



**PASCO COUNTY BOARD OF COUNTY COMMISSIONERS  
PURCHASING DEPARTMENT**

**8919 GOVERNMENT DRIVE  
NEW PORT RICHEY, FLORIDA 34654**

**TELEPHONE: (727) 847-8194**

**FACSIMILE: (727) 847-8065**

**pascocountyfl.net**

# **INVITATION FOR BIDS**

## **BID NO. 07-014K**

### **RESTORATION OF UNDERGROUND PIPE**

### **ANNUAL AWARD**

#### **SUMMARY OF WORK**

Restoration of underground pipe sewer service lateral reconstruction seal and/or repair of relined sanitary sewer main.

The Pasco County Purchasing Department will receive sealed bids until 2:00 p.m., local time (our clock), on February 27, 2007, in the Pasco County Purchasing Department, 8919 Government Drive, New Port Richey, Florida. Bids received after this time will not be accepted. Bids will be publicly opened and read at the above-stated time and date. All interested parties are invited to attend. Bidders shall submit one (1) original bid form.

Insurance coverage is required for this project; please refer to the Special Provisions.

Please immediately advise of address changes or if you wish to have your firm removed from the vendor list. Vendors receiving this notice must submit either a bid/proposal or "NO BID" to remain on our vendor list for the specified commodity or service. A "NO BID" is provided on Page 2 for your convenience.

This cover is only intended to inform vendors of a pending Invitation for Bid or Request for Proposal. For complete details, please refer to the complete bid/proposal package.

Bid documents may be downloaded by visiting [www.PascoCountyFL.net](http://www.PascoCountyFL.net) or by requesting copies from the Purchasing Department at no cost. Pasco County is not responsible for expenses incurred prior to award by the Board of County Commissioners (BCC).

Kathleen M. Brewer  
Senior Buyer



**PASCO COUNTY BOARD OF COUNTY COMMISSIONERS  
PURCHASING DEPARTMENT  
8919 GOVERNMENT DRIVE  
NEW PORT RICHEY, FLORIDA 34654**

**STATEMENT OF NO BID**

We, the undersigned, have declined to submit a bid response to Invitation for Bid No. 07-014K for the following reason(s):

Please check all that apply.

1. ☐ Opening date does not allow sufficient time to complete bid response.
2. ☐ We do not offer the commodities or services requested.
3. ☐ Our schedule would not permit us to perform.
4. ☐ We are unable to meet the issued specification.
5. ☐ Specifications are restrictive (please explain below).
6. ☐ We are unable to meet the surety requirements.
7. ☐ Other: \_\_\_\_\_

Explanations: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

We understand that if a "NO BID" is not returned, our firm will be removed from the bidders' list for the subject commodity.

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

Signature: \_\_\_\_\_

Company: \_\_\_\_\_

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

City/State/Zip: \_\_\_\_\_

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

Facsimile: \_\_\_\_\_

Fed. ID No.: \_\_\_\_\_

# **IMPORTANT!—PLEASE READ CAREFULLY BEFORE MAKING BID**

## **GENERAL PROVISIONS**

These general terms and conditions of the bid quotation and acceptance apply in like force to this inquiry and to any subsequent contract resulting therefrom.

### ACKNOWLEDGMENT OF AMENDMENTS

Bidders shall acknowledge receipt of any amendment to the solicitation by identifying the amendment number in the space provided for this purpose on the bid form, by letter, or by returning a copy of the issued amendment with the submitted bid. The acknowledgment must be received by Pasco County by the time and at the place specified for the receipt of bids. Failure to acknowledge an issued amendment may result in bid rejection and disqualification.

### ADDITIONAL INFORMATION

Questions concerning the contract or technical portions of the bid document must be submitted in writing to Scott P. Stromer, Purchasing Director, Pasco County Purchasing Department; 8919 Government Drive; New Port Richey, Florida 34654; facsimile (fax) machine number (727) 847-8065. Bidders are cautioned that any statements made by individuals, or employees of Pasco County, that materially change any portion of the bid document shall not be relied upon unless subsequently ratified by a formal written amendment to the bid document. No contractual or technical questions will be accepted after ten (10) days prior to the date set for bid opening.

### ALTERNATIVE BIDS

The bidder **WILL NOT** be allowed to offer more than one (1) price (for the goods or services specified). If the said bidder should submit more than one (1) price on any item (or service), ALL prices will be rejected for that item. The bidders offering service delivery methods other than those permitted by the scope of work or specifications may submit a separate envelope clearly marked "Alternative Bid." Alternative bids will be deemed nonresponsive and will not be considered for award. All such responses will, however, be examined prior to award. Such examination may result in cancellation of all bids received to permit rewriting the scope of work or specifications to include the alternative method, or the alternative method may be considered for future requirements of Pasco County.

### ANTITRUST

By entering into a contract, the contractor conveys, sells, assigns, and transfers to Pasco County all rights, titles, and interest it may now have or hereafter acquire under the antitrust laws of the United States and the State of Florida that relate to the particular goods or services purchased or acquired by Pasco County under the said contract.

### APPLICABLE LAW

The contract shall be governed in all respects by the laws of the State of Florida, and any litigation with respect thereto shall be brought in the courts of Pasco County, Florida. The contractor shall comply with all applicable Federal, State, and local laws and regulations. Lack of knowledge by the bidder will in no way be a cause for relief from responsibility.

#### ASSIGNMENT

The contractor shall not assign, transfer, convey, sublet, or otherwise dispose of any award or any or all of its rights, title, or interest therein, or delegate the duties hereunder without the prior written consent of Pasco County.

#### AWARD

Consideration for award will be by proximity to specifications given, costs, and time of delivery. All purchases, leases, or contracts that are based on competitive bids will be awarded to the lowest, responsive, and responsible bidder. Complete and accurate responses to all items are necessary for the complete and fair evaluation of bids. Bid award, in addition to the above stated, will be based on compliance with the specified requirements as well as the "total-cost" or "life-cycle costing" concept, including the following: 1) Cost: A cost analysis will be conducted and will include all identifiable costs associated with acquisition, installation, maintenance, and operation of the bidder's offered equipment. The analysis will be based upon the bidder's proposal data and other costs which, in the judgment of the evaluators, will be incurred by Pasco County resulting from acceptance of the bidder's proposal; 2) Equipment: Evaluation of equipment will be based on compliance with the specifications, expected life of equipment, output, maintenance, consumption, disposal value, warranty, complexity of operation, required training, and other factors that may contribute to the overall cost of the specified item; and 3) Bidder's Reputation and Experience: Evaluation of the bidder's reputation, past performance, and experience shall be based on the nature and extent of company data furnished, references and financial responsibility of the bidder. Pasco County reserves the right to award by lowest total, or whichever is deemed to be in Pasco County's best interest.

#### BID ACCEPTANCE PERIOD

Any bid submitted as a result of the solicitation shall be binding on the bidder for a minimum of ninety (90) calendar days following the bid opening date. Any bid for which the bidder specifies a shorter acceptance period may be rejected.

#### BID CLARIFICATIONS

If any party contemplating the submission of a bid on this invitation is in doubt as to the true meaning of any part of the plans, specifications, or other documents, he should submit a written request for an interpretation thereof to the Purchasing Director. The bidder's concerns, regarding clarification of specifications and/or discrepancies and/or omissions and/or changes to the attached specifications shall be made in writing and received by Pasco County no later than ten (10) calendar days prior to the bid opening date. The letter from the bidder shall state clearly, and in detail, the basis for such concern(s) or request(s). The letter shall be addressed to the Purchasing Director, and marked "PREBID QUESTION" on the face of the envelope. The Purchasing Director will respond in writing. An interpretation of the bid invitation document will be made only by addendum duly issued to each party receiving a bid invitation. All such addenda shall become part of the contract documents. Pasco County shall not be responsible for explanations or interpretations of bid invitation documents except as issued in accordance herewith. No oral interpretations will be made as to the meaning of specifications or any other contract documents. Failure to comply with this provision will result in the bidder waiving his/her right to dispute the bid specification.

#### BIDDER CERTIFICATION

The bidder agrees that submission of a signed bid form is certification that the bidder will accept an award made to it as a result of the submission.

### BIDDER INVESTIGATIONS

Before submitting a bid, each bidder shall make all investigations and examinations necessary to ascertain all site conditions and requirements affecting the full performance of the contract and to verify any representations made by Pasco County upon which the bidder will rely. If the bidder receives an award as a result of its bid submission, failure to have made such investigations and examinations will in no way relieve the bidder from its obligation to comply in every detail with all provisions and requirements of the contract documents, nor will a plea of ignorance of such conditions and requirements be accepted as a basis for any claim whatsoever by the contractor for additional compensation.

### BIDDERS' LIST

Failure to submit a bid for the item(s) specified will result in removal from the bidders' list for such (an) item(s). If a bid is not submitted, a "NO BID" response must be submitted to remain on the Pasco County's bidders' list for such items. A form for submitting a "NO BID" is provided on Page 2 for your convenience.

### BID ENVELOPES

Envelopes containing bids must be sealed and marked in the lower left-hand corner with the invitation number, commodity, and date and hour of opening of bids. Failure to do so may cause bid not to be considered. Express Company or Express Mail envelopes containing a sealed bid shall also be sealed and marked in the lower left-hand corner with the invitation number, commodity, and date and hour of opening of bids.

### BID FORM SUBMISSION

Bids shall be submitted on the attached forms. Bids concerning separate bid invitations must not be combined on the same form or placed in the same envelope. Bids submitted in violation of this provision shall not be considered. All bids must be signed, in ink, in order to be considered. Erasures are not acceptable on bids; if necessary to make a change, strike out or draw a line through incorrect item and type the correction above, and initial the correction in ink. If the bidder is a firm or corporation, the bidder must show the title of the individual executing the bid, and if the individual is not an officer of the firm or corporation, the bidder must submit proof that the individual has the authority to obligate the firm or corporation. **BIDS MAY NOT BE ALTERED OR AMENDED AFTER THE BID CLOSING.**

### BID RECEIPT AND OPENING

Pasco County will receive sealed bid proposals until date and time indicated on bid cover. Bids must be delivered, by hand or mail, to the Pasco County Purchasing Department, located at 8919 Government Drive, New Port Richey, Florida, where they will be opened at the stated time. Bids must be time stamped in the Purchasing Department before or on the hour and date indicated on the cover sheet (Invitation for Bid) for the bid opening. Bids received after the date and time of the bid opening will be received, date stamped, and returned to the bidder unopened. It is the responsibility of the bidder to ensure that bids arrive at the designated opening place on time. Late or nondelivery due to mail or express delivery company failure will not be considered adequate reason for consideration of late bids. **FAXED BIDS WILL NOT BE ACCEPTED AND SHALL NOT BE CONSIDERED FOR EVALUATION OR AWARD.** Notes may be taken at the public reading of the bid(s) at the specified time and date of the opening or a personal inspection may be made of the bid(s) after award has been made and documents are placed in central and public files.

### BID WITHDRAWAL

Bids may not be changed after the bid closing time.

