



# CONTRACT DOCUMENTS

## FOR

### **SS-19-01-A**

### **2019 PIPE BURSTING PROJECTS**

**Issue Date:** April 29, 2019

**Due Date:** Wednesday, May 15, 2019



EXPIRATION DATE: 6/30/2020

**Public Works Engineering and Community Development Director ..... Jeff Blaine, P.E.**  
**City Engineer ..... Staci Belcastro, P.E.**  
**Project Manager ..... Lori Schumacher, P.E.**

**For more information on this project,  
contact Lori Schumacher, 541-917-7653.**

CITY OF ALBANY

SS-19-01-A, 2019 Pipe Bursting Projects

TABLE OF CONTENTS

TABLE OF CONTENTS.....1

BIDDER’S SUBMITTAL CHECKLIST.....2

INVITATION TO BID.....3

PROPOSAL.....4

SCHEDULE OF CONTRACT PRICES .....6

BID BOND .....8

EMPLOYEE DRUG TESTING PROGRAM CERTIFICATION .....9

FIRST-TIER SUBCONTRACTOR DISCLOSURE.....10

SAMPLE CONTRACT.....11

PERFORMANCE BOND.....13

PAYMENT BOND .....15

SPECIAL PROVISIONS.....17

    SECTION I: GENERAL REQUIREMENTS AND TECHNICAL SPECIFICATIONS.....17

    SECTION II: STATE AND FEDERAL CONTRACTING LAW.....23

    SECTION III: TECHNICAL SPECIFICATIONS – BID ITEMS.....27

LIST OF APPENDICES .....32

APPENDIX A - PIPE BURSTING TECHNICAL SPECIFICATIONS..... A-1

    STATEMENT OF EXPERIENCE REQUIREMENTS FOR PIPE BURSTING..... A-8

    APPENDIX B - PRIVATE SEWER LATERAL PIPE BURSTING TECHNICAL SPECIFICATIONS .....B-1

CONSTRUCTION DRAWINGS (sized 11” x 17” - *attached as separate file*)

## BIDDER'S SUBMITTAL CHECKLIST

Bids must be submitted by the time designated and the address listed in the advertisement for the Invitation to Bid at the City Hall Parks and Recreation Department/Information counter and marked received by City staff indicating the time and date as shown on the City Bid Clock in the Parks Department. Any bid submitted after the designated closing time or to any other location will be determined nonresponsive and will not be opened. It is the responsibility of the Bidder to deliver the bid by the indicated deadline to the designated location.

If the Bidder submits a proposal via a delivery service (FedEx, UPS, USPS, etc.), the required sealed envelope must be enclosed in the delivery service packaging and the Project Title of the bid should be written on the outside delivery service packaging. The City is not responsible for late or mishandled delivery, regardless of the method of delivery.

Bids should be delivered to and stamped received by the Parks & Recreation Department Counter staff at City Hall to be considered Responsive. Bidder is solely responsible for the bid to be delivered to the correct location by the correct time.

If contractor obtains these documents by means of a website or copied from a Plan Center, it is the responsibility of the contractor to check for any addendums to this contract prior to bid opening. **To be notified of addendums, contractor may call 541-917-7676 and request to be added to the plan holders list.**

Failure to include any signed Addendums could result in the disqualification of your bid.

All bids must be submitted on City-provided forms that do not contain unauthorized alterations.

All bids shall include the following submittals or may be considered non-responsive:

- Signed Proposal (*two pages*) - *with all applicable blanks completed*
- Completed Schedule of Contract Prices - *signed by an authorized representative of the company who can "execute bids"*
- Bid Bond – *using City-provided Bid Bond form with no alterations*
- Employee Drug Testing Certification form
- Signed Addenda (*if Addenda have been issued*)
- Completed Statement of Experience Requirement for Pipe Bursting (Appendix A)

***Submitted within two hours after bid closing time (required under ORS 279C.370):***

- First-Tier Subcontractor Disclosure form – signed and if “none” indicate as such

***Other than what is listed above, it is not necessary to submit any additional pages with the bid.***



NOTICE TO CONTRACTORS  
CITY OF ALBANY  
INVITATION TO BID

Category of Bid: Construction  
Engineer's Estimate: \$1,210,000  
Bids due at 2:00 p.m., Wednesday, May 15, 2019

The City of Albany hereby extends an invitation to submit bids for:

**SS-19-01-A, 2019 Pipe Bursting Projects:** This project includes pipe bursting approximately 140 feet of 6-inch sewer main and approximately 5,600 feet of 8-inch sewer main with new HDPE pipe; open trenching approximately 165 feet of 6-inch sewer main; replacement of private sewer services; and related appurtenances.

Bids submitted shall be filed in sealed envelopes and received at the City of Albany Parks & Recreation counter, not later than 2:00 p.m., Wednesday, May 15, 2019, addressed to the attention of Diane Murzynski, Purchasing Coordinator, at Albany City Hall, Finance Department, 333 Broadalbin Street SW, Albany, OR 97321. The outside of the envelopes shall plainly identify: (1) the Project name, (2) the Bid Opening time and date, (3) the Bidder's name, and (4) the Contractor's license number (per ORS 701). Immediately following the filing deadline, the bids shall be opened and publicly read in the Calapooia Room of City Hall. Bid totals will be posted on the City's website at <http://www.cityofalbany.net/departments/finance/city-purchasing/bids-rfps-rfqs>.

Contract bid documents may be examined at the Office of the Public Works Director, City Hall, 333 Broadalbin Street SW, Albany, Oregon, 541-917-7676; downloaded from the City of Albany website at <http://www.cityofalbany.net/departments/finance/city-purchasing/bids-rfps-rfqs>; or a printed set may be purchased for \$35. It is imperative those who download the contract bid documents check the website regularly for addenda, clarifications, and other pertinent notifications. All who are known by the City of Albany to have received a complete set of the contract bid documents will receive notification when additional items are posted. Please call 541-917-7676 to be added to the Plan Holder's list.

Each bidder must have access to a current set of City of Albany *Standard Construction Specifications*, which can be found on the City's website at <http://www.cityofalbany.net/departments/public-works/engineering/standard-construction-specifications> or a printed set may be purchased for \$100. All public improvements are required to conform to these specifications and bid prices shall reflect these specifications. For project information, call Lori Schumacher at 541-917-7653.

All City contracts contain a statement declaring that the bidder agrees to comply with the provisions of ORS 279C.800 through 279C.870 regarding payment of prevailing wages. The City's contract contains a clause which incorporates by reference all of the provisions of ORS Chapter 279C which are applicable to public contracts. Bidders are expected to be familiar with these provisions including, but not limited to, recent changes to ORS Chapter 279C.

**No bid shall be received or considered unless the bidder is licensed by the Construction Contractors Board for construction projects or licensed with the State Landscape Contractors Board for landscaping projects.**

A 10% bid bond, certified check, or cashier's check shall accompany each bid on all projects and shall be forfeited if the bidder fails to enter into a contract with the City of Albany within ten (10) days after the date of the Notice of Award.

DATED this 29th day of April 2019.

Diane M. Murzynski, CPPO, CPPB  
Purchasing Coordinator

PUBLISH: Daily Journal of Commerce on Monday, April 29, 2019  
Albany Democrat-Herald on Monday, April 29, 2019

## PROPOSAL

To the Honorable Mayor and City Council  
Albany, Oregon 97321

### BIDDER'S DECLARATION AND UNDERSTANDING

The undersigned Bidder declares that the Contract Documents for the construction of the proposed improvement have been carefully examined; that the site has been personally inspected; that the Bidder is satisfied as to the quantities of materials, items of equipment and conditions or work involved including the fact that the description of the quantities of work and materials as included herein is brief and is intended only to indicate the general nature of such items and to identify the said quantities with the detailed requirements of the Contract Documents; and that the Bidder's proposal is made according to the provisions and under the terms of the Contract Documents, which documents are hereby made a part of this proposal.

The Bidder further declares that the only persons or parties interested in this proposal are those named herein; that this proposal is in all respects fair and without fraud; that it is made without collusion with any official of the City of Albany, and that the proposal is made without any connection or collusion with any person making another proposal on this Contract.

The Bidder further declares by the signing of this proposal that all the provisions required by ORS 279C.800 through 279C.870 relating to the payment of prevailing wage rates for work performed under the Contract with the City of Albany shall be complied with.

The Bidder further agrees that its own judgment has been exercised regarding the interpretation of subsurface information and all data which it believes pertinent from the Engineer, Owner, and other sources in arriving at these conclusions have been utilized.

### CONTRACT EXECUTION, BONDS, AND INSURANCE

The Bidder agrees that if this proposal is accepted:

- A Contract with the City of Albany, Oregon, will be executed, within ten (10) days after the date of the Notice of Award, in the form of Contract annexed hereto, and will at that time, deliver to the City of Albany the 100% Performance Bond and 100% Payment Bond, and will, to the extent of this proposal, furnish all machinery, tools, apparatus and other means of construction and do the work and furnish all the materials necessary to complete all work as specified or shown in the Contract Documents.
- A Request for Taxpayer Identification Number and Certification (W-9 Form) will be completed as a condition of the City's obligation to make payment. In the event the Bidder shall fail to complete and return the W-9 Form to the City, payment to Bidder may be delayed, or the City may, in its discretion, terminate the Contract.
- ACH Direct Payment Authorization. The City prefers to pay Contractor invoices via electronic funds transfers through the Automated Clearing House (ACH) network. To initiate this more timely, efficient, and secure payment method, Contractors must complete the City's ACH Vendor Direct Payment Authorization Form. These forms are available on the City website at [https://www.cityofalbany.net/images/stories/finance/eft\\_form.pdf](https://www.cityofalbany.net/images/stories/finance/eft_form.pdf). Information provided on the form is exempt from public records disclosure under ORS 192.501(27).
- Certificates of Insurance. The Bidder agrees to furnish the Owner, before commencing the work under this Contract, the certificates of insurance as specified in the *Standard Construction Specifications*.

### START OF CONSTRUCTION AND CONTRACT COMPLETION DATE

If awarded this contract, the Bidder agrees to begin work within 10 calendar days after the date of the Notice to Proceed for the contract and to complete the construction, in all respects, as set forth in the Special Provisions of these Contract Documents.

### LIQUIDATED DAMAGES

In the event the Bidder is awarded the Contract and shall fail to complete the work within the time stated above or extended time agreed upon, as more particularly set forth in the Contract Documents, liquidated damages shall be paid to the City of Albany, Oregon, as provided under General Requirements, Subsection 108.06.00 of the City of Albany *Standard Construction Specifications*.

**BID BOND**

Accompanying this proposal is a certified check, cashier's check or Bidder's bond in the sum of (10% of Bid Total) \_\_\_\_\_ Dollars (\$ \_\_\_\_\_), according to the General Requirements of the Contract Documents which is to be forfeited as liquidated damages, if, in the event that this proposal is accepted, and the Bidder shall fail to execute the Contract and furnish satisfactory Performance and Payment Bond under the conditions and within the time specified in the Contract Documents; otherwise said check or bond is to be returned to the Bidder.

**SURETY**

If the Bidder is awarded a construction Contract on this proposal, the Surety who provides the Performance Bond will be \_\_\_\_\_ whose address is (street and city) \_\_\_\_\_ and Payment Bond will be \_\_\_\_\_ whose address is (street and city) \_\_\_\_\_.

**LUMP SUM OR UNIT PRICE WORK**

The Bidder further proposes to accept as full payment for the work proposed herein the amounts computed under the provisions of the Contract Documents and based on the following lump sum or unit price amounts, it being expressly understood that the unit prices are independent of the exact quantities involved. The Bidder agrees that the lump sum prices and the unit prices represent a true measure of the labor and materials required to perform the work, including all allowances for overhead and profit for each type and unit of work called for in these Contract Documents.

**BIDDER**

The name of the Bidder submitting this proposal is \_\_\_\_\_ doing business at (street and city) \_\_\_\_\_, which is the address to which all communications concerned with this proposal and with the Contract shall be sent.

In accordance with ORS 279A.120, Bidder hereby declares that it (circle correct designation) is / is not a resident Bidder. The names of the principal officers of the corporation submitting this proposal, or of the partnership, or of all persons interested in this proposal as principals are as follows:

\_\_\_\_\_  
\_\_\_\_\_  
*If Sole Proprietor or Partnership:* IN WITNESS hereto the undersigned has set his/her hand this \_\_\_\_\_ day of \_\_\_\_\_ 2019.

\_\_\_\_\_  
Signature of Bidder Title

*If Corporation:* IN WITNESS WHEREOF, the undersigned corporation has duly authorized the execution of this agreement on behalf of the corporation by the officer named below this \_\_\_\_\_ day of \_\_\_\_\_ 2019.

\_\_\_\_\_  
*name of corporation*  
By: \_\_\_\_\_  
Name: \_\_\_\_\_  
*(please print name)*  
Title: \_\_\_\_\_

**SCHEDULE OF CONTRACT PRICES**

<b>ITEM NO.</b>	<b>BID ITEMS</b>	<b>APPROX. QUANTITY</b>	<b>UNIT OF MEASURE</b>	<b>UNIT PRICE DOLLARS/CTS</b>	<b>TOTAL AMT. DOLLARS/CTS</b>
1	Mobilization	1	Lump Sum		
2	Temporary Traffic Control	1	Lump Sum		
3	Erosion Prevention and Sediment Control	1	Lump Sum		
4	Sewer Bypass Pumping	1	Lump Sum		
5	Pipe Burst 6-Inch HDPE Sewer Main	140	Linear Foot		
6	Pipe Burst 8-Inch HDPE Sewer Main	5,610	Linear Foot		
7	Open Trench 6-Inch PVC Sewer Main	170	Linear Foot		
8	Connect 4-Inch Private Sewer Lateral to Main	133	Each		
9	Connect 6-Inch Private Sewer Lateral to Main	1	Each		
10	Pipe Burst 4-Inch Private Sewer Lateral	35	Each		
11	Open Trench 4-Inch Private Sewer Lateral	13	Each		
12	Install 4-Inch Private Sewer Cleanout on Existing Sewer Lateral	9	Each		
13	Install 6-Inch Private Sewer Cleanout on Existing Sewer Lateral	1	Each		
14	Private Lateral Spot Repair	5	Each		
15	Install Standard Precast Manhole	1	Each		
16	Install Standard Sewer Mainline Cleanout	4	Each		
17	Remove Existing Manhole	3	Each		

18	Abandon Existing Manhole	1	Each		
19	Abandon Sewer Mainline	1	Lump Sum		
20	Relocate Rain Drains	1	Lump Sum		
21	Remove and Replace 4-Inch PCC Sidewalk	15	Square Yard		
22	Remove and Replace 6-Inch PCC Driveway Approach	5	Square Yard		
23	Remove and Replace 10-Inch PCC Alley Approach	10	Square Yard		
24	Remove and Replace Standard Curb and Gutter	40	Linear Foot		
25	4-Inch Asphalt Trench Patch	300	Square Yard		
<b>SUM OF EXTENDED TOTALS</b>					

**NOTE: Subject to change if addition or extensions are in error.**

Bidder's Signature	Company Name <i>(please print)</i>	Date
Bidder's Name <i>(please print)</i>	Mailing Address <i>(please print)</i>	CCB License Number
Bidder's Title <i>(please print)</i>	City, State Zip	Federal Tax ID Number
Telephone No.: _____	Fax No.: _____	Email: _____



**BID BOND**

BOND NO. \_\_\_\_\_

AMOUNT OF BID: \$ \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS, that \_\_\_\_\_  
hereinafter called the PRINCIPAL, and \_\_\_\_\_  
a corporation duly organized under the laws of the State of \_\_\_\_\_ having its principal  
place of business at \_\_\_\_\_, in the State of, and  
authorized to do business in the State of Oregon, as SURETY, are held firmly bound unto the City of Albany, Oregon,  
hereinafter called the OBLIGEE, in the sum of \_\_\_\_\_  
\_\_\_\_\_ DOLLARS (\$ \_\_\_\_\_), for the payment  
of which we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by  
these presents.

