



*where quality meets life*

**PFLUGERVILLE**  
**T E X A S**

Bid Number	2017-6
Bid Title	Fire hydrant and water valve maintenance contract
<b>Mandatory pre-bid</b>	<b>November 7, 2016 @ 10:00am</b>
Bid closing Date	November 16, 2016 @ 2:00pm
Bid Contact	Max Walther, Project Manager 512-990-6400 <a href="mailto:maxw@pflugervilletx.gov">maxw@pflugervilletx.gov</a>
Contract Duration	Contract to be completed by September 30, 2017.
Contract Renewal	With optional 2 annual renewals, there will be new areas and maps for each year under the annual renewal option. Upon agreement with the City of Pflugerville any Price increase associated with annual renewal must be justified by information related to CPI index or other vendor cost increases. Annual renewals are predicated on sufficient budgetary allocations by City Council for the renewal of the awarded contract. Any provision of this request for bids to the contrary notwithstanding, City Council shall be under no obligation to make such budgetary allocation.
Standard Disclaimer	The right is reserved to accept or reject all or part of the bid. The City further reserves the right to waive technicalities and formalities as well as to accept in whole or in part such proposal(s) where it deems it advisable in protection of the best interests of the City; and to accept the offer considered most advantageous to the City by total bid. The City of Pflugerville will award to the lowest responsible bidder who provides goods or services at the best value to the city.

## Bid Information

1. Bid may be awarded per line item.
2. See sheet for pricing information.
3. Certificate of insurance must be included with bid documents (see attached requirements).
4. Completed W9.
5. Purchasing contract rider.
6. Interlocal cooperative contracting clause attached.
7. HB 1295 information attached.
8. Hydrant inspection procedures, field procedures for flow tests.
9. Fire hydrant inspection form, flow test form.
10. Water valve maintenance procedures.
11. Isolation valve inspection form.
12. Reference Sheet.
13. Best value criteria.

All documents herein and attached are required to be completed and returned with your response. Bid documents may only be downloaded @ <http://www.texasbidsystem.com>.

City of Pflugerville

Bid Number: 2017-6

Bid Title: Fire hydrant and water valve maintenance contract

Closing date: November 16, 2016 @ 2:00pm

Tax ID No: \_\_\_\_\_

Legal Business Name: \_\_\_\_\_

How many years in business: \_\_\_\_\_

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

City State & Zip: \_\_\_\_\_

Contact: \_\_\_\_\_

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

Business Entity Type: \_\_\_\_\_

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

Fire hydrant maintenance \$ \_\_\_\_\_ Ea. 1,004 Total \$ \_\_\_\_\_

Water Valve Maintenance \$ \_\_\_\_\_ Ea. 1,354 Total \$ \_\_\_\_\_

Authorized Signature \_\_\_\_\_

Print Name \_\_\_\_\_

“By the signature hereon affixed, the bidder hereby certifies that neither the bidder nor the entity represented by the bidder, or anyone acting for such entity has violated the antitrust laws of this State, codified in section 15.01 et seq., Texas Business and Commerce Code, or Federal Antitrust laws, nor communicated directly or indirectly, The bid made to any competitor or any other person engaged in such line of business.”

Bids are due to the City of Pflugerville Attn: Sabrina Schmidt, 100 E Main St. Suite 100, Pflugerville, TX 78660, or mailed to City of Pflugerville, Attn: Sabrina Schmidt, P.O. Box 589, Pflugerville, TX 78691.

Bid is due by November 16, 2016 @ 2:00pm.

Sealed envelope must have bid number, opening date & time in lower left hand corner. Bidder's name must appear on the outside of the envelope.

General information:

**Mandatory Pre-Bid Monday November 7, 2016 @ 10:00am at 15500 Sun Light Near Way, Pflugerville, TX 78660.**

The contractor that will be doing the maintenance will be required to have an employee with a minimum class C distribution operator license or equivalent issued by TCEQ on site while the maintenance is being performed. There are 1,004 hydrants and 1,354 water valves. There will be a list and map of hydrants and water valves with their locations attached to this bid.

See attachments: dry barrel inspection procedure, field procedure for flow tests, fire hydrant inspection form, valve maintenance procedures, specification for water valve maintenance and isolation valve inspection form.

Inspection reports for hydrant and water valves are to be turned in monthly to Max Walther with the invoice and payment will be made upon approval of inspection reports.

Specifications for water valve maintenance:

The following items are to be considered when inspection occurs.

- Physical damage and defects to valve, valve stack/can, or valve stack/can collar
- Depth to top of valve
- Number of turns to operate valve
- Operable / inoperable
- Check for leakage
- Clean valve stack/can

All conditions will be documented in the inspection report.

City of Pflugerville  
Insurance Requirements

Bidder/Proposer performing work on City property or public right-of-way for the City of Pflugerville shall provide the City a certificate of insurance evidencing the coverage provisions identified herein. Bidder/Proposer shall provide the City evidence that all subcontractors performing work on the project have the same types and amounts of coverage as required herein or that the subcontractors are included under the contractor's policy. The City, at its own discretion, may require a certified copy of the policy.

All insurance companies and coverage must be authorized by the Texas Department of Insurance to transact business in the State of Texas and must be acceptable to the City of Pflugerville.

