



# INVITATION TO BID

## CONSTRUCTION PROJECT

**Public Works Department**  
22500 Salamo Road  
West Linn, Oregon 97068  
Telephone:  
(503) 722-5500  
Fax: (503) 656-4106

# City of West Linn

## Plans and Bid Documents

Project Number: **PW-23-03**

Project Description: **10<sup>TH</sup> St. Corridor Improvement Project**

Prospective Bidders' Conference: **Optional**

February 22, 2023 – 11:00am

Due Date: **March 1, 2023 – 2:00pm**

Plans and Specifications are available for download at no charge from the City's website at <http://bids.westlinnoregon.gov>. You must be registered plan holder to access detailed project documents.

### OPTIONAL PROSPECTIVE BIDDERS' CONFERENCE AVAILABLE

It is highly encouraged that Contractors and Subcontractors visit the sites.



EXPIRES: 6/30/23



**GENERAL**

NOTICE OF INVITATION TO BID AND CONTRACT ..... 3  
 STANDARD TERMS AND CONDITIONS ..... 4  
 GENERAL TERMS AND CONDITIONS ..... 11  
 SPECIAL TERMS AND CONDITIONS ..... 23

**APPENDIX A  
BID FORMS**

**APPENDIX B  
TECHNICAL PROVISIONS**

**APPENDIX C  
PLANS**

**FORMS REQUIRED FOR SUBMITTAL WITH BID**

1. NOTICE OF INVITATION TO BID AND CONTRACT
2. BID FORM
3. BID BOND
4. NONCOLLUSION AFFADAVIT
5. THREE YEAR EXPERIENCE RECORD
6. FIRST-TIER SUBCONTRACTOR DISCLOSURE (WH-179)  
Submit within 2 hours of bid closing.
7. AFFADAVIT OF COMPLIANCE WITH TAX LAWS
8. SIGNED ADDENDA (IF ANY)

**FORMS NOT REQUIRED AT TIME OF BID**

1. PERFORMANCE BOND
2. PAYMENT BOND
3. CONTRACTOR'S AFFADAVIT, SETTLEMENT OF CLAIMS
4. PAYROLL INSTRUCTIONS (WH-38A)
5. PAYROLL/CERTIFIED STATEMENT FORM (WH-38)



CITY OF  
**West  
Linn**

# City of West Linn, Oregon

## Notice of Invitation To Bid and Contract

Project Number: **PW-23-03** Bid Due Date: **March 1, 2023**

Project Name: 10<sup>th</sup> St. Corridor Improvement Project Bid Due Time: 2:00 P.M.

Bid Opening Location: City of West Linn  
22500 Salamo Rd.  
West Linn, OR 97068 Contact: Erich Lais  
Title: Assistant City Engineer

Time of Completion: By December 31, 2023 Phone: (503) 722-3434

Project Description: Tie into streetscape improvements along Willamette Falls Dr. Project includes construction of a mini-roundabout at the Willamette Falls Dr/10th Street intersection, protected intersection at the 10th Street/8th Ave intersection, and a multi-use path along Salamo Rd.

Sealed bids for the project identified and described above will be received by the City of West Linn at the specified location above until the date and time cited above. Bids received by the correct date and time shall be publicly opened and the bid price read on March 1, 2023 at 2:00PM. Bids shall be in the actual possession of the identified bidding department on or prior to the exact date and time indicated above for bid due date. Late bids will not be considered, except as provided in City of West Linn Contracting Rules. **Bids shall be submitted in a sealed envelope with the Invitation To Bid Project Number, Project Description, and the bidder's name and address clearly indicated on the front of the envelope.** All bids shall be completed in ink or typewritten. This Bid is for a public works project subject to ORS 279C.800 to 279C.870.

### BIDDER

#### To the City of West Linn:

The undersigned hereby Bids and agrees to furnish materials and/or services in compliance with all terms, conditions, specifications and addenda in the Notice of Invitation To Bid except for any written exceptions in the Bid. The signature below also certifies his or her understanding and compliance with The City of West Linn Standard Terms and Conditions.

Is the Bidder a "Resident" Bidder per ORS 279A.120? \_\_\_\_\_  
Construction Contractors Board Yes/No

For clarification of this Bid contact:

Registration Number: \_\_\_\_\_

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

Federal Employer Identification Number: \_\_\_\_\_

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

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Authorized Signature for Bidder

\_\_\_\_\_  
Address

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
City

\_\_\_\_\_  
State

\_\_\_\_\_  
Zip Code

\_\_\_\_\_  
Title

### ACCEPTANCE OF BID AND CONTRACT AWARD (For City of West Linn Use Only)

Your bid is hereby accepted. The Contractor is now bound to sell the materials and/or services listed by the attached award notice based upon the solicitation, including all terms, conditions, specifications, plans, addendum, amendments, etc., and the Contractor's Bid as accepted by the City.

Approved as to form:

\_\_\_\_\_  
Legal

City of West Linn, Oregon.

Awarded on \_\_\_\_\_, \_\_\_\_\_.

\_\_\_\_\_  
John Williams, City Manager



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## STANDARD TERMS AND CONDITIONS

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### 1. PREPARATION OF BID:

- a. All bids shall be submitted on the forms provided in this *Invitation to Bid* package. It is permissible to copy these forms if required. Telegraphic (facsimile), electronic or mailgram bids will not be considered.
- b. The Bid and Contract Award document shall be submitted with an original ink signature by a person authorized to sign the Bid.
- c. Erasures, interlineations, or other modifications in the bid shall be initialed in original ink by the authorized person signing the Bid.
- d. If price is a consideration and in case of error in the extension of prices in the bid, the unit price shall govern. No bid shall be altered, amended, or withdrawn after the specified bid due date and time.
- e. Periods of time, stated as a number of days, shall be calendar days.
- f. Bid due date and time is stated as local Oregon time.
- g. The following items must be completed as part of the Bid submittal; Notice of Invitation To Bid and Contract (indicating Oregon Construction Contractors Board License Number), Bid Form, Bid Guaranty (Bond), Non-Collusion Affidavit, Three-Year Experience, and Addenda. Within two (2) hours of the Bid submittal, or with the Bid submittal, the First Tier Subcontractor Disclosure Form must be submitted if the bid is greater than \$100,000.
- h. It is the responsibility of all Bidders to examine the entire *Invitation To Bid* package and seek clarification of any item or requirement that may not be clear and to check all responses for accuracy before submitting a bid. Negligence in preparing a Bid confers no right of withdrawal after bid due date and time.

2. **INQUIRIES:** Any question related to the *Invitation To Bid (ITB)* shall be directed to the Buyer whose name appears as the Contact on the *ITB*. The Bidder shall not contact or ask questions of the department for which the requirement is being procured. Questions should be submitted in writing when time permits. The Buyer may require any and all questions be submitted in writing at the Buyer's sole discretion. Any correspondence related to an *Invitation To Bid* should refer to the appropriate *ITB* number, page, and paragraph number. All requests for additional information or interpretation of the *ITB* shall be submitted to the Buyer no later than five (5) calendar days before the deadline for submission of bids. If, in the opinion of the City, additional information or clarification is required, an addendum will be issued to all plan holders on record. Any addenda issued by the City seventy-two (72) hours or more before the scheduled closing time for filing bids shall be binding upon the Bidder. Addenda may be downloaded from the City's website. Bidders shall frequently check the City's website until closing including at least daily the week of the closing. Failure of the Bidder to receive or obtain such addenda shall not excuse them from compliance therewith if they are awarded the contract. Oral instructions or information given by City Officers, employees or agents to Bidders concerning this *ITB* or the work in general shall not bind the City.

3. **PROSPECTIVE BIDDERS CONFERENCE (OPTIONAL):** A prospective Bidders conference will be held. If scheduled, the date and time of this conference will be indicated on the cover page of this document. The purpose of this conference will be to clarify the contents of this *Invitation To Bid* in order to prevent any misunderstanding of the City's position. Any doubt as to the requirements of this *Invitation To Bid* or any apparent omission or discrepancy should be presented to the City at this conference. The City will then determine if any action is necessary and may issue a written addendum to the *ITB*.

4. **LATE BIDS:** Late Bids received after the scheduled bid due date and time will be returned to the Bidder unopened.

5. **WITHDRAWAL OF BID:** At any time prior to the specified bid due date and time, a Bidder (or designated representative) may withdraw the bid.

6. **ADDENDUM OF BID:** Receipt of Addendum shall be acknowledged by signing and returning the document with the Bid at the specified bid due date and time.

7. **CONSTRUCTION CONTRACTORS REGISTRATION:** A person shall not submit a bid or proposal to work as a construction contractor unless that person is first registered with the Construction Contractors Board as required by ORS 701.021 or licensed by the State Landscape Contractor's Board as required by ORS 671.530. Bids from persons who fail to comply with this requirement shall be deemed non-responsive and be rejected.

### 8. AWARD OF CONTRACT:

- a. Notwithstanding any other provision of this *Invitation To Bid*, The City expressly reserves the right to: waive any immaterial defect or informality, reject any bids that do not comply with the prescribed public contracting procedures (including the requirement to demonstrate the bidder's responsibility under ORS 279C.375 (3)(b)), reject all bids for good cause if in the public interest, or reissue an *Invitation To Bid*.
- b. A response to an *Invitation To Bid* is a Bid to contract with the City based upon the terms, conditions and specifications contained in the City's *Invitation To Bid* and the written addenda thereto, if any. Bids do not become contracts unless and until they are accepted and executed by the **City Local Contract Review Board, City Manager or Department Director** in accordance with the City of West Linn Procurement Policy. A contract is formed when written notice of award(s) is provided to the successful Bidder(s). The contract has its inception in the award document, eliminating a formal signing of a separate contract. For that reason, all of the terms and conditions of the procurement contract are contained in the *Invitation To Bid*; unless modified by an Addendum.



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**THE FOLLOWING TERMS AND CONDITIONS ARE AN EXPLICIT PART OF THE SOLICITATION AND ANY RESULTANT CONTRACT.**

1. **APPLICABLE LAW:** In the performance of this agreement, contractors shall abide by and conform to any and all laws of the United States, State of Oregon and City of West Linn including but not limited to federal and state executive orders providing for equal employment and procurement opportunities, the Federal Occupational Safety and Health Act and any other federal or state laws applicable to this agreement.

Attention is called to the requirements of Oregon Revised Statutes (O.R.S.) Chapter 279A, 279B, and 279C. This contract shall be governed by the laws of the State of Oregon. Any action or suits pertaining to this contract may be brought only in courts in the Circuit Court of Clackamas County or the U.S. District Court in Portland. Each and every provision of law and any clause required by law to be in the contract will be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party, the contract will forthwith be physically amended to make such insertion or correction.

The City may cancel this contract without penalty or further obligations by the City or any of its departments or agencies if any person significantly involved in initiating, negotiating, securing, drafting or creating the contract on behalf of the City or any of its departments or agencies, is at any time while the contract or any extension of the contract is in effect, an employee of any other party to the contract in any capacity or a consultant to any other party of the contract with respect to the subject matter of the contract.

2. **AMERICANS WITH DISABILITIES ACT, DISCRIMINATION & AFFIRMATIVE ACTION:** Bidders agree that if awarded a contract, the successful Bidder will comply with all applicable provisions of the Americans with Disabilities Act of 1990, 42 UFC Section 12101 et seq. If any Bidder requires special assistance or auxiliary aids during the bidding process, please notify the City of West Linn, 503-657-0331 or TDD 503-657-7845 at least two (2) business days prior to the required assistance. To the extent applicable, the Contractor represents that it will comply with Executive Order 11246 as amended, Executive Order 11141, Section 503 of the Vocational Rehabilitation Act of 1973 as amended and the Age Discrimination Act of 1975, and all rules and regulations issued pursuant to the Acts. It is the policy of the City of West Linn that suppliers of goods or services to the City adhere to a policy of equal employment opportunity and demonstrate an affirmative effort to recruit, hire, and promote regardless of race, color, religion, gender, national origin, age or disability. By submitting the first tier subcontractor disclosure form, Bidder certifies that it has complied with ORS 279A.110(1), which states that a bidder may not discriminate against a subcontractor in awarding a subcontract because the subcontractor is a minority, women or emerging business enterprise certified under ORS 200.055 or a business enterprise that is owned or controlled by, or that employs a disabled veteran.
3. **BUSINESS LICENSE:** A current business license is required before doing business with the City. Information related to complying with the business license requirements is available by contacting the City Finance Department at 503-657-0331 or online at <https://westlinnoregon.gov/finance/online-business-license-registration>.

4. **CONSTRUCTION AND LANDSCAPE CONTRACTORS BOARDS:** Construction contractors must be licensed with the State of Oregon Construction Contractors Board in accordance with O.R.S. 701.005 and any other specialty licensing as required in the bid specification prior to submitting a bid to the City. For information contact:

CONSTRUCTION CONTRACTORS BOARD  
700 Summer St. NE, Suite #300, Salem, OR 97310  
(503) 378-4621 (website) <http://www.ccb.state.or.us>

A Landscape Contractors Board license is required in accordance with O.R.S. 671.510 if the bid specification includes landscape work as defined by O.R.S. 671.510. For information contact:

LANDSCAPE CONTRACTORS BOARD  
2111 Front St. NE, Suite #2-101, Salem, OR 97310  
(503) 378-5909 (website) <http://www.oregon.gov/LCB/>



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5. **LEGAL REMEDIES:** All claims and controversies shall be subject to resolution according to the terms of the City of West Linn Procurement Policy.
6. **BID GUARANTY:** All construction contracts shall be accompanied by a bid guaranty. No bid for construction will be considered unless accompanied by a certified check, cashier's check, or a bid bond for an amount not less than ten percent (10%) of the aggregate amount of the bid by a surety company authorized to issue such bonds in the State of Oregon. It shall be payable to the City of West Linn as a guaranty that the bid shall be irrevocable for a period of sixty (60) calendar days, unless otherwise specified, after the bid opening date and time and as liquidated damages should the Bidder fail or neglect to furnish the required performance bond and insurance and execute a contract within ten (10) calendar days after receiving said contract from the City for execution. The City will hold all bid security during the evaluation process. As soon as is practical after the completion of the evaluation, the City will issue a contract award notice for those Bids accepted by the City and return all checks to those who have not been issued a contract award notice.  
  
All bid security from contractors who have been issued an award notice shall be held until the successful execution of all required contractual documents and bonds (performance bond, insurance, etc.). If the contractor fails to execute the required contractual documents and bonds within the time specified, or ten (10) days after notice of award if no period is specified, the contractor may be found to be in default and the contract terminated by the City. In case of default, the City reserves all rights inclusive of, but not limited to, the right to purchase material and/or to complete the required work in accordance with the City of West Linn Procurement Policy and to recover any actual excess costs from the contractor. Collection against the bid security shall be one of the measures available toward the recovery of any excess costs.
7. **CONFLICT OF INTEREST:** A Bidder submitting a bid hereby certifies that no officer, agent or employee of the City who has a pecuniary interest in this bid has participated in the contract negotiations on the part of the City, that the bid is made in good faith without fraud, collusion, or connection of any kind with any other Bidder of the same Invitation To Bids, and that the Bidder is competing solely in its own behalf without connection with, or obligation to, any undisclosed person or firm. No bid will be considered unless accompanied by the notarized Non-Collusion Affidavit form included in the Invitation To Bid.
8. **PRE-BID REQUIREMENTS:** Before submitting a bid, each Bidder shall carefully examine the Drawings, read the Specifications and all Addenda and visit the work site, if applicable. Each Bidder shall fully inform themselves prior to submitting a bid as to all existing conditions and limitations under which the Work is to be performed, and shall include in the bid a sum to cover all costs of all items necessary to perform the Work as set forth in the Bid Documents. No allowance will be made to any Bidder because of lack of such examination or knowledge. Submission of a bid will be construed as conclusive evidence that the Bidder has made such examination.
9. **LOCAL BUSINESS PREFERENCE:** ORS 279A.120 requires that, in all public contracts, the public contracting agency shall prefer good or services that have been manufactured or produced in this State if price, fitness, availability and quality are otherwise equal. As such the City desires to employ local businesses in the purchase, lease, or sale of any personal property, public improvements or services that have been manufactured or produced by a local business if price, fitness, availability and quality are otherwise equal. When a public contract is awarded to a nonresident bidder and the contract price exceeds \$10,000, the bidder shall promptly report to the Department of Revenue on forms provided by the department all information as required by ORS 279A.120(3).
10. **COST OF BID/PROPOSAL PREPARATION:** The City shall not reimburse the cost of developing, presenting, or providing any response to this solicitation. Bids submitted for consideration should be prepared simply and economically, providing adequate information in a straightforward and concise manner. The Invitation To Bid does not commit the City to pay any costs incurred by a Bidder in the submission of their bid, or in making any necessary studies or designs for the preparation thereof.
11. **CONTRACT:** The contract between the City and the Contractor shall consist of (1) the Invitation To Bid, including instructions, all terms and conditions, specifications, scopes of work, attachments, price sheet(s) and any amendments thereto, and (2) the Bid submitted by the Contractor in response to the Invitation To Bid (ITB). In the event of a conflict in language



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between the ITB and the Bid, the provisions and requirements in the ITB shall govern. However, the City reserves the right to clarify, in writing, any contractual terms with the concurrence of the Contractor, and such written contract shall govern in case of conflict with the applicable requirements stated in the ITB or the Vendor's Bid. The ITB shall govern in all other matters not affected by the written contract. The contract, if awarded, will be made to the lowest, responsive and responsible Bidder offering the lowest unit price base bid. Determination of the lowest responsive, responsible bid is subject to review by the City. Adversely affected or aggrieved bidders shall have seven calendar days after notice of award to submit to the City a written protest of the notice of award. Any written protest must be submitted in accordance with the adopted City Local Contract Review Board Rules.

12. **CONTRACT AMENDMENTS:** This contract may be modified only by a written Contract Amendment signed by persons duly authorized to enter into contracts on behalf of the City and the Contractor.
13. **CONTRACT APPLICABILITY:** The Bidder shall substantially conform to the terms, conditions, specifications and other requirements found within the text of this ITB. All previous agreements, contracts, or other documents, which have been executed between the Bidder and the City are not applicable to this ITB or any resultant contract.
14. **DRUG TESTING PROGRAM:** Pursuant to O.R.S. 279.505 (2) (1), the Contractor awarded the contract shall demonstrate that an employee drug-testing program is in place. The Contractor demonstrates that a drug-testing program is in place by signing of the contract. The drug testing program will apply to all employees and will be maintained for the duration of the Contract awarded. Failure to maintain a program shall constitute a material breach of contract.
15. **RELATIONSHIP TO PARTIES:** It is clearly understood that each party will act in its individual capacity and not as an agent, employee, partner, joint venture, or associate of the other. An employee or agent of one party shall not be deemed or construed to be the employee or agent of the other for any purpose whatsoever. The Contractor is advised that taxes or Social Security payments will not be withheld from any City payments issued hereunder and that the Contractor should make arrangements to directly pay such expenses, if any.
16. **INTERPRETATION-PAROL EVIDENCE:** This contract represents the entire agreement of the Parties with respect to its subject matter, and all previous agreements, whether oral or written, entered into prior to this contract are hereby revoked and superseded by this contract. No representations, warranties, inducements or oral agreements have been made by any of the Parties except as expressly set forth herein, or in any other contemporaneous written agreement executed for the purposes of carrying out the provisions of this contract. This contract may not be changed, modified or rescinded except as provided for herein, absent a written agreement signed by both Parties. Any attempt at oral modification of this contract shall be void and of no effect.
17. **SUBCONTRACTS – ASSIGNMENT & DELEGATION:** Contractor shall submit a list of Subcontractors for approval by the City, and Contractor shall be fully responsible for the acts or omissions of any Subcontractors and of all persons employed by them, and neither the approval by City of any Subcontractor nor anything contained herein shall be deemed to create any contractual relation between the Subcontractor and City.

This agreement, and all of the covenants and conditions hereof, shall inure to the benefit of and be binding upon the City and the Contractor respectively and their legal representatives. Contractor shall not assign any rights nor delegate any duties incurred by this contract, or any part hereof without the written consent of City, and any assignment or delegation in violation hereof shall be void.

18. **APPROVAL OF SUBSTITUTIONS:** The materials, products, and equipment described in the Documents and Addenda establish a standard or required function, dimension, appearance, and quality to be met by any proposed substitution. No substitute will be considered unless written request for approval has been received by the City or its representative at least five (5) days prior to the scheduled closing time for receipt of bids. Each such request shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitute including any drawings, cuts, performance, and test data and any other information necessary for evaluation of the substitute. If a substitute is approved, the approval shall be acknowledged in writing. Bidder shall not consider approvals made in any other manner.



## STANDARD TERMS AND CONDITIONS

19. **RIGHTS AND REMEDIES:** No provision in this document or in the vendor's Bid shall be construed, expressly or by implication, as waiver by the City of any existing or future right and/or remedy available by law in the event of any claim of default or breach of contract. The failure of the City to insist upon the strict performance of any term or condition of the contract or to exercise or delay the exercise of any right or remedy provided in the contract, or by law, or the City's acceptance of and payment for materials or services, shall not release the Contractor from any responsibilities or obligations imposed by this contract or by law, and shall not be deemed a waiver of any right of the City to insist upon the strict performance of the Contract.

20. **INDEMNIFICATION:** Contractor warrants that all its work will be performed in accordance with generally accepted professional practices and standards as well as the requirements of applicable federal, state and local laws, it being understood that acceptance of a contractor's work by City shall not operate as a waiver or release.

Contractor agrees to indemnify and defend the City, its officers, agents and employees and hold them harmless from any and all liability, causes of action, claims, losses, damages, judgments or other costs or expenses including attorney's fees and witness costs and (at both trial and appeal level, whether or not a trial or appeal ever takes place) that may be asserted by any person or entity which in any way arise from, during or in connection with the performance of the work described in this contract, except liability arising out of the sole negligence of the City and its employees. If any aspect of this indemnity shall be found to be illegal or invalid for any reason whatsoever, such illegality or invalidity shall not affect the validity of the remainder of this indemnification. The amount and type of insurance coverage requirements set forth herein will in no way be construed as limiting the scope of the indemnity in this paragraph.

21. **EARLY TERMINATION:** This agreement may be terminated without cause prior to the expiration of the agreed upon term by mutual written consent of the parties and for the following reasons:

- a. If work under the Contract is suspended by an order of a public agency for any reason considered to be in the public interest other than by a labor dispute or by reason of any third party judicial proceeding relating to the work other than a suit or action filed in regard to a labor dispute; or
- b. If the circumstances or conditions are such that it is impracticable within a reasonable time to proceed with a substantial portion of the Contract.

Payment of Contractor shall be as provided by ORS 279C.660 and shall be prorated to and include the day of termination and shall be in full satisfaction of all claims by Contractor against City under this Contract. Termination under any provision of this paragraph shall not affect any right, obligation, or liability of Contractor or City which accrued prior to such termination.

22. **CANCELLATION WITH CAUSE:** City may terminate this Contract effective upon delivery of written notice to Contractor, or at such later date as may be established by City, under any of the following conditions:

- a. If City funding from federal, state, local, or other sources is not obtained and continued at levels sufficient to allow for the purchase of the indicated quantity of services. This Contract may be modified to accommodate a reduction in funds,
- b. If Federal or State regulations or guidelines are modified, changed, or interpreted in such a way that the services are no longer allowable or appropriate for purchase under this Contract,
- c. If any license or certificate required by law or regulation to be held by Contractor, its subcontractors, agents, and employees to provide the services required by this Contract is for any reason denied, revoked, or not renewed,
- d. If Contractor becomes insolvent, if voluntary or involuntary petition in bankruptcy is filed by or against Contractor, if a receiver or trustee is appointed for Contractor, or if there is an assignment for the benefit of creditors of Contractor, or





## STANDARD TERMS AND CONDITIONS

- e. If Contractor fails to maintain reasonable relations with the public. Verbal abuse, threats, or other inappropriate behavior towards members of the public constitutes grounds for termination.

Any such termination of this agreement under this section shall be without prejudice to any obligations or liabilities of either party already accrued prior to such termination.