THE CONDITION OF THIS BOND IS SUCH THAT:

WHEREAS, the PRINCIPAL is herewith submitting his/her/its Bid Proposal for **SS-19-01-A, 2019 PIPE BURSTING PROJECTS**, said Bid Proposal, by reference thereto, being hereby made a part hereof.

NOW, THEREFORE, if the Bid Proposal submitted by the PRINCIPAL is accepted, and the Contract awarded to the PRINCIPAL, and if the PRINCIPAL shall execute the proposed Contract and shall furnish such Performance Bond and Payment Bond as required by the Contract Documents within the time fixed by the documents, then this obligation shall be void; if the PRINCIPAL shall fail to execute the proposed Contract and furnish the bond, the SURETY hereby agrees to pay to the OBLIGEE the said sum as liquidated damages, within ten (10) days of such failure.

Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_ 2019.

\_\_\_\_\_  
PRINCIPAL

\_\_\_\_\_  
SURETY

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

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

Attorney in Fact

**EMPLOYEE DRUG TESTING PROGRAM CERTIFICATION**

**ORS 279C.505 (2)** requires that bidders shall demonstrate and disclose to the City of Albany that he/she has an employee drug testing program in place before a public contract can be awarded.

Therefore, by signing this Certification, the Bidder does hereby certify and confirm that, as the proposed general contractor for City of Albany Project **SS-19-01-A, 2019 Pipe Bursting Projects** that he/she has an employee drug testing program in place that is consistent with, and satisfies the intent of, the above-referenced legislation.

**CONTRACTOR:** \_\_\_\_\_

**BY:** \_\_\_\_\_

**TITLE:** \_\_\_\_\_

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

**FIRST-TIER SUBCONTRACTOR DISCLOSURE**

**PROJECT NAME:** 2019 Pipe Bursting Projects

**BID NUMBER:** SS-19-01-A

**BID CLOSING DATE:** Wednesday, May 15, 2019

**TIME:** 2:00 p.m.

This form must be submitted at the location specified in the Invitation to Bid on the advertised bid closing date and within two working hours after the advertised bid closing time.

List below the name of each subcontractor that will be furnishing labor or will be furnishing labor and materials and that is required to be disclosed, the category of work that the subcontractor will be performing and the dollar value of the subcontract.

Enter "**NONE**" if there are no subcontractors that need to be disclosed.  
 (*Attach additional sheets if needed.*)

\_\_\_\_\_

Failure to submit this signed form by the disclosure deadline will result in a non-responsive bid.  
 A non-responsive bid will not be considered for award.

Subcontractor's Name	Category of Work	Dollar Value
1.		\$
2.		\$
3.		\$
4.		\$
5.		\$
6.		\$
7.		\$
8.		\$
9.		\$

Form submitted by (bidder name): \_\_\_\_\_ Phone No.: \_\_\_\_\_  
 (Signature)

Contact Name: \_\_\_\_\_ Company: \_\_\_\_\_

**ORS 279C.370 First-tier subcontractor disclosure.** (1)(a) Within two working hours after the date and time of the deadline when bids are due to a contracting agency for a public improvement contract, a bidder shall submit to the contracting agency a disclosure of the first-tier subcontractors that:

- (A) Will be furnishing labor or will be furnishing labor and materials in connection with the public improvement contract; and
- (B) Will have a contract value that is equal to or greater than five percent of the total project bid or \$15,000, whichever is greater, or \$350,000 regardless of the percentage of the total project bid.

(b) For each contract to which this subsection applies, the contracting agency shall designate a deadline for submission of bids that has a date on a Tuesday, Wednesday or Thursday and a time between 2 p.m. and 5 p.m., except that this paragraph does not apply to public contracts for maintenance or construction of highways, bridges or other transportation facilities.

(c) This subsection applies only to public improvement contracts with a value, estimated by the contracting agency, of more than \$100,000.

(d) This subsection does not apply to public improvement contracts that have been exempted from competitive bidding requirements under ORS 279C.335 (2).

(2) The disclosure of first-tier subcontractors under subsection (1) of this section must include the name of each subcontractor, the category of work that each subcontractor will perform and the dollar value of each subcontract. The information shall be disclosed in substantially the following [above] form:

(3) A contracting agency shall accept the subcontractor disclosure. The contracting agency shall consider the bid of any contractor that does not submit a subcontractor disclosure to the contracting agency to be a nonresponsive bid and may not award the contract to the contractor. A contracting agency is not required to determine the accuracy or the completeness of the subcontractor disclosure.

(4) After the bids are opened, the subcontractor disclosures must be made available for public inspection.

(5) A contractor may substitute a first-tier subcontractor under the provisions of ORS 279C.585.

(6) A subcontractor may file a complaint under ORS 279C.590 based on the disclosure requirements of subsection (1) of this section.

*State of Oregon WH-179 (08-10-10)*

## SAMPLE CONTRACT

THIS CONTRACT is made between the CITY OF ALBANY, a municipal corporation, hereinafter called "City" and \_\_\_\_\_, hereinafter called "Contractor."

### WITNESSETH:

The Contractor, in consideration of the sums to be paid and other covenants herein contained, agrees to perform and complete the work herein described and to furnish all necessary machinery, tools, apparatus, equipment, supplies, materials, and labor and perform all work in accordance with the applicable *Standard Construction Specifications*, the Special Specifications (aka Specifications, Special Provisions) found herewith, and in accordance with such alterations or modifications of the same as may be made by the City, and according to such directions as may from time to time be made or given by the Engineer under the authority and within the meaning and purpose of this Contract. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the Contractor.

The applicable Drawings, the applicable *Standard Construction Specifications*, all sections of Special Provisions, and the Schedule of Contract Prices bound herewith are hereby specifically referred to and by reference made a part hereof and shall by such reference have the same force and effect as though all of the same were fully inserted herein.

The Contractor shall faithfully complete and perform all of the obligations of this Contract, and in particular, shall promptly, as due, make payment of all just debts and obligations incurred in the performance of said Contract and shall not permit any lien or claim to be filed or prosecuted against the City.

The Contractor shall furnish to the City a 100% Performance Bond and a 100% Payment Bond. In addition to the required Payment Bond and Performance Bond, unless exempt under ORS 279C.836 (7), (8), or (9), the contractor is required to file a \$30,000 Public Works Bond with the Construction Contractor's Board to be used exclusively for unpaid wages determined to be due by BOLI. The general contractor is required to verify that subcontractors have filed a public works bond before permitting a subcontractor to start work on a project unless exempt under ORS 279C.836 (7), (8) or (9).

The Contractor, its subcontractors, if any, and all employers working under this Contract are subject employers under the Oregon Workers' Compensation Law and shall comply with ORS 656.017, which requires them to provide workers' compensation coverage for all their subject workers.

The Contractor agrees to protect, indemnify, and hold harmless the City against any and all loss, claims, or suits (including costs and attorney's fees) for or on account of injury to or death of persons, damage to, or destruction of property belonging to either the City or others occurring by reason of the act or neglect of the Contractor, Contractor's employees, or agents (including subcontractors) in connection with the performance of this Contract.

It is expressly understood that this Contract shall be governed by the laws of the State of Oregon. The statutes of the State of Oregon for public works contracts, specifically but not exclusively ORS Chapter 279 A-C as amended or superseded, including the latest additions and revisions, are incorporated by reference as part of the contract documents, and the party contracting with the City of Albany hereby covenants and agrees to comply with all of the obligations and conditions applicable to public contracts pursuant to ORS 279 A-C, et seq, as though each obligation or condition were set forth fully herein. In addition, if the contract identified above calls for a public improvement as that term is defined by ORS 279A.010, the party contracting with the City of Albany further agrees to comply with all obligations and conditions applicable to public contracts for public improvements pursuant to ORS 279C, et seq, as though each obligation or condition were set forth fully herein. The Contractor and its subcontractors, if any, also agrees to maintain compliance with the Oregon Identity Theft Protection Act (OITPA) ORS Sections 646A.600 through 646A.628.

The Contractor further declares by the signing of this Contract that all the provisions required by ORS 279C.800 through 279C.870 relating to the payment of prevailing wage rates for work performed under the Contract with the City of Albany shall be complied with, and that daily/weekly/holiday/weekend overtime will be paid, unless the amount of the contract is \$50,000 or less, in which case the prevailing wage rate requirement shall not apply. If Contractor fails, neglects, or refuses to make prompt payment for labor or services, the City can pay and withhold these amounts from payments due the contractor. (ORS 279C.515) Contractor shall indemnify the City from claims of damages resulting from actual or alleged violations of these obligations.

In consideration of the faithful performance of all of the obligations herein set out, and in consideration of the faithful performance of this Contract, the City agrees to pay to the Contractor the amount earned, as determined from the actual quantities of work performed and prices and other basis of payment specified, taking into consideration any amounts that may be deductible, under the terms of the Contract.

The Contractor agrees to complete the work within the time specified herein and to accept as full payment hereunder the amounts computed as determined by the Contract Documents and based on the said proposal.

Said improvements shall be completed by the date specified in said Contract Documents and if not so completed, unless said time for completion is extended, as provided in the Contract Documents, or if extended, if the same is not completed within the time extended, the City will be caused to incur liquidated damages as specified in the Contract Documents. Liquidated damages shall be retained out of any monies due or to become due under this agreement.

Payments shall be made as provided in the Contract Documents. Notwithstanding anything in this agreement to the contrary, the City's obligation to pay money beyond the current fiscal year shall be subject to and dependent upon appropriations being made from time to time by the City Council for such purpose; provided, however, that the City Manager or other officer charged with the responsibility for preparing the City's annual budget shall include in the budget for each fiscal year the amount of the city financial obligation payable in such year and the City Manager or such other officer shall use his/her best efforts to obtain the annual appropriations required to authorize said payments.

The Parties acknowledge that the parties and their counsel have reviewed this Agreement and that the normal rule of construction to the effect that any ambiguities are to be resolved against the drafting Party shall not be employed in the interpretation of this Agreement or any exhibits or amendments hereto.

Should suit or action be undertaken to enforce any of the terms of this agreement or to seek damages for its breach, the prevailing party shall be entitled to an award of its reasonable attorney fees, costs, and expenses, including expert witness fees, incurred therein, and such costs and fees as may be required on appeal, including those incurred on appeal. Jurisdiction for litigation shall be vested exclusively in the courts of Oregon, Oregon law shall apply, and venue shall lie in the Circuit Courts in and for Linn County, Oregon.

The date this Agreement is signed by the last party to sign it (as indicated by the date associated with that party's signature) will be deemed the date of this Agreement. If a party signs but fails to date a signature the date that the other party receives the signing party's signature will be deemed to be the date that the signing party signed this Agreement and the other party may inscribe that date as the date associated with the signing party's signature.

IN WITNESS WHEREOF, the undersigned duly authorized officials have caused this contract to be executed on behalf of their respective parties.

**CONTRACTOR:**

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

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

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

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

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

*(Note: Signatures of two officers are required for a corporation.)*

**CITY OF ALBANY, OREGON:**

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

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

Jeff Blaine, P.E., Public Works Engineering & Community Development Director

Construction Contractor's Board License Number

Tax Identification No.: \_\_\_\_\_

Telephone Number: ( ) \_\_\_\_\_

## PERFORMANCE BOND

BOND NUMBER: \_\_\_\_\_

TOTAL BID AMOUNT: \$ \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS that we, \_\_\_\_\_, as CONTRACTOR (Principal), and \_\_\_\_\_, a corporation, duly authorized to do a general surety business in the State of Oregon as SURETY, are jointly and severally held and bound unto the City of Albany, Oregon, (Obligee) in the sum of (100% of Contract) \_\_\_\_\_ Dollars (\$ \_\_\_\_\_) for the payment of which we jointly and severally bind ourselves, our heirs, executors, administrators, and assigns or successors and assigns firmly by these presents.

THE CONDITION OF THIS BOND IS SUCH that, whereas the principal has made and entered into a certain contract, a copy of which is attached hereto, with the City of Albany, Oregon, which contract, together with the applicable plans, Standard Specifications, Special Provisions, and schedule of contract prices, is by this reference made a part, whereby the principal agrees to perform in accordance with the certain terms, conditions, requirements, plans, and specifications which are set out in the contract and all authorized modifications of the contract which increase the amount of the work and the amount of the contract. Notice to the surety of any of the immediately foregoing are waived.

NOW, THEREFORE, if CONTRACTOR shall faithfully and truly observe and comply with the terms, conditions, and provisions of the Contract, in all respects upon the terms set forth therein, and within the time prescribed therein and shall indemnify and save harmless the City of Albany, Oregon, its officers, employees, and agents against losses and expenses and any damages of every kind and description that shall be suffered or claimed to be suffered in connection with or arising out of the performance of the said Contract and shall honor all claims for defective work within the warranty period(s) established by the *Standard Construction Specifications* and Special Provisions, after the acceptance of said Contract, then this obligation is to be void, otherwise to remain in full force and effect for the duration of the warranty period(s). The establishment and warranty periods for plantings shall be two years as outlined in Section 107.15.02 of the *Standard Construction Specifications*. The warranty for all other work shall be for a one-year period as outlined in Section 107.15.00.