To withdraw a bid that includes a clerical error after bid opening, the bidder must give notice in writing to Pasco County of claim or right to withdraw a bid. Within two (2) business days after the bid opening, the bidder requesting withdrawal must provide to Pasco County all original work papers, documents, and other materials used in the preparation of the bid. A bidder may also withdraw a bid prior to the time set for the opening of bids by simply making a request in writing to Pasco County; no explanation is required. No bidder who is permitted to withdraw a bid shall, for compensation, supply any material or labor to or perform any subcontract or other work for the person to whom the contract is awarded or otherwise benefit from the contract. No partial withdrawals of a bid are permitted after the time and date set for the bid opening; only complete withdrawals are permitted. The decision to allow or disallow bid withdrawal remains solely with Pasco County.

### CANCELLATION

Pasco County reserves the right to cancel a resulting contract, without cause, by giving thirty (30) days' prior written notice to the contractor of the intention to cancel, or with cause if at any time the contractor fails to fulfill or abide by any of the terms or conditions specified. Failure of the contractor to comply with any of the provisions of a resulting contract shall be considered a material breach of contract and shall be cause for immediate termination of the contract at the sole discretion of Pasco County. In addition to all other legal remedies available to Pasco County, Pasco County reserves the right to cancel and obtain from another source, any services which have not been provided within the required period of time or, if no such time is stated, within a reasonable period of time from the date of order or request, as determined by Pasco County.

### CERTIFICATION OF INDEPENDENT PRICE DETERMINATION

The bidder certifies that the prices submitted in response to the solicitation have been arrived at independently and without—for the purpose of restricting competition—any consultation, communication, or agreement with any other bidder or competitor relating to those prices, the intention to submit a bid, or the methods or factors used to calculate the prices bid.

### CHANGE IN SCOPE OF WORK

Pasco County may order changes in the work consisting of additions, deletions, or other revisions within the general scope of the contract. No claims may be made by the contractor that the scope of the project or of the contractor's services has been changed, requiring changes to the amount of compensation to the contractor or other adjustments to the contract, unless such changes or adjustments have been made by written amendment to the contract or purchase order signed by Purchasing Director. If the contractor believes that any particular work is not within the scope of the project, is a material change, or will otherwise require more compensation to the contractor, the contractor must immediately notify Pasco County in writing of this belief. If Pasco County believes that the particular work is within the scope of the contract as written, the contractor will be ordered to and shall continue with the work as changed and at the cost stated for the work within the scope.

### COLLUSION AMONG BIDDERS

Each bidder, by submitting a bid, certifies that it is not a party to any collusive action or any action that may be in violation of the Sherman Antitrust Act. Any or all bids shall be rejected if there is any reason for believing that collusion exists among the bidders. Pasco County may or may not, at its discretion, accept future bids for the same work from participants in such

collusion. More than one (1) bid from an individual, firm, partnership, cooperation, or association under the same or different names may be rejected. Reasonable grounds for believing that a bidder has interest in more than one (1) bid for the work being bid may result in rejection of all bids in which the bidder is believed to have interest. Nothing in this clause shall preclude a firm acting as a subcontractor to be included as a subcontractor for two (2) or more primary contractors submitting a bid for the work.

#### CONFLICT OF INTEREST

The contractor, by submission of its proposal, certifies that to the best of his/her knowledge or belief, no elected/appointed official or employee of Pasco County is financially interested, directly or indirectly, in the offer of goods or services specified in this invitation.

#### DEBARMENT

By submitting a bid, the bidder certifies that it is not currently debarred from submitting bids for contracts issued by any political subdivision or agency of the State of Florida and that it is not an agent of a person or entity that is currently debarred from submitting bids for contracts issued by any subdivision or agency of the State of Florida.

#### ERRORS IN EXTENSIONS

If the unit price and the extension price are at variance, the unit price shall prevail.

#### ETHICS IN PUBLIC PROCUREMENT

The contract shall incorporate by reference, but shall not be limited to, the provisions of law contained in Chapter 112, Florida Statutes. A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity; may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids on leases or real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, Florida Statutes, for CATEGORY TWO for a period of thirty-six (36) months from the date of being placed on the convicted vendor list. The bidder certifies that its bid was made without collusion or fraud; that it has not offered or received any kickbacks or inducements from any other bidder, supplier, manufacturer, or subcontractor in connection with this bid; and that it has not conferred on any public employee having official responsibility for this procurement transaction any payment, loan, subscription, advance, deposit of money, services, or anything of value.

#### EXCEPTIONS

Bidders taking exception to any part or section of the solicitation shall indicate such exceptions on the bid form or appendix. Failure to indicate any exception will be interpreted as the bidder's intent to comply fully with the requirements as written. Conditional or qualified bids, unless specifically allowed, shall be subject to rejection in whole or in part.

#### EXPENSES INCURRED IN PREPARING BID

Pasco County accepts no responsibility for any expense incurred by the bidder in the preparation and presentation of a bid. Such expenses shall be borne exclusively by the bidder.

#### FAILURE TO DELIVER

In the event of failure of the contractor to deliver the goods and services in accordance with the contract terms and conditions, Pasco County may procure the goods and services from other

sources and hold the contractor responsible for any resulting additional costs. A failure to deliver will result in immediate termination of a resulting contract, and immediate disqualification and debarment from submitting bids to Pasco County for a maximum of three (3) years. These remedies shall be in addition to any other remedies that Pasco County may have available.

#### FAILURE TO ENFORCE

Failure by Pasco County at any time to enforce the provisions of the contract shall not be construed as a waiver of any such provisions. Such failure to enforce shall not affect the validity of the contract or any part thereof or the right of Pasco County to enforce any provision at any time in accordance with its terms.

#### FAIR LABOR STANDARDS

By submission of a bid, the bidder certifies that the contractor(s) and/or subcontractor(s) providing product(s) or service(s) shall, in the execution or performance of such a contract, maintain fair labor standards as defined in applicable State and Federal regulations.

#### FORCE MAJEURE

The contractor shall not be held responsible for failure to perform the duties and responsibilities imposed by the contract due to legal strikes, fires, riots, rebellions, and acts of God beyond the control of the contractor, unless otherwise specified in the contract.

#### IDENTICAL BIDS

Identical bids or bids which otherwise appear suspicious will be reported to the County Attorney for investigation.

#### INDEMNIFICATION

In consideration of the sum of Fifteen and 00/100 Dollars (\$15.00), the receipt and sufficiency of which is acknowledged by the contractor to be included and paid for in the contract price, the contractor shall indemnify, defend, and hold harmless Pasco County and its agents and employees from and against all liabilities, claims, damages, losses, and expenses, including attorneys' fees, arising out of or resulting from the performance of the work, provided that any such liability, claim, damage, loss, or expense: 1) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself), including the loss of use resulting therefrom; and 2) is caused in whole or in part by any negligent act or omission of the contractor and subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, except for those caused by the negligent act or omission of Pasco County.

In any and all claims against Pasco County or any of its agents or employees by any employee of the contractor, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation under the previous paragraph shall not be limited in any way as to the amount or type of damages, compensation, or benefits payable by or for the contractor or any subcontractor under Workers' Compensation Acts, disability benefit acts, or other employee benefit acts.

#### INDEPENDENT CONTRACTOR

The contractor shall be legally considered an independent contractor and neither the contractor nor its employees shall, under any circumstances, be considered servants or agents of Pasco County; and Pasco County shall be at no time legally responsible for any negligence or other wrongdoing by the contractor, its servants, or agents. Pasco County shall not withhold from the contractor any Federal or State unemployment taxes, Federal or State income taxes, Social



Security tax, or any other amounts for benefits to the contractor. Further, Pasco County shall not provide to the contractor any insurance coverage or other benefits, including workers' compensation, normally provided by Pasco County for its employees.

#### INFORMALITIES AND IRREGULARITIES

Pasco County has the right to waive minor defects or variations of a bid from the exact requirements of the specifications that do not affect the price, quality, quantity, delivery, or performance time of the services being procured. If insufficient information is submitted by a bidder with the bid for Pasco County to properly evaluate the bid, Pasco County has the right to require such additional information as it may deem necessary after the time set for receipt of bids, provided that the information requested does not change the price, quality, quantity, delivery, or performance time of the services being procured. The BCC reserves the right to reject any or all bids in whole or in part; to award by any item, group(s) of items, total bid, or accept the bid that is most advantageous and in the best interest of Pasco County.

#### LIMITATION OF COST

The contractor agrees to perform the work specified and complete all obligations under the contract within the stated amounts.

#### NONAPPROPRIATION

All funds for payment by Pasco County under this contract are subject to the availability of an annual appropriation for this purpose by Pasco County. In the event of nonappropriation of funds by Pasco County for the services provided under the contract, Pasco County will terminate the contract, without termination charge or other liability, on the last day of the then-current fiscal year or when the appropriation made for the then-current year for the services covered by this contract is spent, whichever event occurs first. If at any time funds are not appropriated for the continuance of this contract, cancellation shall be accepted by the contractor on thirty (30) days' prior written notice, but failure to give such notice shall be of no effect, and Pasco County shall not be obligated under this contract beyond the date of termination.

#### NONCONFORMING TERMS AND CONDITIONS

A bid response that includes terms and conditions that do not conform to the terms and conditions in the bid document is subject to rejection as nonresponsive. Pasco County reserves the right to permit the bidder to withdraw nonconforming terms and conditions from its bid response prior to a determination by Pasco County of nonresponsiveness based on the submission of nonconforming terms and conditions.

#### NONDISCRIMINATION

By submission of bid, the bidder certifies that the contractor(s) and/or subcontractor(s) providing product(s) or service(s) shall not discriminate against any employee or applicant for employment, to be employed in the performance of such contract, with respect to his/her hire, tenure, terms, conditions, or privileges of employment, because of his/her race, color, religion, sex, disability, or national origin, as outlined in applicable State and Federal regulations.

#### ORAL STATEMENTS

No oral statement of any person shall modify or otherwise affect the terms, conditions, or specifications stated in this contract. All modifications to the contract or purchase order must be made in writing by Pasco County.

### PAYMENT PROCEDURES

The BCC has adopted Resolution No. 95-70, incorporating its Invoice Payment Procedures Policy in order to help ensure that vendors providing goods and/or services to the BCC receive payment in a timely manner and in accordance with Chapter 218, Part VII, Florida Statutes (The Florida Prompt Payment Act). A copy of Resolution No. 95-70 (which includes the policy) is available for viewing during normal business hours at the Office of the Pasco County Clerk of the Circuit Court; 38053 Live Oak Avenue; Department of Secretarial Services, Room 205; Dade City, Florida 33525. Copies of the Resolution may be obtained at a cost of One and 20/100 Dollars (\$1.20). Please make your check payable to Jed Pittman, Clerk of the Circuit Court, and forward payment to the Department of Secretarial Services at the address noted above. For further information, please call (352) 521-4347.

Several payment options are available to successful vendor, upon receipt of a correct invoice:

1. Check may be mailed to the remit address on the invoice. The check is sent to the Post Office the day after BCC approval.
2. Check may be picked up in Dade City. The vendor must pick up the check the day after BCC approval. The successful bidder or contractor must call (352) 521-4599 for detailed instructions.
3. Payment may be wire-transferred to the vendor's bank account. The vendor must call (352) 521-4599 for detailed instructions.

### PAYMENT TERMS AND DISCOUNTS

Unless otherwise indicated in the bid documents, payment terms will be net forty-five (45) days. Terms not consistent with this provision are not acceptable and may be cause for rejection. Pasco County will pay the contractor within forty-five (45) days after the receipt of a correct invoice for reasonable work allocable to the contract or after the date of acceptance of work that meets contract requirements, whichever event occurs later. Payment(s) are considered effective on the date payment is mailed.