City, by written notice of default (including breach of contract) to Contractor, may terminate the whole or any part of this Contract:

- f. If Contractor fails to provide services called for by this Contract within the time specified herein or any extension thereof, or
- g. If Contractor fails to perform any of the other provisions of this Contract, or so fails to pursue the work as to endanger performance of this Contract in accordance with its terms, and after receipt of written notice from City, fails to correct such failures within ten (10) days or such other period as City may authorize.

The rights and remedies of City provided in the above clause related to defaults (including breach of contract) by Contractor shall not be exclusive and are in addition to any other rights and remedies provided by law or under this Contract.

If City terminates this Contract per clause f or g above, Contractor shall be entitled to receive as full payment for all services satisfactorily rendered and expenses incurred, an amount which bears the same ratio to the total fees specified in this Contract as the services satisfactorily rendered by Contractor bear to the total services otherwise required to be performed for such total fee; provided, that there shall be deducted from such amount the amount of damages, if any, sustained by City due to breach of contract by Contractor. Damages for breach of contract shall be those allowed by Oregon law, reasonable and necessary attorney fees, and other costs of litigation at trial and upon appeal.

- 23. **SEVERABILITY:** In the event any provision or portion of this Contract is held to be unenforceable or invalid by any court of competent jurisdiction, the remainder of this Contract shall remain in full force and effect and shall in no way be affected or invalidated thereby.
- 24. **FORCE MAJEURE:** Neither City nor Contractor shall be considered in default because of any delays in completion of responsibilities hereunder due to causes beyond the control and without fault or negligence on the part of the party so disabled, including, but not restricted to, an act of God or of a public enemy, volcano, earthquake, fire, flood, epidemic, quarantine, restriction, area-wide strike, freight embargo, unusually severe weather or delay of Subcontractor or suppliers due to such cause; provided that the party so disabled shall within ten (10) days from the beginning of such delay, notify the other party in writing of the causes of delay and its probable extent. Such notification shall not be the basis for a claim for additional compensation. Each party shall, however, make all reasonable efforts to remove or eliminate such a cause of delay or default and shall, upon cessation of the cause, diligently pursue performance of its obligation under Contract.
- 25. **RIGHT TO ASSURANCE:** Whenever one party to this contract in good faith has reason to question the other party's intent to perform he may demand that the other party give a written assurance of this intent to perform. In the event that a demand is made and no written assurance is given within five (5) days, the demanding party may treat this failure as an anticipatory repudiation of the Contract.
- 26. **RIGHT TO ACCESS RECORDS:** City shall have access to such books, documents, papers and records of Contractor and Subcontractors as are directly pertinent to this Contract for the purpose of making audit, examination, excerpts, and transcripts.
- 27. **WARRANTIES:** All work shall be guaranteed by the Contractor for a period of 18 months after the date of final acceptance of the work by the Owner. Contractor warrants that all practices and procedures, workmanship, and materials shall be the best available unless otherwise specified in the profession. Neither acceptance of the work nor payment therefore shall relieve Contractor from liability under warranties contained in or implied by this contract. Additional warranty requirements may be set forth in the solicitation.



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28. **TITLE AND RISK OF LOSS:** The title and risk of loss of material and/or service shall not pass to the City until the City actually receives the material or service at the point of delivery, unless otherwise provided within this Contract.
29. **CONFLICT BETWEEN TERMS:** It is expressly agreed by and between the parties hereto that should there be any conflict between the terms of this instrument and the bid of the Contractor, this instrument shall control and nothing herein shall be considered as an acceptance of the said terms of said bid conflicting herewith.
30. **NONWAIVER:** The failure of the City to insist upon or enforce strict performance by Contractor of any of the terms of this contract or to exercise any rights hereunder shall not be construed as a waiver or relinquishment to any extent of its right to assert or rely upon such terms or rights on any future occasion.
31. **LIENS:** All materials, service or construction shall be free of all liens, and if the City requests, a formal release of all liens shall be delivered to the City.
32. **LICENSES:** Contractor shall have at the time of bid submittal, and shall maintain in current status, all Federal, State and Local licenses and permits required for the operation of the business conducted by the Contractor as applicable to this Contract. The conclusion of the issuing authority in each case is to be deemed conclusive for the purposes of complying with this provision. By submitting a bid for this public contract, you agree that, with respect to the contract, substantial compliance does not meet the minimum requirements of this or any provision hereof, or of any applicable law or other authority, and that strict compliance alone is adequate to meet those requirements, unless the City consents to such substantial compliance in writing at the time of bid submittal. The determination shall be made by the City.
33. **ATTORNEY'S FEES:** In case suit or action is instituted to enforce the provisions of this contract, the parties agree that the losing party shall pay such sum as the Court may adjudge reasonable attorney's fees and court costs including attorney's fees and court costs on appeal.
34. **PUBLIC RECORD:** All Bids submitted in response to this solicitation shall become the property of the City and shall become a matter of public record available for review, subsequent to the award notification, in accordance with the City's Procurement Policy.
35. **WORK IS PROPERTY OF THE CITY:** All work performed by Contractor under this Contract shall be the property of the City.
36. **ADVERTISING:** Contractor shall not advertise or publish information concerning this Contract, without prior written consent of the City.



## GENERAL TERMS AND CONDITIONS

1. **DEFINITIONS:** The terms, as used in or pertaining to the contract, are defined as follows:

**CITY:** The word “*City*” shall refer to the City of West Linn, Oregon.

**CONTRACTOR:** The word “*Contractor*” is defined as the person, firm or corporation with whom the contract is made by the City.

**CONTRACT:** The word “*Contract*” will include; the Invitation to Bid Notice and Contract, Instructions to Bidders, Bid Form, Bid Guaranty, Performance Bond, Payment Bond, Notice of Award, Notice to Proceed, Change Order, Certificate of Insurance, Certificate of Completion, Contractor’s Affidavit Regarding Settlement of Claims, Contractor’s Affidavit Certifying Non-Collusion in Bidding, Standard Terms & Conditions, General Terms & Conditions, Special Terms & Conditions, Technical Provisions, Plans and Addenda thereto.

**ENGINEER:** The word “*Engineer*” is defined as the person, firm or corporation duly authorized by the City to act as agent in providing professional services including studies, planning, engineering design and construction administration services, inspecting materials and construction, and interpreting plans and specifications.

**MATERIALS:** The word “*Materials*” will include, in addition to materials incorporated in the project, equipment and other material used and/or consumed in the performance of the work.

**SUBCONTRACTOR:** The word “*Subcontractor*” is defined as those persons or groups of persons having a direct contract with the contractor and those who furnish material worked to a special design according to the plans and/or specifications for this work, and includes those who merely furnish materials not so worked.

**WORK:** The word “*Work*” shall include all labor necessary to accomplish the construction required by the Contract and all materials and equipment incorporated or to be incorporated in said construction.

2. **REFERENCE STANDARDS:**

- a. The “2010 City of West Linn Public Works Standards” which are sponsored and distributed by the City of West Linn Engineering Division, and which are hereinafter referred to as the “*COWL Specifications*,” are hereby adopted as part of these contract documents.
- b. The “2018 Oregon Standard Specifications for Construction” and the latest edition of the “Oregon Standard Drawings and Standard Details” which are sponsored and distributed by the Oregon Department of Transportation (ODOT), and which are hereinafter referred to as the “ODOT Specifications” are hereby adopted as part of these contract documents.
- c. If any contradiction exists between “COWL Specifications” or “ODOT Specifications” and this solicitation document, the solicitation language shall prevail.

3. **LAWS AND REGULATIONS:** The Contractor shall keep himself fully informed of all existing and future City and County ordinances and regulations and state and federal laws and Occupational Safety and Health Standards (OSHA) in any manner affecting the work herein specified. He shall at all times observe and protect and indemnify the City of West Linn, Oregon, and its officers and agents against any claim or liability arising from or based on the violation of any such ordinances, regulations or laws. It is the responsibility of the Contractor to obtain any and all information regarding the laws and regulations which may be referenced in the Specifications.

4. **RIGHTS OF WAY:** The Contractor shall not enter or occupy with workers, tools, equipment or materials any private ground outside the property or easement right of the City of West Linn, without the consent of the owner.



## GENERAL TERMS AND CONDITIONS

The Contractor, at his own expense, is responsible for the acquisition of any additional easements or rights-of-way that he may desire to complete the work of this contract.

5. **PROPOSAL QUANTITIES:** It is expressly understood and agreed by the parties hereto that the quantities of the various classes of work to be done and the material to be furnished under this Contract, which have been estimated as stated in the Bids, are only approximate and are to be used solely for the purpose of comparing, on a consistent basis, the bids for the work under this Contract. The Contractor further agrees that the City of West Linn will not be held responsible if any of the quantities shall be found incorrect; and the Contractor will not make any claim for damages or for loss of profits because of a difference between the quantities of the various classes of work as estimated and the work actually done. If any error, omission, or misstatement is found to occur in the estimated quantities, the same shall not invalidate this Contract or the whole or any part of the work in accordance with the Specifications and Plans herein mentioned, and for the prices herein agreed upon and fixed therefore, or excuse him from any of the obligations or liabilities hereunder, or entitle him to any damage or compensation except as may be provided in this contract.
6. **PREVAILING WAGE RATE DETERMINATION:** The Contractor shall pay the applicable prevailing wage rates that are in effect at the time the Contract is bid. If the contract price exceeds \$50,000 and is not otherwise exempt, workers shall be paid not less than the specified minimum hourly rate of wage in accordance with ORS 279C.838 and ORS 279C.840. Hard copies of the prevailing wage rates publication may be obtained by contacting the Oregon Bureau of Labor and Industries via telephone at: (971) 673-0839. The applicable prevailing wage rates may be accessed via the internet at: [http://www.oregon.gov/BOLI/WHI/PWR/pwr\\_book.shtml](http://www.oregon.gov/BOLI/WHI/PWR/pwr_book.shtml). If the Project is subject to the Davis-Bacon Act and the state prevailing rate of wage is higher than the federal prevailing rate of wage, the contractor and every subcontractor on the Project shall pay at least the state prevailing rate of wage as determined under ORS 279C.815.

The Contractor and all subcontractors must have a public works bond filed with the Oregon Construction Contractors Board before starting work on the Project, unless exempt under ORS 279C.836(4), (7), (8) or (9). If the contractor fails to pay for labor or services, the City can pay and withhold these amounts from payments due the contractor in accordance with ORS 279C.515. Daily, weekly, weekend, and holiday overtime will be paid as required in ORS 279C.540. The Contractor shall provide workers with a written schedule showing the number of hours per day and days per week the employee may be required to work in accordance with ORS 279C.520. Contractor must promptly pay for any medical services they have agreed to pay per ORS 279C.530.

The City will not receive or consider a bid unless the bid contains a statement by the bidder that the bidder will comply with ORS 279C.838, ORS 279C.840, or 40 U.S.C. 3141. By signing and submitting the Bid, the Contractor agrees to comply with ORS 279C.838 or 279C.840 and/or 40 U.S.C. 3141 et seq. for a public works project subject to the state prevailing wage rates under ORS 279C.800 to 279C.870, the federal prevailing wage rates under the Davis-Bacon Act (40 U.S.C. 3141 et seq.) or both.

For contracts \$50,000 or greater, the City shall pay a fee to the Bureau of Labor and Industries and shall be mailed or otherwise delivered to the Bureau in accordance with Form WH-81 & WH-39.

7. **PAYMENTS TO CONTRACTOR:** City agrees to pay Contractor for performance of those services provided hereunder, which payment shall be based upon the following applicable terms:
  - a. **Payment:** Payment shall be based upon the unit prices bid by the Contractor, as listed in attached bid. Contractor shall prepare and submit each month to the Buyer identified in the Invitation To Bid at the address listed, a statement of services rendered, (indicating the description of each service used in the bid and the dollar amount of each service completed through the stated date), together with a request for payment duly verified by the Contractor's Representative.

Payment by the City shall release the City from any further obligation for payment to Contractor for services performed or expenses incurred as of the date of the statement of services. Payment of installments shall not be considered



## GENERAL TERMS AND CONDITIONS

acceptance or approval of any work or waiver of any defects therein. City certifies that sufficient funds are available and authorized for expenditure to finance costs of this contract. Contractor shall include proof of payment to any and all subcontractors and suppliers with each statement submitted to the City. The City shall retain the right to withhold payments if required proof of payment to subcontractor and suppliers is not included with a statement.

- b. **Timing of Payments:** Progress payments shall be made to the Contractor within thirty (30) days of the City's receipt of the statement of services.
- c. **Final Payment:** The Contractor shall notify the City in writing when the Contractor considers the project complete, and the City shall, within 15 days after receiving the written notice, either accept the work or notify the Contractor of work yet to be performed on the contract. If accepted by the City, the remaining balance due to the Contractor, including the retained percentage, shall be paid to the Contractor by the City within 30 days after the date of said acceptance.
- d. **Deposit in Interest Bearing:** Upon written request of the contractor, or anytime the contract price exceeds \$500,000, the City shall deposit any amounts withheld as retainage in an interest-bearing account in a bank, savings bank, trust company, or savings association for the benefit of the City. Interest earned on such account shall accrue to the contractor. If the contractor deposits bonds, securities, or other instruments in lieu of cash retainage, the City shall accept the contractor's alternative retainage method in lieu of depositing the retainage in an interest-bearing escrow account, subject to the limitations and requirement of ORS 279.560.

As a further condition of final acceptance, the City may require the Contractor to submit evidence, satisfactory to the City's Representative, that all payrolls, material bills, and other indebtedness connected with the project have been paid. If any indebtedness or liens are in dispute, the Contractor may submit a surety bond satisfactory to the City guaranteeing payment of all such disputed amounts if such payment has not already been guaranteed by surety bond.

All notices, bills and payments shall be made in writing and may be given by personal delivery or by mail. Notices, bills and payments sent by mail should be addressed to the attention of the Buyer and/or Authorized Bidder at the addresses identified in the Invitation To Bid and shall be deemed given upon deposit in the United States mail, postage paid. In all other instances, notices, bills and payments shall be deemed given at the time of actual delivery. Changes may be made in the names and addresses of the person to whom notices, bills, and payments are to be given by giving written notice pursuant to this paragraph.

- 8. **LIQUIDATED DAMAGES:** The Contractor agrees that the "Time of Completion" is defined in the Bid and agrees to complete the work by said date. The Contractor and City agree that the City will suffer damages each day the work remains uncompleted after the Time of Completion and that the amounts of those damages are difficult to calculate. Contractor and City agree that a reasonable amount of damages for late completion is **\$500 per calendar day** and Contractor agrees to pay such amounts as liquidated damages if the work is not completed by the Time of Completion. Contractor agrees that the liquidated damages specified herein are a fair way of ascertaining damages to the City and are not a penalty for late completion.
- 9. **STATUS OF CONTRACTOR AS INDEPENDENT CONTRACTOR:** Contractor certifies that:
  - a. Contractor acknowledges that for all purposes related to this Agreement, Contractor is and shall be deemed to be an Independent Contractor as defined by ORS 670.600 and not an employee of City, shall not be entitled to benefits of any kind to which an employee of City is entitled and shall be solely responsible for all payments and taxes required by law. Furthermore, in the event that Contractor is found by a court of law or any administrative agency to be an employee of City for any purpose, City shall be entitled to offset compensation due, or to demand repayment of any amounts paid to Contractor under the terms of this Agreement, to the full extent of any benefits or other remuneration Contractor receives (from City or third party) as a result of said finding and to the full extent of any payments that City is required to make (to Contractor or to a third party) as a result of said finding.



## GENERAL TERMS AND CONDITIONS

- b. The Contractor hereby represents that no employee of the City, or any partnership or corporation in which a City employee has an interest, has or will receive any remuneration of any description from Contractor, either directly or indirectly, in connection with the letting or performance of this Agreement, except as specifically declared in writing.
  - c. If payment is to be charged against Federal funds, Contractor certifies that he or she is not currently employed by the Federal Government and the amount charged does not exceed his or her normal charge for the type of service provided.
  - d. Contractor and its employees, if any, are not active members of the Oregon Public Employees Retirement System and are not employed for a total of 600 hours or more in the calendar year by any public employer participating in the Retirement System.
  - e. Contractor certifies that it currently has a City business license or will obtain one prior to delivering services under this Agreement.
  - f. Contractor is not an officer, employee, or agent of the City as those terms are used in ORS 30.265.
10. **CERTIFIED PAYROLL:** The Contractor shall make payment promptly, as due, to all persons supplying to such Contractor labor or material for the performance of the work provided for in this contract. The Contractor will pay all contributions or amounts due the Industrial Accident Fund under the Worker's Compensation Law from such Contractor or Subcontractor incurred in the performance of this contract. The Contractor will pay to the Department of Revenue all sums withheld from employees pursuant to ORS 316.167. The Contractor shall not permit any lien or claim to be filed or prosecuted against the City of West Linn on account of any labor or material furnished.

The Contractor or the Contractor's Surety and every Subcontractor or the Subcontractor's Surety shall file certified statements with the City in writing on a form prescribed by the Commissioner of the Bureau of Labor and Industries, certifying the hourly rate of wage paid each worker which the Contractor or the Subcontractor has employed upon such public work, and further certifying that no worker employed upon such public work has been paid less than the prevailing rate of wage or less than the minimum hourly rate of wage specified in the contract, which certificate and statement shall be verified by the oath of the Contractor or the Contractor's Surety or Subcontractor or the Subcontractor's Surety that the Contractor or Subcontractor has read such statement and certificate and knows the contents thereof and that the same is true to the Contractor's or Subcontractor's knowledge.

- a. The certified statements shall set out accurately and completely the payroll records, including the name and address of each worker, the worker's correct classification, rate of pay, daily and weekly number of hours worked, and the gross wages the worker earned during each week identified in the certified statement.
- b. Each certified statement required herein shall be delivered or mailed by the Contractor or Subcontractor to the City. A true copy of the certified statements shall also be filed at the same time with the Commissioner of the Bureau of Labor and Industries. Certified statements shall be submitted as set forth in ORS 279C.845.
- c. The City shall retain 25 percent of any amount earned by Contractor until the certified statements as required by this section have been filed. City shall pay Contractor the amount retained under this subsection within 14 days after Contractor files the certified statements as required by this section, regardless of whether a subcontractor has failed to file certified statements as required by this section. City is not required to verify the truth of the contents of certified statements filed by Contractor.

The Contractor agrees that if the Contractor fails, neglects or refuses to make prompt payment of any claim for labor or services furnished to the Contractor or a Subcontractor by any person in connection with this contract as such claim becomes due, the proper office of the City of West Linn may pay such claim to the person furnishing the labor or services and charge the amount



## GENERAL TERMS AND CONDITIONS

of the payment against funds due or to become due to the Contractor by reason of such contract. Payment of a claim in this manner shall not relieve the Contractor or the Contractor's Surety from obligation with respect to any unpaid claims.

Contractor agrees that no person shall be employed for more than ten (10) hours in any one day, or forty (40) hours in any one week, except in cases of necessity, emergency or when public policy absolutely requires it, and in such cases the laborer shall be paid at least time and a half pay for all overtime in excess of eight (8) hours in any one day or forty (40) hours in any one week when the workweek is five consecutive days, Monday through Friday, or ten (10) hours in any one day and or forty (40) hours in any one week when the workweek is four consecutive days, Monday through Friday and for all work performed on Saturday and on any legal holiday as specified in ORS 279C.540.

Contractor agrees to pay promptly as due, to any person, co partnership, association or corporation furnishing medical, surgical, and hospital care or other needed care and attention incident to sickness or injury to the Contractor's employees, of all sums which the Contractor agreed to pay for such services and all money and sums which the Contractor collected or deducted from employee wages pursuant to any law, contract or agreement for the purpose of providing or paying for such service.

11. **PRE-CONSTRUCTION CONFERENCE:** Within 30 days of the issuance of the Notice of Award, the Contractor is required to attend a Pre-construction Conference. The City will contact the Contractor to schedule a specific date, time and location for the Pre-construction conference. The purpose of the meeting is to outline specific construction items and procedures and to address items which require special attention on the part of the Contractor. The Contractor may also present proposed variations in procedures which the Contractor believes may improve constructability of the project, reduce cost, or will reduce inconvenience to the public. Any necessary coordination and procedures for Construction inspection and staking will be addressed during the Pre-construction Conference. The Contractor will be required to provide the following information at the Pre-construction Conference:

- a. Names and emergency telephone numbers of key personnel involved in the project.
- b. Names and telephone numbers of all subcontractors proposed for use on the project.
- c. A construction progress schedule showing the estimated time for start and completion of the major items of work.
- d. A written proposal outlining the intended plans for maintaining continuous access to residences and businesses along the construction site, and traffic control.
- e. An itemized list of all required shop drawings, material and equipment submittals and a schedule indicating the dates each of these items will be transmitted to the City for review.

Each of the above items is subject to the review and approval by the City.

12. **INSURANCE REQUIREMENTS:** The Contractor, at Contractor's own expense, shall purchase and maintain the herein stipulated minimum insurance with companies licensed to do business in the State of Oregon with policies and forms satisfactory to the City. The City reserves the right to reject all or any insurance carrier(s) with an unacceptable financial rating. All insurance required herein shall be maintained in full force and effect until all work required to be performed under the terms of the Contract is satisfactorily completed and formally accepted; failure to do so may, at the sole direction of the City, constitute a material breach of this Contract. The Contractor's insurance shall be primary insurance, and any insurance or self insurance maintained by the City shall not contribute to it.

Any failure to comply with the claim reporting provisions of the policies or any breach of an insurance policy warranty shall not affect coverage afforded under the policy to protect the City. The insurance policies shall contain a waiver of transfer



## GENERAL TERMS AND CONDITIONS

rights of recovery (subrogation) against the City, its agents, representatives, directors, officers, and employees for any claims arising out of the Contractor's work or service.

The City reserves the right to request and to receive, within 10 working days, certified copies of any or all of the herein required insurance policies and/or endorsements. The City shall not be obligated, however, to review same or to advise Contractor of any deficiencies in such policies and endorsements, and such receipt shall not relieve Contractor from, or be deemed a waiver of the City's right to insist on, strict fulfillment of Contractor's obligations under this Contract.

The insurance policies required by this Contract shall name the City, its agents, representatives, officers, directors, officials and employees as Additional Insured with respect to this contract. All Liability Insurance policies will be endorsed to show this additional coverage. A cross-liability clause or separation of insured clause will be included in general liability policy.

The policy or policies of insurance maintained by the Contractor and its subcontractors shall provide at least the following limits and coverage:

- a. **Commercial General Liability Insurance:** Includes all liability including all major divisions of coverage, but not limited to, Premises/Operations, Completed Operations, Independent Contractors' Protective, Products-Completed Operations, Contractual Liability (including coverage for the Contractor's indemnity obligations and other contractual indemnity obligations assumed by the Contractor), Personal Injury, and Broad Form Property Damage (including coverage for Explosion, Collapse, and Underground Hazards). The following insurance will be carried:

- Employer's Liability Insurance
  - \$ 2,000,000.00 Each Occurrence
  - \$ 2,000,000.00 Disease Each Employee
  - \$ 2,000,000.00 Disease – Policy

- Commercial General Liability insurance
  - \$ 2,000,000.00 Each Occurrence Limit
  - \$ 3,000,000.00 General Aggregate
  - \$ 3,000,000.00 Products/Completed Operations Aggregate
  - \$ 3,000,000.00 Personal and Advertising Injury
  - \$ 2,000,000.00 Limited Job Site Pollution Occurrence Sub-Limit

- Comprehensive Automobile Liability Insurance including coverage for all owned, hired and non-owned vehicles
  - \$ 2,000,000.00 Each Occurrence Combined Single Limit
  - \$ 3,000,000.00 Aggregate Bodily Injury & Property Damage

or

- \$ 2,000,000.00 Each Person Bodily Injury
- \$ 2,000,000.00 Each Occurrence Bodily Injury
- \$ 2,000,000.00 Each Occurrence Property Damage
- \$ 2,000,000.00 Each Occurrence Pollution Occurrence Sub-Limit

- b. "All risk" Builder's Risk Insurance (including earthquake and flood) covering the real and personal property of others in the care, custody, and control of the contractor, if applicable. Coverage shall include theft and damage to building interiors, exterior, in transit and offsite storage. The minimum amount of coverage to be carried shall be equal to the full amount of the contract.