PROVIDED, HOWEVER, that this bond is subject to the following further conditions:

a) Losses and expenses include but are not limited to attorney's fees to defend all claims, proceedings, lawsuits, and judgments arising out of or resulting from the fault of the principal, the principal's agents, representatives, or subcontractors, in the performance of or failure to perform this contract. However, principal shall not be required to indemnify any indemnitee to the extent the damage, loss, or expense is caused by the indemnitee's negligence and shall in all respects perform said contract according to law.

b) All material suppliers and all persons who shall supply such laborers, mechanics, or subcontractors with material, supplies, or provisions for carrying on such work, shall have a direct right of action against CONTRACTOR and SURETY on this bond, second only the right of the City of Albany, Oregon, under this bond, which right of action shall be asserted in proceedings instituted in the name of the City of Albany, Oregon, to the use and benefit of the person, firm, or corporation instituting such action and all other persons, firms, or corporations having claims hereunder, shall have the right to be made a party to such proceeding and to have such claim adjudicated in such action and judgment rendered thereon.

c) In no event shall SURETY be liable for a greater sum than the penalty of this Bond, or subject to any suit, action, or proceeding thereon that is instituted past the expiration of the warranty period(s) after the complete performance and acceptance of said Contract and final settlement thereof.

d) The said SURETY, for the value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Contract or to the work to be performed thereunder or the Specifications accompanying the same shall in any way affect its obligations of this bond; and it does hereby waive notice of any such

change, extension of time, alteration, or addition to the terms of the Contract, or to the work, or to the Contract Documents.

IN WITNESS THEREOF, the parties hereto have caused this bond to be executed this \_\_\_\_\_ day of \_\_\_\_\_ 2019.

\_\_\_\_\_  
Principal

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

\_\_\_\_\_  
*Print or type*

\_\_\_\_\_  
Street/City Address

\_\_\_\_\_  
Surety

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

\_\_\_\_\_  
*Print or type*

\_\_\_\_\_  
Street/City Address

\_\_\_\_\_  
Telephone Number

Surety Witness:

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

\_\_\_\_\_  
Street/City Address

**PAYMENT BOND**

BOND NUMBER: \_\_\_\_\_

TOTAL BID AMOUNT: \$ \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS that we, \_\_\_\_\_, as CONTRACTOR (Principal), and \_\_\_\_\_, a corporation, duly authorized to do a general surety business in the State of Oregon as SURETY, are jointly and severally held and bound unto the City of Albany, Oregon, (Obligee) in the sum of (100% of Contract) \_\_\_\_\_ Dollars (\$ \_\_\_\_\_) for the payment of which we jointly and severally bind ourselves, our heirs, executors, administrators, and assigns or successors and assigns firmly by these presents.

THE CONDITION OF THIS BOND IS SUCH that, whereas the principal has made and entered into a certain contract, a copy of which is attached hereto, with the City of Albany, Oregon, which contract, together with the applicable plans, Standard Specifications, Special Provisions, and schedule of contract prices, is by this reference made a part, whereby the principal agrees to perform in accordance with the certain terms, conditions, requirements, plans, and specifications which are set out in the contract and all authorized modifications of the contract which increase the amount of the work and the amount of the contract. Notice to the surety of any of the immediately foregoing are waived.

NOW, THEREFORE, if CONTRACTOR shall make payment promptly, as due to all subcontractors and to all persons supplying to the Contractor or its subcontractors, equipment, supplies, labor, or materials for the prosecution of the work, or any part thereof, provided for in said contract; and shall in performing the contract pay and cause to be paid not less than the State of Oregon Bureau of Labor and Industries (BOLI) prevailing wage rates in effect as of the date of the bid advertisement by City of Albany, Oregon, unless the amount of the contract is \$50,000 or less, in which case the prevailing wage rate requirement shall not apply; and pay per hour, day, and week for and to each and every worker who may be employed in and about the performance of the contract; and pay all contributions or amounts due to the State Accident Insurance Fund and the State Unemployment Trust Fund from such Contractor or subcontractors; and pay all sums of money withheld from the Contractor's employees and payable to the State Department of Revenue; and shall pay all other just debts, dues, and demands incurred in the performance of the said contract; and shall pay the City of Albany, Oregon such damages as may accrue to the City of Albany, Oregon, under the contract, then this obligation is to be void, otherwise to remain in full force and effect, provided that surety will remain liable to satisfy the claim of any worker affected by the failure of the principal or any subcontractor under the contract to pay the minimum rate of wage in accordance with the contract in the amount of minimum wages and an additional amount equal thereto as liquidated damages.

a) All material suppliers and all persons who shall supply such laborers, mechanics, or subcontractors with material, supplies, or provisions for carrying on such work, shall have a direct right of action against CONTRACTOR and SURETY on this bond, second only the right of the City of Albany, Oregon, under this bond, which right of action shall be asserted in proceedings instituted in the name of the City of Albany, Oregon, to the use and benefit of the person, firm, or corporation instituting such action and all other persons, firms, or corporations having claims hereunder, shall have the right to be made a party to such proceeding and to have such claim adjudicated in such action and judgment rendered thereon.

b) The said SURETY, for the value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Contract or to the work to be performed thereunder or the Specifications accompanying the same shall in any way affect its obligations of this bond; and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract, or to the work, or to the Contract Documents.



IN WITNESS THEREOF, the parties hereto have caused this bond to be executed this \_\_\_\_\_ day of \_\_\_\_\_ 2019.

\_\_\_\_\_  
Principal

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

\_\_\_\_\_  
*Print or type*

\_\_\_\_\_  
Street/City Address

\_\_\_\_\_  
Surety

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

\_\_\_\_\_  
*Print or type*

\_\_\_\_\_  
Street/City Address

\_\_\_\_\_  
Telephone Number

Surety Witness:

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

\_\_\_\_\_  
Street/City Address

## SPECIAL PROVISIONS

### SECTION I: GENERAL REQUIREMENTS AND TECHNICAL SPECIFICATIONS

#### I-1. DESCRIPTION OF WORK

This project includes pipe bursting approximately 140 feet of 6-inch sewer main and approximately 5,600 feet of 8-inch sewer main with new HDPE pipe; open trenching approximately 165 feet of 6-inch sewer main; replacement of private sewer services; and related appurtenances.

Construction shall be in conformance with the current edition of the City of Albany *Standard Construction Specifications*, the Construction Drawings, and these Special Provisions.

#### I-2. SITE CONDITIONS

Contractors are expected to closely inspect the various sites and warrants, as a result of examination and site visit, the work can be performed in a good workmanlike manner to the satisfaction of the City. Failure to become acquainted with the physical conditions of the project will not relieve the Contractor from the responsibility of properly estimating the difficulty or cost of successfully performing the work.

#### I-3. STANDARD CONSTRUCTION SPECIFICATIONS

Each bidder must have access to a current set of City of Albany *Standard Construction Specifications*, which can be found on the City of Albany's website at <http://www.cityofalbany.net/departments/public-works/engineering/standard-construction-specifications> or a printed set may be purchased for \$100. All public improvements are required to conform to these specifications and bid prices shall reflect these specifications.

#### I-4. AWARD OF CONTRACT

The Contract, if awarded, will be awarded to the lowest responsive, responsible bidder based upon the lowest total bid amount, as determined by the City of Albany, and on the City's sole and absolute judgment to best serve its interest.

The City reserves the right to postpone the acceptance of the proposal and the award of the contract to a responsible bidder for a period not to exceed sixty (60) calendar days, or to reject any and all proposals received and further advertise the project for bids. The City may reject any bids not in compliance with all prescribed public contracting procedures and requirements, including the requirement to demonstrate the bidder's responsibility under ORS 279C.375(3)(b), and may reject for good cause any or all bids upon a finding of the City it is in the public interest to do so.

List of Subcontractors. Contractor is required to submit a list of subcontractors in accordance with ORS 279C.370. The City will submit a copy of this disclosure of first-tier subcontractors to the Bureau of Labor and Industries (BOLI) along with the completed BOLI form WH-81.

Failure to submit the list of subcontractors form by the disclosure deadline will result in a non-responsive bid. A non-responsive bid will not be considered for award. If no subcontractors need to be disclosed; this form must still be submitted indicating such.

Electronic Signature. Any signature (including any electronic symbol or process attached to, or associated with, a contract or other record and adopted by a person with the intent to sign, authenticate, or accept such contract or record) hereto or to any other certificate, agreement or document related to this transaction, and any contract formation or record-keeping through electronic means shall have the same legal validity and enforceability as a manually executed signature or use of a paper-based recordkeeping system to the fullest extent permitted by applicable law.

#### I-5. CONTRACT COMPLETION TIME AND LIQUIDATED DAMAGES

At the Contractor's option, the City will issue the Notice to Proceed any time after both parties have executed the contract. The Contractor shall be required to give the City seven (7) days advance notice of intent to begin construction. Once the Notice to Proceed is issued, the Contractor shall have 220 calendar days, measured from the day work starts in which to complete the work.

Regardless of the actual construction start date, all work specified in the contract documents shall be completed, in every respect, by June 26, 2020, the ultimate completion date.

**Liquidated damages will be assessed against the Contractor for each day over the maximum number of calendar days allotted plus each day beyond the stated ultimate completion date until the work is satisfactorily completed and accepted by the City. The schedule of liquidated damages is listed in the *Standard Construction Specifications*, Section 108.06.00.**

#### **I-6. CONTRACT SUSPENSION DUE TO WEATHER**

Due to the nature and location of the work, the City will suspend contract time once due to weather at the request of the Contractor to avoid negatively impacting residents within the project area. No additional compensation will be made for a second mobilization as a result of the suspension. Contractor shall be required to operate all equipment on and store spoil and backfill materials on canvas tarps, plywood, or other protective material if work takes place during wet weather.

#### **I-7. PRECONSTRUCTION CONFERENCE**

A preconstruction meeting will be required. The meeting will be scheduled to take place a minimum of one week prior to beginning of construction. The Contractor shall submit the following submittals at the preconstruction conference:

- Project Schedule
- Traffic Control Plan
- Erosion and Sediment Control Plan

#### **I-8. PROJECT SCHEDULE**

A detailed construction schedule of all work relating to this project shall be submitted to the Engineer at the preconstruction conference. The schedule shall show how the contractor plans to complete the project on or before the ultimate completion date. The Contractor shall take appropriate measures to expedite work items that are behind schedule, including the use of outside forces to complete the work, without additional compensation.

#### **I-9. TEMPORARY TRAFFIC CONTROL**

All temporary traffic control shall be in accordance with the current edition of the *Manual on Uniform Traffic Control Devices* (MUTCD); the ODOT *Short-Term Traffic Control Handbook*; City of Albany *Standard Construction Specifications*, Section 202; and as stated herein. The Contractor shall provide traffic control devices as may be required at locations where construction is of short-term duration (i.e., street intersections and access to private property), as well as traffic control devices that are expected to be in place for the duration of the project.

Construction operations shall be conducted in a manner that will provide for uninterrupted movement of traffic on all public and private roadways within the construction area except where allowed by the Engineer on local streets. At a minimum, the Contractor shall maintain one lane of traffic in each direction or provide flaggers to control alternating traffic through a single lane. Temporary ramps shall be installed and maintained at intersections and driveways for the duration of the project. At no time shall the flow of traffic be stopped completely without the approval of the Engineer. Approval for short-term, temporary closures or detours, if given, will be limited to a specific instance and will not be approved as standard practice.

The Contractor shall limit all construction traffic, including material delivery and spoil removal, to those streets where there are construction activities taking place. The City will immediately suspend work in the event that the Contractor does not limit construction traffic to approved streets. Work will be allowed to resume only after the Contractor has submitted a construction traffic routing plan limiting construction traffic to approved streets. This plan will be reviewed and approved by the City prior to its implementation. Damage to streets resulting from unapproved construction traffic shall be corrected by the Contractor at no expense to the City.

The Contractor shall submit traffic control plans to the Engineer for review one week prior to commencing construction. The traffic control plan shall include a description of the traffic control devices, signing, and flaggers that are to be provided. No work shall begin until the City approves the traffic control plans. Following approval, the plan shall be adhered to at all times.

On streets where parking is normally allowed, the Contractor shall furnish and place at least three “No Parking” signs on each side of each block of the street where parking is to be prohibited. The signs shall be highly visible to motorists from all approaches to the area where parking is to be restricted. The signs shall be posted at least two full working days in advance of any construction activity and shall state the date and times when parking will be prohibited.

Construction operations shall not commence until all construction signing is in place. Construction signing required for the project shall be furnished and maintained by the Contractor.

All public and private roadways and driveways within the project area shall be fully opened to local traffic at the end of each workday and at all times when no work is taking place. When the progress of the work requires temporary closures of residential driveways, the Contractor shall provide notice to the affected residential properties 48-hours in advance of the closure. Access to residential driveways shall be reestablished as soon as possible. The Contractor shall maintain continuous access to commercial and industrial properties except during paving operations. The Contractor shall meet on-site with the manager of each business a minimum of 72-hours in advance of any work affecting access to their property and inform them of the measures taken to maintain access. The Contractor shall place and maintain “DRIVEWAY OPEN” signs at commercial driveways to guide customers and deliveries to the appropriate entrances during the work. The signs shall be repositioned on a continuous basis as the progress of the work requires.

After working hours, construction equipment shall be parked outside traveled portions of the roadways and shall be isolated with construction fencing and lighted barricades.

In the event the Contractor fails to provide and maintain proper barricades, signs, and other traffic control devices within one hour after notification by the Engineer, the City may install the traffic control devices at the Contractor’s expense. The City will deduct two times (200%) the City’s actual cost, which will include all labor, equipment, and materials involved, from any payments due or coming due to the Contractor.

#### **I-10. NOTIFICATIONS**

The Contractor shall provide written notice to the front office of the following agencies, three (3) working days in advance of beginning construction. The written notice shall include the construction schedule and shall explain the extent and duration of expected traffic disruptions. Agency contact information may be found in Appendix D.

1. U.S. Postal Service
2. Albany Transit System
3. Republic Services
4. Albany Fire Department
5. Albany School District
6. Albany Police Department
7. Linn County Sheriff’s Department

The Contractor shall notify the above-named agencies and the public of any schedule changes that are made by the Contractor, required by the City, or are the result of weather or other unforeseen circumstance. The Contractor shall submit a copy of each notification to the City for review and approval prior to delivering the notices.