Discounts for prompt payment requiring payment by Pasco County within a stipulated number of days will be interpreted as applying within the stipulated number of calendar days after the date of receipt by Pasco County of a correct invoice describing reasonable work allocable to the contract or after the date of acceptance of work that meets contract requirements, whichever event occurs later. Discounts for payment in less than forty-five (45) days will not be considered during evaluation for award, but may be taken if applicable after award.

Payment for construction services will be in accordance with Chapter 218, Part VII, Florida Statutes (The Florida Prompt Payment Act).

### PROCUREMENT REGULATIONS

A copy of the Pasco County Procurement Ordinance is available for review at Pasco County Purchasing Department, 8919 Government Drive, New Port Richey, Florida.

### PUBLIC INFORMATION

Upon public opening of all bids or proposals presented to Pasco County as a result of this solicitation, any and all information contained therein is considered public and may be reviewed by any persons interested in doing so.

#### PURCHASE ORDER REQUIREMENT

Purchases of Pasco County are authorized only if a signed purchase order issued in advance of the transaction, showing that the ordering agency has sufficient funds available to pay for the service. Contractors providing services without a signed purchase order do so at their own risk. Pasco County will not be liable for payment for any services provided under the contract unless a valid purchase order has been issued to the contractor.

#### QUALIFICATIONS OF BIDDERS

The bidder may be required before the award of any contract to show to the complete satisfaction of Pasco County that it has the necessary facilities, ability, and financial resources to provide the service specified therein in a satisfactory manner. The bidder may also be required to give a past history and references in order to satisfy Pasco County in regard to the bidder's qualifications. Pasco County may make reasonable investigations deemed necessary and proper to determine the ability of the bidder to perform the work, and the bidder shall furnish to Pasco County all information for this purpose that may be requested. Pasco County reserves the right to reject any bid if the evidence submitted by, or investigation of, the bidder fails to satisfy Pasco County that the bidder is properly qualified to carry out the obligations of the contract and to complete the work described therein. Evaluation of the bidder's qualifications shall include:

1. The ability, capacity, skill, and financial resources to perform the work or provide the service required.
2. The ability of the bidder to perform the work or provide the service promptly or within the time specified, without delay or interference.
3. The character, integrity, reputation, judgment, experience, and efficiency of the bidder.
4. The quality of performance of previous contracts or services.

#### QUALITY OF GOODS

All goods shall be new, in first class condition, and of the manufacturer's latest design of the model presently in production. All materials, supplies, and equipment furnished or services performed under the terms of this purchase order or contractual agreement shall comply with the requirements and standards specified in the Williams-Steiger Occupational Safety and Health Act of 1970 (Public Law 91-596), as well as other applicable Federal, State, and local codes. Equipment and materials furnished by the bidder having serious defects, corrosion, or scratches which tend to present an "other than new" appearance shall be promptly replaced or such defects promptly corrected by the bidder at no cost to Pasco County. Any existing Material Safety Data Sheets (MSDS) for the products, materials, supplies, or equipment being bid must be submitted with the bid. No product containing asbestos, lead paint, or polychlorinated biphenyl (PCB) in any form will be considered for award by Pasco County.

#### RECOVERY OF MONEY

Whenever, under the contract, any sum of money shall be recoverable from or payable by the contractor to Pasco County, the same amount may be deducted from any sum due the contractor under the contract or under any other contract between the contractor and Pasco County. The rights of Pasco County are in addition and without prejudice to any other right Pasco County may have to claim the amount of any loss or damage suffered by Pasco County on account of the acts or omissions of the contractor.

#### RIGHT TO AUDIT

The contractor shall maintain such financial records and other records as they relate to the purchase of goods and/or services by Pasco County from the subject vendor. The contractor

shall retain these records for a period of three (3) years after final payment, or until they are audited by Pasco County, whichever event occurs first. These records shall be made available during the term of the contract and the subsequent three (3) year period for examination, transcription, and audit by Pasco County, its designees, or other authorized bodies.

#### RISK OF LOSS

Pasco County shall be relieved from all risks of loss or damage to goods during periods of transportation, manufacture, and the entire time the goods are in the possession of Pasco County prior to acceptance by Pasco County. At such time, the risk of loss or damage for goods shall pass to Pasco County. The bidder/contractor shall not be responsible for damage to the goods occasioned by negligence of Pasco County or its employees.

#### TABULATIONS

Solicitation results, plan holder lists, and related information may be retrieved from our website: [www.PascoCountyFL.net](http://www.PascoCountyFL.net). Click on "Bids," click on "closed solicitations," and look for the solicitation number in the appropriate year. Solicitation results will normally be available online within three (3) working days after opening. Lengthy tabulations may not be available online, but may be viewed in the Purchasing Department. Plan holder lists will normally be available two (2) weeks prior to opening. Plan holder lists will be posted once, based on the information at the time, and will not be updated. Tabulations will not be given over the telephone or via fax.

#### TAXES

All bids shall be submitted exclusive of direct Federal, State, and local taxes; however, if the bidder believes certain taxes are properly payable, he/she may list such taxes separately in each case directly below the respective item bid price. Prices quoted must be in units specified, and shall not include the cost of any such taxes, including those on any material, supplies, or equipment used or installed in the work. Pasco County does not pay Federal Excise and Sales Taxes on direct purchases of tangible personal property. See Exemption Number on face of the resulting purchase order. This exemption does not apply to purchases of tangible personal property made by contractors who use the tangible personal property in the performance of contracts for improvement of County-owned real property. Please refer to Chapter 192, Florida Statutes.

#### UNSATISFACTORY WORK

If, at any time during the contract term, the service performed or work done by the contractor is considered by Pasco County to create a condition that threatens the health, safety, or welfare of the community, the contractor shall, on being notified by Pasco County, immediately correct such deficient service or work. In the event the contractor fails, after notice, to correct the deficient service or work immediately, Pasco County shall have the right to order the correction of the deficiency by separate contract or with its own resources at the expense of the contractor. Notwithstanding the above, Pasco County reserves the right to cancel a resulting contract, without cause, by giving thirty (30) days' prior written notice to the contractor of the intention to cancel.

### **END OF GENERAL PROVISIONS**

## SPECIAL PROVISIONS

In addition to the General Provisions of this solicitation, these Special Provisions, along with the specifications that follow, apply in like force to this solicitation and to any subsequent contract resulting therefrom.

### CONTRACT TERM

The contract period will begin on BCC approval and continue through September 30, 2010, under the same prices, terms, and conditions as in the original contract approved by the BCC, unless canceled in writing by Pasco County. All contracts are subject to the appropriation of funds by the BCC.

### INSURANCE REQUIREMENTS

The insurance required must be written by an insurer authorized to do business in the State of Florida and also have an "A" policyholder's rating and a financial rating of at least Class VIII in accordance with the most current *Best's Key Rating Guide*. Prior to the time the contractor is entitled to commence any part of the project, work, or services under this contract, the contractor shall procure, pay for, and maintain at least the following insurance coverages and limits. The said insurance shall be evidenced by delivery to Pasco County of 1) Certificates of Insurance executed by the insurers listing coverages and limits, expiration dates and terms of policies and all endorsements whether or not required by Pasco County, and listing all carriers issuing the said policies; and 2) upon request, a certified copy of each policy, including all endorsements. The insurance requirements shall remain in effect throughout the term of this contract.

1. Workers' Compensation in at least the limits as required by law; Employers' Liability Insurance of not less than One Hundred Thousand and 00/100 Dollars (\$100,000.00) for each accident. The contractor agrees to waive its right of subrogation as part of this coverage.
2. Comprehensive General Liability Insurance including, but not limited to, Independent, Contractor, Contractual, Premises/Operations, Products/Completed Operation and Personal Injury covering the liability assumed under indemnification provisions of this contract, with limits of liability for personal injury and/or bodily injury, including death, of not less than Two Million and 00/100 Dollars (\$2,000,000.00), each occurrence; and property damage of not less than One Million and 00/100 Dollars (\$1,000,000.00), each occurrence. (Combined single limits of not less than Two Million and 00/100 Dollars [\$2,000,000.00], each occurrence, will be acceptable unless otherwise stated.) Coverage shall be on an "occurrence" basis, and the policy shall include Broad Form Property Damage coverage and Fire Legal Liability of not less than Fifty Thousand and 00/100 Dollars (\$50,000.00) per occurrence, unless otherwise stated by exception herein.
3. Comprehensive Automobile and Truck liability covering owned, hired, and nonowned vehicles with combined single limits of not less than One Million and 00/100 Dollars (\$1,000,000.00), each occurrence. Coverage shall be on an "occurrence" basis, such insurance to include coverage for loading and unloading hazards.

Each insurance policy shall include the following conditions by endorsement to the policy:

1. Each policy shall require that thirty (30) days prior to expiration, cancellation, nonrenewal, or any material change in coverages or limits, a notice thereof shall be given to Pasco County by certified mail to: Pasco County Purchasing Department, 8919 Government Drive, New Port Richey, Florida 34654. The contractor shall also notify Pasco County, in a like manner, within twenty-four (24) hours after receipt, of any notices of expiration, cancellation, nonrenewal, or material change in coverage received by the said contractor from its insurer; and nothing contained herein shall absolve the contractor of this requirement to provide notice.
2. Companies issuing the insurance policy, or policies, shall have no recourse against Pasco County for payment of premiums or assessments for any deductibles that all are at the sole responsibility and risk of the contractor.
3. The term "County" or "Pasco County" shall include all Authorities, Boards, Bureaus, Commissions, Divisions, Departments, and Offices of County and individual members, employees thereof in their official capacities, and/or while acting on behalf of Pasco County.
4. Pasco County BCC shall be endorsed to the required policy or policies as an additional named insured.
5. The policy clause "Other Insurance" shall not apply to any insurance coverage currently held by Pasco County to any such future coverage, or to Pasco County's self-insured retentions of whatever nature.

Pasco County hereby waives subrogation rights for loss or damage against Pasco County.

#### PRICE ADJUSTMENTS BASED ON THE CONSUMER PRICE INDEX (CPI)

The contract unit prices shall remain firm for the first twelve (12) months of the contract. The unit prices for ensuing contract years shall be based on the movement of the unadjusted figures of the U.S. Department of Labor Consumer Price Index for All Urban Consumers (CPI-U). The contract unit prices will be changed by Pasco County, upon written request of the vendor, in an amount no more than the percentage of movement of the CPI-U (Table A) for "All Items" (unadjusted) for the twelve (12) month period ending in the month of June. The contract unit price(s) changed as a result of these adjustments shall become effective on each respective anniversary of the contract or October 1, if the anniversary falls in November or December, and shall be binding on the contractor for each of the subsequent contract periods.

#### REQUIREMENTS CONTRACT

During the period of the contract, the contractor shall provide all the services described in the contract. The contractor understands and agrees this is a requirements contract and Pasco County shall have no obligation to the contractor if no services are required. Any quantities that are included in the scope of work reflect the current expectations of Pasco County for the period of the contract. The amount is only an estimate and the contractor understands and agrees Pasco County is under no obligation to the contractor to buy any amount of the services as a result of having provided this estimate or of having any typical or measurable requirement in the past. The contractor further understands and agrees Pasco County may require services in an amount less than or in excess of the estimated annual contract amount, and the quantity

actually used, whether in excess of the estimate or less than the estimate, shall not give rise to any claim for compensation other than the total of the unit prices in the contract for the quantity actually used.