Listed below are the types and amounts of insurance required. The City reserves the right to amend or require additional types and amounts of coverage or provisions depending on the nature of the work.

Type of Insurance	Amount of Insurance	Provisions
Commercial General (Public) Liability to include coverage for: Premises/Operations  Products/ Completed Operations  Independent Contractors  Personal Injury  Contractual Liability	1,000,000 per occurrence, 2,000,000 general aggregate  Or  2,000,000 combined single coverage limit	City to be listed as additional insured and provide 30- days notice of cancellation or material change in coverage  City to be provided a waiver of subrogation  City prefers that insurer be rated B+V1 or higher by A.M. Best or A or higher by Standard & Poors
Business Auto Liability	1,000,000 combined single limit	City to be provided a waiver of subrogation
Workers' Compensation & Employers Liability	Statutory Limits 1,000,000 each accident	City to be provided a waiver of subrogation

Questions regarding this insurance should be directed to the City of Pflugerville (512)990-6100 A contract will not be issued without evidence of Insurance. We will only accept the ACORD 25 or ISO certificate of insurance forms.

# Request for Taxpayer Identification Number and Certification

Give Form to the  
requester. Do not  
send to the IRS.

Print or type  
See Specific Instructions on page 2.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.	
2 Business name/disregarded entity name, if different from above	
3 Check appropriate box for federal tax classification; check only <b>one</b> of the following seven boxes: <input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶ _____ <b>Note.</b> For a single-member LLC that is disregarded, do not check LLC; check the appropriate box in the line above for the tax classification of the single-member owner. <input type="checkbox"/> Other (see instructions) ▶ _____	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3): Exempt payee code (if any) _____ Exemption from FATCA reporting code (if any) _____ <small>(Applies to accounts maintained outside the U.S.)</small>
5 Address (number, street, and apt. or suite no.)	Requester's name and address (optional)
6 City, state, and ZIP code	
7 List account number(s) here (optional)	

## Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

**Note.** If the account is in more than one name, see the instructions for line 1 and the chart on page 4 for guidelines on whose number to enter.

Social security number									
				-					
or									
Employer identification number									
				-					

## Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

**Certification instructions.** You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 3.

Sign  
Here

Signature of  
U.S. person ▶

Date ▶

## General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

**Future developments.** Information about developments affecting Form W-9 (such as legislation enacted after we release it) is at [www.irs.gov/fw9](http://www.irs.gov/fw9).

## Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following:

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)

- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)

- Form 1099-C (canceled debt)

- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See *What is backup withholding?* on page 2.

By signing the filled-out form, you:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting?* on page 2 for further information.

**STANDARD GOVERNMENTAL CONTRACT AND PURCHASING RIDER  
FOR CONTRACTS WITH THE CITY OF PFLUGERVILLE, TEXAS**

(Version 2/1/12)

By submitting a response to a solicitation or bid, or by entering into a contract for goods or services and/or by accepting a purchase order, the contracting party identified below agrees that the below terms and conditions shall govern all agreements with the City unless otherwise agreed to by a specifically executed provision within the contract and if permissible by law. Absent a specifically executed provision, the below terms are BINDING and SUPERSEDE any and all other terms and/or conditions whether oral or written.

**1. Application.** This Governmental Rider applies to, is part of, and takes precedence over any conflicting provision in or attachment to the Contract (Contract) (attached hereto) of \_\_\_\_\_ (Vendor). The Contract involved in this Rider is described as follows:

*Title of Contract:* \_\_\_\_\_ Bid # 2017-6 Fire hydrant and water valve maintenance contract

**2. Payment Provisions.** The City's payments under the Contract, including the time of payment and the payment of interest on overdue amounts, are subject to Chapter 2251, Texas Government Code. The City reserves the right to modify any amount due to contractor presented by invoice to the City if necessary to conform the amount to the terms of the contract.

**3. Multiyear Contracts.** If the City does not appropriate funds to make any payment for a fiscal year after the City's fiscal year in which the contract becomes effective and there are no proceeds available for payment from the sale of bonds or other debt instruments, then the Contract automatically terminates at the beginning of the first day of the successive fiscal year. (Section 5, Article XI, Texas Constitution) It is understood and agreed the City shall have the right to terminate the agreement at the end of any City fiscal year if the governing body of the City does not appropriate funds sufficient to continue the contract, as determined by the City's budget for the fiscal year in question. The City may execute such termination by giving contractor a written notice of termination at the end of its then current fiscal year.

**4. Best Value Determination.** All competitive bids or proposals received shall be evaluated based on the best value for the City. Best value shall be determined by any relevant criteria specifically listed in the solicitation and by considering all or part of the criteria listed below.

- a. Bid price
- b. Reputation of the bidder and of bidder's goods and services
- c. The quality of the bidder's goods or services
- d. The extent to which the goods or services meet the City's needs
- e. Bidder's past relationship with the City - All vendors shall be evaluated on their past performance and prior dealings with the City to include, but not limited to, failure to meet specifications, poor quality, poor workmanship, and late delivery.

**5. Local Preference.** The City Council supports the local preference option for purchasing. In accordance with Chapter 271.9051 of the State of Texas Local Government Code, the City Council may choose to award a competitive bid to a bidder whose principal place of business is in the City limits, provided that this bid is within 5% of the lowest bid price received.