The Contractor shall provide written notification to all affected residents and businesses three (3) working days in advance of scheduled work that will result in traffic disruptions and blocked access to driveways or parking areas. Written notifications shall explain the extent and duration of the disruption of traffic and/or blocked access and shall include alternate routes or parking areas as appropriate.

#### **I-11. ENTERING AND WORKING WITHIN CONFINED SPACES**

Contractors working on any public improvement project, while under contract with the City or a private entity, shall comply with the following regulations as they pertain to entering and working within confined spaces (as defined by OR-OSHA):

1. Identify any confined space entry that is required to perform the work and submit a list of the locations to the City.

2. Follow the City's confined space entry procedures or submit an alternate procedure that meets or exceeds OR-OSHA confined space entry regulations.
3. Submit written notice to the City of any hazardous situation that is encountered during the entry of or while working within a confined space.

#### **I-12. STATEMENT OF PIPE BURSTING EXPERIENCE**

A copy of the Statement of Experience form and licensed installer documentation for pipe bursting (see Appendix A) shall be submitted with the bid. Failure to submit and meet the requirements outlined below will be grounds for rejection of the bid.

#### **I-13. WORK ON PRIVATE PROPERTY**

Permits will be required for all plumbing, electrical, and site work on private property. Permits may be obtained from the Building Department at City Hall, 333 Broadalbin Street SW, Albany, Oregon, or are also available via the City's website, which is [www.cityofalbany.net](http://www.cityofalbany.net). Payment for obtaining permits will be considered incidental to the appropriate bid items.

#### **I-14. LOCATION OF UNDERGROUND UTILITIES**

The Contractor shall determine the horizontal and vertical alignment of existing public and private utilities well enough in advance to make adjustments to the work. Special care shall be taken to avoid compromising concrete thrust restraint on the existing water system. Locating utilities ahead of construction and providing protective measures where required are incidental to other bid items.

#### **I-15. REPAIR OF EXISTING UNDERGROUND UTILITIES**

City-owned, underground infrastructure damaged during construction shall be repaired as directed by the Engineer. All completed repair work will require approval of the Engineer prior to covering the work. General repair guidelines are:

1. Existing sanitary sewer mains and service laterals that are damaged shall be replaced with like materials and solid-sleeve couplings. Where like materials are not available, the existing pipe shall be replaced with ASTM 3034 PVC pipe and solid-sleeve transition couplings.
2. Existing storm drainage pipe that is damaged shall be replaced with like materials and mechanical-type couplings. Where like materials are not available, storm drainage pipe shall be replaced with Class III concrete pipe or ASTM 3034 PVC pipe with appropriate mechanical-type couplings.

#### **I-16. EXCAVATION AND BACKFILL REQUIREMENTS**

All excavations shall be backfilled daily. Only that portion of the excavation where the next day's work is to resume may be left open. All open trenches in streets shall be covered with secured, steel sheets at the end of work each day. All other excavations shall be backfilled.

Select backfill shall be used in all excavations within the public right-of-way to the limits shown below, regardless of location, and in all driveways subject to vehicle travel.

Paved Area: Use select compacted backfill to finished subgrade elevation.

Unpaved Area: Use select compacted backfill to within 18 inches of finish grade. Complete backfill with topsoil meeting requirement of Section 01010 – Topsoil of the Oregon Department of Transportation's Standard Specifications for Highway Construction, 1996 Edition.

A fill permit will be required to deposit excavated materials, in excess of 50 cubic yards at any one tax lot, from this project regardless of whether the site is publicly or privately owned. For property located within the city limits, fill permits may be obtained from the Public Works Department at City Hall, Third and Broadalbin Streets, Albany, Oregon. For property located outside the city limits, fill permits may be obtained from the Linn County Building Department at the Linn County Court House, Fourth Avenue and Ellsworth Street, Albany, Oregon.

## **I-17. SCHEDULED INTERRUPTION OF SEWER SERVICE**

Work involving existing sewer lines shall be scheduled in a manner that will minimize disruption of local sewer service. As a general rule, scheduled interruptions of local sewer service shall not occur prior to 8:00 a.m. or after 5:00 p.m. The Contractor shall give written notice to each affected sewer customer a minimum of 48 hours in advance of a scheduled interruption of sewer service. Commercial and industrial sewer customers require a minimum 72-hour advance notice prior to scheduled interruption of sewer service. In addition, a representative of the Contractor shall personally visit each affected business to deliver the notice to the owner or a responsible employee and answer any questions regarding the sewer interruption. The Contractor shall coordinate with affected businesses to make sewer lateral connections to the mainline at times convenient for their normal operation. In some circumstances it may be necessary to schedule sewer interruptions outside of normal working hours. No extra compensation will be due the Contractor for work performed outside of normal working hours.

## **I-18. MAINTAINING SEWER FLOWS**

The Contractor shall maintain sewer flows in the existing system. The sewage shall be conveyed in closed conduits and disposed of in a sanitary sewer system or transported in equipment designed for that purpose to an approved disposal site. Transporting and disposal of sewage shall be in conformance with applicable state and local regulations. Sewage shall not be discharged into, or allowed to flow in storm drains, trenches, creeks, rivers, ditches, or similar drainage ways. Sewage spills or accumulations shall be cleaned up promptly. The Contractor shall be responsible for notifying the Engineer and DEQ immediately of any sewer spills.

Under no circumstances shall sewage be allowed to overflow from manholes, flood basements, make building sewers inoperable (i.e., with back water valve), or cause any damage to the sewer system due to surcharging.

When pumping and bypassing is required, the Contractor shall furnish, install, and operate the pumps, conduits, and other equipment to divert the flow of sewage around the section in which work is to be performed. A sewer line plug shall be inserted into the line upstream of the section being worked. The plug shall be so designed that all or any portion of the sewage can be released. At the end of each day, flow shall be restored to normal. The bypass system shall be of sufficient capacity to handle existing flow plus additional flow that may occur during a rainstorm. The Contractor shall be responsible for furnishing the necessary labor and supervision to set up and operate the pumping and bypass system. Pumping shall be done in a manner that will not damage public or private property or create a nuisance or health menace. No overnight pumping will be allowed.

Sewer service shall be provided for service laterals when working on the sections that have active services. Service shall not be interrupted for more than six hours for any individual lateral. All service laterals shall be functional between 5:00 p.m. and 8:00 a.m.

## **I-19. NOTIFICATION OF INTERRUPTION OF SEWER SERVICE**

The Contractor shall give written notice to each affected sewer customer a minimum of 48 hours prior to a scheduled interruption of sewer service. The notice shall contain the name and phone number of the Contractor and a contact person and shall also state the time and date of interruption and estimated length of disruption. The City must approve the notice prior to distribution. The notifications shall be delivered directly to the primary adult resident, business owner/manager, or prominently affixed to the primary entrance of each dwelling or unit. Notification shall not be placed in U. S. mailboxes or mail slots.

## **I-20. WATER SUPPLY**

The City will provide water required for the completion of the work. The Contractor shall only take water from approved fire hydrants as designated by the Engineer.

## **I-21. PROTECTION OF EXISTING TREES**

Trees to remain in place shall be protected at all times. If roots three inches in diameter or greater are encountered during construction, including excavation and trenching activities, the root shall be protected and reported to the Engineer. If the root must be removed, the City Forester shall be consulted prior to pruning. Root pruning shall be accomplished by a sharp cut made with a hand saw or chain saw. Cut or exposed root ends shall be kept moist at all times until backfill is placed to cover the roots. Cut roots three inches or greater must be wrapped in burlap

and kept moist for the entire time the roots are exposed. Cut or exposed roots shall be backfilled as soon as possible.

If the Contractor causes the destruction of trees that are to remain, the City will deduct the value of the tree as determined by the City Forester using the methods described in the International Society of Arboriculture's "Valuation of Landscape Trees, Shrubs, and Other Plants: A Guide to the Methods and Procedures for Appraising Amenity Plants."

## SECTION II: STATE AND FEDERAL CONTRACTING LAW

### II-1. PREVAILING WAGES

All the provisions required by ORS 279C.800 through ORS 279C.870 relating to the payment of prevailing wage rates for work performed under the Contract with the City of Albany shall be complied with.

Each worker in each trade or occupation employed in the performance of this contract either by the contractor, subcontractor, or other person doing or contracting to do, or contracting for the whole or any part of the work on this contract, must be paid not less than the applicable state prevailing rate of wage, or the applicable federal prevailing rate of wage, whichever is higher.

Oregon law requires that the higher of the state prevailing wage rates (PWR) or federal Davis-Bacon rates be paid to workers on projects subject to both the state PWR law and federal Davis-Bacon Act.

**SS-19-01-A, 2019 Pipe Bursting Projects does not use federal funds and does not require Davis-Bacon rates. Only Oregon BOLI Prevailing Wage Rates apply to this project.**

Each year the Oregon Bureau of Labor and Industries (BOLI) publishes two rates publications (and amendments to both) that are available by calling 971-673-0839 or online at the BOLI website at:

<https://www.oregon.gov/boli/WHD/PWR/Pages/PWR-Rate-Publications---2019.aspx>

Publications that apply to this contract are the January 1, 2019, with an amendment effective April 1, 2019, Prevailing Wage Rates for Public Works Contracts in Oregon; as well as the January 1, 2019, [PRW Apprenticeship Rates](#).

Daily/weekly/holiday/weekend overtime must be paid. If a contractor fails to pay for any labor or services, the City can pay for this labor or services and withhold these amounts from payments due the contractor. ORS 279C.520; OAR 839-025-0020(2)(b).

Contractors and subcontractors are required to prepare weekly certified payroll reports and statements and submit them to the City by the fifth business day of each month (ORS 279C.845; OAR 839-025-0010). Contractor payment will be withheld until the City is in receipt of these certified weekly payroll reports. Information submitted on certified statements may be used only to ensure compliance with the provisions of ORS 279C.800 through ORS 279C.870.

### II-2. PERFORMANCE, PAYMENT, AND PUBLIC WORKS BONDS

In addition to the required payment bond and performance bond, unless exempt under ORS 279C.836 (7), (8), or (9), the contractor is required to file a \$30,000 Public Works Bond with the Construction Contractor's Board to be used exclusively for unpaid wages determined to be due by BOLI. The general contractor is required to verify that subcontractors, unless exempt, have filed a public works bond before permitting a subcontractor to start work on a project.

The Statutory Public Works Bond form is available from BOLI upon request or may be downloaded from <http://www.oregon.gov/BOLI/WHD/pages/index.aspx>.

### II-3. RECIPROCAL PREFERENCE LAW

Oregon's reciprocal preference law, ORS 279A.120 and ORS 279A.125, requires public contracting agencies, in determining the lowest responsible bidder, to add a percent increase to each out-of-state bidder's bid price that is equal to the percent of preference given to local bidders in the bidder's home state. That is, if the low bidder is from a state that grants a 10 percent preference to its own in-state bidders, the Oregon agency must add 10 percent to that bidder's price when evaluating the bid.

For details, check Oregon's Reciprocal Preference Law website at:

<https://www.oregon.gov/das/Procurement/Pages/Recippref.aspx>



Bidders in need of any assistance in the application of this law should call the State Procurement Office at 503-378-4642, or contact them at State of Oregon - Department of Administrative Services, State Procurement Office, 1225 Ferry Street SE, U-140, Salem, OR 97301-4285.

#### **II-4. AFFIRMATIVE ACTION/NONDISCRIMINATION**

By submitting a bid/proposal, the Bidder/Proposer agrees to comply with the Fair Labor Standards Act (FLSA); Title VII of the Civil Rights Act of 1964; Executive Order 11246, (as amended); Fair Employment Practices; Equal Employment Opportunity Act; Section 503 of the Rehabilitation Act of 1973, as amended; Vietnam Era Veterans' Readjustment Assistance Act of 1974; Americans with Disabilities Act; Age Discrimination in Employment Act of 1967 (ADEA); and Oregon Revised Statutes (ORS). By submitting a bid/proposal, the Bidder/Proposer specifically certifies, under penalty of perjury, that the Bidder/Proposer has not discriminated against minority, women, or emerging small business enterprises in obtaining any required subcontracts.

If the contract is awarded on the basis of the contractor's certification as a Disadvantaged Business Enterprise (DBE), Minority/Women Business Enterprise (MWBE) and Emerging Small Business (ESB) certifications (collectively known as MWESBs), the contractor must remain certified during the entire term of the contract. Contractors must include a similar provision in any subcontracts for the project.

#### **II-5. LICENSE REQUIRED FOR ASBESTOS ABATEMENT PROJECT**

This contract does not require the contractor or subcontractor to be licensed under ORS 468A.720, regarding asbestos abatement.

#### **II-6. CONSTRUCTION AND DEMOLITION DEBRIS / YARD WASTE MATERIALS - ORS 279C.510**

The contractor is responsible for:

1. Salvaging or recycling construction and demolition debris, if feasible and cost-effective.
2. Composting or mulching yard waste material at an approved site, if feasible and cost-effective.

#### **II-7. PROVISIONS CONCERNING ENVIRONMENTAL AND NATURAL RESOURCES LAWS**

Contractor is responsible to abide by ORS 279C.525 regarding enacted ordinances, rules, or regulations as set forth by the Albany Municipal Code, Oregon Department of Environmental Quality, Department of State Lands, Environmental Protection Agency, and/or the US Army Corps of Engineers, or any other federal, state, and local agency, in regards to the prevention of environmental pollution and preservation of natural resources.

#### **II-8. PAYMENT, CONTRIBUTIONS, LIENS, WITHHOLDING - ORS 279C.505**

The contractor shall:

1. Make payment promptly, as due, to all persons supplying to the contractor labor or material for the performance of the work provided for in this contract.
2. Pay all contributions or amounts due the Industrial Accident Fund from the contractor or subcontractor incurred in the performance of the contract.
3. Not permit any lien or claim to be filed or prosecuted against the City on account of any labor or material furnished.
4. Pay to the Department of Revenue all sums withheld from employees under ORS 316.167

#### **II-9. PAYMENT OF CLAIMS BY PUBLIC OFFICERS, PAYMENT TO PERSONS FURNISHING LABOR OR MATERIALS AND COMPLAINTS - ORS 279C.515; OAR 839-025-0020(2)(a)**

1. If the Contractor fails, neglects, or refuses to pay promptly a person's claim for labor or services that the person provides to the Contractor or a subcontractor in connection with this contract as the claim becomes due, the City may pay the amount of the claim to the person that provides the labor or services and charge the amount of the payment against funds due or to become due the Contractor by reason of this contract.
2. If the Contractor or a first-tier subcontractor fails, neglects, or refuses to pay a person that provides labor or materials in connection with this contract within 30 days after receiving payment from the City or Contractor,

the Contractor or first-tier subcontractor owes the person the amount due plus interest charges that begin at the end of the 10-day period within which payment is due under ORS 279C.580 (4) and that end upon final payment, unless payment is subject to a good faith dispute as defined in ORS 279C.580. The rate of interest on the amount due is nine percent per annum. The amount of interest may not be waived.