The policy shall be endorsed to have the General Aggregate apply to this Project Only.

The insurance policies may provide coverage which contains deductibles or self-insured retentions. Such deductible and/or self insured retentions shall not be applicable with respect to the coverage provided to the City under such policies. The





## GENERAL TERMS AND CONDITIONS

Contractor shall be solely responsible for deductible and/or self insured retention and the City, at its option, may require the Contractor to secure the payment of such deductible or self-insured retentions by a surety bond or an irrevocable and unconditional letter of credit.

**Certificates of Insurance:** Prior to commencing Services under this Contract, Contractor shall furnish the City with Certificates of Insurance, or formal endorsements as required by the Contract, issued by Contractor's insurer(s), as evidence that policies providing the required coverage, conditions and limits required by this Contract are in full force and effect. Certificates of Insurance should read "Insurance certificate pertaining to (this contract). The City of West Linn, its officers, directors and employees shall be added as additional insured with respects to this contract. Insured coverage is primary" in the description portion of the certificate.

If a policy does expire during the life of the contract, a renewal certificate must be sent to the City ten (10) days prior to the expiration date. Insurance required herein shall not expire, be canceled, or materially changed without thirty (30) days prior written notice to the City. The procuring of such required insurance shall not be construed to limit contractor's liability hereunder. Notwithstanding said insurance, Contractor shall be obligated for the total amount of any damage, injury, or loss caused by negligence or neglect connected with this Contract.

13. **PERFORMANCE BOND:** The contractor shall be required to furnish non-revocable security binding the contractor to provide faithful performance of the contract in the amount of 100% of the total contract price payable to the City of West Linn.

Performance security shall be in the form of a performance bond, certified check or cashier's check. This security must be in the possession of the City within the time specified or ten (10) days after notice of award if no period is specified. If the contractor fails to execute the security document as required, the contractor may be found in default and the contract terminated by the City. In case of default the City reserves all rights.

All performance bonds shall be executed on the Performance Bond form included in the Bid Document, duly executed by the Bidder as Principal and having as Surety thereon a Surety company approved by the owner and holding a Certificate of Authority to transact surety business in the State of Oregon, by the Oregon Department of Insurance. Individual sureties are unacceptable. All Insurers and Sureties shall have at the time of submission of the proposal an A.M. Best's Key Rating Guide of "A-" or better as currently listed in the most recent Best Key Guide, published by the A.M. Best Company, payable without condition to the Owner.

14. **PAYMENT BOND:** The contractor shall be required to furnish non-revocable security for the protection of all persons supplying labor and material to the contractor or any subcontractor for the performance of any work related to the contract. Payment security shall be in the amount of 100% of the total contract price and be payable to the City of West Linn. Payment security shall be in the form of a payment bond, certified check or cashier's check.

All payment bonds shall be executed on the Payment Bond form included in the Bid Document, duly executed by the Bidder as Principal and having as Surety thereon a Surety company approved by the owner and holding a Certificate of Authority to transact surety business in the State of Oregon, by the Oregon Department of Insurance. Individual sureties are unacceptable. All Insurers and Sureties shall have at the time of submission of the proposal and A.M. Best's Key Rating Guide of "A-" or better as currently listed in the most recent Best Key Guide, published by the A.M. Best Company, payable without condition to the Owner.

15. **NOTICE TO PROCEED:** Within 45 days of the issuance of the Notice of Award the City may issue a written Notice to Proceed. The Notice to Proceed shall stipulate the actual contract start date, the contract duration and the contract completion date. The time required for the Contractor to obtain permits, licenses and easements shall be included in the contract duration and shall not be justification for a delay claim by the Contractor. The time required for the Contractor to prepare, transmit and obtain approval of applicable submittals shall be included in the contract duration and shall not be justification for a delay claim by the Contractor.



## GENERAL TERMS AND CONDITIONS

No work shall be started until after all required permits, licenses, and easements have been obtained.

No work shall be started until all applicable submittals have been submitted and returned approved by the City's Representative.

- 16. **PROTECTION OF FINISHED OR PARTIALLY FINISHED WORK:** The Contractor shall properly guard and protect all finished or partially finished work, and shall be responsible for the same until the entire contract is completed and accepted by the City Engineer. The Contractor shall turn over the entire work in full accordance with these Specifications before final settlement shall be made.
- 17. **CHANGE ORDERS:** The City may at any time, and without notice, issue a written Change Order requiring additional work within the general scope of this Contract, or any amendment thereto, or directing the omission of or variation in work. If such Change Order results in a material change in the amount or character of the work, an equitable adjustment in the Contract price and other provisions of this Contract as may be affected may be made. Any claim by Contractor for an adjustment under this section shall be asserted in writing within thirty (30) days from the date of receipt by Contractor of the notification of change or the claim will not be allowed. Whether made pursuant to this section or by mutual agreement, no change shall be binding upon City until a Change Order is executed by the Authorized Representative of City, which expressly states that it constitutes a Change Order to this Contract. The issuance of information, advice, approvals, or instructions by City's Representative or other City personnel shall not constitute an authorized change pursuant to this section. Nothing contained in this section shall excuse the Contractor from proceeding with the prosecution of the work in accordance with the Contract, as changed.
- 18. **STOCKPILE OF MATERIALS:** The Contractor may, if approved by the City Engineer, place or stockpile materials in the public right-of-way provided they **do not** prevent access to adjacent properties or prevent compliance with traffic regulations. Traffic shall not be required to travel over stockpiled materials, and proper dust control shall be maintained.
- 19. **EXCESS MATERIALS:** When excavations are made, resultant loose earth shall be utilized for filling by compacting in place or disposed of off the site. Excess or unsuitable material, broken asphaltic concrete and broken portland cement concrete excavated from the right-of-way shall be removed from the project and disposed of by the Contractor.

Waste material shall not be placed on private property without express permission of the property owner.

The Contractor shall at all times keep the premises free from accumulation of waste materials or rubbish caused by his operations. At the completion of the work, he shall remove all equipment, tools and surplus materials, and shall completely clean the premises, removing and disposing of all debris and rubbish, and cleaning all stains, spots, marks, dirt, smears, etc. When work premises are turned over to the City, they shall be thoroughly clean and ready for immediate use.

Clean-up shall include removal of all excess pointing mortar materials within pipes and removal of oversized rocks and boulders left after finish grading. The Contractor shall provide for the legal disposal of all waste products debris, etc., and shall make necessary arrangements for such disposal.

- 20. **ENVIRONMENTAL POLLUTION:** As provided by ORS 279C.525, all applicable provisions of federal, state or local statutes, ordinances and regulations dealing with the prevention of environmental pollution and the preservation of natural resources that affect the work under this contract are by reference incorporated herein to the same force and affect as if set forth herein in full. If the Contractor must undertake additional work due to the enactment of new or the amendment of existing statutes, ordinances or regulations occurring after the submission of the successful bid, the City shall issue a Change Order setting forth the additional work that must be undertaken. The Change Order shall not invalidate the Contract and there shall be, in addition to a reasonable extension, if necessary, of the contract time, a reasonable adjustment in the contract price,



## GENERAL TERMS AND CONDITIONS

if necessary, to compensate the Contractor for all costs and expenses incurred, including overhead and profits, as a result of the delay or additional work.

- 21. **SALVAGE, COMPOSTING OR MULCHING:** If this is a contract for demolition work, the Contractor shall salvage or recycle construction and demolition debris, if feasible and cost-effective. If this is a contract for lawn and landscape maintenance, Contractor shall compost or mulch yard waste material at an approved site, if feasible and cost-effective.
- 22. **LOSSES AND DAMAGES:** All loss or damage arising out of the nature of the work to be done or from the action of the elements or from any unforeseen circumstances in the prosecution of the same, or from any unusual obstructions or difficulties which may be encountered in and/or during the prosecution of the work, or from any casualty whatsoever of every description, shall be sustained and borne by the Contractor at his own cost and expense.
- 23. **CHARACTER AND STATUS OF WORKMEN:** Only skilled foremen and workmen shall be employed on work requiring special qualifications. When required by the City, the Contractor shall discharge any person who is, in the opinion of the City Engineer, disorderly, dangerous, insubordinate, incompetent, or otherwise objectionable. The Contractor shall keep the City harmless from damages or claims for compensation that may occur in the enforcement of this section.
- 24. **WORK METHODS:** The methods, equipment and appliances used on the work shall be such as will produce a satisfactory quality of work, and shall be adequate to complete the contract within the time limit specified.

Except as is otherwise specified, the Contractor's procedure and methods of construction may, in general, be of his own choosing, provided they follow best general practice and are calculated to secure results which will satisfy the requirements of the specifications and the supervision of the work.

The work covered by this Contract shall be carefully laid out in advance and performed in a manner to minimize interference with normal operation and utilization of the roads. The Contractor shall exercise caution during the course of this construction work to avoid damage to all known existing or possible unknown existing underground utilities. He shall conduct his construction operations in such a manner as to avoid injury to his personnel and to avoid damage to all utilities. Any damage done will be repaired without delay and at the expense of the Contractor.

- 25. **INSPECTION:** All material and/or services are subject to inspection and acceptance by the City. Materials and/or services failing to conform to the specifications of this Contract will be held at Contractor's risk and may be returned to the Contractor. If so returned, all costs are the responsibility of the Contractor. The City may elect to do any or all of the following per written determination:
  - a. Waive the non-conformance.
  - b. Stop the work immediately.
  - c. Bring material into compliance.
- 26. **TRAFFIC REGULATIONS:** All traffic affected by this construction shall be regulated in accordance with the *Oregon Temporary Traffic Control Handbook*, latest edition, as prepared by the Oregon Department of Transportation and any questions shall be referred to the City of West Linn City Engineer for interpretation.

At the time of the pre-construction conference, the Contractor shall designate an employee who is well qualified and experienced in construction traffic control and safety to be responsible for implementing, monitoring and altering traffic control measure, as necessary. At the same time the City will designate a representative who will be responsible to see that all traffic control and any alterations are implemented and monitored to the extent that traffic is carried through the work area in an effective manner and that motorists, pedestrians, bicyclists and workers are protected from hazard and accidents.



## GENERAL TERMS AND CONDITIONS

- a. All traffic control devices required for this project shall be the responsibility of the Contractor. The Contractor shall place advance warnings signs in accordance with the Traffic Control Handbook.
- b. The Contractor shall provide, erect and maintain all necessary flashing arrow boards, barricades, suitable and sufficient warning lights, signals and signs, and shall take all necessary precautions for the protection of the work and safety of the public. The Contractor shall provide, erect and maintain acceptable and adequate detour signs at all closures and along detour routes.
- c. All barricades and obstructions shall be illuminated at night, and all safety lights shall be kept burning from sunset until sunrise. All barricades and signs used by the Contractor shall conform to the standard design, generally accepted for such purposes, and payment for all such services and materials shall be considered as included in the other pay items of the Contract unless specifically listed and identified.
- d. The Contractor shall insure that all existing traffic signs are erect, clean and in full view of the intended traffic at all times. Street name signs at major street intersections shall be maintained erect at all times. If these signs should interfere with construction, the Contractor shall notify the Inspector at least forty eight (48) hours in advance for City personnel to temporarily relocate said signs. The City will re-set all traffic and street name signs to permanent locations when notified by the Contractor that construction is complete unless otherwise stated in the specifications.
- e. When construction activities or traffic hazards at the construction site require the use of flagmen, it shall be the Contractor's responsibility to provide adequate personnel including flagmen to direct traffic safely.
- f. Equipment used and/or directed by the Contractor shall travel with traffic at all times. Supply trucks shall travel with traffic except when being spotted. Provide a flagman to assist with this operation.
- g. During construction, it may be necessary to alter traffic control. Alterations shall be in accordance with the Traffic Control Handbook.
- h. **NO STREET WITHIN THIS PROJECT MAY BE CLOSED TO THROUGH TRAFFIC OR TO LOCAL EMERGENCY TRAFFIC WITHOUT THE PRIOR WRITTEN APPROVAL OF THE CITY ENGINEER PER DIRECTION OF THE CITY MANAGER OF THE CITY OF WEST LINN.** Written approval may be given if sufficient time exists to allow for notification of the public at least two (2) days in advance of such closing. Partial closure of streets within the project shall be done in strict conformity with written directions to be obtained from the City Engineer.
- i. The Contractor shall address how local access to adjacent properties will be handled in accordance with the specification herein.
- j. Where crossings of existing pavements occur, no open trenches shall be permitted overnight, but plating may be permitted if conditions allow as determined by the City Engineer or his authorized representative. If plates cannot be used, crossings shall be appropriately back-filled to provide a safe smooth travelling surface.

27. **OUTDOOR CONSTRUCTION RESTRICTIONS:** Outdoor construction is restricted to the times listed below in the following table:

	<b>Weekdays (Mon.-Fri.)</b>	<b>Weekends (Sat.-Sun.), Holidays</b>
All Outdoor Construction Work	7:00 a.m. to 7:00 p.m.	9:00 a.m. to 5:00 p.m.

Holidays include: New Year's Day, Martin Luther King Jr. Birthday, Washington's Birthday/President's Day, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day, and Christmas Day.



CITY OF  
**West  
Linn**

## GENERAL TERMS AND CONDITIONS

**Public Works Department**  
22500 Salamo Road  
West Linn, Oregon 97068  
Telephone: (503) 722-5500  
Fax: (503) 656-4106

28. **FIRST TIER SUBCONTRACTOR DISCLOSURE:** If a Bid for the Project is greater than \$100,000, within two working hours of the date and time the Bids are due, the Bidder must submit a written disclosure for all First Tier Subcontractors furnishing labor or labor and materials whose subcontracts are equal to or greater in value than 5% of the total Project Bid or \$15,000, whichever is greater, or \$350,000 regardless of the percentage of the total project bid in accordance with ORS 279C.370. The Bidder must disclose the following information about their first-tier subcontracts either in its Bid submission or within two (2) working hours after the date and time of the deadline when bids are due:
- The subcontractor's name, address, Construction Contractor's Board Number (as applicable), and
  - The dollar value of the subcontract, and
  - The category of work that the subcontractor will be performing.
- If the bidder will not be using any subcontractors that are subject to the above disclosure requirements, the bidder is required to indicate "NONE" on the accompanying form. Failure to submit this form by the disclosure deadline will result in a non-responsive bid. A non-responsive bid will not be considered for award. It is the Bidder's responsibility to determine all the documents are must be submitted to the City.
29. **USE OF EQUALS:** When the specifications for materials, articles, products, and equipment state "or equal", Contractor may bid upon, and use materials, articles, products, and equipment which will perform equally the duties imposed by the general design. The Engineer will have the final approval of all materials, articles, products, and equipment proposed to be used as an "equal." It shall not be purchased or installed without prior written approval from the City or its representative.
30. **HAZARDOUS MATERIALS:** The Contractor shall supply the City with a list of any and all hazardous substances used in performance of this Contract. That list shall identify the location of storage and use of all such hazardous substances and identify the amounts stored and used at each location. Contractor shall provide City with material safety data sheets for all hazardous substances brought onto City property, created on City property or delivered to City pursuant to this Contract. For the purpose of this section, "hazardous substance" means hazardous substance as defined by ORS 453.307(5). Contractor shall complete the State Fire Marshall's hazardous substance survey as required by ORS 453.317 and shall assist City to complete any such survey that it may be required to complete because of substances used in the performance of this Contract.
31. **HAZARDOUS WASTE:** If, as a result of performance of this Contract, Contractor generates any hazardous wastes, Contractor shall be responsible for disposal of any such hazardous wastes in compliance with all applicable federal and state requirements. Contractors shall provide City with documentation, including all required manifests, demonstrating proper transportation and disposal of any such hazardous wastes. Contractor shall defend, indemnify, and hold harmless City for any disposal or storage of hazardous wastes generated pursuant to this Contract and any releases or discharges of hazardous materials.
32. **TEMPORARY SANITARY FACILITIES:** The Contractor shall provide facilities for the use of workmen employed on the work site in accordance with the requirements of ORS 654.150, (Sanitary facilities at construction projects; standards, exemptions) and the rules adopted pursuant thereto. Whether or not ORS 654.150 is applicable to the project is the sole responsibility of the Contractor. Contractor shall be responsible for all costs that may be incurred in complying with or in securing exemption or partial exemption from the requirements as incidental to this contract.
33. **ELECTRIC POWER, WATER AND TELEPHONE:** Unless otherwise specified, the Contractor shall make his own arrangements for electric power, water and telephone. Subject to the convenience of the utility, he may be permitted to connect to existing facilities where available, but he shall meter and bear the cost of such power or water, and installation and disconnect of such power, water and telephone services.



## GENERAL TERMS AND CONDITIONS

34. **UTILITIES AND ELECTRICAL POWER LINES:** The electric utility company may maintain energized aerial electrical power lines in the immediate vicinity of this project. Do not consider these lines to be insulated. Construction personnel working in proximity to these lines are exposed to an extreme hazard from electrical shock. Contractors, their employees and all other construction personnel working on this project must be warned of the danger and instructed to take adequate protective measure, including maintaining a minimum ten (10) feet clearance between the lines and all construction equipment and personnel. (see: OSHA Std. 1926.550 (a) 15).

Electrical utility companies may maintain energized underground electrical power lines in the immediate vicinity of this project. These power lines represent an extreme hazard of electrical shock to any construction personnel or equipment coming in contact with them. Contractors, their employees, and all other personnel working near any underground power lines must be warned to take adequate protective measure. (see: OSHA Std. 1926-651 (A)).

Oregon law requires all parties planning excavations in public rights-of-way to contact utilities for locations of their underground facilities in accordance with the rules adopted by the Oregon Utility Notification Center. Those rules are set forth in OAR 952-001-0010 through OAR 952-001-0090. You may obtain copies of the rules by calling the center at (503) 232-1987.

35. **COOPERATIVE PURCHASING:** Any publicly funded city, county, district, agency or similar entity shall have the authority to purchase specified goods/services directly from the contractor under the terms and conditions of this contract as indicated below:
- a. The bidder agrees to extend identical pricing to local public agencies for the same terms. Quantities listed in this document reflect the City of West Linn's estimated usage only.
  - b. Each contracting agency will execute a separate contract with the successful bidder for its requirements.
  - c. Any bidder, by written notification at the time of the bid due date and time, may decline to extend the prices and terms of this bid to any, and/or all other public agencies.
  - d. Additional costs may be incurred by the successful bidder in contracting with another public agency. All demonstrable costs (shipping, etc.) may be passed on to that public agency.

Contractor shall provide information regarding total usage of contract upon request of the City of West Linn.



## SPECIAL TERMS AND CONDITIONS

Solicitation Number: PW-23-03

**Public Works Department**  
22500 Salamo Road  
West Linn, Oregon 97068  
Telephone: (503) 722-5500  
Fax: (503) 656-4106

**Purpose:** The City of West Linn intends to establish a contract for the **10<sup>th</sup> St. Corridor Improvement Project**. For the Technical Provisions of this contract see Appendix B.

1. **Prospective Bidders Conference:** Optional

**ADDRESS:** 22500 Salamo Rd.  
West Linn, OR 97068

**DATE/TIME:** February 22, 2023 – 11:00AM

The purpose of this conference will be to clarify the contents of this Invitation To Bid in order to prevent any misunderstanding of the City's position. Any doubt as to the requirements of this Invitation To Bid or any apparent omission or discrepancy should be presented to the City at this conference. The City will then determine the appropriate action necessary, if any, and issue a written addendum to the Invitation To Bid. Oral statements or instructions shall not constitute an amendment to the Invitation To Bid.

2. **Bid Acceptance Period:** In order to allow for an adequate evaluation, the City requires a Bid in response to this Solicitation to be valid and irrevocable for sixty (60) days after the opening time and date.
3. **Time of Completion:** The Contractor shall commence work for this project on or before the fifth (5) day following the project start date indicated on the "Notice to Proceed" issued by the City of West Linn and shall fully complete all work under the project within the "Time of Completion" stated on the "Notice of Invitation to Bid and Contract." The Contractor shall, at all times, during the continuance of the Contract, prosecute the work with such force and equipment as is sufficient to complete all work within the time specified.
4. **Plans and Specifications to Successful Bidder:** The successful Bidder may obtain five (5) sets of Plans and Specifications for this project from the City at no cost.
5. **City of West Linn Permit:** As a City project, the Contractor is not required to obtain a City Public Works Construction, Improvement, Blasting, or Erosion Control permit. The Contractor will be responsible for any other required agency permits.
6. **Key Personnel:** It is essential that the Contractor provide adequate experienced personnel, capable of and devoted to the successful accomplishment of work to be performed under this contract. The Contractor must agree to assign specific individuals to the key positions.
  - a. The Contractor agrees that, once assigned to work under this contract, key personnel shall not be removed or replaced without written notice to the City.
  - b. If key personnel are not available for work under this contract for a continuous period exceeding 30 calendar days, or are expected to devote substantially less effort to the work than initially anticipated, the Contractor shall immediately notify the City, and shall, subject to the concurrence of the City, replace such personnel with personnel of substantially equal ability and qualifications.