**6. No Ex-Parte Communications during Competitive Bidding Period.** To insure the proper and fair evaluation of a response, the City prohibits ex parte communication (e.g., unsolicited) initiated by the proposed contractor to a City official or employee evaluating or considering the responses prior to the time a formal decision has been made. Questions and other communication from vendors will be permissible until 5:00 pm on the day specified as the deadline for questions. Any communication between responder and the City after the deadline for questions will be initiated by the appropriate City official or employee in order to obtain information or clarification needed to develop a proper and accurate evaluation of the response. Ex parte communication may be grounds for disqualifying the offending responder from consideration or award of the solicitation then in evaluation, or any future solicitation.

**7. Abandonment or Default.** A contractor who abandons or defaults the work on the contract and causes the City to purchase the services elsewhere may be charged for any increased cost of goods, materials and/or services related thereto and shall be considered disqualified in any re-advertisement of the service and may not be considered in future bids for the same type of work for a period of three years for the same scope of work, goods or services.

**8. Disclosure of Litigation.** Each contractor shall include in its proposal a complete disclosure of any civil or criminal litigation or investigation pending which involves the respondent or which has occurred in the past in which the respondent has been judged guilty or liable by a competent court regardless of whether the Court Order or Judgment is final or on appeal.

**9. Cancellation.** The City reserves the right to cancel the contract without penalty by providing 30 days prior written notice to the contracting party. Termination under this paragraph shall not relieve the contractor of any obligation or liability that has occurred prior to cancellation. **NOTE: This contract is subject to cancellation, without penalty, at any time the City deems the vendor to be non-compliant with contractual obligations.**

**10. Annual Vendor Performance Review.** The City reserves the right to review the vendor's performance annually and to cancel all or part of the agreement (without penalty) or continue the contract through the next period.

**11. Compliance with other laws and certification of eligibility to contract.** Any offer to contract with the City shall be considered an executed certification that the contractor shall comply with all federal, state, and local laws, statutes, ordinances, rules and regulations, (as amended during the contracting period) and any orders and decrees of any court or administrative bodies or tribunals in any matter affecting the performance of the resulting agreement, including without limitation, immigration laws, workers' compensation laws, minimum and maximum salary and wage statutes and regulations, and licensing laws and regulations. *Additionally, such offer shall indicate that the contractor has fully read and understood the terms and conditions for eligibility to contract with the City pursuant to Chapter 38 of the City's Ordinances and certifies they are in compliance with those local requirements.* When requested, the contractor shall furnish the City with satisfactory proof of its compliance within 10 days or any contract with the City is void.

**12. Compliance with all Codes, Permitting and Licensing Requirements.** The successful contractor shall comply with all national, state and local standards, codes and ordinances as well as any other authorities that have jurisdiction pertaining to equipment and materials used and their application. None of the terms or provisions of the specification shall be construed as waiving any rules, regulations or requirements of these authorities. The successful bidder shall be responsible for obtaining all necessary permits, certificates and/or licenses to fulfill contractual obligations.

**13. Liability and Indemnity of City.** Any provision of the Contract is void and unenforceable if it: (1) limits or releases either party from liability that would exist by law in the absence of the provision; (2) creates liability for either party that would not exist by law in the absence of the provision; or (3) waives or limits either party's rights, defenses, remedies, or immunities that would exist by law in the absence of the provision. (Section 5, Article XI, Texas Constitution)

**14. Indemnity and Independent Contractor Status of Contractor.** Contractor shall indemnify, save harmless and defend the City, its officers, agents, and employees from and against any and all suits, actions, legal proceedings, claims, demands, damages, costs, expenses, attorney's fees and any and all other costs or fees (whether grounded in Constitutional law, Tort, Contract, or Property Law, or raised pursuant to local, state or federal statutory provision), arising out of the performance of the resulting agreement and/or arising out of a willful or negligent act or omission of the contractor, its officers, agents, and employees. It is understood and agreed that the contractor and any employee or sub-contractor of contractor shall not be considered an employee of the City. The contractor shall not be within protection or coverage of the City's workers' compensation insurance, health insurance, liability insurance or any other insurance that the City from time to time may have in force and effect. City specifically reserves the right to reject any and all contractor's employees, representatives or sub-contractors and/or their employees for any cause, should the presence of any such person on City property or their interaction with City employees be found not in the best interest of the City, harassing, or is found to interfere with the effective and efficient operation of the City's workplace.

**15. Liens.** Contractor agrees to and shall indemnify and save harmless the City against any and all liens and encumbrances for all labor, goods and services which may be provided under the resulting agreement. At the City's



request the contractor or subcontractors shall provide a proper release of all liens, or satisfactory evidence of freedom from liens shall be delivered to the City.

**16. Confidentiality.** Any provision in the Contract that attempts to prevent the City’s disclosure of information that is subject to public disclosure under federal or Texas law or regulation, or court or administrative decision or ruling, is invalid. (Chapter 552, Texas Government Code)

**17. Tax Exemption.** The City is not liable to Vendor for any federal, state, or local taxes for which the City is not liable by law, including state and local sales and use taxes (Section 151.309 and Title 3, Texas Tax Code), and federal excise tax (Subtitle D of the Internal Revenue Code) for certain purchases. Accordingly, those taxes may not be added to any item. Texas limited sales tax exemption certificates will be furnished upon request. Vendors shall not charge for said taxes. If billed, the City will remit payment less sales tax.