3. If the Contractor or a subcontractor fails, neglects, or refuses to pay a person that provides labor or materials in connection with the public improvement contract, the person may file a complaint with the Construction Contractors Board, unless payment is subject to a good faith dispute as defined in ORS 279C.580.

## **II-10. CONTRACTOR'S RELATIONS WITH SUBCONTRACTORS - ORS 279C.580(3)(4)**

Contractor is required to include in each subcontract for property or services the contractor enters into with a first-tier subcontractor, including a material supplier, for the purpose of performing a construction contract:

1. A payment clause that obligates the contractor to pay the first-tier subcontractor for satisfactory performance under the subcontract within 10 days out of amounts the City pays to the contractor under this contract.
2. A clause that requires the contractor to provide a first-tier subcontractor with a standard form that the first-tier subcontractor may use as an application for payment or as another method by which the subcontractor may claim a payment due from the contractor.
3. A clause that requires the contractor, except as otherwise provided in this paragraph, to use the same form and regular administrative procedures for processing payments during the entire term of the subcontract. A contractor may change the form or the regular administrative procedures the contractor uses for processing payments if the contractor:
  - a. Notifies the subcontractor in writing at least 45 days before the date on which the contractor makes the change; and
  - b. Includes with the written notice a copy of the new or changed form or a description of the new or changed procedure.
4. An interest penalty clause obligating the Contractor, if the contractor does not pay the first-tier subcontractor within 30 days after receiving payment from the City, to pay the first-tier subcontractor an interest penalty on amounts due in each payment the Contractor does not make in accordance with the payment clause included in the subcontract under paragraph (1.) above. A contractor or first-tier subcontractor is not obligated to pay an interest penalty if the only reason that the contractor or first-tier subcontractor did not make payment when payment was due is that the contractor or first-tier subcontractor did not receive payment from the City or Contractor when payment was due. The interest penalty applies to the period that begins on the day after the required payment date and that ends on the date on which the amount due is paid and is computed at the rate specified in ORS 279C.515(2).
5. A clause shall be included in each of the Contractor's subcontracts requiring the first-tier subcontractor to include a payment clause and an interest penalty clause that conforms to the standards of this sub-section, paragraphs 1-4 above, in each of the first-tier subcontractor's subcontracts and to require each of the first-tier subcontractor's subcontracts to include such clauses in the first-tier subcontractors' subcontracts with each lower-tier subcontractor or supplier.
6. A mandate that all subcontractors, if they were awarded a subcontract on the basis of certification as a disadvantaged, minority-owned, women-owned, or emerging small business enterprise, to maintain certification through the term of the contract.

## **II-11. CONDITION CONCERNING HOURS OF LABOR - ORS 279C.520**

Any worker employed by the Contractor may not be employed for more than 10 hours in any one day, or 40 hours in any one week, except in cases of necessity, emergency or when the public policy absolutely requires it, the employee shall be paid at least time and a half pay as follows:

1. For all overtime in excess of eight hours in any one day or 40 hours in any one week when the work week is five consecutive days, Monday through Friday; or for all overtime in excess of 10 hours in any one day or 40 hours in any one week when the work week is four consecutive days, Monday through Friday; and

2. For all work performed on Saturday and on any legal holiday specified in ORS 279C.540.

Contractor must give notice in writing to employees, who work on a public contract, either at the time of hire or before commencement of work on the contract, or by posting a notice in a location frequented by employees, of the number of hours per day and days per week that the employees may be required to work.

Contractor shall comply with the prohibition set forth in ORS 652.220, that compliance is a material element of the contract and that a failure to comply is a breach that entitles the contracting agency to terminate the contract for cause.

Contractor may not prohibit any of its employees from discussing the employee's rate of wage, salary, benefits, or other compensation with another employee or another person and may not retaliate against an employee who discusses the employee's rate of wage, salary, benefits, or other compensation with another employee or person.

**II-12. TIME LIMITATION ON CLAIM FOR OVERTIME - ORS 279C.545**

Any worker employed by the Contractor shall be foreclosed from the right to collect for any overtime provided in ORS 279C.540 unless a claim for payment is filed with the Contractor within 90 days from the completion of the contract, providing the contractor has:

1. Caused a circular clearly printed in boldfaced 12-point type and containing a copy of ORS 279C.545 to be posted in a prominent place alongside the door of the timekeeper's office or in a similar place that is readily available and freely visible to workers employed on the work; and
2. Maintained the circular continuously posted from the inception to the completion of the contract on which workers are or have been employed.

**II-13. CONDITION CONCERNING PAYMENT OF MEDICAL CARE AND PROVIDING WORKERS' COMPENSATION - ORS 279C.530**

1. Contractor shall promptly, as due, make payment to any person, co-partnership, association or corporation furnishing medical, surgical, and hospital care services or other needed care and attention, incident to sickness or injury, to the employees of the contractor, of all sums that the contractor agrees to pay for the services and all moneys and sums that the contractor collected or deducted from the wages of employees under any law, contract or agreement for the purpose of providing or paying for the services.
2. All subject employers working under this Contract shall comply with ORS 656.017 and provide the required Workers' Compensation coverage, unless such employers are exempt under ORS 656.126. Contractor shall ensure that each of its subcontractors complies with these requirements.

## SECTION III: TECHNICAL SPECIFICATIONS – BID ITEMS

### **Item No. 1 – Mobilization:**

See *Standard Construction Specifications*, Section 201.

Payment for this bid item will be on a lump-sum basis and will include all equipment, labor, materials, and incidentals required to complete the work.

### **Item No. 2 – Temporary Traffic Control:**

See *Standard Construction Specifications*, Section 202; Special Provisions; and the Construction Drawings.

Payment for this bid item will be on a lump-sum basis and will include all equipment, labor, materials, and incidentals required to complete the work.

### **Item No. 3 – Erosion Prevention and Sediment Control:**

This item includes all work related to procuring, installing, and maintaining erosion prevention and sediment control (EPSC) measures for the duration of the project as shown on the Construction Drawings. The Contractor shall submit an EPSC plan at the preconstruction conference for approval by the Engineer. This plan shall include measures to achieve the followings goals:

- Prevent the erosion of exposed soils by wind or rain
- Prevent sediment-laden waters from running onto streets, or into storm drains, ditches, drainage features, wetlands, creeks, streams, lakes, or rivers.
- Maintain clean street and sidewalk surfaces
- Quickly respond to rainfall events with additional measures as needed

The plan shall emphasize measures designed to prevent erosion rather than control sediment. This will require that sediment-laden water from trench dewatering to be processed through mechanical or chemical treatment prior to discharge. Sole reliance on inlet protection to control sediment will be prohibited in most cases. The approved EPSC plan shall be implemented prior to the beginning of ground disturbing activities.

In the event the Contractor fails to provide and maintain EPSC measures that prevent sediment from leaving the construction site, the City may require that work be stopped immediately. The City will not grant contract extensions for work stoppages based on the Contractor's failure to provide and maintain EPSC measures that prevent sediment from leaving the construction site. If sediment-laden water continues to leave the site after one working day following notification by the Engineer, the City may install additional EPSC measures at the Contractor's expense. The City will deduct two times (200%) the City's actual cost, which will include all labor, equipment, and materials involved, from any payments due or coming due to the Contractor.

Payment for this bid item will be on a lump-sum basis and will include all equipment, labor, materials, and incidentals required to complete the work.

### **Item No. 4 – Sewer Bypass Pumping:**

See Special Provisions and Appendix C – *Sewage Bypass Vicinity Maps*.

This bid item provides for sewage bypass pumping required during construction. Segments may not have an accessible manhole directly downstream; therefore, the sewage may need to be pumped into a truck and transported to an acceptable disposal site. Sewage bypass vicinity maps are provided in Appendix C.

The Contractor shall furnish, install, and operate the pumps, conduits, and other equipment to divert the flow of sewage around the pipe section in which work is to be performed. A sewer line plug shall be inserted into the line upstream of the section being worked. The plug shall be designed so that all or any portion of the sewage can be released. At the end of the day, flow may be restored to normal. The bypass system shall be of sufficient capacity to handle existing flow plus additional flow that may occur during a rainstorm. The Contractor shall be responsible for furnishing the necessary labor and supervision to set up and operate the pumping and bypass system. Pumping shall be done in a manner that will not damage public or private property or create a nuisance or health menace. No overnight pumping will be allowed without prior approval of the Engineer. In the event of a significant rainfall event, the plug shall be removed from the line and all work will be stopped. The sewage shall be conveyed in closed conduits and disposed of

in the sanitary sewer system or transported in equipment designed for that purpose to an approved disposal site. Sewage shall not be discharged into, or allowed to flow in storm drains, trenches, creeks, rivers, ditches, or similar drainage ways. Sewage spills or accumulations shall be cleaned up promptly. The Contractor shall be responsible for notifying the Engineer and DEQ immediately of any sewer spills. Under no circumstances shall sewage be allowed to overflow from structures or manholes, flood basements, make building sewers inoperable (i.e. with back water valve), or cause any damage to the sewer system due to surcharging.

Payment for this item will be on a lump-sum basis and will include all equipment, labor, materials, and incidentals required to complete the work.

**Item No. 5 and 6 – Pipe Burst 6-Inch and 8-Inch HDPE Sewer Main:**

See Appendix A - *Pipe Bursting Technical Specifications*.

This item provides for pipe bursting the existing 6-inch and 8-inch vitrified clay and non-reinforced concrete pipe and installing 6-inch and 8-inch HDPE pipe, SDR 17. Also included in this bid item are excavation, maintenance, removal, and replacement of existing plants and shrubs, and backfilling of all bursting pits; placement and compaction of backfill; and connection to existing and new manholes. Air testing of pipe-burst sewer segments is not required. The inside weld bead on the fused HDPE pipe shall be removed. Payment for all necessary televising and cleaning of the line prior to pipe bursting will be included in this bid item.

Gasketed solid sleeve couplers may be used along the main line within five feet of a single manhole on each segment. Electrofusion couplers shall be installed in the event a section of pipe needs to be removed or spliced together after bursting activities have been completed.

Once excavations begin on each segment, the Contractor shall have seven (7) calendar days to permanently reconnect each service, backfill all excavations on private property, and restore fences along the chosen segment. The Contractor may not start excavating on a second segment until the work is complete on the prior segment unless otherwise approved by the Engineer.

Payment for these bid items will be made on a linear-foot basis and will include all equipment, labor, materials, and incidentals required to complete the work.

**Item No. 7 – Open Trench 6-Inch PVC Sewer Main:**

See *Standard Construction Specifications*, Section 401.

This bid item provides for the construction of an open trench PVC sewer main as shown on the Construction Drawings.

Payment for this bid item will be made on a linear-foot basis and will include all equipment, labor, materials, and incidentals required to complete the work.

**Item No. 8 and 9 – Connect 4-Inch and 6-Inch Private Sewer Lateral to Main:**

See the Special Provisions, Construction Drawings, Standard Drawing No. 411, and Appendix A – *Pipe Bursting Technical Specifications*.

All work on private property shall be in accordance with the current local Plumbing Code. Plumbing permits are not required under this bid item.

This item provides for the connection of existing laterals and new connections for new laterals to the pipe burst sewer main and restoration of sewer service. Included in this bid item is excavation to the main, installation of polyethylene heat-fusion saddles, connection of the lateral to the main, installation of locate balls, and select and/or native fill. Locate balls shall be Model 162 as manufactured by Omni Marker™ and green in color. Locate balls shall be installed centered over the connection at the main within four feet of the finished grade. Also included in this bid item is installation of temporary flexible piping during the relaxation period and permanent sewer lateral piping that extends from the main to five feet upstream of the vertical break after the relaxation period.

Property restoration, including fence repair, plant and shrub replacement, and approximately 50 square yards of private concrete removal and replacement will be considered incidental to this bid item. Native backfill will be allowed except where noted on the construction drawings. Payment for installation of new sewer lateral pipe shall be paid under a separate bid item. Installation of property line cleanouts shall be considered incidental to this bid item.

The Contractor will be responsible for locating the sewer lateral outside the home where the proposed connection is to be made prior to construction.

Payment for these bid items will be made on a per-each basis and will include all equipment, labor, materials, and incidentals required to complete the work.

**Item No. 10 – Pipe Burst 4-Inch Private Sewer Lateral:**

See Construction Drawings, Appendix B – *Private Sewer Lateral Pipe Bursting Technical Specifications*, and Standard Drawing No. 411.

This bid item includes provision and installation of sewer services on private property as shown on the Construction Drawings. All work on private property shall be in accordance with the current local Plumbing Code. Required plumbing permits shall be considered incidental to this bid item.

All labor, equipment, and materials required to make connections between the new 4-inch lateral piping that is five feet upstream of the vertical break and the existing plumbing located outside the home shall be considered incidental to this bid item. The Contractor will be responsible for locating the sewer lateral outside the home where the proposed connections are to be made prior to construction.

Property restoration, including fence repair, plant and shrub replacement, and approximately 50 square yards of private concrete removal and replacement will be considered incidental to this bid item. Native backfill will be allowed except as noted on the construction drawings. Payment for connecting the private sewer lateral to the sewer main shall be paid for under a separate bid item. Installation of private two-way cleanouts on the new laterals shall be considered incidental to this bid item.

Payment for these bid items will be made on a per-each basis and will include all equipment, labor, materials, and incidentals required to complete the work.

**Item No. 11 – Open Trench 4-Inch Private Sewer Lateral:**

See Construction Drawings and Standard Drawing No. 411.

This bid item includes provision and installation of sewer services on private property as shown on the Construction Drawings. All work on private property shall be in accordance with the current local Plumbing Code. Required plumbing permits shall be considered incidental to this bid item.

All labor, equipment, and materials required to make connections between the new 4-inch lateral piping that is five feet upstream of the vertical break and the existing plumbing located outside the home shall be considered incidental to this bid item. The Contractor will be responsible for locating the sewer lateral outside the home where the proposed connections are to be made prior to construction.