CITY OF  
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# Appendix A

## FORMS





CITY OF  
**West  
Linn**

## BID FORM

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**Public Works Department**  
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ITEM	ODOT SPECIFICATION #	DESCRIPTION	QTY	UNIT	UNIT PRICE	ITEM COST
1	00210	Mobilization	L.S.	1		
2	00221	Temporary Work Zone Traffic Control, Complete	L.S.	1		
3	00280	Erosion Control	L.S.	1		
4	00280	Inlet Protection, Type 3	Each	42		
5	00280	Inlet Protection, Type 4	Each	13		
6	00280	Sediment Barrier, Type 8	L.F.	6,010		
7	00290	Pollution Control Plan	L.S.	1		
8	00305	Construction Survey Work	L.S.	1		
9	00310	Removal of Structures and Obstructions	L.S.	1		
10	00320	Clearing and Grubbing	L.S.	1		
11	00330	Embankment In Place	C.Y.	5,350		
12	00331	12 Inch Subgrade Stabilization	S.Y.	900		
13	00350	Subgrade Geotextile	S.Y.	4,450		
14	00430	4 Inch Drain Pipe	L.F.	850		
15	00430	8 Inch Drain Pipe	L.F.	670		
16	00445	8 Inch Sanitary Sewer Pipe, 0-10 Ft Depth	L.F.	95		
17	00445	6 Inch Storm Sewer Pipe, 0-10 Ft Depth	L.F.	130		
18	00445	12 Inch Storm Sewer Pipe, 0-10 Ft Depth	L.F.	1,925		
19	00445	12 Inch Ductile Iron Storm Sewer Pipe, 0-10 Ft Depth	L.F.	102		
20	00445	Roof or Field Drain Connections	Each	6		
21	00470	6 Inch Cleanout	Each	4		
22	00470	Concrete Sanitary Sewer Manholes	Each	1		
23	00470	Concrete Storm Sewer Manholes	Each	8		
24	00470	Concrete Manholes, Water Quality	Each	3		
25	00470	Concrete Inlets, Type CG-2	Each	13		
26	00470	Concrete Inlets, Type CG-3	Each	7		
27	00470	Concrete Inlets, Type Ditch Inlet	Each	5		
28	00490	Minor Adjustment of Manholes	Each	7		
29	00490	Major Adjustment of Manholes	Each	10		
30	00490	Adjusting Boxes	Each	23		
31	00490	Connection to Existing Structures	Each	14		
32	00490	Filling Abandoned Structures	Each	13		



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33	00490	Filling Abandoned Pipe - Storm Sewer	L.F.	350		
34	00620	Cold Plane Pavement Removal, 0 - 3 Inches Deep	S.Y.	10,500		
35	00641	Aggregate Base	C.Y.	2,420		
36	00641	Open-Graded Aggregate Base	C.Y.	640		
37	00743	1/2" PAC Mixture	Ton	700		
38	00744	Level 2, 1/2" Dense ACP Mixture	Ton	160		
39	00744	Level 3, 1/2" Dense ACP Mixture with Forta-Fi Fiber	Ton	3,250		
40	00744	Level 3, 3/4" Dense ACP Mixture	Ton	1,050		
41	00759	Concrete Curb, Standard Curb	L.F.	2,250		
42	00759	Concrete Curb, Sloped Curb	L.F.	825		
43	00759	Concrete Curb, 4 Inch Mountable Curb	L.F.	695		
44	00759	Concrete Curb, Low Profile Mountable	L.F.	885		
45	00759	Concrete Curb, Tall Curb	L.F.	2,630		
46	00759	Concrete Curb, Gutter Valley	L.F.	260		
47	00759	Concrete Curb, Standard Curb and Gutter	L.F.	260		
48	00759	Concrete Walks	S.F.	10,975		
49	00759	Concrete Walks, Thickened Edge	S.F.	640		
50	00759	Concrete Driveways	S.F.	1,080		
51	00759	Concrete Driveways, Reinforced	S.F.	345		
52	00759	6" Thick Concrete Surfacing	S.F.	1,390		
53	00759	Cobble Surfacing	S.F.	440		
54	00759	Extra For New Curb Ramps	Each	24		
55	00759	Truncated Domes on New Surfaces	S.F.	470		
56	00760	Unit Pavers, Light	S.F.	650		
57	00760	Unit Pavers, Heavy	S.F.	3,400		
58	00810	Guardrail, Modifications at Access Road Entrance	LS	1		
59	00855	Mono-Directional White Type 1AR Markers	Each	55		
60	00855	Bi-Directional Yellow Type 1AR Markers	Each	100		
61	00860	Longitudinal Pavement Markings - Paint	L.F.	700		
62	00865	Thermoplastic, Extruded, Surface, Non-Profiled	L.F.	11,500		



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63	00867	Pavement Legend, Type B-HS: Arrows	Each	16		
64	00867	Pavement Legend, Type B-HS: Bicycle Lane Stencil	Each	1		
65	00867	Pavement Bar, Type B-HS	S.F.	1,500		
66	00867	Pavement Legend, Type B-HS: Yield Line Triangle	Each	12		
67	00867	Pavement Legend, Type B-HS: Bicycle Yield Line Triangle	Each	24		
68	00867	Pavement Legend, Type B-HS: Shared Use Path Pedestrian	Each	7		
69	00867	Pavement Legend, Type B-HS: Shared Use Path Bicycle	Each	7		
70	00905	Remove Existing Signs	L.S.	1		
71	00905	Remove and Reinstall Existing Signs	L.S.	1		
72	00920	Sign Support Footings	L.S.	1		
73	00930	Perforated Steel Square Tube Slip Base Sign Supports	L.S.	1		
74	00930	Perforated Steel Square Tube Anchor Sign Supports	L.S.	1		
75	00940	Signs, Standard Sheeting, Sheet Aluminum	S.F.	290		
76	00970	Switching, Conduit, and Wiring	L.S.	1		
77	00970	Pole Foundations	L.S.	1		
78	00990	Flashing Beacon Installation, Salamo Rd at Barrington Dr	L.S.	1		
79	00990	Traffic Signal Modification, 10th Street and Salamo Rd	L.S.	1		
80	01030	Permanent Seeding	Acre	1.0		
81	01040	Topsoil	C.Y.	1,100		
82	01040	Bark Mulch	C.Y.	50		
83	01040	Root Barrier	L.F.	864		
84	01140	8 Inch Potable Water Pipe, Fittings and Couplings with Restrained Joints with Class B Backfill	L.F.	31		
85	01150	10 Inch Tapping Sleeve and 8 Inch Valve Assembly	Each	1		
86	01150	Relocate Existing Air Relief Valve	Each	1		
87	01160	Moving Existing Hydrants	Each	3		
88	01170	Relocate Water Meter Assembly	Each	4		
89	01210	Joint Trench and Backfill	L.F.	1,200		



CITY OF  
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90	01210	Transformer Pad for Power	Each	1		
91	01210	575 PGE Vault for Power	Each	1		
92	01210	577 PGE Vault for Power	Each	1		
93	01210	5106 PGE Vault for Power	Each	1		
94	01210	Concrete Irrigation Box	Each	1		
95	01210	2-Inch Grey Schedule 40 PVC Conduit for Power	L.F.	120		
96	01210	3-Inch Grey Schedule 40 PVC Conduit for Power	L.F.	80		
97	01210	4-Inch Grey Schedule 40 PVC Conduit for Power	L.F.	1,080		
98	01210	6-Inch Grey Schedule 40 PVC Conduit for Power	L.F.	900		
99	01210	4-Inch Grey Schedule 40 PVC Conduit for Irrigation	L.F.	350		
100	01210	2-Inch Fiberglass Conduit Bend for Power	Each	4		
101	01210	3-Inch Fiberglass Conduit Bend for Power	Each	2		
102	01210	4-Inch Fiberglass Conduit Bend for Power	Each	8		
103	01210	6-Inch Fiberglass Conduit Bend for Power	Each	4		
					<b>TOTAL:</b>	



CITY OF  
**West  
Linn**

## BID BOND

Solicitation Number: PW-23-03

**Public Works Department**  
22500 Salamo Road  
West Linn, Oregon 97068  
Telephone: (503) 722-5500  
Fax: (503) 656-4106

KNOW ALL PERSONS BY THESE PRESENTS:

That we, \_\_\_\_\_, as "Principal,"  
(Name of Principal)

and \_\_\_\_\_, an \_\_\_\_\_ Corporation,  
(Name of Surety)

authorized to transact Surety business in Oregon, as "Surety," hereby jointly and severally bind ourselves, our respective heirs, executors, administrators, successors and assigns to pay unto the City of West Linn ("Obligee") the sum of (\$ \_\_\_\_\_) \_\_\_\_\_ dollars.

WHEREAS, the condition of the obligation of this bond is that Principal has submitted its proposal or bid to an agency of the Obligee in response to Obligee's procurement document for the project identified in the Solicitation Number indicated above which proposal or bid is made a part of this bond by reference, and Principal is required to furnish bid security in an amount equal to ten (10%) percent of the total amount of the bid pursuant to the procurement document and ORS 279C.365(4) for competitive bidding or 279C.400(5) for competitive proposals.

NOW, THEREFORE, if the proposal or bid submitted by Principal is accepted, and if a contract pursuant to the proposal or bid is awarded to Principal, and if Principal enters into and executes such contract within the time specified in the procurement document and executes and delivers to Obligee its good and sufficient performance and payment bonds required by Obligee, as well as any required proof of insurance, within the time fixed by Obligee, then this obligation shall be void; otherwise, it shall remain in full force and effect.

IN WITNESS WHEREOF, we have caused this instrument to be executed and sealed by our duly authorized legal representatives this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

**PRINCIPAL:** \_\_\_\_\_

**SURETY:** \_\_\_\_\_

By \_\_\_\_\_  
Signature

BY ATTORNEY-IN-FACT:

\_\_\_\_\_  
Official Capacity

\_\_\_\_\_  
Name

Attest: \_\_\_\_\_  
Corporation Secretary

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Address

\_\_\_\_\_  
City State Zip

\_\_\_\_\_  
Phone Fax



CITY OF  
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**FORMS**

**Public Works Department**  
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Solicitation Number: PW-23-03

**NONCOLLUSION AFFIDAVIT**

I, **(Type/Print Name)** \_\_\_\_\_, state that I am **(Position Title)** \_\_\_\_\_ of **(Name of Firm)** \_\_\_\_\_ and that I am authorized to make this affidavit on behalf of my firm, and its owners, directors, and, officers. I am the person responsible in my firm for the price(s) and the amount of this bid.

I state that:

1. The price(s) and the amount of this bid have been arrived at independently and without consultation, communication or agreement with any other contractor, bidder or potential bidder.
2. Neither the price(s) nor the amount of this bid, and neither the approximate price(s) nor approximate amount of this bid, have been disclosed to any other firm or person who is a bidder or potential bidder, and they will not be disclosed before bid opening.
3. No attempt has been made or will be made to induce any firm or person to refrain from bidding on this contract, or to submit a bid higher than this bid, or to submit any intentionally high or noncompetitive bid or other form of complementary bid.
4. The bid of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or other noncompetitive bid.
5. **(Name of Firm)** \_\_\_\_\_, its affiliates, subsidiaries, officers, directors, and employees are not currently under investigation by any governmental agency and have not in the last four (4) years been convicted or found liable for any act prohibited by state or federal law in any jurisdiction, involving conspiracy or collusion with respect to bidding on any public contract, except as follows:

I state that **(Name of Firm)** \_\_\_\_\_ understands and acknowledges that the above representations are material and important, and will be relied on by **THE CITY OF WEST LINN, OREGON** in awarding the contract(s) for which this bid is submitted. I understand and my firm understands that any misstatement in this affidavit is and shall be treated as fraudulent concealment from **THE CITY OF WEST LINN, OREGON** of the true facts relating to the submission of bids for this contract.

\_\_\_\_\_  
 (Signature)      (Signatory's Name)

\_\_\_\_\_  
 (Signatory's Title)

STATE OF \_\_\_\_\_ )  
 )§  
 COUNTY OF \_\_\_\_\_ )

SWORN TO AND SUBSCRIBED BEFORE ME THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_

\_\_\_\_\_  
**Notary Public**  
 My Commission Expires \_\_\_\_\_



CITY OF  
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## FORMS

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### THREE YEAR EXPERIENCE RECORD

Recent projects first

#### #1 (Project Name, Location, Contract Cost)

Project description: \_\_\_\_\_  
\_\_\_\_\_

Project completion date: \_\_\_\_\_ (contract) \_\_\_\_\_ (actual)

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

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

#### #2 (Project Name, Location, Contract Cost)

Project description: \_\_\_\_\_  
\_\_\_\_\_

Project completion date: \_\_\_\_\_ (contract) \_\_\_\_\_ (actual)

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

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

#### #3 (Project Name, Location, Contract Cost)

Project description: \_\_\_\_\_  
\_\_\_\_\_



CITY OF  
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## FORMS

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Telephone: (503) 722-5500  
Fax: (503) 656-4106

Project completion date: (contract) \_\_\_\_\_ (actual) \_\_\_\_\_

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

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

### #4 (Project Name, Location, Contract Cost)

Project description: \_\_\_\_\_

\_\_\_\_\_

Project completion date: (contract) \_\_\_\_\_ (actual) \_\_\_\_\_

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

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

### #5 (Project Name, Location, Contract Cost)

Project description: \_\_\_\_\_

\_\_\_\_\_

Project completion date: (contract) \_\_\_\_\_ (actual) \_\_\_\_\_

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

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

Attach additional sheets if needed.





## FIRST-TIER SUBCONTRACTOR DISCLOSURE

PROJECT NAME: \_\_\_\_\_

BID #: \_\_\_\_\_

BID CLOSING: Date: \_\_\_\_\_ Time: \_\_\_\_\_

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.)

NAME	DOLLAR VALUE	CATEGORY OF WORK
(1)	\$	
(2)	\$	
(3)	\$	
(4)	\$	
(5)	\$	
(6)	\$	
(7)	\$	
(8)	\$	
(9)	\$	

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

Form submitted by (bidder name): \_\_\_\_\_

Contact name: \_\_\_\_\_ Phone no.: ( ) \_\_\_\_\_

**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 ("projects") 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:
    - (a) 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 non-responsive 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.
- WH-179 (08-10-10)





CITY OF  
**West  
Linn**

## PERFORMANCE BOND

Solicitation Number: PW-23-03

**Public Works Department**  
22500 Salamo Road  
West Linn, Oregon 97068  
Telephone: (503) 722-5500  
Fax: (503) 656-4106

*(Official Name & Form of Organization)*

Whose address is: \_\_\_\_\_  
*(Street Address) (City) (State) (Zip)*

as Principal, and, \_\_\_\_\_  
*(Name of Surety) (Print - Agent / Contact Name) (Phone Number)*

\_\_\_\_\_  
*(Street Address of Surety) (City) (State) (Zip)*

a corporation duly authorized to conduct a general surety business in the State of Oregon, as Surety, are jointly and severally held and bound unto the City of West Linn, Oregon, a municipality of the State of Oregon, hereinafter called Obligee, in the sum of \_\_\_\_\_ and \_\_\_\_\_/100 DOLLARS (\$ \_\_\_\_\_), *(The Contract Price, Both in Words & Figures)* lawful money of the United State of America, for the payment of which we, as Principal, and as Surety, jointly and severally bind ourselves, our successors and assigns firmly by these presents,

### TERMS AND CONDITIONS

On the \_\_\_\_\_ *(Day)* of \_\_\_\_\_ *(Month)*, \_\_\_\_\_ *(Year)*, \_\_\_\_\_  
*(Name of Contractor)*

Principal, entered into a contract with the City of West Linn, Oregon, Obligee, to construct certain public improvements and to provide material, labor and equipment for the construction of those improvements. The public improvements and work to be performed by Principal are more fully described in the contract documents between Principal and Obligee. Those contract documents are incorporated herein by reference.

In the event that Principal fails to complete the work as required under the contract, Surety shall either complete the work or pay Obligee the costs of completion of the work. Work is only complete when it meets the standards required by the Contract and applicable City standards. Surety's obligation shall remain in effect until the work is accepted by Obligee, but shall terminate on acceptance by Obligee. The total amount of the Surety's liability to Obligee under this bond shall in no event exceed the amount stated above.

Surety agrees that no change, extension of time, alternation, or addition to the terms of the contract, or to the work to be performed thereunder or the specifications accompanying the same shall in anywise affect its obligations on 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 the specifications.

**IN WITNESS WHEREOF**, the parties hereto have caused this Bond to be executed in \_\_\_\_\_, Oregon, this \_\_\_\_ *(Day)* of \_\_\_\_\_ *(Month)*, \_\_\_\_\_ *(Year)*.

\_\_\_\_\_  
Contractor

Witnesses: \_\_\_\_\_  
Principal Signature

\_\_\_\_\_  
Principal Printed Name

\_\_\_\_\_  
Surety

(A true copy of the Power of Attorney must be attached to the original of this bond)

Countersigned: \_\_\_\_\_  
Surety Attorney of Fact

\_\_\_\_\_  
Resident Agent



CITY OF  
**West  
Linn**

# PAYMENT BOND

Solicitation Number: PW-23-03

**Public Works Department**  
22500 Salamo Road  
West Linn, Oregon 97068  
Telephone: (503) 722-5500  
Fax: (503) 656-4106

**KNOW ALL MEN BY THESE PRESENTS**, that we, \_\_\_\_\_  
(Official Name & Form of Organization)

Whose address is: \_\_\_\_\_  
(Street Address) (City) (State) (Zip)

as Principal, and, \_\_\_\_\_  
(Name of Surety) (Print - Agent / Contact Name) (Phone Number)

\_\_\_\_\_ (Street Address of Surety) (City) (State) (Zip)

a corporation duly authorized to conduct a general surety business in the State of Oregon, as Surety, are jointly and severally held and bound unto the City of West Linn, Oregon, a municipality of the State of Oregon, hereinafter called Obligee, in the sum of \_\_\_\_\_ and \_\_\_\_/100 DOLLARS (\$ \_\_\_\_\_), (The Contract Price, Both in Words & Figures) lawful money of the United State of America, for the payment of which we, as Principal, and as Surety, jointly and severally bind ourselves, our successors and assigns firmly by these presents,

### TERMS AND CONDITIONS

On the \_\_\_\_\_ (Day) of \_\_\_\_\_ (Month), \_\_\_\_\_ (Year), \_\_\_\_\_  
(Name of Contractor)

Principal, entered into a contract with the City of West Linn, Oregon, Obligee, for the construction of certain public improvements. As part of the contract, Principal is required to furnish materials, labor, and equipment to construct the improvements. The contract documents between Principal and Obligee are incorporated herein by this reference.

In the event that Principal fails to make payments when due to suppliers of labor, equipment or materials, Surety shall pay the suppliers the amounts they are due. In the event that Obligee pays any amounts to suppliers that Principal was required to pay, Surety shall reimburse Obligee for those payments. In the event that Principal permits any lien or claim to be filed or prosecution against the City on account of any labor or material furnished, Surety shall take such steps as are necessary to clear the lien, claim or prosecution. In the event that Principal fails to (1) promptly pay all contributions or amounts due the State Unemployment Compensation Trust Fund incurred to the performance of the contract, (2) promptly, as due, make payments to the person, co-partnership, association, or corporation entitled thereto of the money and sums mentioned in Section 279C.600 of the Oregon Revised Statutes, or (3) promptly pay to the Oregon State Tax Commission all sums required to be deducted and retained from wages of employees of the Principal and his sub-Contractors, pursuant to the Section 316.711, Oregon Revised Statues, Surety shall make the required payments. Surety's obligations under this bond shall terminate when all payments required of Principal described in this paragraph are made in full.

The total amount of the Surety's liability under this bond both to the Obligee and to the persons furnishing labor or materials, provisions and goods to any person or persons, shall in no event exceed the amount stated above.

Surety agrees that no change, extension of time, alternation, or addition to the terms of the contract, or to the work to be performed there under or the specifications accompanying the same shall in anywise affect its obligations on 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 the specifications.

**IN WITNESS WHEREOF**, the parties hereto have caused this Bond to be executed in \_\_\_\_\_, Oregon, this \_\_\_\_ (Day) of \_\_\_\_\_ (Month), \_\_\_\_\_ (Year).

\_\_\_\_\_  
Contractor

Witnesses:

\_\_\_\_\_  
Principal Signature

\_\_\_\_\_  
Principal Printed Name

\_\_\_\_\_  
Surety

(A true copy of the Power of Attorney must be attached to the original of this bond)

Countersigned:

\_\_\_\_\_  
Surety Attorney of Fact

\_\_\_\_\_  
Resident Agent



CITY OF  
**West  
Linn**

# FORMS

Solicitation Number: PW-23-03

**Public Works Department**  
22500 Salamo Road  
West Linn, Oregon 97068  
Telephone: (503) 722-5500  
Fax: (503) 656-4106

## CONTRACTOR'S AFFIDAVIT SETTLEMENT OF CLAIMS

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

**PROJECT: 10<sup>TH</sup> St. Corridor Improvement Project**

**TO:** City of West Linn

Persons:

This is to certify that all lawful claims for materials, rental of equipment, and labor used in connection with the construction of the above, whether by subcontractor or claimant in person, have been duly discharged.

The undersigned, for the consideration of \$ \_\_\_\_\_, as set forth in the final pay estimate, as full and complete payment under the terms of the contract, hereby waives and relinquishes any and all further claims or right of lien under, in connection with, or as a result of this project. The undersigned further agrees to indemnify and hold harmless \_\_\_\_\_ against any and all liens, claims of liens, suits, actions, damages, charges and expenses whatsoever, which \_\_\_\_\_ may suffer arising out of the failure of the undersigned to pay for all labor performance and materials furnished for the performance of said project.

Signed at \_\_\_\_\_, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_

\_\_\_\_\_  
(CONTRACTOR)

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

STATE OF \_\_\_\_\_ )  
  )§  
COUNTY OF \_\_\_\_\_ )

The foregoing instrument was subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_



## BUREAU OF LABOR & INDUSTRIES, PREVAILING WAGE RATE

### INSTRUCTIONS FOR COMPLETING THE PREVAILING WAGE RATE PAYROLL/CERTIFIED STATEMENT FORM (WH-38)

The Payroll/Certified Statement form (WH-38) may be used by contractors for reporting their payroll as required by ORS 279C.845 on public works projects subject to the Prevailing Wage Rate (PWR) Law. Although the U.S. Department of Labor (US DOL) has not officially approved this form, it is designed to meet the requirements of the federal Davis-Bacon Act. For projects associated with the U.S. Department of Housing and Urban Development (HUD), contact the public agency (owner) associated with the project for assistance with payroll reporting.

Contractors are not required to use the WH-38 form in reporting their payroll; however, the contractor must provide all of the information contained in the form, including the certified statement on page two. The contractor must sign the certified statement, certifying the accuracy of the information reported on the payroll, including representations pertaining to the provision of fringe benefits to employees by third parties, and submit it with each weekly payroll report. Detailed instructions concerning the preparation of the form follow:

Complete the top third of the form. Be sure to enter the date the contract was first advertised for bid. If you are not sure of this date, contact the public agency (owner) associated with the project. The "Payroll No." is a US DOL requirement and represents the number of weeks the contractor performed work on the project.

**Column 1 – NAME AND ADDRESS:** Write the employee's full name on each payroll submitted. The employee's address must be included on the first payroll submitted. The address need not be shown on subsequent payrolls submitted unless the address changes. The US DOL requires an employee identification number for each individual employee, on each payroll submitted. This number may be, but does not have to be, the last four digits of the employee's social security number.

**Column 2 – CLASSIFICATION:** For assistance in determining the correct classification, use the Bureau of Labor & Industries' (BOLI's) publication "Definitions of Covered Occupations for Public Works Contracts in Oregon." On the WH-38, list the classification that is most descriptive of the work actually performed by the employee. Give the group number for those classifications that include such information. Indicate which workers are apprentices, if any, and give their current percentage, classification, and group number when applicable. If an employee works in more than one classification, use the highest rate for all hours worked, or use separate line entries to show hours worked and hourly rates for each classification.

**Column 3 – DAY AND DATE:** Enter the day of the week (M, T, W, Th, F, S, and Sn) in the top row of boxes, and the corresponding date below.

**HOURS WORKED EACH DAY:** Enter the total number of straight time hours worked in the row marked "ST." Generally, hours worked over eight (8) in a day or work performed on Saturdays, Sundays, and legal holidays should be entered as overtime ("OT") hours worked. Contractors who have adopted and followed a written work schedule of four consecutive ten-hour days (Monday through Thursday or Tuesday through Friday) may enter hours worked over ten (10) in a day as overtime hours. For more information on overtime requirements, see the Contractor Responsibilities section of OR L&I's publication, "[\*Prevailing Wage Rate Laws\*](#)."

Check the correct work schedule box to indicate the employee's weekly work schedule: 5/8 or 4/10. Enter the employee's regular hourly schedule for the week being reported next to the "Reg. Hrly. Schd: \_\_\_\_\_ to \_\_\_\_\_." For example: 7:00 a.m. to 4:30 p.m.

**Column 4 – TOTAL HOURS:** Enter separately the total number of straight time and overtime hours worked by the employee (in each classification, if applicable) on the PWR project during the week. Enter the total number of straight time hours worked in the lower box ("ST"); enter the total number of overtime hours worked in the top box ("OT").

**Column 5 – HOURLY BASE RATE:** Enter the hourly base rate (plus zone pay, if any) and the hourly overtime rate (plus zone pay, if any) paid to the employee in the appropriate straight time and overtime

boxes. (Payment of not less than one and one half times the base rate of pay, including zone pay, but not including fringe benefits, is required to be paid for overtime hours pursuant to ORS 279C.540). Generally, use the appropriate prevailing wage rates in effect at the time the project was first advertised for bid by the public agency. If this date is not known, or if the project was not advertised for bid, contact the public agency (owner) associated with the project for assistance with applicable rates.

**Column 6 – HOURLY FRINGE BENEFIT AMOUNT PAID AS WAGES TO THE EMPLOYEE:** Enter hourly fringe benefit amounts paid directly to the employee as wages. (For overtime hours worked, it is not necessary to pay time and one half for the fringe benefit portion of the prevailing wage rate.)

**Column 7 – GROSS AMOUNT EARNED:** Enter the gross amount earned for work on the PWR project during the week. If part of the employee's wages for the pay period were earned on projects other than the project described on the WH-38, or if the employee is paid less often than on a weekly basis, enter in column 7 first the gross amount earned on the PWR project for the week, then the total gross amount earned for the pay period. For example: \$567.84 / \$1,267.27.

**Column 8 – ITEMIZED DEDUCTIONS, FICA, FED, STATE, ETC.:** Enter deductions withheld from wages for the pay period. All deductions must be in accordance with the provisions of ORS 652.610 (and as defined in Regulations, Part 3 (29 CFR Subtitle A), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948, 63 Stat. 108, 72 Stat. Stat. 967, 76 Stat. 357; 40 U.S.C 276c) on projects subject to Davis-Bacon Act). For projects subject to the Davis-Bacon Act, itemize the deductions.