**18. Contractual Limitations Period.** Any provision of the Contract that establishes a limitations period that does not run against the City by law or that is shorter than two years is void. (Sections 16.061 and 16.070, Texas Civil Practice and Remedies Code)

**19. Sovereign Immunity.** Any provision of the Contract that seeks to waive the City’s immunity from suit and/or immunity from liability is void unless agreed to by specific acknowledgement of the provision within the contract.

**20. Governing Law and Venue.** Texas law governs this Contract and any lawsuit on this Contract must be filed in a court that has jurisdiction in Travis County, Texas.

**CITY OF PFLUGERVILLE, TEXAS**

**VENDOR**

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

\_\_\_\_\_

City Manager

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

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

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



Interlocal Cooperative Contracting

Other governmental entities within the State of Texas may be extended the opportunity to purchase off of the City of Pflugerville's solicitation, with the consent and agreement of the successful vendor(s) and the City of Pflugerville. Such consent and agreement shall be conclusively inferred from lack of exception to this clause in the vendor's response. However, all parties indicate their understanding and all parties hereby expressly agree that the City of Pflugerville is not an agent of, partner to, or representative of those outside agencies or entities and that the City of Pflugerville is not obligated or liable for any action or debts that may arise out of such independently-negotiated "piggyback" procurements.

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

Agree \_\_\_\_\_

Disagree \_\_\_\_\_

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

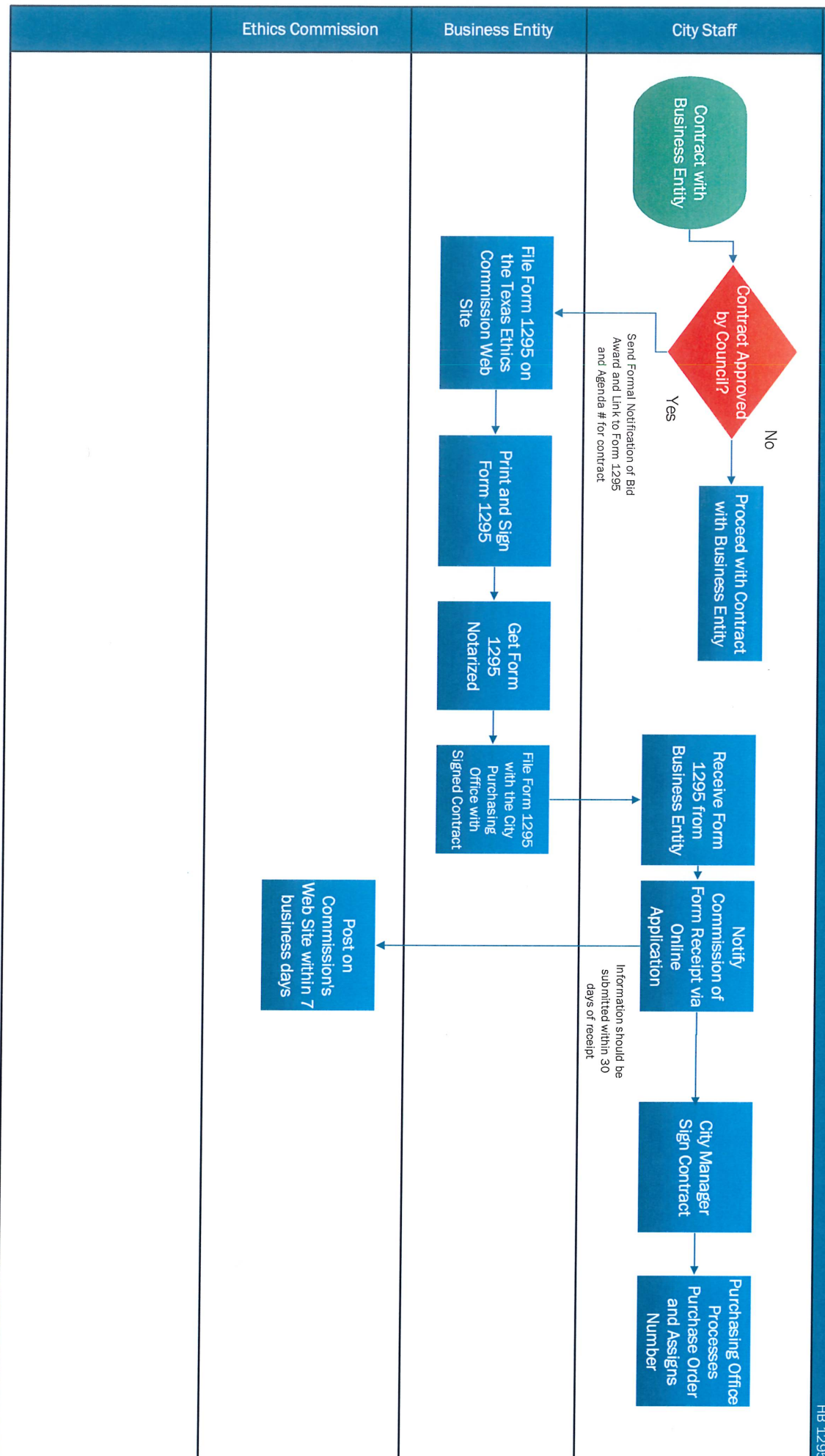
The Texas Legislature approved HB 1295 during its last Legislative session and the date for implementation of the new process was January 1, 2016.