#### TRAFFIC CONTROL

The contractor shall conduct its operations in a manner that will not interrupt pedestrian or vehicle traffic except as approved by Pasco County. The work area shall be confined to the smallest area possible to allow maximum use of the street or sidewalk and to reduce any hazard to traffic or pedestrians to a minimum. At all times, the contractor shall use workers and traffic control signs and devices necessary to comply with all applicable Federal, State, and local laws, rules, and regulations. In addition to signs and devices, when the street is obstructed to any extent by contract operations, special workers equipped with flags shall be designated by the contractor to direct vehicle and pedestrian traffic. The workers so designated shall not be assigned to any other duties while engaged in directing traffic. All personnel, signs, barricades, and any other items or devices necessary for the maintenance of traffic and safety shall be provided by the contractor. No separate payment shall be made by Pasco County for this work. All cost of this work is included by the contractor as part of the contract price. The plan for traffic control shall be as directed by Pasco County. A Right-of-Way Use Permit shall be obtained from Pasco County prior to the commencement of any work in such a right-of-way.

#### TRANSPORTATION AND PACKING

Prices quoted shall be net, including transportation and delivery charges fully prepaid by the seller, f.o.b. site. No additional charges will be allowed for packing, packages, or partial delivery costs. By submitting their bids, all bidders certify and warrant that the price offered for f.o.b. destination includes only the actual freight rate costs at the lowest and best rate and is based upon actual weight of the goods to be shipped. Standard commercial packaging, packing, and shipping containers shall be used, except as otherwise specified herein.

#### VENDOR'S EQUIPMENT

Responding vendors must submit a list of owned equipment and major tools, and a list of current employees and respective skill level or discipline. Pasco County, at its sole discretion, reserves the right to award this work to vendors who are able to demonstrate current ownership and possession of the equipment, tools, and personnel deemed reasonably sufficient to perform the specified work at the lowest possible cost.

It is Pasco County's intent to award this work to a vendor at the lowest possible cost, while securing sufficient quality of services. Preference may be given to those vendors who own and possess the necessary tools, equipment, and services to minimize reimbursement costs associated with rentals and purchases from third parties.

### **END OF SPECIAL PROVISIONS**

# RESTORATION OF UNDERGROUND PIPE SPECIFICATIONS

## 1.0 PART 1 - GENERAL

### 1.1 Description:

Work includes the reconstruction of sanitary sewer lines by the insertion of a deformed/reformed polyethylene (PE) and/or a resin impregnated flexible felt tube inversion liner into the existing sewer line. The liner shall be inflated by injection steam, circulating hot water, or other approved method. The new material should extend over the length of the insertion as a continuous, tight-fitting, water-tight pipe-within-a-pipe. The product must meet the American Society for Testing and Materials (ASTM) standard specification and ASTM installation standard practice.

### 1.2 Reference Specifications:

For deformed/reformed PE and/or cured-in-place (CIPP) resin impregnated liners, the ASTM standard specifications and installation standard practice are made a part hereof by reference and shall be the latest edition and revision thereof.

#### Cured-In-Place Technology:

ASTM F-1216-03	Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube
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ASTM F-1743-96	Standard Practice for Rehabilitation of Existing Pipelines and Conduits by Pulled-in-Place Installation of Cured-in-Place Thermosetting Resin (CIPP) <sup>1</sup>
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#### Deformed/Reformed (HDPE) Technology

ASTM F-1533-94	Standard Specification for Deformed Polyethylene (PE) Liner. (Grade PE 3408 Material)
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#### Reference Material Classification:

ASTM D-3350-93	Standard Specification for Polyethylene Plastics and Fittings Materials
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ASTM F-1606-95	Practice for Rehabilitation of Existing Sewers and Conduits with Deformed P.E. Liner
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1.3 Product/Installer Prequalification:

- 1.3.1 The owner encourages competition on any and all pipeline reconstruction projects. However, the owner must assure that all pipeline reconstruction products installed in the owner's system are of good quality, the manufacturers of such products are reputable and financially sound, and the installers of such products are competent and experienced.
- 1.3.2 To assure the long-term service of the owner's sewer system, the owner must protect itself by limiting exposure to unproven products, weak manufacturers, and/or inexperienced installers, while encouraging the establishment and growth of quality new products and competent installers, when warranted. The owner has, therefore, established these standards for product quality, manufacturer soundness and integrity, and installer expertise and experience.
- 1.3.3 In order to be considered, without limitation or qualification, in a bid for pipeline reconstruction on the owner's system, any pipeline reconstruction product (the "product,") any manufacturer of such product (the "vendor,") and/or installer ("contractor") of such products (the "installer/contractor,") must be deemed by the owner as "commercially acceptable." To be "commercially acceptable" the product, the vendor, and the installer must demonstrate to the satisfaction of the owner, or owner's engineer, full compliance with all of the requirements ("requirements for commercial acceptability,") as shown below:

1.4 Requirements for Commercial Acceptability:

- 1.4.1 In order to be considered commercially acceptable, the product shall be commercial (trade) viable as defined: A material product used in trade between peoples, states, clients, and individuals, in such a state of commercial development as to make possible the continuance of its life not requiring changes; tested, confirmed and valid; the word "valid" necessarily possesses an element of legal strength and force, where inconsistent positions and changes have NO such force. Materials exhibiting constant change are commercially (trade) NONviable materials; new materials having validity, defined, consistent, and scientifically confirmed ARE viable and when traded become commercially (trade) viable products, (but NOT in reverse order, which would mean: fraud, deceit, misrepresentation, duress, etc.).
- 1.4.2 In order to be considered commercially acceptable, the product, vendor, and/or installer/contractor must each demonstrate to the owner's satisfaction compliance with each of the following applicable regulations and requirements:

For a product to be considered as a commercially acceptable product, the installer (contractor) must have had at least five (5) years active experience in the commercial installation of sanitary sewer pipe liner rehabilitation and must have installed a minimum of 400,000 linear feet or 1,600 line sections of successful wastewater collection system installation in the State of Florida. To assure commercial viability of the product, a minimum of 1,000,000 linear feet of wastewater collection system installation of the product in the USA must be documented. Such documentation must include each user's name, address, reference names at that user's location, telephone numbers, length and diameter of the product, contract value and acceptance, and project close-out date. In

addition, the product shall have been in place within the wastewater collection system of the owner (or some other city, town, or county) for a minimum of two (2) years.

1.4.2.1. Additional Requirements:

No product will be allowed to bid or be installed without submittal of test data (from university third party testing facilities) supporting the material property values and corrosion resistance. These tests shall be based on the following standards:

a. The materials tested shall be identical to those proposed for installation from samples of material in the final resting place after the trauma of installation and/or reforming of the product. Testing shall be in accordance with applicable ASTM standards. Laboratory samples will not be acceptable.

b. Independent Third Party Testing For 50-Year Design Life:

Any pipeline rehabilitation products which will be utilized as part of this project must produce independent third party 10,000-hour testing which substantiates the long-term performance and design of the proposed product/material. The testing must be performed by a qualified/recognized testing facility known for trenchless pipeline reconstruction research and development work. The third party testing facility must be located within the United States.

The product testing must be performed on the specific chemical formulation proposed for utilization on this project. Since numerous CIPP rehabilitation products can be formulated with various resins, a certified letter from a company official which identifies the 10,000-hour tested product as identical to that proposed for the project is required.

c. In conjunction with the data requested above, the vendor and/or installer will submit a life-cost benefit analysis.

1.4.2.2. The vendor shall submit all ASTM standards for installation and/or materials on its product. Foreign standards will not be acceptable.

1.4.2.3. The in-place product shall provide flow capacity equal to at least 100 percent of the existing pipe. The vendor shall provide at least one (1) in-ground flow test verified by an independent third party.

1.4.2.4. The vendor must submit an engineering design guide and quality control procedures for the product manufacturer and for product installation, including detailed inspection, testing of physical properties, retention of product samples, and taking of and testing of field samples.

1.4.2.5. The vendor shall submit statements as to the country of the manufacturer of all major components used to produce the final installed product.

- 1.4.2.6. The vendor and installer shall submit evidence of installer training, testing, and/or certification of being trained to install the product by the vendor.
- 1.4.2.7. The vendor shall provide detailed installation procedures and detailed procedures for reconstruction of existing laterals and for new service connections. This shall include an itemized list of the tasks to be performed and the estimated times for each task. The vendor shall include the estimated number of excavations, if any, required for each line segment to be installed.
- 1.4.2.8. The vendor shall submit detailed procedures for repairing its own product in the event of failure.
- 1.4.2.9. In order to determine commercial acceptability, in the event changes in the product (material) occurred within the past three (3) years, the contractor shall disclose in writing the date each change occurred, what change occurred, the reason for the change, the number of lineal feet installed within each change period, the last date since a change occurred, and the number of lineal feet installed since the last change. The owner reserves the right to require additional detailed information on the product (material) in the event changes have occurred.

1.4.3 Contractor's License:

To be acceptable, the installer (contractor) shall hold an active certified or Registered Underground Utilities Contractor License with the State of Florida Department of Professional Regulation Construction Industry Licensing Board. A copy of the Certified Underground Utilities Contractor License must be submitted with the bid.

1.5 Chemical Sealing (Grouting):

- 1.5.1 The intent of this section is to define the properties that a sealing material must have to perform effectively in the intended application and under expected field conditions. The intended application is remotely sealing sewer pipe joints with a sealing packer, remotely sealing sewer service reconnections, and remotely sealing manhole reconnections. The materials described herein also have application in the manual access sealing of sewer pipes.
- 1.5.2 Generic chemical sealing materials currently are listed with the basic properties, performance standards, and mix ratios which are known to give acceptable performance.
- 1.5.3 It is recognized that the new and improved chemical sealing materials will become available from time to time. Sources, manufacturers, and product names of chemical sealing materials will thus change from time to time; therefore, specific sources, manufacturers, and product names, other than specified, (See Section 1.6) are not given.

- 1.5.4 It should be understood that all of the generically classified chemical sealing materials can achieve the desired long-lasting results when used in the proper application and when properly applied. The knowledge and skill of the applicator have a greater effect on achieving the desired results than the specific sealing material applied.
- 1.5.5 In every case, mixing and handling of chemical sealing materials shall be in accordance with the manufacturer's recommendations.
- 1.6 General:
- All chemical sealing materials used in the performance of the work specified must have the following characteristics:
- 1.6.1 While being injected, the chemical sealant must be able to react/perform in the presence of water (groundwater).
- 1.6.2 The cured material must withstand submergence in water without degradation.
- 1.6.3 The resultant sealant (grout) formation must prevent the passage of water (infiltration) through the sewer pipe joints.
- 1.6.4 The sealant material, after curing, must be flexible as opposed to brittle.
- 1.7 Chemical Joint Sealing Materials:
- Chemical joint sealing materials used on this project shall be AV-118 Duriflex, an acrylic resin-sealing grout plus activators, initiators, and inhibitors recommended by the manufacturer, Avanti International, Houston, Texas, or equal.
- 1.8 Certification:
- 1.8.1 The PE liner shall be completely factory-manufactured, seamless, deformed under factory-controlled temperature conditions, coiled, and packaged. The pipe liner producer's certification, in accordance with ASTM specifications, shall be furnished with the liner coils. The contractor shall turn the pipe liner producer's certification over to the owner prior to installation.
- 1.8.2 For each inversion length designated in the contract documents, one (1) cured-in-place pipe (CIPP) sample shall be prepared from a section of the cured pipe at an intermediate manhole or at the termination point that has been inverted through a like diameter pipe held in place by a suitable heat sink, such as sandbags. The contractor shall provide the owner with certified test results for the samples tested.
- 2.0 PART 2 - MATERIAL
- 2.1 General Corrosion Requirements:
- The liner pipe shall be fabricated from materials which are chemically resistant to internal exposure to domestic sewage.