Property restoration, including fence repair, plant and shrub replacement, and approximately 50 square yards of private concrete removal and replacement will be considered incidental to this bid item. Native backfill will be allowed except as noted on the construction drawings. Payment for connecting the private sewer lateral to the sewer main shall be paid for under a separate bid item. Installation of private two-way cleanouts on the new laterals shall be considered incidental to this bid item.

Payment for these bid items will be made on a per-each basis and will include all equipment, labor, materials, and incidentals required to complete the work.

**Item No. 12 and 13 – Install 4-Inch and 6-Inch Private Sewer Cleanout on Existing Sewer Lateral:**

See Construction Drawings.

This bid item provides for the installation of two-way cleanouts on private property on existing sewer 4-inch and 6-inch laterals in conformance with the Oregon Plumbing Specialty Code. Required plumbing permits shall be considered incidental to this bid item.

Payment for this bid item will be on a per-each basis and will include all equipment, labor, materials, and incidentals required to complete the work.

**Item No. 14 – Private Lateral Spot Repair:**

See Construction Drawings.

This bid item provides for the installation of spot repairs on private laterals where shown on the Construction Drawings. All work shall be done in conformance with the Oregon Plumbing Specialty Code. Required plumbing permits shall be considered incidental to this bid item.

Payment for this bid item will be on a per-each basis and will include all equipment, labor, materials, and incidentals required to complete the work.

**Item No. 15 – Install Standard Precast Manhole:**

See *Standard Construction Specifications* Sections, 402 and 403 and the Construction Drawings.

This bid item includes construction of a new standard precast manhole per the *Standard Construction Specifications*, applicable Standard Details, and the Construction Drawings. Pipe connections to the manhole shall be incidental to this bid item.

Payment for this bid item will be on a per-each basis and will include all labor, equipment, materials, and incidentals required to complete the work.

**Item No. 16 – Install Standard Sewer Mainline Cleanout:**

See *Standard Construction Specifications* Sections, 401 and the Construction Drawings.

This bid item includes all labor and materials required to install a new mainline cleanout as shown on the Construction Drawings. Twenty-four-inch-diameter Mini Manholes manufactured by Advantage Precast are an acceptable, approved equal to the mainline cleanout shown in Standard Construction Drawing No. 416. Pipe connections to the mainline cleanout structure shall be incidental to this bid item.

Payment for this bid item will be on a per-each basis and will include all labor, equipment, materials, and incidentals required to complete the work.

**Item No. 17 – Remove Existing Manhole:**

This bid item provides for the removal of manholes as shown on the Construction Drawings. The entire manhole shall be removed and backfilled with one-inch minus select fill.

Payment for this bid item will be on a per-each basis and will include all labor, equipment, materials, and incidentals required to complete the work.

**Item No. 18 – Abandon Existing Manhole:**

See *Standard Construction Specifications*, Section 403.

This bid item provides for the abandonment of manholes as shown on the construction drawings. Abandoned pipe connections to the manhole shall be plugged with grout. The top six feet of the manholes shall be removed, and the entire structure backfilled with one-inch minus select fill. Use select compacted backfill to within 18 inches of finished grade. Complete backfill with topsoil meeting requirement of Section 01010 – Topsoil of the Oregon Department of Transportation's Standard Specifications for Highway Construction, 1996 Edition.

Payment for this bid item will be on a per-each basis and will include all labor, equipment, materials, and incidentals required to complete the work.

**Item No. 19 – Abandon Sewer Mainline:**

See Special Provisions and Construction Drawings.

This bid item includes provision and installation of all specified and unspecified materials necessary to abandon the existing 8-inch concrete sewer lines in-place as shown on the Construction Drawings.

There is approximately 10 feet of 8-inch pipe to be abandoned.

Payment for this bid item will be made on a lump-sum basis and shall include all equipment, labor, materials, and incidentals required to complete the work.

**Item No. 20 – Relocate Rain Drains:**

This bid item provides for the relocation of rain drains as shown on the Construction Drawings.

Payment for this bid item will be on a lump-sum basis and will include all labor, equipment, materials, and incidentals required to complete the work.

**Item No. 21 – Remove and Replace 4-Inch PCC Sidewalk:**

See *Standard Construction Specifications*, Section 306.

Removal of existing concrete is included in this item.

Payment for this bid item will be on a square-yard basis and will include all labor, equipment, materials, and incidentals required to complete the work.

**Item No. 22 – Remove and Replace 6-Inch PCC Driveway Approach:**

See *Standard Construction Specifications*, Section 306.

Removal of existing concrete is included in this item.

Payment for this bid item will be on a square-yard basis and will include all labor, equipment, materials, and incidentals required to complete the work.

**Item No. 23 – Remove and Replace 10-Inch PCC Alley Approach:**

See *Standard Construction Specifications*, Section 306.

Removal of existing concrete is included in this item.

Payment for this bid item will be on a square-yard basis and will include all labor, equipment, materials, and incidentals required to complete the work.

**Item No. 24 – Remove and Replace Standard Curb and Gutter:**

See *Standard Construction Specifications*, Section 306.

Removal of existing curb and gutter is included in this item.

Payment for this bid item will be on a linear-foot basis and will include all labor, equipment, materials, and incidentals required to complete the work.

**Item No. 25 – 4-Inch Asphalt Trench Patch:**

See *Standard Construction Specifications* 304.

The base lift shall be ¾-inch or ½-inch asphalt with a thickness of two inches. The top lift shall be ½-inch asphalt with a thickness of two inches.

Sawcutting of existing pavement is incidental to this bid item.

Payment for this item will be made on a square-yard basis and shall include all equipment, labor, materials, and incidentals required to complete the work.



**LIST OF APPENDICES**

- A. PIPE BURSTING TECHNICAL SPECIFICATIONS
- B. PRIVATE SEWER LATERAL PIPE BURSTING TECHNICAL SPECIFICATIONS
- C. SEWAGE BYPASS VICINITY MAPS – *included as separate document*
- D. AGENCY CONTACT INFORMATION – *included as separate document*

**CONSTRUCTION DRAWINGS (11" X 17") – *included as separate document***

## APPENDIX A - PIPE BURSTING TECHNICAL SPECIFICATIONS

### A. GENERAL REQUIREMENTS

1. Scope. The work covered by this section of the Specifications shall consist of reconstructing the existing 6-inch and 8-inch diameter vitrified clay and unreinforced concrete sanitary sewer lines as indicated on the Construction Drawings. Replacement shall be accomplished by bursting the existing pipe and simultaneously inserting a high-density polyethylene (HDPE) pipe. The Contractor shall provide all materials, labor, equipment, and services necessary for bypass pumping of sanitary and stormwater flows, excavation of access pits, reconnection of service laterals, restoration of pavement and landscaping, final television inspection, and all other related work.
2. Pipe Bursting. The City makes no warranty regarding the suitability of pipe bursting technology for this project. The Contractor is fully responsible to determine whether conditions are suitable for pipe bursting and to select the people, methods, and equipment required to successfully perform the work.
3. Reference Specifications, Codes, and Standards. The following references are part of this Specification. In case of conflict between the requirements of this Specification and those of the listed documents, the requirements of this Specification shall prevail. The last edition of the following references shall be used:

ASTM D 1238 Measuring Flow Rates of Thermoplastics by Extrusion Plastometer

ASTM D 1248 Polyethylene Plastics Molding and Extrusion Materials

ASTM D 1505 Density of Plastics by the Density-Gradient Technique

ASTM D 1693 Environmental Stress Cracking of Ethylene Plastics

ASTM D 1928 Preparation of Compression Molded Polyethylene Test Samples

ASTM D 2321 Underground Installation of Thermoplastic Flexible Sewer Pipe

ASTM D 2657 Heat Joining of Thermoplastic Pipe and Fittings

ASTM D 2837 Obtaining Hydrostatic Design Basis for Thermoplastic Pipe Materials

ASTM D 3035 Polyethylene Plastic Pipe (SDR-PR) Based on Controlled Outside Diameter

ASTM D 3261 Specification for Butt Heat Fusion Polyethylene (PE) Plastic Fittings for Polyethylene (PE) Plastic Pipe and Tubing

ASTM D 3350 Polyethylene Plastic Pipe and Fittings Materials

ASTM F 585 Insertion of Flexible Polyethylene Pipe in Existing Sewers

ASTM F 714 Specification of Polyethylene (PE) Plastic Pipe (SDR –PR) Based on Outside Diameter

ASTM D1.1 AWS Standard Qualification Procedure

### B. CONTRACTOR SUBMITTALS

1. Data to be Submitted by Bidder with the Bid. A copy of the Statement of Experience form and licensed installer documentation shall be submitted with the bid. Failure to submit and meet the requirements outlined below may be grounds for rejection of the bid.

### C. STATEMENT OF EXPERIENCE REQUIREMENTS:

This form shall be completed in its entirety. The form can be found at the end of the Pipe Bursting Technical Specifications.

1. Contractor: The Contractor must have minimum field experience for HDPE pipe bursting installation of three (3) successfully completed projects totaling a minimum of 2,000 linear feet or mainline using the proposed pipe bursting technology.
2. Superintendent: All pipe bursting technology shall be supervised by a project superintendent with the following minimum experience. The superintendent must have minimum supervisory field experience for HDPE pipe bursting installation of three (3) successfully completed projects totaling a minimum of 2,000 linear feet of mainline using the proposed pipe bursting technology.

3. Pipe Fusion Technician: Polyethylene pipe joining shall be performed by personnel certified as fusion technicians by a manufacturer of polyethylene pipe and/or fusing equipment. The fusing equipment shall be operated only by technicians who within the last two (2) years have had experience fusion welding 8-inch or larger diameter HDPE pipe (totaling 500 linear feet minimum).

**D. DATA TO BE SUBMITTED AFTER AWARD OF CONTRACT**

The Contractor shall submit copies of the following to the Engineer after award of the contract, but prior to the start of work and a minimum of one week prior to the preconstruction meeting. The Contractor shall not start work until all submittals are turned in.

1. Pipe Bursting Literature: Shop drawings, catalog data, manufacturer’s technical data, dimensioned drawings, and installation details/sketches and other pertinent information for the HDPE pipe bursting installation work. All materials provided shall be fully in accordance with the requirements of the reference specifications listed in Section 1.01B.
2. Installation Plan: The Contractor shall submit marked up Plans indicating all of the excavation locations and excavation dimensions required for the pipe bursting and installation of the HDPE pipe. Narrative text must be included describing how utilities and other improvements are to be protected at each excavation.
3. Affidavit of Compliance: The Contractor shall submit a certified affidavit of compliance for all HDPE pipe and fittings furnished confirming that the materials fully conform to the requirements specified herein.
4. Bypass Pumping Plan: The Contractor shall submit a bypass-pumping plan for review by the Engineer. The plan shall include proposed methods and equipment for stormwater and sewage control in accordance with Section 1.14 of the Special Specifications. This submittal shall include methods of controlling main pipeline flow, including location where stormwater and sewage is to be diverted, type of pipe to be used for bypass, and the method of service lateral flow control. Also, include methods for employing standby equipment when required during any emergency to include the use of a second pumping unit on standby or two pumps alternating.

**E. MATERIALS**

1. HDPE Pipe and Fittings:
  - a. Materials used for the manufacture of HDPE pipe and fittings shall be extra high molecular weight, high density ethylene/hexene copolymer PE 3408 Polyethylene resin meeting the specified physical property and pipe performance requirements.
  - b. The pipe and fittings shall be extruded from resin meeting specifications of ASTM D3350 with a cell classification of PE 345434C; and ASTM D 1248 pipe grade resin Type III, Class C, Category 5, Grade P34 polyethylene compound. The HDPE pipe shall have an Environmental Stress Crack Resistance (ESCR) of greater than 1000 hours for 50 percent failure as specified in ASTM F1248.
  - c. The Pipe and fittings shall be homogenous throughout and free from visible cracks, holes, foreign inclusions, or other injurious defects. The pipe shall be as uniform as commercially practical in color, opacity, density and other physical properties.
  - d. The pipe shall have a Standard Dimension Ratio (SDR) of 17 with the following dimensions:

Existing Sewer Approximate Inside Diameter, Inches	HDPE Nominal O.D., Inches	HDPE Approx. I.D., Inches	Min. Wall Thickness, Inches
8	8.625	7.611	0.507
10	10.750	9.486	0.632
12	12.750	11.250	0.750
15	16	14.118	0.941
18	18	15.882	1.059
21	22	19.412	1.294
24	24	21.176	1.412
30	30	26.470	1.765

- e. The heat fusion saddles shall have a Standard Dimension Ratio (SDR) of 17 with 4-inch and 6-inch outlets, as required for each service lateral.
- f. The pipe shall be to the dimensions and tolerances specified in ASTM F 714. Additionally, the pipe shall be inspected per industry-accepted manufacturer standards for:
  - Diameter
  - Wall thickness
  - Concentricity
  - Quick burst pressure and ductility
  - Joint strength
  - Straightness
  - Ovality
  - Toe-in
  - Overall workmanship inspection on I.D. and O.D.
  - Print line
- g. Pipe Extrusion
  - The pipe shall be extruded using a melt homogenizing/plasticating extruder and appropriate dye. The extruder screw design should be customized for the HDPE being processed to minimize melt fracture of the molecular structure thus reducing the molecular weight and changing some physical properties from resin to pipe. The resin should be processed at its melt temperature of 375 degrees Fahrenheit to 425 degrees Fahrenheit. The extruded tubular melt will be vacuum or pressure sized in downstream cooling tanks to form round pipe to specification diameter and wall thickness with at “matte finish” surface.
  - The pipe shall contain no recycled compound except that generated in the manufacturer’s own plant from resin of the same specification from the same raw material. The pipe shall be homogenous throughout and free of visible cracks, holes, voids, foreign inclusions or other deleterious defects, and shall be identical in color, density, melt index, and other physical properties throughout.
- h. Pipe Marking

During extrusion production, the HDPE pipe shall be continuously marked with durable printing following this format:

  - Nominal size
  - Standard dimension ratio
  - Pressure rating
  - Type (trade name)
  - Material classification
  - Certification basis
  - Blank position for nsf/fm use
  - Pipe test category
  - Plant
  - Extruder number
  - Date
  - Operator number
  - Shift letter
  - Resin supplier code

## F. PACKAGING AND SHIPPING

- 1. Packaging and shipping shall be done in accordance with the manufacturer’s instructions. Each standard and random length of pipe in compliance with this standard shall be stamped with a clear and permanent mark with the following information: name and trademark of manufacturer, nominal pipe size, dimension ratio, the letter

PE followed by the polyethylene grade per ASTM D 1248, followed by the Hydrostatic Design Basis in hundreds of psi.