**Column 9 – NET WAGES PAID:** Enter the total amount of net wages actually paid to the employee for the pay period. Calculate this figure by subtracting the total deductions reported in Column 8 from the gross amount of wages for the pay period reported in the bottom portion of Column 7.

**Column 10 – HOURLY FRINGE BENEFITS PAID TO BENEFIT PARTY, PLAN, FUND OR PROGRAM:** Enter the hourly amount of fringe benefits paid to each individually approved party, plan, fund, or program, for each employee. List these amounts separately on the lines provided. Any contractor who is making payments to approved parties, plans, funds or programs in amounts less than the required hourly fringe benefit is obligated to pay the difference directly to the employee as wages in lieu of fringe benefits, and to show that amount in Column 6 of this form. For information on how to calculate hourly fringe benefit credits, see Appendix A in OR L&I's publication, "*Prevailing Wage Rate Laws*."

**Column 11 – NAME OF BENEFIT PARTY, PLAN, FUND OR PROGRAM:** Enter the name of the party, plan, fund, or program that corresponds to the amount paid as an hourly fringe benefit in Column 10.

### **CALCULATION CHECK**

In order to determine whether the wages and fringe benefits paid are sufficient to meet prevailing wage rate requirements, perform the following check:

1. For each classification listed in column 2, compute the sum of:
  - a) the hourly base rate of pay shown in Column 5,
  - b) the hourly fringe benefit amount paid as wages to employee shown in Column 6, and
  - c) the hourly fringe benefits paid to benefit party, plan, fund or program shown in Column 10.
2. This sum must equal or exceed the total of the hourly base rate (including zone pay) and the hourly fringe benefit rate for that classification as listed in the appropriate issue of OR L&I's publication, "*Prevailing Wage Rates for Public Works Contracts in Oregon*."

IF YOU HAVE QUESTIONS REGARDING COMPLETION OF THIS FORM, CONTACT THE PREVAILING WAGE RATE UNIT OF THE BUREAU OF LABOR & INDUSTRIES AT (971) 673-0838.

**NOTE: PAYROLL/CERTIFIED STATEMENTS ARE ONLY REQUIRED TO BE SUBMITTED TO THE PUBLIC AGENCY ASSOCIATED WITH THE PROJECT.**

**CERTIFIED PAYROLL AND OTHER FORMS ARE AVAILABLE ON OUR WEBSITE:  
[WWW.OREGON.GOV/BOLI](http://WWW.OREGON.GOV/BOLI)**

PRIME CONTRACTOR  SUBCONTRACTOR  PAYROLL NO. \_\_\_\_\_ CCB Registration Number: \_\_\_\_\_  
 Business Name (DBA): \_\_\_\_\_ Phone: ( ) \_\_\_\_\_

Project Name: \_\_\_\_\_ Project Number: \_\_\_\_\_ Type of Work: \_\_\_\_\_  
 Street Address: \_\_\_\_\_ Project Location: \_\_\_\_\_  
 Mailing Address: \_\_\_\_\_ Project County: \_\_\_\_\_

Date Pay Period Began: \_\_\_\_\_ Date Pay Period Ended: \_\_\_\_\_  
**THIS SECTION FOR PRIME CONTRACTORS ONLY** **THIS SECTION FOR SUBCONTRACTORS ONLY**

Public Contracting Agency Name: \_\_\_\_\_ Subcontract Amount: \_\_\_\_\_  
 Phone: ( ) \_\_\_\_\_ Prime Contractor Business Name (DBA): \_\_\_\_\_  
 Date Contract Specifications First Advertised for Bid: \_\_\_\_\_ Prime Contractor Phone: ( ) \_\_\_\_\_  
 Contract Amount: \_\_\_\_\_ Prime Contractor's CCB Registration Number: \_\_\_\_\_  
 Date You Began Work on the Project: \_\_\_\_\_

(1) NAME, ADDRESS AND EMPLOYER'S IDENTIFICATION NUMBER	(2) CLASSIFICATION (INCLUDE GROUP # AND APPRENTICESHIP STEP IF APPLICABLE)	(3) DAY AND DATE			(4) TOTAL HOURS	(5) HOURLY BASE RATE	(6) HOURLY FRINGE BENEFIT AMOUNTS PAID AS WAGES TO EMPLOYEE	(7) GROSS AMOUNT EARNED (see directions)	(8) ITEMIZED DEDUCTIONS FICA, FED. STATE, ETC.	(9) NET WAGES PAID	(10) HOURLY FRINGE BENEFITS PAID TO BENEFIT PARTY, PLAN, FUND, OR PROGRAM	(11) NAME OF BENEFIT PARTY, PLAN, FUND, OR PROGRAM
		OT	ST	Schedule: 5/8 <input type="checkbox"/> 4/10 <input type="checkbox"/> ; Reg. Hrly. Schd: _____ to _____								
		OT										
		ST										

\*Although this form has not been officially approved by the U.S. Department of Labor, it is designed to meet the requirements of both the state PWR law and the federal Davis-Bacon Act.  
 WH-38 (Rev. 05/16) **THIS FORM CONTINUED ON REVERSE**



**CERTIFIED STATEMENT**

Date: \_\_\_\_\_  
 I, \_\_\_\_\_ (NAME OF SIGNATORY PARTY) \_\_\_\_\_ (TITLE)  
 do hereby state:

(1) That I pay or supervise the payment of the persons employed by:

(CONTRACTOR, SUBCONTRACTOR OR SURETY)

on the \_\_\_\_\_ (BUILDING OR WORK) \_\_\_\_\_; that during the payroll period

commencing on the \_\_\_\_\_ day of \_\_\_\_\_ (MONTH) \_\_\_\_\_ (YEAR) \_\_\_\_\_, and ending the \_\_\_\_\_ day

of \_\_\_\_\_ (MONTH) \_\_\_\_\_ (YEAR) \_\_\_\_\_, all persons employed on said project have been paid the

full weekly wages earned, that no rebates have been or will be made either directly or indirectly to or on behalf of said \_\_\_\_\_ (CONTRACTOR, SUBCONTRACTOR OR SURETY)

from the full weekly wages earned by any person, and that no deductions have been made either directly or indirectly from the full wages earned by any person, other than

permissible deductions as specified in ORS 652.610, and as defined in Regulations, Part 3 (29 CFR Subtitle A), issued by the Secretary of Labor under the Copeland Act, as

amended (48 Stat. 948, 63 Stat. 108, 72 Stat. 967; 76 Stat. 357; 40 U.S.C. 276c), and described below:

(2) That any payrolls otherwise under this contract required to be submitted for the above period are correct and complete; that the wage rates for workers contained therein are not less than the applicable wage rates contained in any wage determination incorporated into the contract; that the classifications set forth therein for each worker conform with work performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered with a state apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of Labor, or if no such recognized agency exists in a state, are registered with the Bureau of Apprenticeship and Training, United States Department of Labor.

I HAVE READ THIS CERTIFIED STATEMENT, KNOW THE CONTENTS THEREOF AND IT IS TRUE TO MY KNOWLEDGE:

\_\_\_\_\_  
 (NAME AND TITLE)

\_\_\_\_\_  
 (SIGNATURE AND DATE)

In addition to completing sections (1) - (3), if your project is subject to the federal Davis-Bacon Act requirements, complete the following section as well:

(4) That:  
 (a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS OR PROGRAMS

- In addition to the basic hourly wage rates paid to each laborer or mechanic listed in the above referenced payroll, payments of fringe benefits as listed in the contract have been or will be made to appropriate programs for the benefit of such employees, except as noted in Section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

- Each laborer or mechanic listed in the above referenced payroll has been paid, as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the contract, except as noted in Section 4(c) below.

(c) EXCEPTIONS:

EXCEPTION (CRAFT) \_\_\_\_\_ EXPLANATION \_\_\_\_\_

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

REMARKS:

NAME AND TITLE \_\_\_\_\_ SIGNATURE \_\_\_\_\_

THE WILLFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR SUBCONTRACTOR TO CIVIL OR CRIMINAL PROSECUTION. SEE SECTION 1001 OF TITLE 18 AND SECTION 231 OF TITLE 31 OF THE UNITED STATES CODE.

**FILE THIS FORM WITH THE PUBLIC AGENCY ASSOCIATED WITH THE PROJECT  
 NOTE TO CONTRACTORS: YOU MUST ATTACH COPIES OF THIS FORM TO EACH OF YOUR PAYROLL SUBMISSIONS ON THIS PROJECT.  
 INSTRUCTIONS AND ADDITIONAL FORMS ARE AVAILABLE ON OUR WEBSITE: WWW.OREGON.GOV/BOLI.**



CITY OF  
**West  
Linn**

## **TECHNICAL PROVISIONS**

Solicitation Number: PW-23-03

**Public Works Department**  
22500 Salamo Road  
West Linn, Oregon 97068  
Telephone: (503) 722-5500  
Fax: (503) 656-4106

## **Appendix B**

# **TECHNICAL & SPECIAL PROVISIONS**

**TABLE OF CONTENTS FOR SPECIAL PROVISIONS**

WORK TO BE DONE..... 5

APPLICABLE SPECIFICATIONS..... 5

UTILITY COORDINATION ..... 5

PROJECT COMPLETION TIMELINES ..... 6

PROJECT SCHEDULE ..... 6

RIGHTS OF ENTRY ..... 6

DOCUMENTS AVAILABLE FOR DOWNLOAD FROM FTP SITE..... 6

SECTION 00210 - MOBILIZATION ..... 7

SECTION 00220 - ACCOMMODATIONS FOR PUBLIC TRAFFIC ..... 7

SECTION 00221 - COMMON PROVISIONS FOR WORK ZONE TRAFFIC CONTROL ..... 8

SECTION 00222 – TEMPORARY TRAFFIC CONTROL SIGNS..... 9

SECTION 00223 - WORK ZONE TRAFFIC CONTROL LABOR AND VEHICLES ..... 10

SECTION 00224 - TEMPORARY TRAFFIC CHANNELIZING DEVICES ..... 11

SECTION 00225 - TEMPORARY PAVEMENT MARKINGS ..... 11

SECTION 00228 - TEMPORARY PEDESTRIAN AND BICYCLIST ROUTING ..... 11

SECTION 00280 - EROSION AND SEDIMENT CONTROL..... 12

SECTION 00290 - ENVIRONMENTAL PROTECTION ..... 12

SECTION 00305 - CONSTRUCTION SURVEY WORK ..... 13

SECTION 00310 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS ..... 27

SECTION 00320 - CLEARING AND GRUBBING..... 27

SECTION 00330 - EARTHWORK..... 27

SECTION 00331 - SUBGRADE STABILIZATION ..... 29

SECTION 00350 - GEOSYNTHETIC INSTALLATION ..... 29

SECTION 00405 - TRENCH EXCAVATION, BEDDING, AND BACKFILL ..... 30

SECTION 00430 - SUBSURFACE DRAINS..... 30

SECTION 00440 - COMMERCIAL GRADE CONCRETE..... 30

SECTION 00445 - SANITARY, STORM, CULVERT, SIPHON, AND IRRIGATION PIPE ..... 31

SECTION 00470 - MANHOLES, CATCH BASINS, AND INLETS ..... 31

SECTION 00490 - WORK ON EXISTING SEWERS AND STRUCTURES..... 32

SECTION 00620 - COLD PLANE PAVEMENT REMOVAL..... 33

SECTION 00641 - AGGREGATE SUBBASE, BASE, AND SHOULDERS ..... 33

SECTION 00730 - EMULSIFIED ASPHALT TACK COAT..... 34

SECTION 00743 - POROUS ASPHALT CONCRETE (PAC) ..... 34

SECTION 00744 - ASPHALT CONCRETE PAVEMENT..... 35

SECTION 00759 - MISCELLANEOUS PORTLAND CEMENT CONCRETE STRUCTURES ..... 40

SECTION 00760 - UNIT PAVERS ..... 45

SECTION 00810 - METAL GUARDRAIL..... 47

SECTION 00850 - COMMON PROVISIONS FOR PAVEMENT MARKINGS ..... 48

SECTION 00855 - PAVEMENT MARKERS ..... 48

SECTION 00860 - LONGITUDINAL PAVEMENT MARKINGS - PAINT ..... 48


SECTION 00865 - LONGITUDINAL PAVEMENT MARKINGS - DURABLE ..... 48

SECTION 00867 - TRANSVERSE PAVEMENT MARKINGS - LEGENDS AND BARS ..... 48

## 10<sup>th</sup> St. & Salamo Rd. Streetscape


SECTION 00868 - COLORED LANE MARKINGS .....	48
SECTION 00905 - REMOVAL AND REINSTALLATION OF EXISTING SIGNS .....	51
SECTION 00910 - WOOD SIGN POSTS .....	51
SECTION 00920 - SIGN SUPPORT FOOTINGS .....	51
SECTION 00930 - METAL SIGN SUPPORTS .....	51
SECTION 00940 - SIGNS .....	53
SECTION 00960 - COMMON PROVISIONS FOR ELECTRICAL SYSTEMS .....	54
SECTION 00962 - METAL ILLUMINATION AND TRAFFIC SIGNAL SUPPORTS .....	54
SECTION 00970 - HIGHWAY ILLUMINATION .....	59
SECTION 00990 - TRAFFIC SIGNALS .....	60
SECTION 01030 - SEEDING .....	61
SECTION 01040 - PLANTING .....	63
SECTION 01140 - POTABLE WATER PIPE AND FITTINGS .....	63
SECTION 01150 - POTABLE WATER VALVES .....	63
SECTION 01160 - HYDRANTS AND APPURTENANCES .....	64
SECTION 01170 - POTABLE WATER SERVICE CONNECTIONS, 2 INCH AND SMALLER .....	64
SECTION 02001 - CONCRETE .....	67
SECTION 02030 - SUPPLEMENTARY CEMENTITIOUS MATERIALS .....	69
SECTION 02050 - CURING MATERIALS .....	69
SECTION 02415 - PLASTIC PIPE .....	70
SECTION 02560 - FASTENERS .....	70
SECTION 02690 - PCC AGGREGATES .....	70
SECTION 02910 - SIGN MATERIALS .....	71
SECTION 02926 - HIGHWAY ILLUMINATION MATERIALS .....	71

**PROFESSIONAL OF RECORD CERTIFICATION:**

<p>Seal w/signature</p>  <p>EXPIRES: 12/31/23</p>	<p>I certify the Special Provision Section(s) listed below are applicable to the design for the subject project for <u>(list specific design elements, e.g. "Bridge XYZ" or "Traffic Signals")</u>. Modified Special Provisions were prepared by me or under my supervision.</p> <p>Sections 00210, 00280, 00290, 00305, 00310, 00320, 00330, 00331, 00350, 00405, 00430, 00440, 00445, 00470, 00490, 00620, 00641, 00730, 00743, 00744, 00759, 00760, 00810, 01030, 01040, 01140, 01150, 01160, 01170, 02001, 02030, 02050, 02415, 02690</p>
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FINAL ELECTRONIC DOCUMENT AVAILABLE UPON REQUEST

**PROFESSIONAL OF RECORD CERTIFICATION:**

<p>Seal w/signature</p>  <p>Digitally Signed 2023.01.25 17:09:30 -08'00'</p> <p>OREGON</p> <p>JULY 10, 1996</p> <p>BRIAN K. COPELAND</p> <p>EXPIRES: DEC. 31, 2023</p>	<p>I certify the Special Provision Section(s) listed below are applicable to the design for the subject project for <u> (list specific design elements, e.g. "Bridge XYZ" or "Traffic Signals") </u> . Modified Special Provisions were prepared by me or under my supervision.</p> <p>Sections 00220, 00221, 00222, 00223, 00224, 00225, 00228, 00850, 00855, 00860, 00865, 00867, 00868, 00905, 00910, 00920, 00930, 00940, 00960, 00962, 00970, 00990, 02560, 02910, 02926</p>
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FINAL ELECTRONIC DOCUMENT AVAILABLE UPON REQUEST

**WORK TO BE DONE**

The Work to be done under this Contract consists of the following:

1. Construct Street, Pavers, Asphalt Cycle Track and Sidewalks
2. Construct Roundabout
3. Install Storm Sewer
4. Perform additional and Incidental Work as called for by the Specifications and Plans.

**APPLICABLE SPECIFICATIONS**

The Specifications that are applicable to the Work on this Project is the 2021 edition of the "Oregon Standard Specifications for Construction", as modified by these Special Provisions. All Sections in Part 00100 apply, whether or not modified or referenced in the Special Provisions.

All number references in these Special Provisions shall be understood to refer to the Sections and subsections of the Standard Specifications bearing like numbers and to Sections and subsections contained in these Special Provisions in their entirety.

**UTILITY COORDINATION**

The Contractor is required to coordinate with franchise utility providers per 00150.50 of the standard specifications. The following is a summary of the utility work that will be completed along the corridor.

PGE – PGE will relocate the existing overhead power along Willamette Falls Dr from 11<sup>th</sup> Street to east of 10<sup>th</sup> Street and power along 10<sup>th</sup> Street from Willamette Falls Dr to 8<sup>th</sup> Avenue to the new underground infrastructure installed by the City selected contractor.

NW Natural Gas – NWNG will relocate the existing gas main on the NW corner of Willamette Falls Dr/10<sup>th</sup> Street intersection to accommodate future gateway sign foundations for the City. NWNG will also relocate existing gas service laterals where required.

Comcast – Comcast will relocate their existing overhead communications facilities along the corridor following the same route as PGE.

Lumen - Lumen will relocate their existing overhead communications facilities along the corridor following the same route as PGE. Coordination with Lumen is required to facilitate the relocation of existing facilities on the NW corner of 10<sup>th</sup> Street/8<sup>th</sup> Ave so new underground facilities can be installed. Coordination is required for adjustments of existing facilities located underground on the NW corner of Willamette Falls Dr/10<sup>th</sup> Street and along 10<sup>th</sup> Street.

## **PROJECT COMPLETION TIMELINES**

The Contractor is required to meet the following Time of Completion for the Project:

Substantial completion for all work must be completed by November 16<sup>th</sup>, 2023. Liquidated damages found in provision 8 of the General Terms and Conditions applies to both completion times.

## **PROJECT SCHEDULE**

The Contractor shall prepare a Project work schedule Type “B” as defined in the ODOT Standard Specifications section 00180.41 as well as weekly 3-Week “look ahead” schedules.

## **RIGHTS OF ENTRY**

Access delays as defined in the ODOT Standard Specifications 00180.65 are included on this project. The following are the anticipated dates when access will be available. All other public rights of way and easements are acquired and available.

- File 20 not later than June 1, 2023.
- File 21 not later than June 1, 2023.
- File 51 not later than June 1, 2023.
- Improvements noted within ODOT Right of Way will be ready for construction no later than July 1, 2023.

## **DOCUMENTS AVAILABLE FOR DOWNLOAD FROM FTP SITE**

FTP site: [tinyurl.com/10thSt-SalamoRd-Streetscape](http://tinyurl.com/10thSt-SalamoRd-Streetscape)

- Geotechnical Report
- Supplemental Design Information and Project CAD files
- Franchise Utility Designs or Records – PGE, Lumen, Comcast, etc.



## SECTION 00210 - MOBILIZATION

Comply with Section 00210 of the Standard Specifications.

## SECTION 00220 - ACCOMMODATIONS FOR PUBLIC TRAFFIC

**00220.02(a) General Requirements** - Add the following bullets to the end of the bullet list:

- When performing trench excavation or other excavation across or adjacent to a Traffic Lane on a roadway having a pre-construction posted speed greater than 35 mph, backfill the excavation, install surfacing, and open the roadway to traffic by the end of each work shift. Install a "BUMP" (W8-1-48) sign approximately 100 feet before the backfilled area and a "ROUGH ROAD" (W8-8-48) sign approximately 500 feet ahead of the "BUMP" sign. If this requirement is not met, maintain all necessary lane or shoulder closures and provide additional TCM, including flagging, at no additional cost to the Agency. Do not use temporary steel plating to reopen the roadway.
- Before activating a modified traffic signal, revising lane usage, implementing new roadway geometry, or removing a "STOP" sign, protect traffic by installing "NEW TRAFFIC PATTERN AHEAD" (W23-2) signing according to 00222.40. Keep the signs in place for 30 Calendar Days after completing the modifications.
- When an abrupt edge is created by excavation, protect traffic according to the "Excavation Abrupt Edge" and the "Typical Abrupt Edge Delineation" configurations shown on the Standard Drawings.
- Access to the Public Works Site is either from Salamo Road at the proposed connection point, or from I-205 via the adjacent ODOT yard. Access via I-205 is limited to mobilization and de-mobilization of equipment only. Any additional use of the I-205 access will require the contractor to prepare a traffic control plan and obtain approval from the ODOT at their own expense.

Submit to the Engineer, in writing, when the closure(s) or restriction(s) have ended.

**00220.40(e)(1) Closed Lanes** - Replace this subsection, except for the subsection number and title, with the following:

One or more traffic lanes may be closed along 10<sup>th</sup> Street, Willamette Falls Drive, and Salamo Road when allowed, shown, or directed during the following periods of time except as indicated in 00220.40(e)(2):

- Daily, Monday through Friday between 10:00pm and 9:00am.

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

In addition, full closure of all travel lanes at the intersection of Willamette Falls Drive/10<sup>th</sup> Street will be allowed Monday through Friday between the hours of 9:00 am and 3:00 pm using the detour shown. Full closure of this intersection will also be allowed for one continuous period not to exceed seven (7) days using the detour shown.

Otherwise, maintain one lane in each direction at all times along 10<sup>th</sup> Street, Willamette Falls Drive, and Salamo Road.

### **00220.40(e)(2)(b) Special Events** - Add the following to the end of this subsection:

The following special events will occur during this Project:

- Arbor Week - April
- Wednesdays in Willamette Summer Street Market – May through September
- Daddy Daughter Dance - June
- Movies in the Park
- Street Dance - July
- Old Time Fair - 3rd Weekend of July
- Music in the Park - July & August
- Holiday Bazaar - November
- Community Tree Lighting - December
- Lighting of Maddax Woods - Nov & Dec
- Holiday Parade - December
- Ugly Holiday Sweater Dash - December

## **SECTION 00221 - COMMON PROVISIONS FOR WORK ZONE TRAFFIC CONTROL**

Comply with Section 00221 of the Standard Specifications modified as follows:

**00221.03 Traffic Safety and Operations** - Replace the bullet that begins “When paving operations create...” with the following bullet:

- When paving operations create an abrupt or sloped edge drop off greater than 1 inch, protect traffic by installing signing according to the "2 Lane, 2 Way Roadway Overlay Area" detail shown on the Standard Drawings. Protect longitudinal and transverse Pavement joints by placing and maintaining an asphalt concrete wedge according to 00221.07(c)(1).

**00221.07(c)(1) Paving** - Replace this subsection, except subsection number and title, with the following:

When the longitudinal joint is greater than 1 inch in height, install additional TCD according to 00221.03. Complete the placing of ACP and construction of paving joints according to 00735.48, 00735.49, 00743.45, 00744.44, 00744.45, 00745.47, and 00745.48, as applicable.

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

**00221.90(b) Temporary Protection and Direction of Traffic** - Delete the bullet that begins "Moving temporary barrier to and from Contractor's stockpile areas".

Replace the bullet that begins "When the Schedule of Items does not include ..." with the following bullet:

- Preparing and signing the daily "Traffic Control Inspection Report", when a TCS is not included in the Schedule of Items or when a TCS is not onsite for a work shift.