2.2 Physical Strength:

Refer to Section 1.02. ASTM F-1216 (CIPP) and ASTM F-1533 (Grade PE 3408 with reference to D 3350.)

2.3 Design Criteria:

2.3.1 The lining manufacturer shall submit to the engineer for approval, complete design calculations for the liner, signed and sealed by a professional engineer registered in the State of Florida and certified by the manufacturer as to the compliance of its materials to the values used in the calculations. It shall be assumed that a fully deteriorated gravity sewer pipeline having no structural strength is to be rehabilitated. The criteria for liner design shall provide for H-20 live traffic load, dead load dry soil weight of 120 pounds per cubic foot, the water table at the ground surface, the liner side support shall be considered as if provided by soil pressure against the liner, the existing pipe shall not be considered as providing any structural support, and the liner shall have a minimum expected lifetime of fifty (50) years. The liner shall be sized by the contractor to provide a tight fit to the host pipe. The manufactured liner material shall not exceed being more than the measured inside diameter of the existing host pipe and shall not exceed being less outside diameter than three (3) percent of the measured inside diameter of the existing host pipe. The liner shall be continuous, seamless, and jointless from manhole to manhole.

2.3.2 In no case shall the CIPP cured-in-place pipe liner finish wall thickness be less than 0.236 inches (six [6] mm) for pipe sizes eight (8) inches through twelve (12) inches in diameter.

2.3.3 In no case shall the deformed/reformed liner finish wall thickness be less than or 32.5 SDR for pipe sizes eight (8) inches through twelve (12) inches diameter.

2.3.4 The interior surface of the liner pipe shall be designed and manufactured to obtain a manning's coefficient of 0.009 or less.

2.3.5 No liner shall be accepted or installed until the design calculations have been approved by the engineer.

2.4 Sewer Liner Pipe:

2.4.1 Resin Impregnated Flexible Felt Tube Liner:

2.4.1.1. The resin impregnated felt tube liner shall be fabricated to a size that, when installed, will neatly fit the internal circumference of the conduit specified by the owner. Allowances shall be made for circumferential stretching during insertion.

2.4.1.2. The minimum length shall be that deemed necessary to effectively span the distance from the inlet to the outlet of the respective manholes unless otherwise specified. The installer shall verify the lengths in the field before impregnation. Individual inversion runs can be made over one (1) or more manhole sections, as determined in the field by the contractor and approved by the owner.

- 2.4.1.3. Unless otherwise specified, the contractor shall use a polyester resin and catalyst system and a fiber felt tube compatible with the inversion or other approved alternate installation process having the following minimum physical properties for the cured pipe:

Tensile Strength	ASTM D 638	3,000 psi
Flexural Stress	Modified ASTM D 790	4,500 psi
Flexural Modulus of Elasticity	Modified ASTM D 790	250,000 psi
Minimum Long-Term (50 Yr.)	Modulus of Elasticity (ASTM D 790)	150,000 psi

The polyester resin and fiber felt tubing system shall be in accordance with the requirements of ASTM F 1216 and be fabricated to a size that, when installed, will neatly fit the interior of the host pipe. Allowance shall be made for circumferential stretching during inversion and/or for longitudinal stretching during a direct (noninversion) pull in. The cured-in-place pipe (CIPP) product shall fit tightly to the host sewer pipe (with minimal shrinkage) in such a way as to minimize water migration (tracking) between the liner and the host pipe.

- 2.4.2 Deformed Polyethylene Liner: The liner pipe shall be manufactured from high density polyethylene pipe compound which conforms to ASTM F-1533 and meets the requirements for Type PE 3408, Cell Classification 345434-D.

### 3.0 PART 3 - EXECUTION

#### 3.1 Installation Procedures:

- 3.1.1 General: The following installation procedures shall be followed unless otherwise approved by the engineer:

- 3.1.1.1. Safety: The contractor shall carry out its operations in strict accordance with all Occupational Safety and Health Administration and manufacturer's safety requirements. Particular attention is drawn to those safety requirements involving entering confined spaces.

- 3.1.1.2. Prior to Installation of Liner:

- a. Cleaning of Sewer: Sewers shall be cleared of all debris, roots, and other materials that would hinder proper insertion of the liner.
- b. Television Inspection:
  - (1) The sewer to be lined will be television inspected by the contractor before and after completion of the liner and service connection. The video tape will be provided to the owner.

Obstructions that will prevent the insertion of, or otherwise damage the liner during installation, shall be removed by the contractor.

- (2) The lining shall not be performed until the sewer has been properly prepared. Additional cleaning shall be performed by the contractor, as necessary. The contractor shall include in its liner cost any grout or means needed to stop sand infiltration into the pipeline prior to installing liner.
- c. Bypassing Sewage: The contractor shall provide a sewage bypass for the section or sections of the sewer pipe to be repaired, if necessary. The bypass shall be made by plugging the existing upstream manhole and pumping the sewage into a downstream manhole or adjacent system. The pump and bypass lines shall be adequate to handle the flow.
- d. Sewer House Connections: The contractor shall be responsible for continuity of the sanitary sewer service to each facility connected to the main sewer during the execution of the work of this contract. If sewage backup occurs, the contractor shall be responsible for cleanup, repair, and property damage. Each service lateral shall be opened to 100 percent of the lateral diameter.

### 3.1.2 Deformed/Reformed Liner:

- 3.1.2.1. Reforming: After insertion is completed, the installer shall supply a suitable heat/pressure source. The equipment shall be capable of delivering steam or hot fluid/pressure throughout the section to uniformly raise the H.D.P.E. temperature of the mass at the temperature required to reform the liner.
- 3.1.2.2. The heat source shall be fitted with suitable monitors to gauge the temperature and pressure of the fluid injection.
- 3.1.2.3. The installer shall cool the liner before relieving the reforming pressure. Cool-down may be accomplished by the introduction of cool water and air or other approved method.
- 3.1.2.4. Finish: The finished liner shall be continuous over the entire length of the insertion and be as free as commercially practicable from visual defects, such as foreign inclusions. It shall also meet the pressure test specified below.

### 3.1.3 Resin Impregnated Felt Tube Liner:

- 3.1.3.1. The contractor shall designate a location where the felt tube liner will be vacuum impregnated prior to installation. The contractor shall allow the owner to inspect the materials and "wet out" procedure. A catalyst system compatible with the resin and felt tube liner shall be used.

- 3.1.3.2. The wet out resin impregnated felt tube liner shall be inserted through an existing manhole or other approved access by means of an inversion process and the application of a hydrostatic head sufficient to fully extend it to the next designated manhole or termination point. The resin impregnated felt tube liner shall be turned inside out and attached to the standpipe so that a leakproof seal is created. The inversion head will be adjusted to be of sufficient height to cause the resin impregnated felt tube liner to invert from manhole to manhole and hold the tube tight to the pipe wall, producing dimples at side connections and flared ends at the manholes. The use of a lubricant is recommended. Care shall be taken during the elevated curing temperature so as not to over-stress the felt fiber. (In certain cases, the contractor may elect to use a top inversion where the resin impregnated felt tube liner is attached to a top ring and the standpipe is formed from the resin impregnated felt tube liner itself.)
- 3.1.3.3. Curing: After inversion is completed, the contractor shall supply a suitable heat source and water recirculation equipment. The equipment shall be capable of delivering hot water throughout the section by means of a prestrung hose to uniformly raise the water temperature above the temperature required to effect a cure of the resin. This temperature shall be determined by the resin/catalyst system employed.
- 3.1.3.4. The heat source shall be fitted with suitable monitors to gauge the temperature of the incoming and outgoing water supply. Another such gauge shall be placed between the resin impregnated felt tube liner and the pipe invert at the remote manhole to determine the temperatures during cure. The water temperature in the line during the cure period shall be recommended by the resin manufacturer.
- 3.1.3.5. The initial cure shall be deemed to be complete when, upon inspection, the exposed portions of the liner appear to be hard and sound and the remote temperature sensor indicates that the temperature is 180°F or more. The cure period shall be of a duration recommended by the resin manufacturer, as modified for the resin impregnated felt tube liner process, during which time the recirculation of the water and cycling of the heat exchanger to maintain that the temperature continues.
- 3.1.3.6. Cool-Down: The contractor shall cool the hardened liner to a temperature below 100°F before relieving the static head in the inversion standpipe. Cool-down may be accomplished by the introduction of cool water into the inversion standpipe to replace water being drained from a small hole made in the downstream end. Care shall be taken in the release of the static head so that a vacuum will not be developed that could damage the newly installed liner.
- 3.1.3.7. Finish: The finished liner shall be continuous over the entire length of an inversion run and be as free as commercially practicable from visual defects such as foreign inclusions, dry spots, pinholes, and delamination. It shall also meet the leakage requirements or pressure test specified below.



### 3.2 Service Connections:

After the pipe liner installation, the contractor shall reconnect the existing service connections and maintain the service opening to at least 100 percent of original. Over-cutting the service opening exceeding one-quarter inch beyond the lip of the opening is unacceptable and will require repair by installing an approved lateral interface sealing system. Reconnection shall be made from the interior of the pipe by means of a television camera and a cutting device or other approved method. The contractor shall seal the service connection with a high-strength grout or other approved equal (See Section 1.6). Prior to starting work, the contractor shall determine if leaks at service laterals can be fixed from the pipe interior. If excavation at the service lateral within the right-of-way is required, the owner reserves the right to delete the sewer span between manholes from the contract at its discretion. If the service lateral is leaking upstream of the right-of-way line, the contractor shall notify the engineer.

### 3.3 Sealing Liner at Manholes:

3.3.1 Manhole reconnections shall be sealed with the use of equipment which shall consist of a standard packer device along with the necessary chemical sealant containers, pumps, controls, regulators, valves, hoses, etc. A controlled hole not less than one-half inch diameter and not more three-quarters inch diameter shall be drilled or punched in the invert of the mainline liner pipe. The controlled hole shall be installed not less than one (1) foot from the inside wall of the manhole. The standard packer device shall be properly positioned to straddle the controlled hole and the end elements inflated, thereby isolating a portion of the mainline pipe liner. The controlling unit for the standard packer device shall have provisions for accurately controlling the packer functions in addition to monitoring the inflatable pressure and the void pressure in the isolated area to be sealed.

3.3.2 All manhole reconnections shall be sealed by the use of the standard packer device. After the packer device has been properly positioned in the mainline, the connection shall be sealed by the injection of chemical sealant. The chemical sealant shall be injected through the packer device through the controlled hole and into the annular space between the liner pipe material and the mainline host pipe. The injection of the chemical sealant shall continue until the chemical fluid back pressure is sufficient to ensure the complete sealing of all the defects.