To comply with this new mandate, the City must ask all business entities contracting with the City for items that are approved by Council to follow the new rules. Additional information about these new requirements can be accessed on the [Texas Ethics Commission website](#) and a flowchart and sample form are attached for your reference.

Please complete this form electronically on the Texas Ethics Commission web site at <https://www.ethics.state.tx.us/main/file.htm>. The completed Form 1295, Certification of Filing, must then be printed, notarized and returned to the City along with the signed contracts.

# Disclosure of Interested Parties

HB 1295



## DRY-BARREL HYDRANT INSPECTION PROCEDURE

1. Check the hydrant's appearance. Remove obstructions around it. If paint is needed, either paint the hydrant or schedule it for painting. Check to see whether the hydrant needs to be raised or lowered because of a change in the ground-surface grade. If adjustments are needed, schedule the work.
2. On traffic-model hydrants, check the breakaway device for damage.
3. Remove one outlet-nozzle cap and use a listening device to check for main valve leakage.
4. Check for the presence of water or ice in the hydrant barrel, by use of a plumb bob or other suitable means.
5. Attach a section of fire hose or other deflector to protect the street, traffic, and private property from water expelled at high velocity.
6. Open the hydrant and flush to remove foreign material from the interior and lead.
7. Close the hydrant. Remove the deflector and check the operation of the drain valve by placing the palm of one hand over the outlet nozzle. Drainage should be sufficiently rapid to create noticeable suction. For no drain hydrants, pump the water from the barrel.
8. Using a listening device, check the main valve for leakage.
9. Replace the outlet-nozzle cap. Leave it loose enough to allow air to escape.
10. Open the hydrant only a few turns. Allow air to vent from the outlet nozzle cap.
11. Tighten the outlet-nozzle cap.
12. Open the hydrant fully. Check for ease of operation. Certain water conditions may cause hard-water buildup on the stem threads of toggle and slide-gate hydrants and on the threads of wet-top hydrants. Opening and closing the hydrant repeatedly usually removes this buildup. If the hydrant has no threads in the water, but operates with difficulty, check the lubrication before proceeding with the inspection. Other problems that may make operation difficult are stuck packing and bent stems.
13. With the hydrant fully open, check for leakage at flanges, around outlet nozzles, at packing or seals, and around the operating stem. Repair as needed.
14. Partially close the hydrant so the drains open and water flows through under pressure for about 10 sec, flushing the drain outlets.
15. Close the hydrant completely. Back off the operating nut enough to take pressure off of the thrust bearing or packing.
16. Remove all outlet-nozzle caps, clean the threads, check the condition of the gaskets, and lubricate the threads. (Graphite powder in oil works well, as do several of the never-seize compounds.) Check the ease of operation of each cap.
17. Check outlet-nozzle-cap chains or cables for free action on each cap. If the chains or cables bind, open the loop around the cap until they move freely. This will keep the chains or cables from kinking when the cap is removed during an emergency.
18. Replace the caps. Tighten them, and then back off slightly so they will not be excessively tight. Leave them tight enough to prevent their removal by hand.
19. Check the lubrication of operating-nut threads. Lubricate per the manufacturer's recommendations.
20. Locate and exercise the auxiliary valve. Leave it in the open position.
21. If the hydrant is inoperable, tag it with a clearly visible mark and black bag, and then notify the Line Maintenance Department

## FIELD PROCEDURE FOR FLOW TESTS

1. Make provisions for minimizing interruptions to traffic and for adequate drainage of water.
2. Locate the residual hydrant and do the following:
  - a. Flush the residual hydrant to eliminate sediment that may damage the gauge.
  - b. Install the outlet-nozzle cap equipped with the pressure gauge on a hydrant nozzle.
  - c. Open the main valve slowly until the air is vented. Close the vent and open the main valve fully.
  - d. Read the gauge. This is the static pressure reading.
3. Locate the flow hydrant(s) and do the following:
  - a. Measure and record the inside diameter (ID) of the outlet nozzle from which the flow is measured. The inside diameter (ID) measurement is taken to the nearest 1/16 in. (0.159 cm).
  - b. Determine the discharge. At the hydrants used for flow during the test, the discharges from the open butts are determined from measurements of the diameter of the outlets flowed, the velocity pressures of the streams as indicated by the Pitot gauge readings, and the coefficient of the discharge outlet being flowed. If flow tubes or stream strengtheners are utilized, a coefficient of 0.95 is suggested unless the coefficient of the tube is known.