2. Package the pipe in a manner designed to deliver the pipe to the project neatly, intact, and without physical damage. The transportation carrier shall use an appropriate method and intermittent checks to insure the pipe is properly supported, stacked, and restrained during transport such that the pipe is not nicked, gouged, or physically damaged.

## **G. PIPE HANDLING**

1. It shall be the Contractor's responsibility to locate and secure a staging area for this project at which to stockpile and store equipment and materials. Stockpiling of pipe in the City right-of-way is prohibited.
2. The Contractor shall exercise special care during the unloading, handling, and storage of all polyethylene pipe to ensure that the pipe is not cut, gouged, scored or otherwise damaged. Any pipe segment which has cuts in the pipe wall exceeding 10 percent of the wall thickness shall be cut out and removed from the site at the Contractor's expense.
3. Handle fused segments of pipe so as to avoid damage to the pipe. Lifting fused sections of pipe with chains or cable type chokers must be avoided. Nylon slings are preferred. Spreader bars are recommended when lifting long fused sections. Care must be exercised to avoid cutting or gouging the pipe.
4. All pipe damaged before, during, or after installation shall not be used and shall be removed from the site by the Contractor at his cost to the satisfaction of the Engineer. Inspect the pipe prior to installation to insure that there is no damaged pipe.

## **H. STORAGE**

1. Store pipe on clean, level ground to prevent undue scratching or gouging of the pipe. If the pipe must be stacked for storage, such stacking shall be done in accordance with the pipe manufacturer's recommendations.
2. Where necessary due to ground conditions, store the pipe on wooden sleepers, spaced suitably, and of such width as to not allow the deformation of the pipe at the point of contact with the sleeper or between supports.
3. Limit stacking of the pipe to a height that will not cause excessive deformation of the bottom layers of pipes under anticipated temperature conditions.

## **I. PIPE JOINING**

1. The Contractor is not allowed to stockpile pipe, or any other material used for the contract within City right-of-way. However, the Contractor shall be allowed to layout and fuse within the right-of-way the amount of pipe that will be installed in the next two immediate pipe bursting runs (the segment being installed and the segment to be immediately pipe burst). The Contractor is not allowed to transport additional pipe into the right-of-way until the previous section has been installed.
2. Sections of polyethylene pipe shall be jointed into continuous lengths on the job site above ground. The joining method shall be the butt fusion method to provide a leak proof joint. Socket fusion, threaded or solvent-cement joints, and connections are not permitted. All equipment and procedures shall be used in strict compliance with the pipe manufacturer's recommendations. Fusion equipment used in the joining procedure shall be capable of meeting all conditions recommended by the pipe manufacturer, including, but not limited to, fusion temperature, alignment, and fusion pressure. The pipe fusion technician shall meet the experience requirements as outlined above.
3. A fire retardant bag or suitable enclosure shall be used with the heater plate to facilitate control of heating process and to protect the heater plate surfaces from dirt and other debris when not in use. The heater plate surfaces shall be cleaned regularly as needed to prevent accumulation of fusion welding residues or other substances that may result in faulty pipe joining.
4. Butt fusion shall conform to ASTM D2657 and pipe manufacturer's criteria for the type of joining. The butt-fused joint shall be true alignment and shall have uniform roll-back beads resulting from the use of proper temperature and pressure. The joint shall be allowed adequate cooling time before removal of pressure. The fused joint shall be watertight and shall have tensile strength equal to that of the pipe. All joints shall be subject to acceptance by the Engineer prior to insertion. All defective joints shall be cut out and replaced at no cost to

the City. Any section of the pipe with a gash, blister, abrasion, nick, scar, or other deleterious fault greater in depth than ten percent (10%) of the wall thickness shall not be used and must be removed from the site. However, a defective area of the pipe may be cut out and the joint fused in accordance with the procedure stated above. In addition, any section of the pipe having other defects such as concentrated ridges, discoloration, excessive spot roughness, pitting, variable wall thickness or any other defect of manufacturing or handling as determined by the Engineer shall be discarded and not used.

5. The inside and outside of pipe ends shall be cleaned with a cotton or non-synthetic cloth to remove dirt, water, grease and other foreign materials. The pipe ends shall be cut square and carefully aligned just prior to heating.
6. After achieving the proper melt pattern, the pipe ends shall be brought together in a firm rapid motion applying sufficient pressure to form a pipe bead (1/8 inch to 3/16 inch in height) around and inside the entire circumference of the pipe.
7. Any make-up pieces needed to connect from the HDPE installed by pipe bursting to a manhole or to another segment of sewer shall also be HDPE SDR 17 of the same diameter. Make-up pieces shall be connected to the previously installed HDPE pipe by use of a heat fusion coupling. Electrofusion couplings may be used for field closures as necessary. No mechanical couplings will be allowed unless specifically called out in the Construction Drawings.

## **J. INSERTION AND RECEIVING PITS**

1. General. In accordance with requirements outlined above, after award of the contract and prior to beginning work, the Contractor shall submit an installation plan to the Engineer indicating the location and size of all pits required for the work. Pit location and size shall be verified in the field prior to construction of the project and are subject to Engineer approval.
2. Location and Number. Insertion pits shall generally be excavated at or near the upstream end of each line segment to be replaced unless otherwise required. Pits shall be centered over the existing sewer line. The Contractor shall minimize the number of pits; however, sufficient number of pits shall be utilized to properly construct the project. Receiving pits, if needed, shall be at or near the downstream end of each segment to be replaced.
3. Dimensions. Dimensions of the pits shall be of sufficient size and length to accommodate the depth of the sewer system shown on the Construction Drawings and to meet the requirements of manufacturer's allowable bending radius and installation requirements for new pipe to be installed. Minimum insertion pit length shall be equal to 2.5 times the depth plus eight feet.
4. Safety. All pits shall be prepared and backfilled in accordance with sound bedding practices and in accordance with ASTM D2774 and D2321. All pits shall be adequately braced to insure safe work areas. Payment for shoring shall be as specified in the Special Provisions. The pits shall be covered with steel plates when not in use to prevent unauthorized entry. At the end of each work day the Contractor shall ensure all steel plates are securely fastened with cold mix to any paved surface surrounding the pit or by other means acceptable to the Engineer if the surrounding surface is unpaved. Any holes in the steel plates shall be sealed.
5. Maintenance and Protection of Existing Utilities. The Contractor shall maintain, restore, and protect all existing utilities, pipes or structures located within or adjacent to the pits.

## **K. REPLACEMENT OF AND CONNECTION TO MANHOLES**

1. Replacement of Manholes. All existing sanitary sewer manholes shown on the Construction Drawings to be replaced shall be removed and disposed of by the Contractor and replaced with manholes per the Standards.
2. Connection to Manholes. The Contractor is required to reconnect all new and existing pipes to the replaced manholes as well as to any existing manhole that is not called out for replacement.
  - a) HDPE Pipe to Sanitary Manhole Connections. The Contractor shall connect the new polyethylene pipe to new sanitary sewer manholes by installation of a flexible pipe-to-manhole connector that shall provide a watertight joint between both the pipe and connector and the connector and the manhole. A non-shrink grout shall be used to fill the annular space. The connector shall be "Kor-N-Seal" with "Wedge Korband" (Type I or II as required for pipe diameter) as manufactured by NPC, Inc., or approved equal. The

connections shall be installed per the manufacturer's recommendations. Connection to existing manholes shall be accomplished per the *Standard Construction Specifications*.

The Contractor shall allow the polyethylene pipe to return to its original length and shape in the unstressed state before making the connection to the service laterals and before trimming excess liner in the manhole or making the connection to the manhole.

#### **L. PIPE INSTALLATION**

1. The pipe bursting tool shall be designed and manufactured to force its way through the existing pipe materials by fragmenting the pipe and compressing the old pipe sections into the surrounding soil as it progresses. The bursting unit shall generate sufficient force to burst and compact the existing pipeline.
2. The new sewer main shall be installed on the same line and grade of the existing sewer main.
3. The bursting tool shall be of the dimensions such that the design maximum diameter of the tunnel shall not exceed the maximum outside diameter of the new pipe plus one (1) inch. The Contractor shall take extreme care to protect facilities, such as adjacent utilities and aboveground terrain or improvements from damage by forces generated by the pipe bursting equipment. Should the Contractor's equipment/operation cause such damage, the Contractor shall stop work and modify his equipment and/or methods to the satisfaction of the Engineer to prevent further damage.
4. The Contractor shall thread the pulling cable, chain, or rods and associated lines through the existing sewer section to be replaced and attach to the nose of the bursting device. Tension shall be increased to allow the expander to begin the breaking process and pull the HDPE pipe into the existing pipe.
5. The pulling machine shall provide a constant tension to the burster so that it may operate in an efficient manner. The machine shall ensure directional stability in keeping the unit on line.
6. The Contractor shall allow the polyethylene pipe to return to its original length and shape in the unstressed state before making the connection to the laterals and trimming any excess liner in the manhole before making the connection to the manhole. The liner pipe manufacturer's recommendations shall be followed regarding the relief and normalization of stresses and strain due to temporary stretching or elongation after pulling operations are completed. Time allowed for stress and strain relief shall not be less than 24 hours.

#### **M. ACTIVE LATERALS**

The Engineer has noted the locations of existing tees/wyes/taps on the Construction Drawings. However, it shall be the Contractor's responsibility to determine whether each of the connections is active. The Contractor shall TV inspect each tee/wye/tap in advance to determine whether it is active using a camera launched from the main up each service lateral a minimum of 10 feet or until a plug is found, whichever is sooner. The Contractor shall videotape this inspection and provide a copy of the videotape and hard copy inspection log to the Engineer prior to any service lateral excavation in a given segment.

The Contractor shall then excavate, expose, and completely disconnect all of the active laterals in a given run before pipe bursting operations commence. The existing lateral connections may be encased in mortar, concrete, or reinforced concrete. There will be no additional compensation for the demolition of this concrete. The Contractor shall excavate at each active lateral connection to a depth equal to 1 times the outside diameter of the main under the invert of the existing main to allow free movement of the bursting head.

If any lateral cannot be disconnected for the time necessary to install the HDPE pipe and reconnect the lateral, the Contractor shall bypass pump the lateral to a sanitary sewer main. The method of bypass pumping shall be submitted by the Contractor to the Engineer for review and the method of bypass pumping shall not be allowed until the method is satisfactory to the Engineer. In the event sewage backs up and enters a building, the Contractor shall be responsible for cleanup, repair, and property damage costs and claims.

Upon installation of the HDPE pipe and successful completion of required testing, the Contractor shall reconnect the active laterals. The Contractor shall install temporary flexible pipe (such as corrugated) between the saddle and the lateral during the relaxation period of the HDPE pipe. After the HDPE pipe has been allowed to relax, the Contractor shall make the permanent connections to the laterals. The Contractor shall first allow the new HDPE pipe to return to its original length and shape in the unstressed state. The pipe manufacturer's recommendations shall be followed regarding the relief and normalization of stress and strain due to temporary stretching or

elongation after pulling operations are completed. Time allowed for stress and strain relief shall not be less than 24 hours. The laterals shall be reconnected to the new sanitary sewer pipe by open excavation using polyethylene heat fusion saddles as manufactured by Phillips Driscopipe, Inc. or approved equal. The connections shall be watertight and installed in accordance with the manufacturer's written instructions.

The Contractor shall be responsible for promptly restoring, correcting, and paying any costs resulting from failure to reconnect properly any service lateral connection shown on the Construction Drawings.

#### **N. CROSSING/ADJACENT UTILITIES**

The Engineer has contacted private and public utilities and has shown on the Construction Drawings those utilities within the project limits indicated as existing by the various utilities. It shall be the Contractor's sole responsibility to determine from the utility information provided on the Construction Drawings if the sewer pipe can be pipe burst without damaging the adjacent and crossing utilities. If the Contractor determines that he cannot successfully pipe burst in the area of the crossing or adjacent utility, the Contractor shall replace such portions by open cut excavation. All work necessary for the open cut replacement of the sewer, including street restoration, shall be paid for at the unit bid price for pipe bursting at the specified diameter and no additional payment will be made.

If the Contractor elects to burst the sewer in the area of a crossing/adjacent utility, the Contractor shall be responsible for all costs associated with repair of the utility and any resulting damage claims should it be damaged through the bursting operation. If the crossing utility is a water main or gas line, the Contractor shall contact the Engineer and the affected utility at least 48 hours prior to starting the bursting operations. In addition, the Contractor shall excavate and expose any water or gas main crossing prior to the start of the bursting operation. The excavation shall remain open until the bursting head has successfully passed the utility crossing.

#### **O. TEMPORARY SEWAGE BYPASS**

The work specified in this section includes all costs for labor, materials, accessories, equipment, and tools for performing all operations required to bypass pump sewage around a manhole or sewer section in which work is to be performed. This work shall be consistent with the temporary sewage bypass pumping guidelines as stated in the Special Provisions.

#### **P. TESTING**

The Contractor shall be responsible to perform testing as required in the City of Albany *Standard Construction Specifications*.



## STATEMENT OF EXPERIENCE REQUIREMENTS FOR PIPE BURSTING

This form shall be completed in its entirety and a copy submitted with the bid. In addition to this form, the Contractor shall attach a copy of the pipe bursting certification and documentation verifying that he is a licensed installer of the manufacturer's pipe bursting system. **Failure to submit and meet the requirements as stated in Appendix A - Pipe Bursting Technical Specifications will be grounds for rejection of the bid.**

The City of Albany will be the sole judge in determining if the prospective contractor meets the minimum experience requirements.