3.3.3 The contractor shall seal the liner at all manholes with high strength grout or other approved method (See Section 1.6).

### 3.4 Sewer Service Sealing and Inspection:

3.4.1 For sealing lateral connections and lines from the mainline, the ASTM standard specifications and installation standard practice are made a part hereof by reference and shall be the latest edition and revision thereof.

3.4.2 Lateral Connection Sealing Technology:

*ASTA F 2454 - 05: Standard Practice for Sealing Lateral Connections and lines from the mainline Sewer Systems by the Lateral Packer Method, Using Chemical Grouting*

3.4.3 The sewer service reconnections shall be sealed with the use of equipment which shall consist of a closed-circuit television system and a special sealing packer device along with the necessary chemical sealant containers, pumps, controls, regulators, valves, hoses, etc. The special lateral sealing packer with an inversion tube or bladder twenty-four (24) inches minimum total length to reach up into the service pipe shall be so constructed that it can straddle four (4) to six (6) inches diameter service connections in eight (8) inch or larger main sewer lines. When properly positioned and with the end elements inflated, a special inflatable sealing tube shall be extended up the service connection thereby isolating a portion of the service connection containing one (1) or more pipe joints for sealing. The controlling unit for the device shall have provisions for accurately controlling the packer functions in addition to monitoring the inflatable pressure and the void pressure in the isolated area to be sealed.

3.4.4 All sewer service reconnections shall be sealed by use of the special packer device. After the packer device has been properly positioned in the main line with the inflatable tube extended into the service connection, the connection shall be sealed by the injection of the chemical sealant. The chemical sealant shall be injected through the special packer device into the annular space between the inflatable tube and the service connection. The injection of the chemical sealant shall continue until the chemical fluid back pressure is sufficient to insure the complete sealing of all the defects along the length of the inflatable tube.

3.4.5 After the service connection has been successfully sealed, the following procedures shall be performed to ensure that the sealing operation did not block the service connection.

3.4.5.1. The inflatable tube shall be removed from the connection.

3.4.5.2. The packer and elements shall be deflated.

3.4.5.3. The special packer shall be moved forward and the closed circuit 360° camera shall be positioned in the center of the service connection and rotated to look up the service connection to ensure that the chemical sealant did not cause blockage.

3.4.6 If blockage is observed, the chemical sealant shall be removed to ensure the service connection is free-flowing.

3.4.7 The chemical sealant used shall be in accordance with the requirements set forth in the specifications or as approved.

3.5 Field Quality Control:

3.5.1 CIPP Lining Leak Test:

- 3.5.1.1. The contractor shall use hydrostatic pressure to test the CIPP liner. The CIPP shall be tested using an exfiltration test method where the CIPP is plugged at both ends and filled with water. This test shall take place after the CIPP has cooled to ambient temperature. During exfiltration testing, the maximum internal pipe pressure at the lowest end shall not exceed 4.3 psi, and the water inside of the inversion stand pipe shall be two (2) feet higher than the top of the pipe or two (2) feet higher than the groundwater level, whichever is greater.
- 3.5.1.2. The leakage quantity shall be gauged by the water level in a temporary standpipe placed in the upstream plug. The test shall be conducted for a minimum of one (1) hour. The allowable water exfiltration for any length of pipe between termination points shall not exceed fifty (50) gallons per inch of internal pipe diameter per mile per day.
- 3.5.2 Deformed/Reformed Lining Leak Test:
  - 3.5.2.1. The contractor shall use low-pressure air to test the reformed liner. The contractor shall plug and brace the ends of the liner and provide a means to introduce test air to the sealed liner. The liner shall be pressurized with air to 4.0 psi plus 0.5 psi for each foot the groundwater table is above the minimum invert elevation of the liner. The maximum test pressure shall not exceed nine (9) psi.
  - 3.5.2.2. The liner shall be accepted as water-tight where the pressure within the sealed liner remains constant for five (5) minutes after the air supply has been disconnected.
  - 3.5.2.3. The contractor shall exercise due caution when air testing. The plugs shall be adequately braced against the forces developed during testing. All test pressures shall be removed from the liner prior to removal of the test plugs. All personnel shall be isolated from the area under test while the liner is pressurized. The test pressure gauge shall have a maximum reading of ten (10) psi and proof of calibration shall be provided prior to testing.
- 3.5.3 Material Testing:

Sample coupons shall be machined from the wall of each lot of material. The testing for cell classification values will be completed by the owner.
- 3.6 Inspection:
  - 3.6.1 After the work is completed, the contractor shall video tape the lines, including the restored services to determine compliance with these specifications.
  - 3.6.2 The owner reserves the right to perform an inspection of the contractor's CIPP wet out manufacturing facilities to determine acceptance of the low bidder and/or product.

3.7 Disposal of Debris:

3.7.1 Sewage or solids shall not be dumped onto the ground surface, streets, or into ditches, catch basins, or storm drains.

3.7.2 Solids or semisolids containing wastewater shall be removed from the site by the contractor. Trucks hauling solids or semisolids from the site shall be watertight.

3.7.3 Disposal shall be at an owner-approved suitable site.

3.8 Patents:

The contractor shall warrant and hold harmless the owner against all claims for patent infringement and for any loss thereof.

**END OF SECTION**

# **LATERAL INTERFACE INSERT SEAL AND/OR REPAIR OF RELINED SANITARY SEWER MAIN SPECIFICATIONS**

## **1.0 GENERAL**

It is the intent of this portion of the specification to provide for the rehabilitation and reconnection of service lateral connections (SLC) to rehabilitated sewer lines, without excavation, by installation and curing of a resin-impregnated, flexible felt or fiberglass tube installed into the existing service lateral utilizing a pressure apparatus positioned in the mainline pipe. SLCs may be a combination of tees, wyes or break-in taps of varying sizes and angles from thirty (30) to ninety (90) degrees. The resin shall be cured to form the flexible tube into a hard, impermeable pipe-within-a-pipe. The SLC product shall extend from the mainline into the lateral connection as a continuous tight fitting, watertight pipe-within-a-pipe to eliminate any visible ground water leakage and future root growth at the lateral to the mainline connection. The SLC product system shall be compatible with the mainline and/or lateral pipe or liner. If the SLC product installed in the sewer system does not meet the terms of the original warranty period, the contractor shall repair or replace the affected portion(s) at no cost to the owner. It is understood that if the contractor fails to do such work as required, the contractor shall be responsible for the costs of repair or replacement.

## **2.0 MATERIAL REQUIREMENTS**

- 2.1 The finished SLC product shall be fabricated from materials which, when cured, are chemically resistant to domestic sewage over the expected lifetime of the rehabilitated pipe.
- 2.2 The SLC product shall be compatible with the lining system utilized for the main and/or lateral sewer lines.

## **3.0 SLC PRODUCT**

- 3.1 A flexible fiberglass or felt tube shall be fabricated to a size that when installed will neatly fit the internal circumference of the lateral. Allowance shall be made for circumferential stretching and angular alignment with the lateral pipe connection geometry during insertion.
- 3.2 The insert shall seal to the inside wall of the sewer main a minimum of three (3) inches around the lateral opening and to the lateral wall a minimum of six (6) inches up into the lateral pipe from the main.
- 3.3 Unless otherwise specified, the installer shall furnish a specially formulated polyester or vinyl ester resin and catalyst system compatible with the SLC process that provides cured physical strength at least to the same level as required for the lateral liner.

- 3.4 A secondary sealing component shall be used to form a sealing bond between the SLC product and the host lateral and main pipe walls.

#### 4.0 PHYSICAL PROPERTIES

The cured SLC shall conform to the minimum standards as listed below:

Flexible Modulus of Elasticity	ASTM D790	500,000 psi
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#### 5.0 LINE PREPARATION

- 5.1 Prior to installing the SLC product, the area around the lateral sealing surface in both the main and lateral shall be inspected. Waste product build-up, hard scale, roots, lateral cutting debris, or resin slugs must be removed using high-pressure water jetting or in-line cutters.
- 5.2 Break-in connections and/or lateral pipe protruding into the mains shall be ground back to no more than a one-eighth inch protrusion into the mainline.
- 5.3 Built-up deposits on the main and lateral pipe walls shall be removed. The removal shall reach at least one (1) foot beyond the SLC product to allow the bladder to inflate tightly against the pipe walls ensuring a smooth transition from the SLC product to the existing pipe wall.
- 5.4 In relined pipes, the lateral must be opened ninety-five (95) percent or more and the edges brushed smooth. Over-cuts shall not exceed one (1) inch beyond the internal diameter of the lateral.
- 5.5 The contractor shall be responsible, if needed, for bypassing of sewage during the installation of the SLC product. In cases where the temporary backup of sewage is accepted as a replacement for bypassing, the contractor is responsible for all damage caused by the backup.
- 5.6 The lateral seal installation contractor is not responsible for the overall cleaning of the main or lateral lines prior to seal installation unless specified elsewhere in the contract.

#### 6.0 SLC PRODUCT INSTALLATION

- 6.1 The resin impregnated SLC product shall be loaded on the applicator apparatus, attached to a robotic manipulator device, and positioned in the mainline pipe at the service connection that is to be rehabilitated. The robotic device, together with a television camera, will be used to align the SLC repair product with the service connection opening. Air pressure, supplied to the applicator through an air hose, shall be used to insert the resin impregnated SLC product into the lateral pipe. The inserted product will then be inspected using a CCTV camera to confirm the SLC product is correctly positioned and/or centered in the lateral opening. The insertion pressure will be adjusted to fully insert the SLC product into the lateral connection and hold the SLC product tight to the main and lateral pipe walls.

- 6.2 The pressure apparatus shall include a bladder of sufficient length in both the main and lateral lines such that the inflated bladder extends beyond the ends of both the lateral and main line segments of the SLC product. This presses the ends of the SLC product flat against the pipe wall interior to form a smooth transition to the existing pipe.
- 6.3 After insertion is completed, recommended pressure is maintained on the impregnated SLC product for the duration of the curing process. An ultraviolet (UV) light cured, heat cured, or ambient cured resin system is acceptable.
- 6.4 The finished SLC product shall be free of dry spots, lifts, and delamination. The installed SLC product should not inhibit the post installation video inspection, using a closed circuit television camera, of the mainline and service lateral pipes or future pipe cleaning operations.
- 6.5 After the work is completed, the contractor will provide the owner with an electronic picture record showing the completed work and the restored condition of the SLC.
- 6.6 During the warranty period, any defects with the SLC that affect the performance or cleaning of the lateral connection shall be repaired at the contractor's expense in a manner acceptable to the owner.

7.0 DEVIATIONS

- 7.1.1 Contracts that include both the relining of the main line and the installation of SLC seal product require that the main line relining contractor identify, document, and notify the owner, per Paragraph 7.2, which lateral connections are deemed unfit for the SLC product. Where the contract is only for installing the SLC product, the installation contractor shall inform the owner of service laterals which cannot be installed, per Paragraph 7.2.
- 7.2 Service laterals in which an SLC product cannot be installed will be identified, documented, and video recorded; the owner's representative will be informed of the conditions encountered. The contractor will not attempt to install an SLC product until directed by the owner's representative.

8.0 JOB SITE CONDITIONS

The contractor acknowledges that he has reviewed the job site conditions and the videotapes or pictures of the laterals to be rehabilitated using a lateral interface insert seal system. Any exceptions, qualifications, or clarifications that the contractor has should be included in a bid submittal cover letter.