The formula used to compute the discharge,  $Q$  in gpm from those measurements is:

$$Q = 29.83cd^2\sqrt{P}$$

Where:

$c$  = the coefficient of the discharge

$d$  = the diameter of the outlet, in inches

$P$  = Pitot gauge pressure, in psi

4. Conduct the flow test as follows:
  - a. Station one observer at the residual hydrant and one observer at each flow hydrant.
  - b. Open each flow hydrant slowly until it is fully open. Open one hydrant at a time to avoid a pressure surge.
  - c. When the pressure at the residual hydrant is stabilized, the observer signals the persons stationed at the flow hydrants to take the readings. The readings for residual pressure and the Pitot-tube readings of each flow hydrant must be taken simultaneously. The air should be exhausted from the flowing hydrant before the reading is taken. For an accurate reading, hold the Pitot tube in the center of the nozzle, with the axis of the Pitot tube opening parallel to the direction of flow. The Pitot tube should be held away from the end of the nozzle at a distance of about half the nozzle diameter.
  - d. Record the residual reading and the Pitot-gauge reading at each flow hydrant. Then close the flow hydrants one at a time. For reasonably accurate test results, the pressure drop between the static and the residual pressures should be at least 10 psi (70 kPa). If the distribution system is strong (as it should be near a supply main) and the pressure drop is less than 10 psi (70 kPa), an additional flow hydrant should be added to the test. It is best for observers to calculate the flow in the field so that if the results appear in error, the test can be repeated immediately.

## FIRE HYDRANT PAINT REQUIREMENTS

All fire hydrant upper barrels and caps shall be painted RED, including any portion of the lower barrel that is exposed above ground level. All fire hydrant bonnets will be painted in accordance with The American Water Works Association (AWWA) recommendations listed below.

Class	Flow	Color of Bonnet
AA	1500 gallons per minute or greater	BLUE
A	1000 gallons per minute or greater	GREEN
B	500 – 999 gallons per minute	ORANGE
C	Less than 500 gallons per minute	RED

## Fire Hydrant Inspection Form

Location 1000 North 10th Street Hydrant No. 1000  
 Street 1000 North 10th Street Intersection 1000 North 10th Street  
 GPS Coordinates 42.333333, -71.083333  
 Brand/Manufacturer 1000 North 10th Street Model 1000 North 10th Street Year 1000

Type of Hydrant	<input type="checkbox"/> Dry Barrel	<input type="checkbox"/> Rounded	<input type="checkbox"/> Greased	<input type="checkbox"/> Needs Replaced
Dry Barrel Operating Nut	<input type="checkbox"/> OK	<input type="checkbox"/> Missing	<input type="checkbox"/> Greased	<input type="checkbox"/> Needs Replaced
Caps	<input type="checkbox"/> OK	<input type="checkbox"/> Missing	<input type="checkbox"/> Freed	<input type="checkbox"/> Needs Replaced
Chains	<input type="checkbox"/> OK	<input type="checkbox"/> Never Painted	<input type="checkbox"/> Needs Repaint	
Paint	<input type="checkbox"/> OK			
Original Bonnet Color		New Bonnet Color		

Hose Nozzle (R)	Nozzle Size	Thread Type	<input type="checkbox"/> Replace Gasket	<input type="checkbox"/> Cleaned	<input type="checkbox"/> Lubricated	<input type="checkbox"/> Needs Replaced
Hose Nozzle (L)	Nozzle Size	Thread Type	<input type="checkbox"/> Replace Gasket	<input type="checkbox"/> Cleaned	<input type="checkbox"/> Lubricated	<input type="checkbox"/> Needs Replaced
Pump Nozzle(C)	Nozzle Size	Thread Type	<input type="checkbox"/> Replace Gasket	<input type="checkbox"/> Cleaned	<input type="checkbox"/> Lubricated	<input type="checkbox"/> Needs Replaced

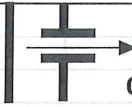
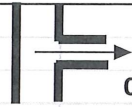
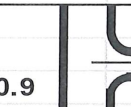
Main Valve	<input type="checkbox"/> Clogged	<input type="checkbox"/> Leakage	<input type="checkbox"/> Operated OK	Flushed	Minutes	Nozzles Open
Drain Valve	<input type="checkbox"/> Clogged	<input type="checkbox"/> Cleared	<input type="checkbox"/> Operated OK	Flowed	Minutes	GPM
Auxiliary Valve	<input type="checkbox"/> Located	<input type="checkbox"/> Stack/Can Cleared	<input type="checkbox"/> Operated OK	Pressures	Static	Residual