### Contractor:

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

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

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

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

List three successfully completed projects totaling a minimum of 2,000 linear feet of mainline HDPE pipe using the proposed pipe bursting technology:

#1 Project Name: \_\_\_\_\_

Owner: \_\_\_\_\_

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

Size of Pipe (Existing and New): \_\_\_\_\_

Total Length Installed: \_\_\_\_\_

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

#2 Project Name: \_\_\_\_\_

Owner: \_\_\_\_\_

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

Size of Pipe (Existing and New): \_\_\_\_\_

Total Length Installed: \_\_\_\_\_

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

#3 Project Name: \_\_\_\_\_

Owner: \_\_\_\_\_

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

Size of Pipe (Existing and New): \_\_\_\_\_

Total Length Installed: \_\_\_\_\_

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

### Superintendent:

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

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

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

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

List three successfully completed projects totaling a minimum of 2,000 linear feet of mainline HDPE pipe using the proposed pipe bursting technology:

#1 Project Name: \_\_\_\_\_  
Owner: \_\_\_\_\_  
Name of Contractor Employed by: \_\_\_\_\_  
Contact Person: \_\_\_\_\_  
Size of Pipe (Existing and New): \_\_\_\_\_  
Total Length Installed: \_\_\_\_\_  
Completion Date: \_\_\_\_\_

#2 Project Name: \_\_\_\_\_  
Owner: \_\_\_\_\_  
Name of Contractor Employed by: \_\_\_\_\_  
Contact Person: \_\_\_\_\_  
Size of Pipe (Existing and New): \_\_\_\_\_  
Total Length Installed: \_\_\_\_\_  
Completion Date: \_\_\_\_\_

#3 Project Name: \_\_\_\_\_  
Owner: \_\_\_\_\_  
Name of Contractor Employed by: \_\_\_\_\_  
Contact Person: \_\_\_\_\_  
Size of Pipe (Existing and New): \_\_\_\_\_  
Total Length Installed: \_\_\_\_\_  
Completion Date: \_\_\_\_\_

**Pipe Fusion Technicians:**

Name: \_\_\_\_\_  
Certified By: \_\_\_\_\_

Within the last 2 years, list projects totaling a minimum of 500 linear feet of fusion welding 8-inch or larger diameter HDPE pipe:

#1 Project Name: \_\_\_\_\_  
Size of Pipe: \_\_\_\_\_ Total Length Fused: \_\_\_\_\_  
Completion Date: \_\_\_\_\_

#2 Project Name: \_\_\_\_\_  
Size of Pipe: \_\_\_\_\_ Total Length Fused: \_\_\_\_\_  
Completion Date: \_\_\_\_\_

#3 Project Name: \_\_\_\_\_  
Size of Pipe: \_\_\_\_\_ Total Length Fused: \_\_\_\_\_  
Completion Date: \_\_\_\_\_

## APPENDIX B - PRIVATE SEWER LATERAL PIPE BURSTING TECHNICAL SPECIFICATIONS

### A. GENERAL

Description: This specification shall cover the rehabilitation of existing sanitary sewer laterals from building to the public sewer main using the pipe-bursting method. Pipe bursting is a system in which the bursting head splits the existing pipe while simultaneously installing a new High Density Polyethylene Pipe (HDPE) of the same size or larger size pipe where the old pipe existed, then reconnects existing sewer service house connections, and television inspection of the HDPE is performed. The bursting head tool must be used in conjunction with a constant tension hydraulic winch. Bursting head diameter depends on the diameter of the pipe to be replaced.

### B. QUALIFICATIONS

1. The contractor shall be certified by the particular pipe bursting system manufacturer that such a company is a fully trained user of the pipe bursting system.
2. HDPE pipe jointing shall be performed by personnel trained in the use of butt-fusion equipment and recommended methods for new pipe connections. Personnel directly involved with installing the new pipe shall receive training in the proper methods for handling and installing the HDPE pipe. Training shall be performed by qualified representative.
3. The Contractor shall hold the City harmless in any legal action resulting from patent infringements.

### C. SUBMITTALS

Submit the following:

1. Television inspection reports and videotapes made after new pipe installation.

### D. DELIVERY, STORAGE, AND HANDLING

1. Transport, handle, and store pipe and fittings as recommended by manufacturer.
2. If new pipe and fittings become damaged before or during installation, it shall be repaired as recommended by the manufacturer or replaced as required by the Engineer at the Contractor's expense, before proceeding further.
3. Deliver, store, and handle other materials as required to prevent damage.

### E. METHODS FOR NEW PIPE INSTALLATION

The method approved for rehabilitation of existing sanitary sewer laterals by pipe bursting and installation of new polyethylene pipe is either pneumatically operated equipment or static pull equipment.

### F. MATERIALS

Polyethylene Plastic Pipe shall be high-density polyethylene pipe and meet the applicable requirements of ASTM F714 Polyethylene (PE) Plastic Pipe (SDR-PR) Based on Outside Diameter, ASTM D1248, ASTM D3350.

1. The size of the new pipe to be used shall be to replace the sewer to its original pipe size, unless otherwise directed by the Engineer to upsize the lateral.
2. All pipe shall be made of virgin material. No rework except that obtained from the manufacturer's own production of the same formulation shall be used.
3. The pipe shall be homogenous throughout and shall be free of visible cracks, holes, foreign material, blisters, or other deleterious faults.
4. Dimension Ratios: The minimum wall thickness of the polyethylene pipe shall meet the following:

Depth of Cover (Feet)	Minimum SDR of Pipe
0 - 16.0	17
> 16.1	17

5. Material color shall be white, black, or whatever is specified with interior of pipe having a light reflective color to allow easier/better viewing for television inspection.

## G. TESTS

Tests for compliance with this specification shall be made as specific herein and in accordance with the applicable ASTM Specification. A certificate with this specification shall be furnished, upon request, by the manufacturer for all material furnished under this specification. Polyethylene plastic pipe and fittings may be rejected if it fails to meet any requirements of this specification.

## H. EQUIPMENT

1. Pneumatic: The pipe bursting tool shall be designed and manufactured to force its way through existing pipe materials by fragmenting the pipe and compressing the old pipe sections into the surrounding soil as it progresses. The bursting unit shall be pneumatic and shall generate sufficient force to burst and compact the existing pipeline. See manufacturer's specifications for what size tool should be used in what diameter of pipe, as well as, parameters of what size tool for percentage of upsize allowed.

The pipe-bursting tool shall be pulled through the sewer by a winch located at the upstream manhole. The bursting unit shall pull the HDPE pipe with it as it moves forward. The bursting head shall incorporate a shield/expander to prevent collapse of the hole ahead of the HDPE pipe insertion. The pipe bursting unit shall be remotely controlled.

The pipe bursting tool shall be pneumatic. The bursting action of the tool shall increase the external dimensions sufficiently, causing breakage of the pipe at the same time expanding the surrounding ground. The action shall not only break the pipe but also create the void into which the burster can be winched and enables forward progress to be made. At the same time, the HDPE pipe, directly attached to the sleeve on the rear of the burster, shall also move forward.

The burster shall have its own forward momentum while being assisted by winching. A winch shall give the burster friction by which it can be moved forward. To form a complete operating system, the burster must be matched to a constant tension winching system.

2. Static: The pipe bursting tool shall be designed and manufactured to force its way through existing pipe materials by fragmenting the pipe and compressing the old pipe sections into the surrounding soil as it progresses. The bursting unit shall generate sufficient force to burst and compact the existing pipe line. See manufacturer's specifications for what size tool should be used in what diameter of pipe, as well as parameters of what size tool for percentage of upsize allowed.

The pipe bursting tool shall be pulled through the sewer by a winch located at the receiving excavation or manhole. The bursting unit shall pull the HDPE pipe with it as it moves forward. The pipe bursting unit shall be remotely controlled.

The bursting action of the tool shall increase the external dimensions sufficiently, causing breakage of the pipe at the same time expanding the surrounding soil. To reduce pipe drag, the expander for 4" pipe shall be 5.875" O.D. and expander for 6" pipe shall be 8.00" O.D. Expanders shall be equipped with two steel alloy cutting blades, permanently mounted to the sloped surface of the expander. This action shall fracture the existing pipe and allow bursting tool to make forward progress. At the same time the new HDPE pipe, directly attached to the sleeve on the rear of the burster, shall also move forward.

## I. WINCH UNIT

1. Pneumatic: A winch shall be attached to the front end of the bursting unit. The winch shall provide a constant tension to the burster in order that it may operate in an efficient manner. The winch shall ensure directional stability in keeping the unit on line.

The constant tension winch shall supply sufficient cable in one continuous length so that the pull may be continuous between approved winching points.

The Contractor shall provide a system of guide pulleys and bracing to center the cable and minimize contact with the existing sewer lateral.

2. Static: A winch shall be attached to the front of the bursting unit. The winch shall provide a constant tension to the burster in order that it may operate in an efficient manner. The winch shall ensure directional stability in keeping the unit on line.

The winch shall be hydraulically operated providing a constant tension throughout the operation. The winch shall be of the constant tension type and shall be fitted with a direct reading pressure gauge to measure the winching load.

The constant tension winch shall supply sufficient cable in one continuous length so that the pull may be continuous between launching pit and receiving pit or manhole.

The contractor shall provide a system of guide pulleys and bracing at each access hole to minimize cable contact with the existing sewer.

The supports to the trench shoring in the insertion pit shall remain completely separate from the winch boom support system and shall be so designed that neither the pipe nor the winch cable shall be in contact with them.

#### J. SEWER SERVICE CONNECTIONS

Sewer service connections shall be connected to the new pipe by various methods. The saddles shall be made of a material compatible with that of the mainline pipe.

1. Electrofusion saddles, as manufactured by Central Plastics, shall be installed in accordance with the manufacturers recommended procedures.
2. Conventional heat fusion saddles as manufactured by Central Plastics, Phillips Driscopipe, or Plexco shall be installed in accordance with the manufacturers recommended procedures.
3. Connection of the new service lateral to an existing plastic service lateral shall be accomplished by means of a solid sleeve coupler when possible (i.e. HDPE to PVC connections) or mechanical rubber sleeve couplings for dissimilar pipe materials (i.e. HDPE to concrete connections), as manufactured by Fernco, or approved equal. All couplers shall be installed using according to the manufacturer's written installation instructions.

#### K. PREPARATION

1. By Passing Sewage:
  - a. By-pass pumping: The Contractor, when and where required, shall provide diversion for the pipe bursting/replacement process. The pumps and by-pass lines shall be of adequate capacity and size to handle all flows. All costs for by-pass pumping required during installation of the pipe shall be paid for under the appropriate bid item.
  - b. The Contractor shall be responsible for maintaining sanitary sewer service to each facility connected to the section of sewer during the execution of the work.
  - c. If sewage backup occurs and enters buildings, the Contractor shall be responsible for clean up, repair, and property damage cost and claims.

#### L. TELEVISION INSPECTION

Television inspection of pipelines shall be performed by experienced personnel trained in locating breaks, obstacles and service connections by closed circuit television. Television inspection shall include the following:

1. Videotapes (post) to be submitted to the City, as required.
2. Videotapes to remain property of the City; the Contractor to retain a second copy for his use.
3. Should any portion of the inspection tapes be of inadequate quality or coverage, as determined by the City the Contractor will have the portion re-inspected and videotaped at no additional expense to the City.

#### M. CONSTRUCTION METHOD

1. Pneumatic:
  - a. The pipe bursting installation shall be done as one continuous operation. The pneumatic tool operation will be simultaneously complimented by operation of the winch. As the bursting tool moves through the existing sewer lateral, the winch shall provide constant tension to the tool, keeping it in line with the pipe being replaced.
  - b. The Contractor shall install all pulleys, rollers, bumpers, alignment control devices, and other equipment required to protect existing manholes, and to protect the pipe from damage during installation. Under no

circumstances will the pipe be stressed beyond its elastic limit. Winch line is to be centered in pipe to be burst with adjustable boom or other device.

- c. The installed pipe shall be allowed the manufacturer's recommended amount of time, but not less than four (4) hours, for cooling and relaxation due to tensile stressing prior to any reconnection of service lines, sealing of the annulus or backfilling of the insertion pit. Sufficient excess length of new pipe, but not less than four (4) inches, shall be allowed to protrude into the manhole to provide for occurrence.
  - d. Following the relaxation period, the annular space may be sealed. Sealing shall be made with material approved by the Engineer and shall extend a minimum of eight (8) inches into the manhole wall in such a manner as to form a smooth, uniform, watertight joint.
  - e. The terminating pipe ends in manholes shall be connected by Central Plastics Electrofusion couplings, or other approved method, to eliminate ground water infiltration. Installations of electrofusion couplings or other products shall be done in accordance with the manufacturers recommended procedures.
  - f. Pit Placement Issues: Launching and receiving pits shall be placed at each end of the sewer lateral service to be replaced. Other excavations may be necessary to accommodate changes in direction of the lateral service or to expose other utilities that may be in close proximity to the pipe bursting operation.
2. Static:
- a. Equipment used to perform the work shall be located away from buildings to minimize noise impact. Provide a silent engine compartment with the winch to reduce machine noise as required to meet local requirements.
  - b. The Contractor shall install all pulleys, rollers, bumpers, alignment control devices and other equipment required to protect existing manholes, and to protect the pipe from damage during installation. Lubrication may be used as recommended by the manufacturer. Under no circumstances will the pipe be stressed beyond its elastic limit. Winch line is to be centered in pipe to be burst with adjustable boom.

## N. FIELD TESTING

After the existing sewer lateral is completely replaced, internally inspect with television camera and videotape as required.

Defects which may affect the integrity or strength of the pipe in the opinion of the Engineer shall be repaired or the pipe replaced at the Contractor's expense.

The laterals shall be subject to additional air/vacuum tests as required by the *Standard Construction Specifications*.

## O. PIPE JOINING

1. The polyethylene pipe shall be assembled and joined at the site using the butt-fusion method to provide a leak proof joint. Threaded or solvent-cement joints and connections are not permitted.

All equipment and procedures used shall be used in strict compliance with the manufacturer's recommendations. Fusing shall be accomplished by personnel certified as fusion technicians by a manufacturer of polyethylene pipe and/or fusing equipment.

2. The butt-fused joint shall be true alignment and shall have uniform roll-back beads resulting from the use of proper temperature and pressure. The joint shall be allowed adequate cooling time before removal of pressure. The fused joint shall be watertight and shall have tensile strength equal to that of the pipe. All joints shall be subject to acceptance by the Engineer prior to insertion.

All defective joints shall be cut out and replaced at no cost to the City. Any section of the pipe with a gash, blister, abrasion, nick, scar, or other deleterious fault greater in depth than ten percent (10%) of the wall thickness, shall not be used and must be removed from the site. However, a defective area of the pipe may be cut out and the joint fused in accordance with the procedures stated above. In addition, any section of the pipe having other defects such as concentrated ridges, discoloration, excessive spot roughness, pitting, variable wall thickness or any other defect of manufacturing or handling as determined by the Engineer shall be discarded and not used.

3. Terminal sections of pipe that are joined within the insertion pit shall be connected with Central Plastics Electrofusion Couplings with tensile strength equivalent to that of the pipe being joined, or other approved connection methods.