**BID ITEMS H, I, J AND K**

**END OF SECTION**

# **SEWER SERVICE LATERAL RECONSTRUCTION STANDARD SPECIFICATION**

## **1.0 DESCRIPTION**

It is the intent of this specification to provide for the reconstruction of existing service lateral sanitary sewer lines, normally with minimal excavation, by forming a new pipe within an existing deteriorated pipe which has generally maintained its original shape. This will be accomplished by the installation of a resin-impregnated flexible felt tube inverted into the existing service lateral utilizing a pressure apparatus positioned at a cleanout, basement drain, or similar access point. Curing shall be accomplished ambiently by compressed air or by circulating hot water, which will cure the resin into a hard, impermeable cured-in-place-pipe (CIPP). When cured, the liner should extend over the length of the installation in a continuous, tight-fitting, structural, corrosion-resistant, and watertight CIPP pipe-within-a-pipe.

## **2.0 MATERIALS**

2.1 Resin: The resin used shall be a 100 percent solids epoxy and hardener system specifically designed for the cured-in-place-pipe (CIPP) being installed.

2.1.1 The resin shall be epoxy resin with the appropriate hardener. Pot life minimum shall be sixteen (16) minutes; pot life maximum shall be seventy-five (75) minutes.

2.1.2 The resin and liner system shall be ANSI/NSF 14 certified.

2.1.3 The resin shall contain no styrene or other chemicals that have extreme malicious odors.

2.2 Liner Materials: Lining materials for lateral pipe must provide the flexibility to line forty-five (45) to ninety (90) degree bends to produce a finished liner that has a smooth inside radius. The liner material shall be preapproved plain felt and knitted polyester liners with no reinforcement as part of the composite.

2.3 General Requirements of CIPP: The finished pipe must be such that when the thermosetting resin cures, the total wall thickness will be a homogeneous and monolithic felt and resin composite matrix that will be chemically resistant to withstand internal exposure to domestic sewerage.

2.3.1 The minimum length shall be that deemed necessary by the engineer to effectively span the distance of the pipeline sectional repair, as specified. The line length shall be verified in the field before impregnation of the tube with resin.

2.3.2 The outside of the tube, before installation, shall have an impermeable polymer coating. This coating will form the inner layer of the finished pipe and is required for enhancement of corrosion, flow, and abrasion properties.

2.3.3 Appropriate flexibility and suitability of the lateral liner tube shall be selected to match the configuration of the existing lateral service; i.e., bends and diameter transitions.



### 3.0 REFERENCE SPECIFICATIONS

- 3.1 Installation and material tests of cured-in-place-pipe (CIPP) must meet the minimum requirements demonstrated in the following ASTM standards:

ASTM F-1216	Standard Practice for the Installation of Cured-in-Place-Pipe by Inversion Lining
ASTM D-638	Test Method for Tensile Properties of Plastics Tensile Strength 3,000 psi
ASTM D-790	Test Method of Flexural Properties of Plastics Flexural Strength 4,500 psi Flexural Modulus 250,000 psi

- 3.2 National Association of Sewer Service Companies (NASSCO) and Wastewater Collection Systems Maintenance and Rehabilitation, 10<sup>th</sup> Edition

### 4.0 PIPE DESIGN

- 4.1 The liner pipe shall be designed to a minimum wall thickness based on the individual project parameters and the condition of the existing conduit. Prior to installation of the liner, the design calculations, per ASTM F1216-98, shall be submitted to determine the minimum thickness of the liner to be installed. The pipe design shall have sufficient strength to support all dead loads, live loads, and groundwater loads imposed. Regardless of the design thickness determined above, the following are suggested minimum thickness per diameters:

4" and 5"	Minimum Thickness - 3 mm
6" and 8"	Minimum Thickness - 4.5 mm

- 4.2 The contractor shall submit his price proposal based on the appropriate length, size, and existing pipe parameters designated in the bid item or bid proposal section. The deterioration of sewers is an ongoing process. Should preconstruction inspections reveal the sewers to be in substantially different conditions than those in the design considerations, the contractor shall request such changes in the reconstruction liner thickness, supporting such requests with design data. The deviation, if approved, shall be reflected by the appropriate addition or reduction in the unit cost for that size, as agreed to by the owner or engineer.

### 5.0 INSTALLATION RESPONSIBILITIES AND PROCEDURES

- 5.1 It shall be the responsibility of the owner to locate and designate all access points open and accessible for the work, and provide rights of access to these points. The owner shall also provide free access to water hydrants for cleaning, inversion, and other work items requiring water.
- 5.2 Cleaning: The sewers shall be cleaned of all debris, roots, and other materials that would inhibit proper inversion of the cured-in-place-pipe. Utilizing high-pressure jet

cleaning equipment, several passes are completed to assure all debris is removed from the pipe. If roots are present, root cutters or mechanical brushes are attached to the jet nozzle and are sent through the line to remove all root intrusions.

- 5.3 Television Inspection of Pipelines: Inspection of the pipelines shall be performed by experienced personnel trained in locating breaks and obstacles by closed circuit television (CCTV). The interior of the pipeline shall be carefully inspected to determine the location of any conditions that may prevent proper installation into the pipelines, and it shall be noted so that these conditions can be corrected. A videotape and suitable log shall be kept for later reference by the owner.
- 5.4 Resin Impregnation of CIPP Tube: The contractor shall designate a location where the tube shall be impregnated or "wet out" with resin, using calibration rollers and a vacuum pump to thoroughly saturate the tube's felt fiber prior to installation. The impregnated tube shall be free of pinholes, resin voids, and other defects after impregnation is completed.
- 5.5 Inversion of CIPP Tube: The wet-out liner tube shall be loaded inside a pressure apparatus above ground. Air pressure supplied to the pressure apparatus shall be used to invert the wet-out tube through the lateral pipe. The inversion head will be adjusted to be of sufficient pressure to cause the impregnated liner tube to invert completely in the lateral pipe. Care shall be taken during the curing process so as not to overstress the liner. If no access is available on one (1) end of the installation, a calibration hose will be similarly inverted into the liner tube in order to hold pressure and maintain a close fit during processing.
- 5.6 CIPP Processing (Curing): In most circumstances, an accelerated ambient-temperature curing resin system will be utilized; however, if a heat cure is required, the installer shall supply a suitable heat source and water recirculation equipment. The requirement shall be capable of delivering hot water or other approved heat source throughout the section by means of a prestrung hose to uniformly raise the water temperature above the temperature required to affect a cure of the resin. This temperature shall be determined by the resin/catalyst system employed.
  - 5.6.1 If a heat cure is required, the heat source shall be fitted with suitable monitors to gauge the temperature of the incoming and outgoing water supply. Water temperature in the line during the cure period shall be recommended by the resin manufacturer.
  - 5.6.2 The Initial cure shall be deemed to be completed when inspections of the exposed portions of the lateral liner appear to be hard and sound and the temperature gauge indicates that the temperature is of a magnitude to realize an exotherm. The cure period shall be of a duration recommended by the resin manufacturer.
  - 5.6.3 Cool-down: The installer shall cool the hardened liner to a temperature below 100°F before relieving the pressure in the pressure apparatus. Cool-down may be accomplished by the introduction of cool air into the pressure apparatus to replace water being forced out of the pressure apparatus. Care shall be taken to maintain proper pressure throughout the cure and cool-down period.

- 5.7 Finish: The finished CIPP shall be continuous over the entire length of an inversion length and be free of dry spots, lifts, and delamination. The lateral CIPP shall not inhibit the CCTV post video inspection of the mainline or service lateral pipes.
- 5.8 After the work is completed, the installer will provide the owner with a videotape or DVD showing the completed work including the restored conditions.

6.0 CLEANUP

Upon acceptance of the installation work, the installer shall reinstate the project area affected by his operations.

**Bid Items: X**

**END OF SPECIFICATIONS**

## BID FORM

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

- A. Total firm unit bid price for cleaning and televising sanitary collection system in complete accordance with the specifications.

Item No.	Description	Unit	Light	Unit Price Medium	Heavy
A1.	Clean 6" Pipe	Per L.F.	\$_____	\$_____	\$_____
A2.	Clean 8" Pipe	Per L.F.	\$_____	\$_____	\$_____
A3.	Clean 10" Pipe	Per L.F.	\$_____	\$_____	\$_____
A4.	Clean 12" Pipe	Per L.F.	\$_____	\$_____	\$_____
A5.	Clean 15" Pipe	Per L.F.	\$_____	\$_____	\$_____
A6.	Clean 18" Pipe	Per L.F.	\$_____	\$_____	\$_____
A7.	Set Up Charge	Per L.F.	R.O.W. \$_____	Unit Price Easement \$_____	
Item No.	Description	Unit	Light	Unit Price Medium	Heavy
A8.	De-Scale 6" DIP	Per L.F.	\$_____	\$_____	\$_____
A9.	De-Scale 8" DIP	Per L.F.	\$_____	\$_____	\$_____
A10.	De-Scale 10" DIP	Per L.F.	\$_____	\$_____	\$_____
A11.	De-Scale 12" DIP	Per L.F.	\$_____	\$_____	\$_____
A12.	De-Scale 15" DIP	Per L.F.	\$_____	\$_____	\$_____
A13.	De-Scale 18" DIP	Per L.F.	\$_____	\$_____	\$_____
A14.	Set Up Charge	Per L.F.	R.O.W. \$_____	Unit Price Easement \$_____	

Item No.	Description	Unit	R.O.W.	Unit Price Easement	
A15.	Service Tap Removal in 6"-8" Pipe	Per Service	\$ _____	\$ _____	
A16.	Service Tap Removal in 10"-12"Pipe	Per Service	\$ _____	\$ _____	
A17.	Service Tap Removal in 15"-18"Pipe	Per Service	\$ _____	\$ _____	
A18.	Set Up Charge	Each	R.O.W. \$ _____	Unit Price Easement \$ _____	
Item No.	Description	Unit	Unit Price		
A19.	Root Cutting in 6"-8" Pipe	Per L.F.	\$ _____		
A20.	Root Cutting in 10"-12" Pipe	Per L.F.	\$ _____		
A21.	Root Cutting in 15"-18" Pipe	Per L.F.	\$ _____		
A22.	Set Up Charge	Each	R.O.W. \$ _____	Unit Price Easement \$ _____	
Item No.	Description	Unit	Unit Price		
A23.	Televis 6" Pipe	Per L.F.	\$ _____		
A24.	Televis 8" Pipe	Per L.F.	\$ _____		
A25.	Televis 10" Pipe	Per L.F.	\$ _____		
A26.	Televis 12" Pipe	Per L.F.	\$ _____		
A27.	Televis 15" Pipe	Per L.F.	\$ _____		
A28.	Televis 18" Pipe	Per L.F.	\$ _____		