### **SECTION 00222 – TEMPORARY TRAFFIC CONTROL SIGNS**

Comply with Section 00222 of the Standard Specifications modified as follows:

**00222.40(e) Temporary Sign Placement** - Add the following to the end of the bullet list:

- Place a "WAIT FOR FLAGGER" (CR4-23) sign approximately 50 feet in advance of each flagger station, facing incoming pedestrian traffic. Install the sign on a conical marker or other temporary sign support, as shown or as directed. Do not allow the sign installation height or location to block the visibility of the flagger for incoming public traffic.
- At least ten Calendar Days before closing a pedestrian pathway or sidewalk along Willamette Falls Drive or 10<sup>th</sup> Street, place a "SIDEWALK CLOSED, Daily" (CW11-5) sign in advance of each future closure point. Locate the sign so it is legible from the nearest alternate pedestrian pathway facing incoming pedestrian traffic. The sign may be mounted between the panels of a Type II barricade, or on a single-post TSS. Do not place the sign or sign support such that it narrows the pedestrian pathway to a width of less than 4 feet.
- Before opening the TPAR, place TPAR signing and other TCM as shown, or as directed. Maintain the "SIDEWALK CLOSED, Daily" (CW11-5) signs while the TPAR is open to pedestrian traffic.
- Install a 54-inch "TRUCKS LEAVING HIGHWAY XXXX FT" sign in advance of each entrance point to the Work Area at sign spacing "A" from the "TCD Spacing Table" shown on the Standard Drawings. Install a 54-inch "TRUCKS ENTERING HIGHWAY XXXX FT" sign in advance of each exit point from the Work Area at sign spacing "A" from the "TCD Spacing Table" shown on the Standard Drawings.
- Install "ROAD WORK AHEAD" (W20-1-48) signs with a 36 by 24-inch "FINES DOUBLE" (R2-6aP) rider on 10<sup>th</sup> Street, Willamette Falls Drive, and Salamo Road, according to the "TCD Spacing Table" shown on the Standard Drawings or as modified by the Plans except do not install the "FINES DOUBLE" rider on concrete barrier mounted signs.

**10<sup>th</sup> St. & Salamo Rd. Streetscape**

- Install beyond each end of the Project, facing outgoing traffic, an "END ROAD WORK" (CG20-2A-24) sign a distance of (A ÷ 2) according to the "TCD Spacing Table" shown on the Standard Drawings or as modified by the Plans.
- Install two sign flag boards, as shown on the Standard Drawings, above the following detour and road closed advance warning signs, where applicable:
  - "DETOUR AHEAD", "DETOUR XXXX FT", "DETOUR X/X MILE" (W20-2) signs.
  - "ROAD CLOSED AHEAD", "ROAD CLOSED XXXX FT", "ROAD CLOSED X/X MILE" (W20-3) signs.
- Install an 18 by 24-inch "NO PARKING" (R8-3a) sign in every block where on-street parking is prohibited, facing incoming traffic.
- For paving operations on non-freeways, place "ABRUPT EDGE" (CW21-9) and "ROAD WORK XX MPH" (CW20-1a) signs as shown. Use an "XX" value equal to 10 mph below the current posted regulatory speed. If a speed is posted for a temporary regulatory speed reduction, that speed is the current posted regulatory speed.
- For all other moving operations that do not create an abrupt edge adjacent to traffic, omit the "ABRUPT EDGE" signs.
- At least seven Calendar Days before the 10<sup>th</sup> Street and Willamette Falls Drive \_\_\_\_\_ closures, place one or more PCMS displaying the following message as shown, or as directed:

<b>Panel 1</b>	<b>Panel 2</b>
(Name/# of highway)	CLOSURE
(Location)	(Time Frame)
CLOSURE	(Time Frame)

**SECTION 00223 - WORK ZONE TRAFFIC CONTROL LABOR AND VEHICLES**

Comply with Section 00223 of the Standard Specifications.

**00223.31(b) Traffic Control Inspection Without TCS** - Replace the bullet that begins "Prepares and signs a daily "Traffic Control Inspection Report"..." with the following bullet:

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

- Prepares and signs a “Traffic Control Inspection Report” (Form No. 734-2474) upon the initial installation of TCM and each working day when any modification, removal, or reinstallation of TCM are made, or as directed by the Engineer. Submit completed reports to the Engineer no later than the end of the next working day.

### SECTION 00224 - TEMPORARY TRAFFIC CHANNELIZING DEVICES

Comply with Section 00224 of the Standard Specifications modified as follows:

**00224.46 Pavement Edge Delineation** - Replace the paragraph that begins “Place tubular or conical markers...” with the following paragraph:

Place tubular or conical markers to delineate the edge of Pavement immediately after construction Work or paving operations create an abrupt or sloped edge drop-off greater than 1 inch in height along the right hand or left hand Shoulder.

### SECTION 00225 - TEMPORARY PAVEMENT MARKINGS

Comply with Section 00225 of the Standard Specifications.

### SECTION 00228 - TEMPORARY PEDESTRIAN AND BICYCLIST ROUTING

Comply with Section 00228 of the Standard Specifications modified as follows:

**00228.00 Scope** - Replace this subsection, except subsection number and title, with the following:

In addition to the requirements of Section 00221, this Work consists of furnishing, installing, operating, maintaining, inspecting, and removing temporary devices for accommodating pedestrians and bicyclists through a work zone.

**00228.13 Temporary Curb Ramps** - Add the following sentence to the end of this subsection:

Furnish truncated dome detectable warning surface for temporary curb ramps from the QPL according to 00759.12.

**00228.43 Temporary Curb Ramps** - Add the following paragraph to the end of this subsection:

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

Install a minimum 2 foot wide truncated dome detectable warning surface on temporary curb ramps at pedestrian street crossings. Omit truncated dome detectable warning surfaces on temporary curb ramps that are not at a pedestrian street crossing.

**00228.80(a) Length Basis** - Replace this subsection, except subsection number and title, with the following:

Pedestrian channelizing devices and bicycle channelizing devices will be measured on the length basis upon delivery to the Project. The quantities will be limited to those in the approved TCP.

**00228.80(b) Unit Basis** - Replace this subsection, except for the subsection number and title, with the following:

Temporary curb ramps will be measured on the unit basis, at each location where a temporary curb ramp is constructed or placed.

**00228.90 Payment** - Add the following paragraph after the paragraph that begins "In item (c), the type...":

Item (c) includes furnishing and installing truncated dome detectable warning surfaces.

### SECTION 00280 - EROSION AND SEDIMENT CONTROL

Comply with Section 00280 of the Standard Specifications modified as follows:

The Agency's NPDES 1200-CA Permit is applicable to the Project.

**00280.06 Erosion and Sediment Control Manager** - Delete this subsection.

**00280.90 Payment** - In the paragraph that begins "Item (a) includes..." delete the bullet that specifies "providing the Erosion and Sediment Control Manager".

### SECTION 00290 - ENVIRONMENTAL PROTECTION

Comply with Section 00290 of the Standard Specifications.

## SECTION 00305 - CONSTRUCTION SURVEY WORK

Section 00305, which is not a Standard Specification, is included for this Project by Special Provision.

### Description

**00305.00 Scope** - This Work consists of all surveying activities necessary to control the many phases of Work required to construct the Project to the lines and grades as shown, specified, or established. The Work includes surveying activities for the following:

- Earthwork
- Bases
- Drainage and utilities
- Paving and surfacings
- Traffic signals
- Signing and Striping
- Illumination

Make all supporting computations and field notes required for control of the Work and as necessary to establish the exact position, orientation, and elevation of the Work from control stations, including furnishing and setting construction stakes and marks, reference marks, and additional control stations.

Plans, specifications and other data necessary to lay out the Work will be available for inspection at the Project Manager's office.

### 00305.01 Definitions:

**Control Network** - An array of control stations either established by the Contractor or provided by the Agency.

**Control Station** - Any item identified in the Project records as having a position and/or elevation on the Project datum and intended to be used to control the many phases of the construction Work.

**Digital Terrain Model (DTM)** - An electronic computer model of the shape of the ground.

**Reference Stakes** - Stakes set away from but with information relating back to the intended location and/or grade.

**Slope Catch** - The location where a design slope intersects the existing ground and where excavation or embankment Work should begin to provide the intended earthwork.

**Slope Staking** - The process of using measurements and calculations in the field to determine the slope catch. Slope staking shall normally include setting stakes to mark the slope catch and setting a reference stake for every catch stake.

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

**Stakes** - Stakes, nails, marks, string lines, or other devices or mechanisms set or established for the purpose of indicating or controlling the location, orientation, or grade of any feature intended for construction, or for the purpose of limiting or influencing the construction Work.

**Staking** - The act of placing stakes.

**Survey Marker** - Any survey monument, control station, or stake.

**Survey Monument** - Any natural or man-made item specified or identified in a property deed, boundary survey, government document, or other instrument of public record, when the purpose of said item is to mark or reference a property boundary, geographical location, elevation, or other position.

**Surveyor** - The individual designated by the Contractor and licensed in the state of Oregon as a Professional Land Surveyor and placed in "responsible charge" of the survey work as defined in ORS 672.002(6)(b).

**Temporary Bench Mark (TBM)** - A control station established for the purpose of providing vertical control for the Project. A TBM may or may not have an established horizontal position.

**00305.02 Mandatory Pre-Survey Conference** - The prime Contractor, subcontractors, surveyor, survey crew leader, and all surveying personnel who are to be involved in the survey work shall meet with the Project Manager two weeks prior to beginning survey work. The purpose of this meeting will be to discuss methods and practices of accomplishing required survey work.

**00305.03 Review by the Engineer** - The Engineer may periodically review the notes, calculations and layout Work, including field locations, for compliance with these specifications. Survey work that does not meet the tolerances in 00305.40 may be rejected, and the Work redone at the Contractors expense to meet the tolerances.

Review by the Engineer does not constitute approval or acceptance of the Work, nor does it relieve the Contractor of responsibility for performing Work in conformance with the plans and specifications.

### **00305.04 Agency Responsibilities:**

- Provide copies of plans and specifications.
- Establish initial horizontal and vertical control stations in the proximity of the Project.
- Provide horizontal and vertical alignment data.
- Provide cross section finish grade elevations.
- Perform measurements and calculations for pay quantities.
- Perform final "as constructed" measurements.

### **00305.05 Contractor Responsibilities** - Perform or provide the following items of Work:

- Make calculations, field notes and survey drawings for the layout and control of the Work as are necessary to construct the Project as specified.
- Provide original or copies of notes, calculations and drawings as requested.



## 10<sup>th</sup> St. & Salamo Rd. Streetscape

- Preserve survey monuments and control stations according to 00305.70 and as governed by applicable law.
  - Replace and augment control stations as necessary to control the Project.
  - Establish additional control stations as necessary to control the Project.
  - Set stakes defining limits for clearing. Set stakes defining approximate right-of-way and easements.
  - Set stakes to define construction centerline, centerline offsets, detour lines, or other lines necessary for control of the bridge and retaining walls Work.
  - Set stakes to define the Work, that may include but is not limited to the following:
    - Roadway location and grade.
    - Poles and footings, cabinets, junction boxes, sensors, and other features associated with illumination facilities \*
    - Curbs, walks, walls, and other miscellaneous structures \*
- \* Including field verification of fit and functionality or as instructed by the Engineer.
- Remove and dispose of all flagging, lath, stakes and other temporary staking material after the Project is completed

**00305.06 Survey Methods** - Survey procedures shall be appropriate for the Equipment being used and be according to current Agency practices.

New survey procedures that are not according to current Agency practices shall be submitted to the Engineer for review 21 days prior to conducting the Work. The surveyor may be required to demonstrate the capabilities, accuracy, and reliability of the intended procedure. The Engineer will evaluate the procedure and intended application and provide approval or rejection within 21 days. Work may proceed immediately upon approval of procedures by the Engineer.

Test and adjust survey equipment according to Agency's procedures and maintain records of test results and submit copies to the Engineer upon request. Information on Agency test procedures may be obtained from the Engineer.

**00305.07 Survey Work Records** - Contractor's survey personnel shall maintain a Project daily record of Work performed by the survey crew. The daily record shall contain the date, crew names, type and location of Work, and Work accomplished. Upon request, furnish a copy of diary entries to the Engineer. Furnish a final copy of the diary when the Project is complete.

Contractor's survey personnel shall make all field notes and calculations in a manner consistent with current Agency practices and on forms provided or approved by the Engineer. Computations, survey notes and other records necessary to accomplish the Work shall be neat, legible and complete. Furnish copies of computations, notes and other records when requested by the Engineer.

Upon completion of construction staking and prior to final acceptance of the Contract, furnish to the Engineer, computations, survey notes, Project records and other data used to accomplish the Work. Include an itemized list of the data.

All data and original documentation associated with this Project will become the property of the Agency.

**00305.08 Communication With the Surveyor** - The Engineer has the right to communicate directly with the surveyor.

**00305.09 Electronic Data** - The Engineer will not be responsible for any data translations. The method of exchange of electronic data will be mutually agreed upon at the pre-survey conference.

**(a) Data Formats Provided by the Engineer:**

- **CAD (graphics) Files** – AUTOCAD Design File (.DWG) format.
- **Horizontal Control Coordinates** - ASCII Coordinate File format.
- **Elevations** - ASCII Elevation File format.
- **Horizontal Alignments** - AUTOCAD Civil3D Design File or LandXML format.
- **Vertical Alignments** - AUTOCAD Civil3D Design File or LandXML format.
- **DTM Data** - AUTOCAD Civil3D Design File or LandXML format.
- **Cross Section Data** - Cross Section or Station, Offset and Elevation (SOE) File Format.

**(b) Data Formats Provided by the Contractor:**

- **DTM Data** - Intergraph DTM or AUTOCAD Design File (.DWG) format.
- **CAD (graphics) Files** - AUTOCAD Design File (.DWG) format.
- **"As Staked" Coordinate Data** - ASCII Coordinate File format.
- **Vertical Control Point Elevations** - ASCII Elevation File format.
- **Coordinates of Miscellaneous Survey Points Set** - ASCII Coordinate File format.

**(c) Data Format Details** - Data exchanged between the Agency and the Contractor will be in the following formats as referred to in this subsection:

**(1) ASCII Coordinate File Format:**

Point ID	Northing	Easting	Elevation	Description
----------	----------	---------	-----------	-------------

- Point IDs are numeric up to 8 characters long.
- Coordinates/Elevations are decimal numbers in the units required by the Project.
- Descriptions may be up to 27 characters and may contain any combination of printable ASCII characters.
- Columns shall be separated by commas.
- Name all ASCII coordinate files with an extension of .TXT.

Example: 105 216473.675 576231.905 102.562 1/2 inch iron rod

**(2) ASCII Elevation File Format:**

Point ID	Elevation	Description
----------	-----------	-------------

- Point IDs are numeric up to 8 characters long.
- Elevations are decimal numbers in the units required by the Project.

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

- Descriptions may be up to 27 characters and may contain any combination of printable ASCII characters.
- Columns may be separated by spaces or commas.
- Name all ASCII elevation files with an extension of .TXT.

Example: 425 542.768 TBM12, n.w. bolt on lum.

### (3) Cross Section or Station File Format:

Station    Offset    Elevation    Pen Up (Pen Down)

### (4) LandXML Format:

LandXML v1.0 or newer \*.XML File

### (5) AUTOCAD Drawing File Format:

AutoDesk, Inc. \*.DWG. File

**(d) 3D Engineered Models** - If the Contractor elects to use the 3D Engineered Models to control the Work, provide unstamped 3D Construction Models according to 00150.35 which include the following:

- A detailed outline and list of the pay items and Work that will be controlled by the 3D Construction Models.
- A narrative outlining any differences between the Agency-prepared 3D Engineered Models and the 3D Construction Models.
- A copy of the 3D Construction Models that will be used by the Contractor's equipment for machine guidance or verification, that include and represent the Agency-prepared 3D Engineered Models with changes identified in the narrative. Provide files in LandXML format or as directed.

The Agency makes no representation or warranty regarding the accuracy of any Agency provided 3D Engineered Models. It is the sole responsibility of the Contractor to verify the accuracy of any Agency provided 3D Engineered Models.

## Materials

**00305.10 Materials** - Furnish all Materials including supplies, clothing, and incidentals required to accomplish the Work. Use Materials of good quality and suitable for the purpose intended. Stakes, hubs, and guinnies are to be of sufficient length to provide a solid set in the ground. Mark the stakes in such a way as to remain legible for the intended duration. Provide and use safety equipment required by State and federal regulations.

## Equipment

**00305.20 Survey Equipment** - Furnish survey equipment required to accomplish the Work that meets the following requirements:

**10<sup>th</sup> St. & Salamo Rd. Streetscape**

- Components designed to work together.
- Suitable for the purpose intended.
- Capable of achieving specified tolerances.
- In good operating condition.
- Maintained to meet manufacturers specifications.
- Kept in proper adjustment throughout the duration of the Project.

Submit documentation on survey equipment that is new to the industry, to the Engineer for review 21 days prior to its use. The Engineer will evaluate the Equipment and intended application and provide approval or rejection within 21 days. Equipment may be used immediately upon approval by the Engineer.

**Labor**

**00305.30 Personnel** - Provide technically qualified personnel capable of performing required tasks in a timely and accurate manner. Perform Work under the direction and review of the Surveyor.

The Surveyor is responsible for:

- Maintaining registration as a Professional Land Surveyor in the State of Oregon.
- Performing or validating requirements for procedures and testing of Equipment.
- Maintaining familiarity with the site conditions and progress of the Project.
- Becoming familiar with the plans and specifications.
- Determining notes and documentation required for types of survey work.
- Determining the accuracy required for each survey stake.
- Using appropriate Equipment and methods.
- Keeping close communication with the Project inspector(s), Project Manager, and Agency survey crews working on the Project.
- Being familiar with the varying construction survey requirements of each aspect of the Project, including the various bridge construction techniques when applicable.
- Notifying the Project inspector of conflicts and changes necessary due to utilities, match point variations, design revisions, or other variables.

The survey crew leader is responsible for:

- becoming familiar with the plans and specifications.
- keeping close communication with the Project inspector(s), Project Manager, and Agency survey crews working on the Project.
- Notifying the Project inspector of conflicts and changes necessary due to utilities, match point variations, design revisions, or other variables.

**Construction**

**00305.40 Construction Staking Tolerances** - Set stakes or other devices at an adequate frequency and within the following tolerances:

<b>Item</b>	<b>Horizontal</b>	<b>Vertical</b>
Box Culverts	± 0.10 ft.	± 0.05 ft.
Bridge Substructures	± 0.03 ft.	± 0.03 ft.

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

Bridge Superstructures	± 0.02 ft.	± 0.02 ft.
Clearing and Grubbing Stakes	± 1.00 ft.	n/a
Construction Centerline Control Points	± 0.05 ft.	n/a
Construction Centerline Station Points	± 0.10 ft.	n/a
Curbs, Walks, and Bikepaths	± 0.03 ft.	± 0.02 ft.
Grade Stakes - Roadway Subgrade	± 0.20 ft.	± 0.05 ft.
Grade Stakes - Top of Rock	± 0.20 ft.	± 0.03 ft.
Grade Stakes - Roadway Finish	± 0.10 ft.	± 0.02 ft.
Manholes, Inlets, and Culverts	± 0.10 ft.	± 0.03 ft.
PCC Pavement	± 0.10 ft.	± 0.02 ft.
Slope Stakes and References	± 0.30 ft.	± 0.10 ft.
Traffic Markings	± 0.20 ft.	n/a
Walls - Retaining, MSE, Sound, etc.	± 0.10 ft.	± 0.05 ft.
Wetland Mitigation Control Stakes	± 0.20 ft.	± 0.20 ft.
Luminaire and Signal Poles (incl. ftgs.)	± 0.20 ft.	± 0.03 ft.

Miscellaneous items not listed above will have a horizontal and vertical tolerance of 0.20 foot, unless otherwise directed. Features that are to be constructed flush to another surface should take on the same tolerance as that surface.

Tolerances for special circumstances will be discussed at the pre-survey meeting.

**00305.43 Grade Stakes** - Set grade stakes or other control for grade elevation and horizontal alignment. Set grade stakes at each grade break line. Set additional points at intervals, as necessary, not to exceed the width of the grading Equipment, or as approved by the Engineer. Set these rows at 50 foot stations or as required in special situations, as in road connections and other areas where conditions require tighter spacing of grade stakes to assure grade and alignment.

Measure and record confidence points upon completion of each course and prior to the placement of the next course. Location and spacing of these confidence points shall be such that they provide a reasonable record of the grade as constructed and placed at a nominal rate of one confidence point for every 2,000 square feet of grade.

Provide confidence point data in the form of an ASCII Coordinate File Format to the Engineer for analysis. The Engineer may request additional confidence points if quantity, distribution, or placement does not meet the stated criteria in this subsection and in the confidence point location guidelines in 00305.01. The Engineer may choose to collect additional confidence points using Agency personnel.

The Engineer will evaluate the grade using any combination of industry-standard techniques and the standard Agency confidence point analysis procedure. The confidence point analysis will use the tolerance value defined in 00305.40 for the particular course, and will be deemed unacceptable if less than two-thirds of all confidence points meet the tolerance or if any confidence points exceed the tolerance by a factor of three or more.

The Engineer will evaluate the grade and provide acceptance or rejection before the end of the first business day following receipt of the confidence point data. Do not begin placement of the next course until the Engineer has accepted the grade and approval is given to proceed. Set all stakes within the right of way.

**00305.49 Horizontal Control** - Establish horizontal control stations using Theodolite/EDM network or static GPS techniques. Least squares adjustments shall be applied to either method. The use of traverses will be permitted only if approved by the Engineer.

Preserve all Agency provided and Contractor established horizontal control stations for the life of the Project. If the horizontal control network cannot be preserved in its original position during construction or if the Agency provided control stations are not of adequate quantity or location, establish a secondary horizontal control network using the original control as a basis. This secondary control network may then be used by the Contractor to layout all construction items and may be used by the Agency for right-of-way monumentation and for other purposes.

**(a) General Specifications** - Horizontal control networks shall conform to these general requirements in addition to Theodolite/EDM or GPS specifications to follow.

**(1) Equipment:**

- Use tripods for all occupations with theodolite, target, or GPS antenna.
- Test all components and adjust according to manufacturer specifications.

**(2) Procedures:**

- Include in field notes a detailed point description and vicinity sketch for each control station and survey monument established or used.
- Perform a minimally and fully constrained Least Squares adjustment.
- The line used for the basis of bearing shall be greater than 1,000 feet unless approved by the Engineer.
- Prior to using 2 points for the basis of bearing, perform an analysis to verify that the points are actually those indicated in the record.
- Control station monuments shall conform to the requirements of the Agency "Right-of-Way Monumentation Policy" available from the Engineer.
- If available, include at least three existing control stations in establishing any control network.
- Establish a point identifier for each control point within the range of 1 - 399. Alphanumeric point identifiers up to eight characters may be used. Inscribe the point identifier on the monument.

**(3) Acceptance Standards** - A least squares adjustment shall be accepted base on the following criteria for all specified tolerances.

- Two-thirds of all values shall be within the total tolerance.
- 100% of all values shall be within 3 times the total tolerance.
- Tolerance for confidence regions at the 95% level is 0.05 feet + 50 ppm based on the shortest distance to the nearest unadjusted control station.

**(4) Data Requirements:**

- Field notes containing a detailed point description and vicinity sketch for each control station and survey monument established or used.
- Minimally and fully constrained least squares adjustment reports.

**(b) Theodolite/EDM Networks:**

**(1) Equipment:**

- Use Theodolites with a maximum angular standard of error no greater than  $\pm 6$  seconds.
- Use EDMs with a maximum distance standard error no greater than  $\pm 0.02$  feet  $\pm 5$  ppm.
- All components shall be of compatible accuracy and designed to be used together.

**(2) Field Procedures:**

- Include distance measurements with all observations unless impractical.
- Have at least one redundant observation for every point in the network.
- Triangulation, trilateration, and resection methods are acceptable.

**(3) Acceptance Tolerances:**

- Tolerance for angle residuals is  $\pm 3$  seconds.
- Tolerance for distance residuals is  $\pm 0.02$  feet  $\pm 2$  ppm.

**(4) Data Requirements** - Provide the following to the Engineer for each network or circuit established:

- **Raw Data Files** - These are electronic data files containing original measurements produced by the Theodolite (total station). The file shall contain:
  - Observation data for each measurement, including:
    - point identifier
    - direction, plate reading, or horizontal angle
    - vertical or zenith angle
    - slope distance
  - Supplemental measurement data, including:
    - distance units recorded
    - angular units recorded
    - curvature and refraction correction applied
    - atmospheric correction applied
    - prism correction applied
- Codes or instructions to the processing software on how to process the data.
- Atmospheric conditions at the time of the survey.
- Angular and distance units recorded, and whether the distance has been corrected for curvature and refraction and/or atmospheric conditions.

