-1/4" 1-1/4" 1-1/4" Flare Copper           56         1-1/4" 1-1/4" 1-1/2" 1-1/2" Flare Copper           6         1-1/2" 1-1/2" 1-1/2" 1-1/2" Flare Copper           67         1-1/2" 1-1/2" 2" 2" 2" Flare Copper           7         2" 2" Flare Copper	Valve Size         Inlet Size         Outlet Size         Threads         Wt. Lbs.           3         3/4"         3/4"         3/4" Flare Copper         1.6           34         3/4"         1"         1" Flare Copper         2.0           4         1"         1"         1" Flare Copper         2.5           45         1"         1" 1-1/4" 1-1/4" 1-1/4" Flare Copper         3.2           5         1-1/4" 1-1/4" 1-1/4" 1-1/4" 1-1/4" Flare Copper         4.9           56         1-1/4" 1-1/4" 1-1/2" 1-1/2" Flare Copper         5.6           6         1-1/2" 1-1/2" 1-1/2" 1-1/2" 1-1/2" Flare Copper         7.0           67         1-1/2" 1-1/2" 2" 2" 2" Flare Copper         8.4           7         2" 2" 2" Flare Copper         11.0

Grip Joint for CTS (except 2-1/2" CTS) can be ordered by adding "-G" to the Catalog Number.

## Ford Ball Valve Curb Stops

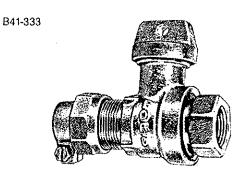
#### Ball Valves with Pack Joints

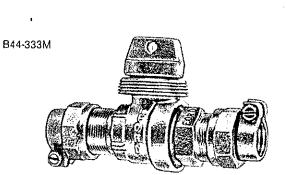
Plastic tube refers to any plastic with same outside diameter as corresponding sizes of copper tube. (Pack Joint Nut coded CTS.)

PE or PB pipe refers to Polyethylene pipe having same Inside diameter as corresponding sizes of standard iron pipe. (Pack Joint Nut coded PEP.)

PVC pipe refers to Polyvinyl Chloride rigid plastic pipe having same outside diameter as corresponding sizes of standard iron pipe. Note: Ford Pack Joints for PVC are only recommended for Schedule 40 and Schedule 80 pipe. (Pack Joint Nut coded PVC.)

Abbreviations, Dimensions, and Insert Stiffeners for plastic tubing are listed on page 26.





	One End	Pack	loint	Other Fed Female Is	on Dina 7	"le u el -	
One End Pack Joint, Other End Female Iron Catalog   Valve   Inlet   Pack Joint End							
	Number	Valve	Inlet	Pack Joint End	I.P. End.		
		Size	Size	Type Tube or Pipe		Wt. Lbs.	
	B41-333	3/4 "	3/4 "	plastic or copper tube	3/4 "	2.5	
	B51-333	3/4 "	3/4 "	iron pipe	3/4 "	2.6	
	B61-333	3/4 "	3/4 "	PE pipe	3/4 "	3.0	
	B71-333	3/4 "	3/4 "	PVC pipe†	3/4 "	3.0	
	B41-334	3/4 "	3/4 "	plastic or copper tube	1 "	2.6	
	B41-343	3/4 "	1 "	plastic or copper tube	3/4 "	3.0	
>		3/4 "	1 "	plastic or copper tube	1 "	2.6	
	B51-343	3/4 "	1 "	iron pipe	3/4 "	3.0	
	B51-344	3/4 "	1 "	iron pipe	1 "	3.2	
	B61-343	3/4 "	1 "	PE pipe	3/4 "	3.3	
	B61-344	3/4 "	1″	PE pipe	1 "	3.8	
	B71-343	3/4 "	1 "	PVC pipe†	3/4 "	3.3	
	B71-344	3/4 "	1 "	PVC pipe†	1"	3.4	
	B41-444	1 "	1"	plastic or copper tube	1 "	4.0	
	B61-444	1 "	1 "	PE pipe	1"	4.4	
	B71-444	1"	1 "	PVC pipe†	1 "	4.4	
	B41-454	1 "	1 1/4 "	plastic or copper tube	1"	4.4	
Į	B41-455	1 "	1 1/4 "	plastic or copper tube	1 1/4 "	4.7	
	B41-555	11/4"	11/4"	plastic or copper tube	11/4"	6.0	
	B41-666	11/2"	1 1/2 "	plastic or copper tube	11/2"	8.2	
	B41-677	1 1/2 "	2"	plastic or copper tube	2"	9.6	
	B51-666	11/2"	11/2"	iron pipe	11/2"	8.7	
	B61-666	11/2"	11/2"	PE pipe	1 1/2 "	8.8	
	B71-666	1 1/2 "	11/2"	PVC pipe†	11/2"	8.7	
Ī	B41-777	2"	2"	plastic or copper tube	2"	13.0	
ĺ	B51-777	2 "	2"	iron pipe	2."	13.5	
	B61-777	2"	2"	PE pipe	2"	13.3	
	B71-777	2"	2"	PVC pipe†	2"	13.5	
-						: <u>X:</u>	