B. Pricing for sanitary sewer pipe joint testing and grout sealing per the specifications.

Item No.	Description	Unit	R.O.W.	Unit Price Easement
B1.	Testing Service Line	Each	\$_____	\$_____
B2.	Testing 6" Pipe	Per Joint	\$_____	\$_____
B3.	Testing 8" Pipe	Per Joint	\$_____	\$_____
B4.	Testing 10" Pipe	Per Joint	\$_____	\$_____
B5.	Testing 12" Pipe	Per Joint	\$_____	\$_____
B6.	Testing 15" Pipe	Per Joint	\$_____	\$_____
B7.	Testing 18" Pipe	Per Joint	\$_____	\$_____
B8.	Set Up Charge for B1 Thru B7 and Includes B11 Thru B16	Each	R.O.W. \$_____	Unit Price Easement \$_____
Item No.	Description	Unit	Acrylic Grout Unit Price	
B9.	Seal Service Line in Right-of-Way	Per Joint	\$ _____	
B10.	Seal Service Line in Easement	Per Joint	\$ _____	
B11.	Seal 6" Pipe	Per Joint	\$ _____	
B12.	Seal 8" Pipe	Per Joint	\$ _____	
B13.	Seal 10" Pipe	Per Joint	\$ _____	
B14.	Seal 12" Pipe	Per Joint	\$ _____	
B15.	Seal 15" Pipe	Per Joint	\$ _____	
B16.	Seal 18" Pipe	Per Joint	\$ _____	

- C. Bids for annual contract to provide sanitary sewer line rehabilitation by installation of CIPP-Lining for an estimated minimum of 2,000 linear feet per year:

The purchase and installation of CIPP-Lining:

Item No.	Description	Unit
C1.	8" Pipe for Jobs Sizes from 1-Foot to 1,000 Feet.	\$_____
C2.	8" Pipe for Jobs Sizes from 1,001 Feet or More.	\$_____
C3.	10" Pipe for Job Sizes from 1-Foot to 1,000 Feet.	\$_____
C4.	10" Pipe for Job Sizes from 1,001 Feet or More.	\$_____
C5.	12" Pipe for Job Sizes from 1-Foot to 1,000 Feet.	\$_____
C6.	12" Pipe for Job Sizes from 1,001 Feet or More.	\$_____
C7.	18" Pipe for Job Sizes from 1-Foot to 1,000 Feet.	\$_____
C8.	18" Pipe for Job Sizes from 1,001 Feet or More.	\$_____

- D. Bids for annual contract to provide sanitary sewer line rehabilitation by installation of (PE) Deformed Polyethylene Liner for an estimated minimum of 2,000 linear feet per year.

The purchase and installation of (PE) Deformed Polyethylene Liner:

Item No.	Description	Unit
D1.	8" Pipe for Jobs Sizes from 1-Foot to 1,000 Feet.	\$_____
D2.	8" Pipe for Jobs Sizes from 1,001 Feet or More.	\$_____
D3.	10" Pipe for Job Sizes from 1-Foot to 1,000 Feet.	\$_____
D4.	10" Pipe for Job Sizes from 1,001 Feet or More.	\$_____
D5.	12" Pipe for Job Sizes from 1-Foot to 1,000 Feet.	\$_____
D6.	12" Pipe for Job Sizes from 1,001 Feet or More.	\$_____
D7.	18" Pipe for Job Sizes from 1-Foot to 1,000 Feet.	\$_____
D8.	18" Pipe for Job Sizes from 1,001 Feet or More.	\$_____

- E. Bids for annual contract to provide sanitary sewer line rehabilitation by installation of RICIP-point repair lining and service lateral lining for an estimated minimum of 2,000 linear feet per year.

The purchase and installation of RICIP-Point Repair:

<b>Item No.</b>	<b>Description</b>	<b>Unit Price Each</b>
E1.	RICIP-Point Repair 5 Feet Long (1 Standard Leg or Sleeve) for 6" Size.	\$_____
E2.	RICIP-Point Repair 5 Feet Long (1 Standard Leg or Sleeve) for 8" Size.	\$_____
E3.	RICIP-Point Repair 5 Feet Long (1 Standard Leg or Sleeve) for 10" Size.	\$_____
E4.	RICIP-Point Repair 5 Feet Long (1 Standard Leg or Sleeve) for 12" Size.	\$_____
E5.	RICIP-Point Repair 5 Feet Long (1 Standard Leg or Sleeve) for 18" Size.	\$_____
E6.	RICIP-Point Repair 5 Feet Long (1 Standard Leg or Sleeve) for 24" Size.	\$_____
<b>Item No.</b>	<b>Description</b>	<b>Unit Price Per Foot</b>
E7.	Pricing for Each Additional Foot of RICIP-Point Repair in Excess of 5 Feet Long (1 Standard Leg or Sleeve) for 6" Size.	\$_____
E8.	Pricing for Each Additional Foot of RICIP-Point Repair in Excess of 5 Feet Long (1 Standard Leg or Sleeve) for 8" Size.	\$_____
E9.	Pricing for Each Additional Foot of RICIP-Point Repair in Excess of 5 Feet Long (1 Standard Leg or Sleeve) for 10" Size.	\$_____
E10.	Pricing for Each Additional Foot of RICIP-Point Repair in Excess of 5 Feet Long (1 Standard Leg or Sleeve) for 12" Size.	\$_____
E11.	Pricing for Each Additional Foot of RICIP-Point Repair in Excess of 5 Feet Long (1 Standard Leg or Sleeve) for 18" Size.	\$_____



- F. Bids for the annual contract to provide sanitary sewer line rehabilitation by installation of robotic protrusion removal for an estimated minimum of 2,000 linear feet per year.

Item No.	Description	Unit Price Per Foot
F7.	Lateral Protrusion Removal by Robotic Cutter for 6" Pipe.	\$ _____
F8.	Lateral Protrusion Removal by Robotic Cutter for 8" Pipe.	\$ _____

Manufacturer: \_\_\_\_\_

Warranty: \_\_\_\_\_

Model: \_\_\_\_\_

Delivery: \_\_\_\_\_ Calendar Days After Receipt of Order

## LATERAL INTERFACE INSERT SEAL AND/OR REPAIR OF RELINED SANITARY SEWER MAIN

### Lateral Interface Insert Seal - Cleaning

<u>Item #</u>	<u>Description</u>	<u>Unit</u>	<u>Light</u>	<u>Medium</u>	<u>Heavy</u>
H1.	Clean 6" Main and Lateral Pipe	Per Lat.	_____	_____	_____
H2.	Clean 8" Main and Lateral Pipe	Per Lat.	_____	_____	_____
H3.	Clean 10" Main and Lateral Pipe	Per Lat.	_____	_____	_____
H4.	Clean 12" Main and Lateral Pipe	Per Lat.	_____	_____	_____
H5.	Clean 15" Main and Lateral Pipe	Per Lat.	_____	_____	_____
H6.	Clean 18" Main and Lateral Pipe	Per Lat.	_____	_____	_____

### Lateral Interface Insert Seal - Preparation

Lateral connection preparation including opening, rounding, or removing sharp or pointed cutout edges in a relined or break-in lateral opening.

<u>Item #</u>	<u>Description</u>	<u>Quantity</u>	<u>Unit</u>	<u>Amount</u>	<u>Total</u>
I1.	6" Main and Lateral Pipe	_____	Per Lat.	_____	_____
I2.	8" Main and Lateral Pipe	_____	Per Lat.	_____	_____
I3.	10" Main and Lateral Pipe	_____	Per Lat.	_____	_____
I4.	12" Main and Lateral Pipe	_____	Per Lat.	_____	_____
I5.	15" Main and Lateral Pipe	_____	Per Lat.	_____	_____
I6.	18" Main and Lateral Pipe	_____	Per Lat.	_____	_____

**Lateral Interface Insert Seal - Removal of Protruding Lateral Pipe Material**

Removal of protruding lateral pipe tap materials down to within one-eighth inch of the mainline sewer wall. Materials that could be required to be removed are clay or plastic, concrete and steel, or cast iron existing lateral material.

<u>Item #</u>	<u>Description</u>	<u>Unit</u>	<u>Clay/Plastic</u>	<u>Concrete</u>	<u>Metal</u>
J1.	6" Main and Lateral Pipe	Per Lat.	_____	_____	_____
J2.	8" Main and Lateral Pipe	Per Lat.	_____	_____	_____
J3.	10" Main and Lateral Pipe	Per Lat.	_____	_____	_____
J4.	12" Main and Lateral Pipe	Per Lat.	_____	_____	_____
J5.	15" Main and Lateral Pipe	Per Lat.	_____	_____	_____
J6.	18" Main and Lateral Pipe	Per Lat.	_____	_____	_____

**Install Lateral Interface Seal System Complete**

<u>Item #</u>	<u>Description</u>	<u>Quantity</u>	<u>Unit</u>	<u>Amount</u>	<u>Total</u>
K1.	6" Main and 4" Lateral Pipe	_____	Per Lat.	_____	_____
K2.	8" Main and 4" Lateral Pipe	_____	Per Lat.	_____	_____
K3.	8" Main and 6" Lateral Pipe	_____	Per Lat.	_____	_____
K4.	10" Main and 4" Lateral Pipe	_____	Per Lat.	_____	_____
K5.	10" Main and 6" Lateral Pipe	_____	Per Lat.	_____	_____
K6.	12" Main and 4" Lateral Pipe	_____	Per Lat.	_____	_____
K7.	12" Main and 6" Lateral Pipe	_____	Per Lat.	_____	_____
K8.	15" Main and 4" Lateral Pipe	_____	Per Lat.	_____	_____
K9.	15" Main and 6" Lateral Pipe	_____	Per Lat.	_____	_____
K10.	18" Main and 4" Lateral Pipe	_____	Per Lat.	_____	_____
K11.	18" Main and 6" Lateral Pipe	_____	Per Lat.	_____	_____

## SEWER SERVICE LATERAL RECONSTRUCTION

Item No.	Description	Quantity	Unit	Unit Price	Total
X1.	Install Lateral Liner in 8" to 18" Mains with 4" Laterals (Includes 25' of Lateral)	_____	L.F.	_____	_____
X2.	Install Lateral Liner in 8" to 18" Mains with 6" Laterals (Includes 25' of Lateral)	_____	L.F.	_____	_____
X3.	Install Lateral Liner in 8" to 18" Mains with 4" Laterals (Per Linear Foot beyond 25' of Lateral)	_____	L.F.	_____	_____
X4.	Install Lateral Liner in 8" to 18" Mains with 6" Laterals (Per Linear Foot Beyond 25' of Lateral)	_____	L.F.	_____	_____

"We offer to sell/provide Pasco County, Florida, the above item(s) and/or service(s) at the price(s) stated, in accordance with the terms and conditions contained herein. In addition, the item(s) and/or service(s) offered above meet all specifications contained herein or attached, unless otherwise stipulated by exception. This offer to sell/provide is firm for ninety (90) days."

\_\_\_\_\_  
(Signature of Bidder—Ink)

\_\_\_\_\_  
(Printed Name and Title)

\_\_\_\_\_  
(Business Name)

Receipt of Addendum No. \_\_\_\_\_ through No. \_\_\_\_\_ is acknowledged.

Business Name: \_\_\_\_\_  
(The Name on File with the Internal Revenue Service)

Doing Business as (Fictitious Name): \_\_\_\_\_

Business Organization:

☐ Corporation:

☐ Partnership:      ☐ General      ☐ Limited

☐ Limited Liability Company (LLC):

State Registered In: \_\_\_\_\_ Year: \_\_\_\_\_

☐ Sole Proprietorship:      Owner: \_\_\_\_\_

☐ Other: \_\_\_\_\_

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

Facsimile: \_\_\_\_\_

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

\_\_\_\_\_

\_\_\_\_\_

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