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

- **Set Reduction Report** - This report summarizes the reduction of the angle sets and mean distances.
- **Least Squares Adjustment Reports** - These reports contain details of the least squares adjustment, including a list of all angular and distance residuals, confidence region values at a 95% confidence level, and final adjusted coordinates.

### (c) GPS Networks:

#### (1) Equipment:

- GPS receivers shall be dual frequency geodetic receivers with a manufacturer-specified accuracy of  $\pm 0.02$  feet  $\pm 1$  ppm or better.
- All components shall be of compatible accuracy and designed to be used together.

#### (2) Field Procedures:

- Ensure that satellite geometry during the field observation phase is sufficient to produce accurate results. The geometric dilution of precision (GDOP) shall not be greater than 8.
- The number of healthy satellites being observed at any time shall be four or more.
- The elevation mask shall be not less than 15 degrees.
- Horizontal survey measurements, once completed, shall form a closed figure, and shall be connected to at least two existing horizontal control stations.
- Network shall be comprised entirely of independent baselines.
- Adjacent stations shall have direct connections.
- Every station shall be connected to two or more stations.
- Receiver documentation shall be followed for observation times and epoch intervals.
- Each control station shall be occupied no less than twice, of which two occupations shall be separated from each other by time. Separation shall be measured start-time to start-time. Separation shall be 90 minutes or more from initial occupation and 90 minutes or more from any 12 hour multiple thereafter for 30 days. Additional occupations beyond two are not subject to time restrictions.
- Back-to-back occupations of 90 minutes or more shall be separated by off leveling and re-setting the tripod and rotation of the tribrach or leveling Equipment by 120 degrees or more.
- Stations closer together than 1,500 feet shall be connected with terrestrial observations.
- Inter-visible stations closer together than 3,000 feet shall be connected with terrestrial observations.

#### (3) Acceptance Tolerances:

- Tolerance for linear residuals in latitude, longitude, and elevation is  $\pm 0.05$  feet.

**(4) Data Requirements** - Provide the following to the Engineer for each network established:



## 10<sup>th</sup> St. & Salamo Rd. Streetscape

- **Receiver Independent Exchange (RINEX) Data Files** - These are industry-standard non-proprietary electronic data files containing original data collected by the receiver. The provided files shall contain all data supported by both the RINEX file format and the Equipment and software employed in the survey. Files provided shall include as a minimum:
  - GPS observation data file
  - GPS navigation message file
- **Observation Log Sheet** - This log includes, for each observation, start and stop times, and antenna height including measurement procedure.
- **Least Squares Adjustment Reports** - These reports contain details of the least squares adjustment, including a list of all latitude, longitude, and height residuals, confidence region values at a 95% confidence level, and final adjusted coordinates.

### (d) Traverses:

#### (1) Equipment:

- Identical to requirements for Theodolite / EDM networks.

#### (2) Field Procedures:

- Include distance measurements with all observations unless impractical.
- Close both traverse for angle and distance.

#### (3) Acceptance Standards:

Closure shall be a minimum of 1:20,000 after angular adjustment and prior to coordinate adjustment.

**(4) Data Requirements** - Provide the following to the Engineer for each traverse established:

- **Adjustment Report** - This report contains details of the traverse adjustment, including adjusted coordinates.
- **Other Reports** - All data required for Theodolite/EDM networks except least squares adjustment report.

**00305.50 Vertical Control** - Establish vertical control stations using differential leveling and third order or better Equipment and techniques. The development of vertical control by techniques other than differential leveling must be approved by the Engineer. A least squares adjustment shall be applied to each network of acceptable level circuits.

The Agency provided and Contractor established vertical control stations shall be preserved for the life of the Project. If the vertical control network cannot be preserved in its original position during construction or if the Agency provided control stations are not of adequate quantity or location, establish a secondary vertical control network using the original control

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

as a basis. This secondary control network would then be used to layout all construction items and may be used by the Agency for other purposes.

### (a) Field Procedures:

- Use a compensated (or "automatic") optical level or compensated digital level.
- Use precise non-adjustable rod(s) unless otherwise directed. Do not use "Lenker" or self-computing rods.
- Use a rod level with each rod.
- Include a minimum of two published bench marks in each circuit unless otherwise directed.
- If the circuit between benches does not close within the tolerance stated below, close circuit back to the starting point.
- If the use of one benchmark is approved, close circuit back to the starting point.
- Select turning points that are firm, solid objects with a defined high point. Set a nail, spike, or stake if no existing items are acceptable. Turning plates with a weight of not less than 4.5 pounds may be used.
- Balance backsight and foresight distances to within 30 feet on each setup and to within 30 feet on the entire circuit.
- Make a record of the rod reading(s) and the observation distance on each sighting
- Set TBMs near significant construction items (bridges, intersections, and other locations where elevations will be needed) and not more than 1,000 feet apart throughout the Project.
- Select TBM monuments that are firm, solid objects with a defined high point, not likely to be moved by human or natural influences, readily identifiable, and out of the path of construction. Do not use fire hydrants, guardrails, highway signs, or nails or spikes in utility poles or fence posts.
- Include detailed point descriptions and vicinity sketch in field notes.
- Take field notes when recording measurements electronically. Include data and information not electronically measured and recorded.
- Apply a vertical least squares adjustment to allowable errors. The use of proportional distribution of error may be used if approved by the Engineer.

**(b) Acceptance Standards** - Each leveling circuit shall be accepted based on the "point-to-point" or "closed-loop" limits described below. A single least squares adjustment shall be applied to the observations in the leveling circuits meeting the acceptance standards

- Accept point to point circuit based on the following. Error of closure shall be no greater than:

$$\text{AllowableError} = 0.05 \text{ ft. } \sqrt{D}$$

D = Shortest level line distance in miles

- If a closed loop, the error of closure shall be no greater than:

$$\text{AllowableError} = 0.035 \text{ ft. } \sqrt{E}$$

E = Perimeter of level loop in miles

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

**(c) Data Requirements** - Provide the following to the Engineer for each network or circuit established:

- **Raw Data** - These are hand written field notes or hand written field notes accompanied by electronic data files containing original measurements produced by the level. The file shall contain:
  - Data for each measurement, including a:
    - point identifier (within a range of 400 - 499 and also inscribed on the monument)
    - rod reading
    - observation distance
  - Supplemental measurement data, including:
    - distance units recorded
    - curvature and refraction correction applied
- **Level Computation Report** - This report contains the computation of unadjusted elevations, observation distance imbalances, computer allowable error, and closure error.
- **Level Adjustment Report** - This report contains the adjustment details, including residual values, adjusted elevations and standard errors.
- **ASCII Elevation Data File**

**00305.52 Pavements** - Set stakes or other control devices to control the location and elevation of asphalt and PCC pavement as shown. Provide surveying or survey-related activity necessary to control grade, thickness, and smoothness as required.

**00305.53 Signs, Signals, Illumination and Fabricated Items** - Determine the exact location and their relative location to roadway and bridge features as appropriate such as edge of pavement, curbs, islands, sidewalks, sidewalk ramps, lane lines, bridge columns, bridge decks, and other features for the following items:

- Posts and poles including foundations.
- Cabinets.
- Junction boxes.
- Detectors.
- Other similar sign, signal, and illumination appurtenances.
- Bollards.

Provide the following documentation to the Engineer before submitting working drawings:

- Field verified length of poles, posts, mast arms, and tenon locations.
- Field verified orientation of triangular bases for poles.
- Field verified measurements of all existing features including orientation and relationship to all other new appurtenances and new fabricated items.

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

- Plan, elevation, and side views.
- Identification of all obstacles.

Field adjustment to the planned location may be required in order to avoid obstacles and to ensure its placement in a functional location. Do not submit working drawings until the Engineer returns the field verified documents. The Engineer will return field verified documents within 21 Calendar Days after receipt of the documents.

Set a stake referencing the center of the item. Set a guard stake with the following information written on it:

- Description of item (by plan number if applicable).
- Centerline station.
- Centerline offset distance.
- Cut or fill from reference point (and what point the cut or fill is to).
- Intended elevation.

If the orientation of the item is significant and is not clear, establish a reference line for the skew of the item.

**00305.54 Field Verification Documents** - Have bridge layout and roadway layout features staked, including referencing, no more than 7 Calendar Days before submitting field verification documents.

### Maintenance and Monumentation

#### **00305.70 Preservation of Survey Markers:**

**(a) Project Control Points Established by the Engineer** - Maintain, relocate or replace existing survey monuments, control points, and stakes, as determined by the Engineer. Perform the Work to produce the same level of accuracy as the original monument(s) in a timely manner, and at no additional cost to the Agency.

**(b) Monuments of Record** - Preserve survey monuments according to 00170.82(c), and ORS 209.140 and ORS 209.150. If such monuments are to be disturbed or destroyed, comply with requirements of these ORS at no additional cost to the Agency.

**00305.71 Project Monumentation** - The Contractor will not be responsible for performing right-of-way Monumentation.

### Measurement

**00305.80 Measurement** - No measurement of quantities will be made for construction survey work.

### Payment

**00305.90 Payment** - The accepted quantities of performing construction survey work will be paid for at the Contract lump sum amount for the item "Construction Survey Work".

## **10<sup>th</sup> St. & Salamo Rd. Streetscape**

Payment will be payment in full for furnishing all Materials, Equipment, labor, and Incidentals necessary to complete the Work as specified.

No separate or additional payment will be made for all temporary protection and direction of traffic measures including flaggers and signing necessary for the performance of the construction survey work.

No separate or additional payment will be made for preparing surveying documents including but not limited to office time, preparing and checking survey notes, and all other related preparation Work.

Progress payments will not be in excess of the reasonable value of the surveying Work estimated by the Engineer.

Costs incurred as a result of survey errors will be borne by the Contractor. Such costs include price adjustments for failure to meet requirements of the construction specifications, repair or removal and replacement of deficient product, and over-run of material.

### **SECTION 00310 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS**

Comply with Section 00310 of the Standard Specifications modified as follows:

**00310.90 Payment** - Add the following to the end of this subsection:

No separate or additional payment will be made for removal or disposal Work included in Section 00330 according to 00310.02.

### **SECTION 00320 - CLEARING AND GRUBBING**

Comply with Section 00320 of the Standard Specifications.

### **SECTION 00330 - EARTHWORK**

Comply with Section 00330 of the Standard Specifications modified as follows:

**00330.03 Basis of Performance** - Add the following paragraph to the end of this subsection:

Perform all earthwork under this Section on the embankment basis.

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

**00330.14 Selected Granular Backfill** - Delete the sentence that begins “Reclaimed glass meeting the requirements of Section 02695...”

**00330.15 Selected Stone Backfill** - Delete the sentence that begins “Reclaimed glass meeting the requirements of Section 02695...”

**00330.41(a)(9) Excavation Below Grade** - Delete subsection 00330.41(a)(9)(c).

**00330.80 Measurement** - Add the following after the bulleted list:

No field measurement of earthwork items will be performed. The quantity will be the theoretical neat line volume constructed and accepted for each item based on the Contract Plans. If changes are ordered, only the quantity included in the ordered changes will be measured. The theoretical neat line volume is based on the volume of earthwork measured between the finished subgrade surface and the existing ground surface. No deduction has been made for the existing pavement section or clearing and grubbing strippings.

The earthwork quantity shown in the Contract Schedule of Items is the sum of the following quantities:

Willamette Falls Drive/10<sup>th</sup> Street Roundabout Intersection (Theoretical Neat Line)

1,340 cubic yards Excavation

20 cubic yards Embankment

10th Street Improvements (Theoretical Neat Line)

360 cubic yards Excavation

0 cubic yards Embankment

Salamo Road Improvements (Theoretical Neat Line)

3,030 cubic yards Excavation

3,150 cubic yards Embankment

Alley Roadway (Theoretical Neat Line)

110 cubic yards Excavation

30 cubic yards Embankment

Access Road (Theoretical Neat Line)

50 cubic yards Excavation

2,150 cubic yards Embankment

**00330.91(d) General Excavation** - Delete the bullet that begins "Includes Unsuitable Material...".

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

**00330.92 Kinds of Incidental Earthwork** - Add the following bullet to the end of the bullet list:

- Earthwork required for driveways and road approaches. Earthwork for driveways and road approaches will be that which is outside the Neat Line limits shown on the typical sections.
- Rock excavation. Note some rock is anticipated along Salamo Road. See geotechnical explorations for more additional information.

### **SECTION 00331 - SUBGRADE STABILIZATION**

Comply with Section 00331 of the Standard Specifications.

### **SECTION 00350 - GEOSYNTHETIC INSTALLATION**

Comply with Section 00350 of the Standard Specifications modified as follows:

**00350.01 Definitions** - Replace the sentence that begins “**Embankment Geotextile** - For installation...” with the following sentence:

**Embankment Geotextile** - Embankment geotextile is used as a reinforcement within embankments and as a separation and reinforcement under embankments.

Replace the bullet that begins “**Nonwoven Geotextile** - A textile...” with the following bullet:

- **Nonwoven Geotextile** - A textile produced by bonding or interlocking of fibers by mechanical, heat or chemical means.

Replace the sentence that begins “**Riprap Geotextile** - For installation...” with the following sentence:

**Riprap Geotextile** - Riprap geotextile is used as a filter and separator behind or beneath riprap, Buttresses, inlays, shear keys and erosion control applications.

Replace the sentence that begins “**Subgrade Geotextile** - For installation...” with the following sentence:

**Subgrade Geotextile** - Subgrade geotextile is used as a separator and reinforcement on Subgrades and in other material separation applications.

**00350.41(f)(5) Geotextile Placement** - Replace the paragraph that begins “Slit wrinkles or folds ...” with the following paragraph:

Slit wrinkles or folds exceeding 1 inch and lay flat. Shingle-lap not more than 6 inches in the direction of the paving. Broom or squeegee to smooth the geotextile and pneumatic roll to

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

maximize geotextile contact with the Pavement surface. Additional hand-placed sealant material may be required at laps as determined.

### SECTION 00405 - TRENCH EXCAVATION, BEDDING, AND BACKFILL

Comply with Section 00405 of the Standard Specifications modified as follows:

**00405.90 Payment** - Add the following paragraph to the end of this subsection:

When the Contract Schedule of Items does not indicate payment for Work performed under this Section, no separate or additional payment will be made. Payment will be included in payment made for the appropriate items under which this Work is required.

### SECTION 00430 - SUBSURFACE DRAINS

Comply with Section 00430 of the Standard Specifications modified as follows:

**00430.90 Payment** – Add the following to the end of this subsection:

Item (a) includes drain rock to subgrade of pavement section as shown in the Contract Plans and drainage geotextile fabric sock on perforated pipe.

### SECTION 00440 - COMMERCIAL GRADE CONCRETE

Comply with Section 00440 of the Standard Specifications modified as follows

**00440.12 Properties of Commercial Grade Concrete** - Replace the bullet that begins "Slump - 5 inches..." with the following bullets:

- **Slump** - 5 inches or less
  - For concrete sidewalks, ramps, driveways, or other hand finished surface applications, and when using a high range water reducing admixture, provide a slump of 8 inches or less as approved by the Engineer.

**00440.13 Field-Mixed Concrete** - Replace the subsection, except for subsection number and title, with the following:

CGC Work items listed in 00440.14(a) may be field-mixed conventionally, or by volumetric/mobile mixers conforming to ASTM C685. When approved, concrete sidewalks, concrete curb ramps, concrete driveways, and other flat concrete surfaces may be field-mixed using volumetric/mobile mixers conforming to ASTM C685, request approval prior to placement. For all other CGC applications, submit written request to the Engineer for



## 10<sup>th</sup> St. & Salamo Rd. Streetscape

approval to use volumetric/mobile mixers conforming to ASTM C685 at least 21 Days prior to placement.

Pre-packaged dry blended concrete from the QPL may be used for Work items listed in 00440.14(a).

**00440.40(b) Placing** - Add the following bullet to the end of the bullet list:

- When haul time or placement conditions warrant exceeding the time of discharge, submit a detailed breakdown of the estimated time needed from batching to discharge of a load along with the measures that will be taken to ensure slump, temperature and uniformity will be maintained. Submit in advance to establish a new time limit at the Engineer's discretion.

## SECTION 00445 - SANITARY, STORM, CULVERT, SIPHON, AND IRRIGATION PIPE

Comply with Section 00445 of the Standard Specifications modified as follows:

Add the following subsection:

**00445.49 Roof or Field Drain Connections** - Connect existing roof, lot or field drain pipe to the curb or nearest storm drain line or curb weep hole as directed. Provide pipe, cleanouts and fittings meeting the requirements of the Standard Specifications as specified herein, and match existing pipe size. Use a manufactured tee to connect to storm drain with an approved coupling connection to the existing pipe, and install a tracer wire with the drain line.

Use PVC meeting the requirements of ASTM D3034 SDR 35, with a diameter matching existing pipe size. The plans show anticipated locations of possible roof and field drains. The locations shown are approximate, the bid item includes both planned and as directed connections that may be encountered during construction.

**00445.91 Payment** - Add the following:

<b>Pay Item</b>	<b>Unit of Measurement</b>
(m) Roof or Field Drain Connections -----	Each

Payment for item (m) includes pipes, cleanouts, and fittings. No separate or additional payment will be made for earthwork, ditch excavation, or connection to inlet structure.

## SECTION 00470 - MANHOLES, CATCH BASINS, AND INLETS

Comply with Section 00470 of the Standard Specifications modified as follows:

**10<sup>th</sup> St. & Salamo Rd. Streetscape**

**00470.41(c) Grates, Frames, Covers and Fittings** - Replace this subsection, except for the subsection number and title, with the following:

Set metal frames for manholes on full non-shrink grout beds to prevent infiltration of surface water or groundwater between the frame and the concrete of the manhole section. If concrete is to be poured around the frames, coat the portion of the frame that will contact the concrete with hot asphalt before placing the concrete. Set frames, covers and grates true to the locations and grades established. Clean bearing surfaces and provide uniform contact. The use of a bolt adjustment system for frames from the QPL is allowed. Secure all fastenings. Construct all mortared, sanitary sewer manhole necks and all riser ring joints made with non-shrink grout using an approved commercial concrete bonding agent applied to all cured concrete surfaces being grouted.

**00470.42 Precast Concrete Catch Basins and Inlets** - Add the following sentence to the end of this subsection:

Grade adjustments using a bolt system from the QPL is allowed.

**00470.90 Payment** – Add the following Pay Item:

<b>Pay Item</b>	<b>Unit of Measurement</b>
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(l) ___ Inch Cleanout-----	Each
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In item (l) the size of the cleanout will be inserted in the blank.

**SECTION 00490 - WORK ON EXISTING SEWERS AND STRUCTURES**

Comply with Section 00490 of the Standard Specifications modified as follows:

**00490.90 Payment** – Add the following to the end of this subsection:

Item (g) includes connection of new pipes to existing structures as well as existing pipes into new structures. Each connection will be consider one connect to existing.

**00490.90 Payment** – Add the following Pay Item:

<b>Pay Item</b>	<b>Unit of Measurement</b>
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(j) Filling Abandoned Pipes – Storm Sewer -----	Foot
---	------

In item (g), connection to existing applies to existing structures or pipes.

In item (j) includes all materials, equipment, labor and incidentals required to fill storm sewer pipes to be abandoned with CLSM regardless of pipe size.

**00490.90 Payment** – Add the following to the end of this subsection:

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

Item (d) includes adjusting water valve boxes to finish grade.

### SECTION 00620 - COLD PLANE PAVEMENT REMOVAL

Comply with Section 00620 of the Standard Specifications modified as follows:

**00620.40(e) Warning Signs** - Replace this subsection, except for the subsection number and title, with the following:

Provide warning signs as required where abrupt or sloped drop-offs occur at the edge of the existing or new surface according to Sections 00221 and 00222.

**00620.43 Maintenance Under Traffic** - Replace this subsection, except for the subsection number and title, with the following:

Traffic will be allowed on the cold planed surface up to 5 Calendar Days after removing the existing surface. Sweep and clean the cold planed surface before opening to traffic.

Before beginning paving operations, make repairs to the existing cold planed surface as directed. Payment for the repairs will be made according to 00195.20.

### SECTION 00641 - AGGREGATE SUBBASE, BASE, AND SHOULDERS

Comply with Section 00641 of the Standard Specifications modified as follows:

**00641.10(a) Base and Shoulder Aggregate** - In the paragraph that begins "Aggregate for bases...", add the following after the first sentence:

Base Aggregate shall be 1 1/2" - 0. Leveling Course Aggregate shall be 3/4" - 0. Asphalt millings may be used for top 2" of ACP leveling course and Public Works site access road outside of the public right of way.

**00641.80 Volume Basis** - Replace this subsection, except for the subsection number and title, with the following:

When measurement is by volume, quantities will be the theoretical Neat Line quantity constructed and accepted. No field measurements will be made for neat line quantities. If changes are ordered, only the quantity included in the ordered changes will be measured.

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

The aggregate base quantity shown in the Contract Schedule of Items is the sum of the following quantities:

- 1840 cubic yards shown for roadway full depth (theoretical Neat Line)
- 100 cubic yards for curbs (theoretical Neat Line)
- 70 cubic yards for sidewalks (theoretical Neat Line)
- 30 cubic yards for driveways (theoretical Neat Line)
- 80 cubic yards for driveway approaches (theoretical Neat Line)
- 300 cubic yards for Access Road and gravel pad

The open-graded aggregate base quantity shown in the Contract Schedule of Items is the sum of the following quantities:

- 640 cubic yards for cycle track/multi-use path (theoretical Neat Line)

**00641.90 Payment** - Add the following to the end of this subsection:

No separate or additional payment will be made for Aggregate Base shown but not included in the theoretical Neat Line quantities listed in 00641.80.

### SECTION 00730 - EMULSIFIED ASPHALT TACK COAT

Comply with Section 00730 of the Standard Specifications modified as follows:

**00730.11 Emulsified Asphalt** - In the paragraph that begins "Obtain samples according to AASHTO T 40..." replace the words "AASHTO T 40" with the words "AASHTO R 66".

**00730.90 Payment** - Replace this subsection, except for the subsection number and title, with the following:

No separate or additional payment will be made for Emulsified Asphalt tack coat. Approximately 5.6 Tons of Emulsified Asphalt in tack coat will be required on this Project.

### SECTION 00743 - POROUS ASPHALT CONCRETE (PAC)

Comply with Section 00743 of the Standard Specifications modified as follows:

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

**00743.45(b) Drop-Offs** - Replace the bullet that begins “Provide warning signs and markings...” with the following bullet:

- Provide warning signs and markings according to Sections 00221, 00222, 00224 and 00225 where abrupt or sloped edge drop-offs greater than 1 inch in height occur.

### **SECTION 00744 - ASPHALT CONCRETE PAVEMENT**

Comply with Section 00744 of the Standard Specifications modified as follows:

#### **00744.00 Scope** -

Add the following paragraph(s) to the end of this subsection:

If required in the contract documents, the contractor shall use reinforcing fibers mixed with the HMAC on all final lifts. The fiber reinforced HMAC will be subject to all requirements for HMAC in Section 00744, except as modified in these special provisions.

**00744.02 Definitions** - Add the following definitions to this subsection:

1. Reinforcing Fibers: High tensile strength aramid fiber blend specially formulated to reinforce hot mix asphalt.
2. Fiber reinforced asphalt concrete (FRAC): A mixture of hot or warm mix asphalt and reinforcing fibers that has greater resistance to rutting, thermal cracking, fatigue cracking, and reflective cracking as compared to conventional non-fiber asphalt mixes.
3. Fiber Reinforced Asphalt Rubber Hot Mix (FR-ARHM): A mixture of rubberized asphalt and reinforcing fibers that has greater resistance to rutting, thermal cracking, fatigue cracking, and reflective cracking as compared to non-fiber rubberized asphalt mixes.
4. Aramid Dispersion State Ratio (ADSR): A measure of the dispersion efficiency of the Reinforcing Fibers within asphalt mixes. ADSR is calculated by comparing the mass of aramid in the individual state to the total mass of extracted aramid fibers, expressed as a percentage.