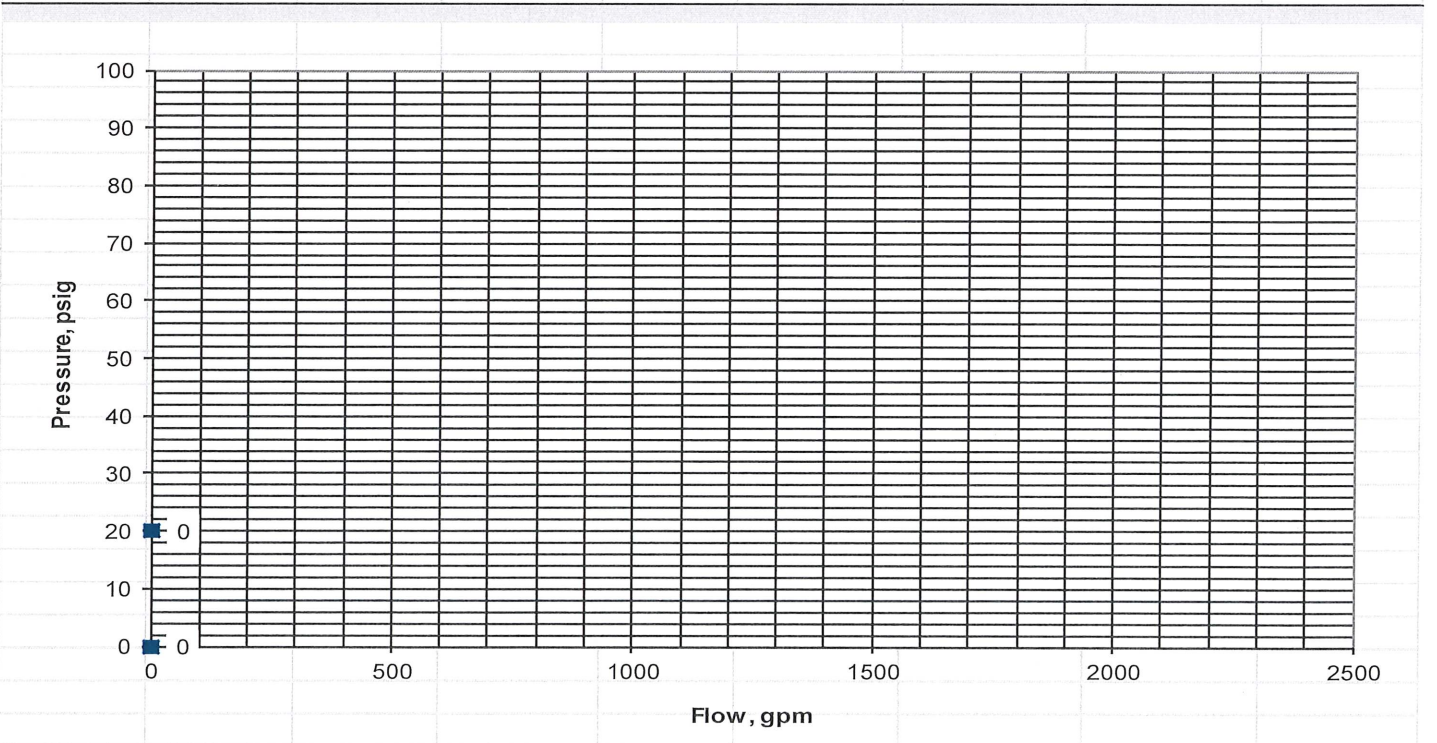
Other Defects

Inspected By 1000 North 10th Street Date 1000



# Fire Hydrant Flow Data Sheet

		Which Coefficient Do I use?		→ flow direction		
		 0.7 Square and Extended into barrel	 0.8 Square	 0.9 Rounded		
HYDRANT # & LOCATION:					DATE:	
TEST BY:		Day or Week:		TIME OF DAY:		MIN. OF FLOW:
WATER SUPPLIED BY:	City of Pflugerville					
PURPOSE OF TEST:	Fire Flow					
<b>DATA</b>						
FLOW HYDRANT(S)	A1		A2		A3	
SIZE OPENING:						
COEFFICIENT:						
PITOT READING:						
GPM:	0		0		0	
TOTAL FLOW DURING TEST:	0	GPM				
STATIC READING:		PSI	Residual		PSI	
RESULTS:	AT 20 PSI RESIDUAL	#DIV/0!	GPM	AT 0 PSI	#DIV/0!	GPM
ESTIMATED CONSUMPTION:		0	GAL.			
REMARKS:						



# VALVE MAINTENANCE PROCEDURES

Operation and maintenance procedures for various types of valves are detailed in manufacturers' operation manuals and in the appropriate product standards. The following paragraphs provide guidelines for most situations. A valve that has not been operated for a number of years needs to be closed by using a series of up and down motions. Crews attempting to close a difficult valve should never use a T-handle and extension to force the valve closed. Such over-torquing to obtain a positive shutoff can cause damage to the valve. Torque-limiting devices are available. Crews should follow the following guidelines to close a valve properly:

1. Begin with a steady amount of torque in the direction necessary to close the valve, moving through 5 to 10 rotations.
2. Reverse for two or three rotations.
3. Reverse again and rotate 5 to 10 more turns in the closing direction.
4. Repeat this procedure until full closure is attained.
5. Once the valve is fully closed, it should be opened a few turns so that high velocity water flowing under the gates can move the remainder of the sediment downstream with more force and clear the bottom part of the valve body for seating.
6. Fully close the valve again.

The reason for this cautious approach is that debris and sediment often build up on the gates, stem, and slides. If this material is compacted while the valve is being closed, the torque required to close the valve continues to build as the material is loaded. If the procedure previously described is used, the stem and other parts are "scrubbed" by the series of back-and-forth motions, and water in the system can flush the debris that has broken loose away from the stem gate and slides or guides.