34-24-207-1	Both	n Ends	Pack Joint for Plast	ic or⊛				
	Сорр	er Tul	oing, PE, PVC, or Iron	Pipe	- 1 8 Kali			
Catalog	Valve	!Inlet	Pack Joint End	. Outlet ≗	Approx.			
Number	∗Size -	∛Size.	Type Tube or Pipe	Size	Wt. Lbs.			
B44-333	3/4 "	3/4 "	plastic or copper tube	3/4 "	3.0			
B66-333	3/4 "	3/4 "	PE pipe	3/4 "	3.4			
B77-333	3/4 "	3/4 "	PVC pipe†	3/4 "	3.4			
B44-343	3/4 "	1 "	plastic or copper tube	3/4 "	3.2			
B44-344	3/4 "	1 "	plastic or copper tube	1 "	3.4			
B66-344	3/4 "	1 "	PE pipe	1 "	4.2			
B77-343	3/4 "	1 "	PVC pipe†	3/4 "	4.0			
B44-444	1"	1 "	plastic or copper tube	1 "	4.1			
B66-444	1 "	1 "	PE pipe	1 "	4.5			
B77-444	1 "	1 "	PVC pipe†	1 "	4.5			
B44-455	1 "	1 1/4 "	plastic or copper tube	1 1/4 "	4.5			
B44-555	1 1/4 "	1 1/4 "	plastic or copper tube	1 1/4 "	7.3			
B44-666	1 1/2 "	1 1/2 "	plastic or copper tube	1 1/2 "	9.1			
B44-677	11/2"	2"	plastic or copper tube	2"	10.6			
B55-666	11/2"	1 1/2 "	iron pipe	1 1/2 "	9.9			
B66-666	1 1/2 "	1 1/2 "	PE pipe	1 1/2 "	12.6			
B77-666	1 ½ "	11/2"	PVC pipe†	1 ½ "	9.9			
B44-777	2"	2"	plastic or copper tube	2"	15.8			
B55-777	2"	2"	iron pipe	2"	16.3			
B66-777	2"	2"	PE pipe	2"	15.9			
B77-777	2"	2"	PVC pipe†	2"	16.3			
All valves are available with Padlock Wings, Add "W" to Catalog Number.								

Options Available are listed at bottom of preceding page.

†NOTE: Ford Pack Joints for PVC are only recommended for Schedule 40 and Schedule 80 pipe.

# 

From:

Ivan Velez

To: Date: Alexander, Cheri 4/3/02 10:51AM

Subject:

Re: Fwd: Q-020294 Heron's Glen

please proceed with the necessary blue sheet preparation and other required paper work for the contract award to the apparent lowest and most responsible bidder SEMSCO for the supply of the piping materials needed for the Herons Glen Project.

After the BOCC award, we would like to discuss the delivery of materials with SEMSCO. Thanks

S. Ivan Velez, P.E. Prof. Engineer III Lee County Utilities 941/479-8166 velezsi@leegov.com

>>> Cheri Alexander 04/03/02 08:24AM >>> Ivan, just a follow up regarding this project; please see attached

thank you, Cheri

Cheri Alexander, C.P.M., CPPB
Purchasing Agent
Lee County B.O.C.C. Purchasing Services
CAlexander@leegov.com
239-689-7396
Fax 239-689-7390



17323 Jean Street Ft, Myers, FL 33912 (941) 433-0555 \* (941) 433-0405 FAX

April 19, 2002

Lee County board of County Commissioners P.O. Box 398 Ft. Myers, Fl 33902

Attn:: Cherri Alexander, Purchasing Agent

Dear Ms. Alexander:

SEMSCO, a Division of Clayton Group, Inc. has been purchased by Ferguson Waterworks.

This letter is to advise that all of SEMSCO's quotes and contracts will remain in effect, and be honored by Ferguson Waterworks.

Respectfully,

Greg Stacy

Sales Representative

GS:cs