## LOCATING VALVES

1. Valves that are located are operated and maintained thru Contract requirements.
2. All valve information is supplied by the City.
3. Valves are searched for 15 minutes, with information supplied by the City.
4. Contractors will use electronic metal locators, probe rods, and visual inspection to determine valve locations supplied by the City.
5. If the Valve cannot be located it will be documented and marked NF. (Not Found)
6. The NF Valve will be charged  $\frac{1}{2}$  the Contract price per Valve.

## Isolation Valve Inspection Form

Location	_____		Valve No.	_____
Street	_____	Intersection	_____	
GPS Coordinates	_____			

Purpose	<input type="checkbox"/> Water Main	<input type="checkbox"/> Hydrant Lead	<input type="checkbox"/> Service Lead	<input type="checkbox"/> Alignment
---------	-------------------------------------	---------------------------------------	---------------------------------------	------------------------------------

Gear	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Other
Status	<input type="checkbox"/> Open	<input type="checkbox"/> Closed	<input type="checkbox"/> Other
To Open Turn	<input type="checkbox"/> Left	<input type="checkbox"/> Right	<input type="checkbox"/> Other
Operating Nut	<input type="checkbox"/> Direct to Valve Stem	<input type="checkbox"/> Has Riser	<input type="checkbox"/> Other
Valve Stack/Can/Keyway	<input type="checkbox"/> PVC      Size	<input type="checkbox"/> Cast Iron      Size	<input type="checkbox"/> Other

Starting Position	<input type="checkbox"/> Open	<input type="checkbox"/> Closed	<input type="checkbox"/> Other	Turns from Open	Turns from Closed
Turns to Open					
Turns to Close					

Deficiencies				
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<input type="checkbox"/>	Inability to locate Stack/Can/Keyway	<input type="checkbox"/>	Obstruction in Stack/Can/Keyway	<input type="checkbox"/>	Poor Access to Operating Nut
<input type="checkbox"/>	Incorrect Stack/Can/Keyway Measurement	<input type="checkbox"/>	Spoils in Stack/Can/Keyway	<input type="checkbox"/>	Poor Operation
<input type="checkbox"/>	Poor Stack/Can/Keyway Accessibility	<input type="checkbox"/>	Water in Stack/Can/Keyway	<input type="checkbox"/>	Noisy Operation
<input type="checkbox"/>	Poor Stack/Can/Keyway Grade	<input type="checkbox"/>	Stack/Can/Keyway Cover Missing	<input type="checkbox"/>	Hard to Turn
<input type="checkbox"/>	Broken/Misaligned Stack/Can/Keyway	<input type="checkbox"/>	Stack/Can/Keyway Cleaned	<input type="checkbox"/>	Leaking Valve

Other Defects
$\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} = \frac{1}{8}$

Inspected By M.P. Jeyaraj Date 08-06-2017

## REFERENCE SHEET

Please complete and return this form with the Solicitation response

Bid No: 2017-6

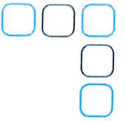
Fire hydrant and water valve maintenance contract

Bidders Name: \_\_\_\_\_ Date \_\_\_\_\_

Provide the name, address, telephone and point of contact of at least three firms that have utilized similar service for at least 2 years. References may be checked prior to award. Any negative responses received may result in disqualification of bid.

1. Company's Name \_\_\_\_\_  
Name of Contact \_\_\_\_\_  
Title of Contact \_\_\_\_\_  
E-Mail Address \_\_\_\_\_  
Present Address \_\_\_\_\_  
City, State, Zip Code \_\_\_\_\_  
Telephone Number \_\_\_\_ (\_\_\_\_) \_\_\_\_\_ Fax Number \_\_\_\_ (\_\_\_\_) \_\_\_\_\_
2. Company's Name \_\_\_\_\_  
Name of Contact \_\_\_\_\_  
Title of Contact \_\_\_\_\_  
E-Mail Address \_\_\_\_\_  
Present Address \_\_\_\_\_  
City, State, Zip Code \_\_\_\_\_  
Telephone Number \_\_\_\_ (\_\_\_\_) \_\_\_\_\_ Fax Number \_\_\_\_ (\_\_\_\_) \_\_\_\_\_
3. Company's Name \_\_\_\_\_  
Name of Contact \_\_\_\_\_  
Title of Contact \_\_\_\_\_  
E-Mail Address \_\_\_\_\_  
Present Address \_\_\_\_\_  
City, State, Zip Code \_\_\_\_\_  
Telephone Number \_\_\_\_ (\_\_\_\_) \_\_\_\_\_ Fax Number \_\_\_\_ (\_\_\_\_) \_\_\_\_\_

Failure to provide the required information with the solicitation response may automatically disqualify the response from consideration of award.



Best value criteria

- ☒ 1. The Purchase Price
- ☒ 2. The reputation of the bidder and the bidder's goods or services
- ☒ 3. The quality of bidder's goods or services
- ☒ 4. The extent to which the goods or services meet the municipality's needs
- ☒ 5. The bidder's past relationship with the municipality
- ☐ 6. The impact on the ability of the municipality to comply with laws and rules relating to contracting with historically underutilized businesses and non-profit organizations employing persons with disabilities
- ☐ 7. The total long-term cost to the municipality to acquire the bidder's goods or services
- ☒ 8. Any relevant criteria specifically listed in the bids or proposals
- ☒ 9. Compliance with Chapter 38 of the City of Pflugerville ordinance