**00744.03 References** - Add the following to this subsection:

1. ASTM D2172, Standard Test Methods for Quantitative Extraction of Bitumen from Bituminous Paving Mixtures

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

2. ASTM D6433, Standard Practice for Roads and Parking Lots Pavement Condition Index Surveys.
3. AASHTO T322, Determining the Creep Compliance and Strength of Hot-Mix Asphalt (HMA) Using the Indirect Tensile Test Device.
4. AASHTO TP79, Standard Method of Test for Determining the Dynamic Modulus and Flow Number (FN) for Asphalt Mixtures Using the Asphalt Mixture Performance Tester.
5. Zeiada, W., Underwood, S., Stempihar, J., "Extraction of Aramid Fibers from Fiber Reinforced Asphalt Concrete – Special Test Method", Arizona State University, May 11, 2016.

### 00744.04 Submittals - Add the following to this subsection:

1. Requests for a reinforced fiber blend substitution shall be submitted by 5:00 pm, 7 days prior to the originally published bid opening date for consideration and shall include the following information:
  - a. Representative fiber product sample.
  - b. Fiber product data sheet and certification from the Manufacturer that the fiber product supplied meets the requirements of this specification.
  - c. Manufacturer's instructions and general recommendations.
  - d. Performance test results of ADSR testing from a minimum of three separate laboratory trials to validate Dispersion Efficiency.
  - e. Performance results of PCI testing from a minimum of three separate field trials to validate Cracking Resistance.
  - f. Performance test results of FN testing from a minimum of three separate laboratory trials to validate Rutting Resistance.

**\*\*NOTE: Testing is NOT required on samples from the job mix, submit previously completed lab testing only.**

- g. Submit a minimum of five unique project examples and references where the reinforcing fiber product was used within 250 miles of the project location.

### 00744.11(a) Asphalt Cement - Add the following to the end of this subsection:

Provide PG 64-22 grade asphalt cement for this Project.

### 00744.11 Asphalt Cement and Additives - Add the following definitions to this subsection:

1. Reinforcing Fiber Properties
  - a. Provide a reinforcing fiber blend of Virgin Polyolefins and Virgin Aramids that meets the requirements in Table 1 and Table 2 below.

Table 1

<b>Reinforcing Fiber Material Properties</b>
--

Property	Test Method	Polyolefin	Aramid
Form	Manufacturer Certification	Serrated	Monofilament
Nominal Specific Gravity	ASTM D276	0.91	1.44
Tensile Strength (psi)	ASTM D7269	NA1	400,000
Length (in)	Manufacturer Certification	0.75	0.75

1. Polyolefin fibers will melt or become plastically deformed during production

Table 2

Reinforcing Fiber Performance Properties			
Performance Measure	Test Method	Standard	Requirement
Dispersion Efficiency	Aramid Dispersion State Ratio (ADSR)	Modified ASTM D2172	≥ 85%
Field Performance Cracking Resistance	Pavement Condition Index	ASTM D6433	≥ 10 PCI Points Increase, Minimum 4 Years
Resistance to Permanent Deformation (Rutting)	Flow Number (FN)	AASHTO TP79	≥ 75% increase

- b. FORTA-FI<sup>®</sup>, provided by the Forta Corporation, is an acceptable product and meets the performance and material properties outlined in this section.
- c. If a different aramid-based fiber blend is proposed, performance test results complying with the requirements of Exhibit B.
- d. Non-aramid fiber blends will not be considered as acceptable alternatives to this specification.

2. Performance Testing Requirements

All historical test results submitted to validate the fiber’s performance in asphalt mixes shall be from previously completed laboratory and field trials using plant-mixed FRAC only. **Testing is NOT required on samples from the job mix.**

Fiber dosage rate in all submitted test reports must be equal to the rate proposed for this project. Only testing performed by an AASHTO

accredited laboratory or nationally recognized university testing lab will be considered.

- a. Aramid Dispersion State Ratio (ADSR) Tests from a minimum of three (3) separate laboratory trials.
  1. Perform ADSR test based on modified ASTM D2172 procedures as provided in the document entitled "Extraction of Aramid Fibers from Fiber Reinforced Asphalt Concrete – Special Test Method". A copy of the modified extraction methodology can be obtained by making an inquiry to the Pavement and Materials Laboratory at Arizona State University at NCE@asu.edu.
  2. To validate ADSR results, average extracted aramid fiber quantity must equal 0.007 percent by total sample weight with no individual result less than 0.005 percent of the total sample weight.
  3. All tested fiber mixes must achieve a minimum ADSR of 85%.
  
- b. Pavement Condition Index (PCI) side by side comparison from a minimum of three (3) field trails with a minimum in-service pavement age of four years.
  1. PCI surveys shall be performed according to ASTM D6433.
  2. Tests results shall include a control and a fiber reinforced pavement section. FRAC mix shall be identical to control mix except for the inclusion of fibers added at the same dosage as proposed on the project.
  3. In field performance sections shall be subject to the same environmental and traffic conditions. A minimum surface area of 500 yd<sup>2</sup> per FRAC and control section is required.
  4. PCI results from fiber sections shall show a minimum 10 PCI points greater than the control section after a minimum of 4 years.
  
- c. Flow Number (FN) Tests from a minimum of three (3) separate laboratory trials.
  1. Perform FN tests using the protocol from AASHTO TP79.
  2. Tests results shall include a control and a fiber reinforced mix. FRAC mix shall be identical to control mix except for the inclusion of fibers added at the same dosage as proposed on the project.
  3. Results from fiber specimens shall each show an average FN increase of at least 35% over control specimens.

**00744.25 Storage, Mixing and Production** - Add the following definitions to this subsection:

1. Deliver fiber-reinforcement in sealed, undamaged containers with labels intact and legible, indicating material name and lot number.
2. Deliver fiber-reinforcement to location where it will be added to each batch or loaded into the mixer.



## 10<sup>th</sup> St. & Salamo Rd. Streetscape

3. Store materials covered and off the ground. Keep sand and dust out of boxes and do not allow boxes to become wet.
4. Add aramid and polyolefin reinforcing fiber blends at a dosage rate of one (1) pound fiber per one (1) ton of asphalt.
5. Add alternative aramid fiber blends at a rate proposed by the manufacturer that achieves the ADSR, PCI, and FN results required by **00744.11 Asphalt Cement and Additives**.
6. Have a fiber manufacturer's representative on site during mixing and production. This requirement can be waived if fiber manufacturer and asphalt producer can supply evidence of manufacturer's brand of fiber being successfully produced a minimum of three times at the asphalt plant to be used for the project.
7. Batch Plant. When a batch plant is used, add fiber to the aggregate in the weigh hopper and increase both dry and wet mixing times. Ensure that the fiber is uniformly distributed before the injection of asphalt cement into the mixture.
8. Drum Plant:
  - a. Inject fibers through the RAP collar manually or by feeding them with a metered air blown system to promote rapid and complete fiber dispersion. Rate the feeding of fibers with the rate the plant is producing asphalt mix. If there is any evidence of fiber bundles at the discharge chute, increase the mixing time and/or temperature or change the angle of the fiber feeder line to increase dry mixing time.
  - b. Add fibers continuously and in a steady uniform manner. Provide automated proportioning devices and control delivery within  $\pm 10\%$  of the mass of the fibers required. Perform an equipment calibration to the satisfaction of the fiber manufacturer's representative to show that the fiber is being accurately metered and uniformly distributed into the mix.

Include the following with the air blown system:

- Low level indicators
- No-flow indicators
- A printout of feed rate status in pounds/minute
- A section of transparent pipe in the fiber supply line for observing consistency of flow or feed.
- Manufacturer's representative's approval of fiber addition system

**00744.31 Quality Control** - Add the following definitions to this subsection:

1. Aramid Dispersion Visual Test: Collect a 10kg sample of mix from the discharge chute during first 50 tons of production. Visually assess the state of aramid fibers in the sample according to

**00744.03 References** of this specification, and rate the sample as “Pass” or “Fail”.

- ii. “Pass” = All fibers exist in an Individual State and no Undistributed Clips or Agitated Bundles of fiber are detected.
  - iii. “Fail” = One or more Undistributed Clips or Agitated Bundles are detected.
2. If a sample is rated as “Fail”, adjust mixing operations to improve fiber dispersion and repeat Step 1 above.
  3. If Visual Test results in three consecutive “Fail” ratings, plant mix samples should be sent to a third party laboratory for complete ADSR testing before production is allowed to commence.
  4. In addition to Visual Test, use a shovel to inspect FRAC mix in the back of first three trucks and every tenth truck thereafter to confirm adequate blending of the fiber.
  5. Remove any observed fiber bundles from placed mixture and adjust operations per the manufacturer’s recommendation to eliminate future fiber bundle development, and repeat Steps 1 through 3 above to confirm adequate aramid fiber dispersion.

**00744.41 Construction and Placement** - Add the following definitions to this subsection:

Follow manufacturer’s and engineer’s recommendations for placement of FRAC.

Add the following subsection:

**00744.51 Opening Sections to Traffic** - Schedule work so that, during the same shift, the surfaces being paved are paved full width and length through the top Base Course before opening to traffic. Traffic will be allowed on the top Base Course up to \_\_\_\_ Calendar Days.

Before beginning wearing Course paving operations, make repairs to the existing surface as directed. Payment for the repairs will be made according to 00195.20.

**00744.90 Payment** - Add the following definitions to this subsection:

No separate or additional payment will be made for FRAC.

## **SECTION 00759 - MISCELLANEOUS PORTLAND CEMENT CONCRETE STRUCTURES**

Comply with Section 00759 of the Standard Specifications modified as follows:

**00759.03 Required Submittals** - Replace this subsection, except for the subsection number and title, with the following:

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

Material ordered or Work done before the Engineer reviews and returns the documents shall be at the Contractor's risk.

Submit the following:

**(a) ADA Certification for Contractors** - For all supervisory personnel who directly supervise the curb ramp Work, submit the names, telephone numbers, and copies of the ODOT ADA Certification for Contractors at least 10 Calendar Days before the preplacement conference.

**(b) Curb Ramp Work Plan** - Do not begin any curb ramp Work before the plan for completing the Work has been approved. At least 21 Calendar Days before the curb ramp Work is scheduled to begin, submit a plan for accomplishing all phases of the curb ramp Work, including but not limited to the following (also see 00180.41):

- Surface preparation
- Compliance with Working Drawings and details submitted under 00759.03(c)
- Compliance with current Standard Drawings and Plans
- Waste handling and disposal

**(c) Working Drawings** - At least 10 Calendar Days before the construction of a grouping of one or more curb ramp location(s), not to exceed 32 ramps unless otherwise approved under 00180.41, submit unstamped Working Drawings according to 00150.35. Include field verification of each ramp site, and all dimensions, slopes and grades necessary to demonstrate compliance with the Standard Drawings and Plans. Marked up Supplemental Drawings, if field verified, may be submitted as Working Drawings. Notify the Engineer of any deficiencies or noncompliance with the Standard Drawings or Plans. The Engineer will provide additional or modified Plans as needed. Do not begin Work at a curb ramp until submittals for that curb ramp have been received, reviewed, and accepted in writing by the Engineer.

After submittal of the unstamped Working Drawings, according to 00150.35 a site visit may be requested by the Contractor or Engineer. The site visit will include a review of any field markings and discuss the submitted unstamped Working Drawings. The Engineer will provide additional or modified information, as needed.

Include the following in the Working Drawings:

- Verification of elevations, slopes, grades and dimensions necessary to demonstrate compliance with the Standard Drawings and Supplemental Drawings,
- Verification of potential utility conflicts or other street furnishings that may require relocation or adjustment.
- Identification of infeasibilities or constructability issues with the Standard Drawings and Supplemental drawings.

**(d) Corrective Action Plan** - Unless otherwise approved, notify the Engineer before performing corrective action. Include TPAR necessary to complete corrective action work.

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

At least 21 Calendar Days before concrete Structures Work is scheduled to begin, submit a corrective action plan. The corrective action plan shall address procedures to correct deficient Structures through minor corrective action or replacement according to 00759.55(a), and include:

- List of minor corrective actions that will be used to correct deficiencies, according to 00759.50 and 00759.55.
- Procedures for performing corrective action.
- Proposed concrete grinding Equipment and method of grinding.
- Proposed concrete repair Material used for resurfacing ground concrete surfaces according to Section 02015.
- Construction activities, Equipment and staging necessary to complete corrective action Work.

The Engineer will review the corrective action plan(s) and provide a response to the Contractor within 5 Days after receiving the plan. Do not begin concrete Structure Work until the corrective action plan is approved by the Engineer.

**00759.04 Preplacement Conference** - Replace this subsection, except for the subsection number and title, with the following:

Before beginning any curb ramp Work, meet with the Contractor's ODOT ADA Certified supervisory personnel and any quality control personnel if applicable, any curb ramp Subcontractors' supervisory personnel, and the Engineer at a mutually agreed upon time.

If the Contractor's personnel change, or if the Contractor proposes a significant revision to the plan for accomplishing the curb ramp Work, the Engineer may require additional preplacement conferences. If the Contractor's schedule of work identifies multiple groups of curb ramp construction, as allowed by 00180.41, additional preplacement conferences may be required for each ramp group, at a mutually agreed upon time before Work begins.

All supervisory personnel who have an active ODOT ADA Certification for Contractors and directly supervise the curb ramp Work are required to attend the preplacement conference.

**00759.13 Cobble Surfacing** – Furnish cobble surfacing concrete as shown in the Contract Plans.

Add the following subsection:

**00759.23 Concrete Resurfacing Equipment** - Furnish power-operated scarifying Equipment capable of uniformly removing and preparing the existing surface to depths required. For concrete grinding operations, furnish 12 segment grinders, fine-toothed scarifying Equipment, or other approved grinding Equipment.

**00759.31 Qualifications** - Add the following sentence to the end of the paragraph:

Provide onsite supervisory personnel that are ODOT ADA Certified during construction of the curb ramps.

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

**00759.46 Concrete** - Replace this subsection, except for the subsection number and title, with the following:

Construct the Structures between suitable forms or by the extrusion method. Place concrete according to the Plans, Section 00440, and this Section.

**00759.50(a) General** - Add the following paragraphs to the end of this subsection:

Install truncated domes as shown. Place according to the manufacturer's recommendation. Install abutting truncated dome panels with no more than 1/4 inch spacing. Install anchors along cut edges of truncated dome panels according to manufacturer's recommendations.

In addition, finish concrete surfaces of Structures to be within the established Slopes and dimensions allowed by the Standard Drawings and Plans. Repair or remove and replace Structures not meeting the Standard Drawings and Plans at no additional cost to the Agency.

**00759.50(c) Driveways, Walks, and Surfacing** - Replace this subsection, except for the subsection number and title, with the following:

Prevent segregation of the concrete during placement. Strike-off the concrete to the grade shown, and float the surface smooth. After the water sheen disappears, edge the joints and remove edging tool marks prior to final finishing. Lightly cross-broom the surface to a uniform texture. Do not trowel joints or edges after brooming surface.

The 24 inch smart level will be used to measure driveway and sidewalk cross slopes on the Pedestrian Access Route.

**00759.50(d) Curb Ramps** - Replace this subsection, except for the subsection number and title, with the following:

Prevent segregation of the concrete during placement. Strike-off the concrete to the grade shown and float the surface smooth. After the water sheen disappears, edge the joints and remove edging tool marks prior to final finishing. Lightly cross-broom the surface to a uniform texture. Do not trowel joints or edges after brooming surface.

The 6 inch smart level will be used to measure curb running slope. The 6 inch smart level will be used to measure slopes on portions of the curb ramp, gutter pan, or adjacent surfaces that cannot accommodate a 24 inch smart level. All other curb ramp locations will use a 24 inch smart level to measure slopes.

Add the following subsection:

**00759.55 Correction of Deficient Structures** - Unless otherwise approved, notify the Engineer before performing corrective action. Correct deficiencies at no additional cost to the Agency. Perform corrective actions as directed, according to the approved corrective action plan, and according to the following:

**(a) Minor Corrective Action** - Submit Equipment and procedure for minor corrective action to the Engineer for approval. Minor corrective action can be performed to correct a deficiency up to 1 square foot per panel. Corrective action exceeding 1 square foot per

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

panel requires removal and replacement according to 00150.25. Perform minor corrective action according to the following:

**(1) Concrete Grinding** - Grinding to correct high area deficiencies is limited to 3/16 inch. Use equipment meeting the requirements of 00759.23. Resurface all ground concrete surfaces according to 00759.55(a)(2).

**(2) Concrete Resurfacing** - Resurfacing to correct low area deficiencies is limited to 3/16 inch depth. Existing concrete is to be at least 7 Days old prior to resurfacing. Resurface repair areas according to the following:

a. **Keyway** - Sawcut a keyway at the boundaries of repair areas that are not already defined by panel control joints. Sawcut shall be 1/8 inch wide and 1/4 inch deeper than the edge of the repair area. Bevel inside edge of keyway at a 45 degree angle.

b. **Surface Preparation** - Prepare limits of repair area by grinding using Equipment from 00759.23. After grinding, sandblast the surface of the repair area. Clean the surface using a low pressure washer, less than 5,000 psi.

c. **Presoak** - Presoak the repair area for a minimum of 30 minutes to saturated surface dry. Prior to resurfacing, ensure there is no ponding water on the surface.

d. **Resurface** - Provide concrete resurfacer from the QPL according to 02015.60; refer to QPL remarks to select an appropriate material based on allowable installation depths. Furnish resurfacer in a color that closely matches the color of surrounding concrete surfaces. Mask boundaries of the repair area. Use hand tools to work resurfacer into keyways and match existing grade at boundaries. Apply a light broom-finish to achieve non-slip surface.

e. **Curing and Return to Traffic** - Wet cure for a minimum of 1 hour or per the manufacturer's recommendation, whichever is more restrictive. Follow manufacturer's recommendation for return to traffic time.

**(3) ACP Grinding** - Taper grind to match existing Pavement with a minimum grinding width of 1 foot for each 1/4 inch of ACP removed.

**(b) Acceptance of Structures** - Once the corrective work or replacement has been completed, acceptance will be based on the Engineer's inspection and approval of the Structure.

### 00759.90 Payment -

Add the following to this subsection:

Pay Item	Unit of Measurement
(o) Cobble Surfacing .....	Square Foot
(p) Concrete Walks, Thickened Edge.....	Square Foot

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

Replace the paragraph that begins "Item (k) includes the additional Work required ..." with the following paragraph:

Item (k) includes the additional Work required to construct a curb ramp or replace an existing curb ramp. Payment for the area of the curb ramp will be made under the concrete walks Pay Item.

Item (o) includes the concrete pavement section and the cobble surfacing as shown in the Contract Plans.

Item (p) includes the full width of the concrete sidewalk and the thickened as shown in the Contract Plans.

Replace the paragraph that begins "No separate or additional payment will be..." with the following paragraph and bullet list:

No separate or additional payment will be made for:

- curb ramp Working Drawings
- curb ramp plan
- preplacement conference
- concrete form verification
- any necessary repair or removal and replacement of Structures
- providing supervisory personnel who have an active ODOT ADA Certification for Contractors to directly supervise the curb ramp Work
- developing corrective action plans

### SECTION 00760 - UNIT PAVERS

Section 00760, which is not a Standard Specification, is included in this Project by Special Provision.

#### Description

**00760.00 Scope** - This Work consists of furnishing and installing masonry unit pavers at locations shown or directed.

#### Materials

**00760.10 Unit Paving Material** - Furnish pavers and related material meeting the following requirements:

- **Paving Unit Type/Color** -

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

Light Duty - Willamette Greystone 2 3/8" Eco-CityLock Permeable Paver/Walnut or approved equal

Heavy Duty - Willamette Greystone 4" Eco-CityLock Permeable Paver/Walnut or approved equal

### **\*Verify paver color to match adjacent pavers on Willamette Falls Drive**

- **Unit Color** - As noted above. Provide sample color for approval
- **Unit Size** - Light Duty - 4"x8"  
Heavy Duty - 5"x10"
- **Unit Strength** - 8,000 psi with a maximum of 5 percent absorption (ASTM C 936)
- **Leveling/Joint Sand** - No. 8 or No. 9 aggregate per manufacturers specifications.
- **Aggregate Base** - Open-Graded Aggregate Base
- **Edging** - Permaloc StructureEdge or approved equal along the cycle track asphalt pavement section.
- **Subgrade Geotextile** - Provide subgrade geotextile meeting 00350.00

Submit proposed equivalent products to the Engineer for consideration. See 00120.16 and 00180.31.

### **Construction**

**00760.40 General** - Install pavers according to the manufacturer's instructions.

**00760.41 Aggregate Base** - Place and compact aggregate to 95 percent density.

**00760.42 Sand Base** - Place a minimum depth 1 inch leveling bed. Screed to grade and saturate with water to ensure a firm and smooth grade.

**00760.43 Weed Control** - Apply granular pre-emergent herbicide over the prepared leveling bed according to the manufacturer's instructions.

**00760.44 Unit Pavers** - Lay out rows so they are straight and parallel to the surrounding lines. Cut pavers with a masonry saw where necessary to fit pattern to edges.

**00760.45 Joint Sand and Compaction** - After placing pavers, sweep joint sand into the joints. Use a vibrating mechanical tamper to compact.

**00760.46 Surface Tolerance** - Do not deviate the longitudinal and transverse surface grades by more than 1/4 inch in 12 feet.

**00760.47 Clean Up** - Remove excess sand and broken paving material from the site when complete.



**Measurement**

**00760.80 Measurement** - The quantities of unit pavers will be measured on the area basis.

**Payment**

**00760.90 Payment** - The accepted quantities of unit pavers will be paid for at the Contract unit price, per square foot for the item "Unit Pavers, \_\_\_\_". The load rating (light duty vs. heavy duty) will be inserted in the blank.

Payment will be payment in full for furnishing and placing all Materials, and for furnishing all Equipment, labor, and Incidentals necessary to complete the Work as specified.

No separate or additional payment will be made for Base preparation including subgrade geotextile and aggregate base.

**SECTION 00810 - METAL GUARDRAIL**

Comply with Section 00810 of the Standard Specifications modified as follows:

**00810.11 Scope** – Revise this subsection as follows:

This Work consists of guardrail modifications of the existing guardrail at the Access Road located along Salamo Rd, and includes removal of portions of the existing guardrail, and replacement with new guardrail and end pieces. The work includes assembly and erection of all components, parts, and materials complete at the locations shown or directed.

**00810.80 Measurement** – Replace this subsection with the following:

The estimated quantities of Materials for all the grading at guardrail terminals are:

No measurement of items will be completed under this section. Items will be paid lump sum for complete installation as shown in the plans.

**00810.90 Payment** -

Add the following Pay Item to the Pay Item list:

<b>Pay Item</b>	<b>Unit of Measurement</b>
(m) Guardrail, Modifications at Access Road Entrance .....	Each

Add the following paragraph after the paragraph that begins "In Item (l), the type...":

Item (m) includes all materials, equipment, labor and incidentals necessary to complete the work as shown.

**SECTION 00850 - COMMON PROVISIONS FOR PAVEMENT MARKINGS**

Comply with Section 00850 of the Standard Specifications.

**00850.47(c) Retroreflectivity** - Replace the sentence that begins "Except for paint applications..." with the following sentence:

Except for paint and colored lane marking applications, evaluate longitudinal and transverse marking retroreflectivity according to ODOT TM 777.

**SECTION 00855 - PAVEMENT MARKERS**

Comply with Section 00855 of the Standard Specifications.

**SECTION 00860 - LONGITUDINAL PAVEMENT MARKINGS - PAINT**

Comply with Section 00860 of the Standard Specifications.

**SECTION 00865 - LONGITUDINAL PAVEMENT MARKINGS - DURABLE**

Comply with Section 0865 of the Standard Specifications.

**SECTION 00867 - TRANSVERSE PAVEMENT MARKINGS - LEGENDS AND BARS**

Comply with Section 00867 of the Standard Specifications modified as follows.

**00867.90 Payment** - Add the following paragraph after the paragraph that begins "Item (p) includes one...":

Item (q) includes the shared use path pedestrian and bicycle stencils.

**SECTION 00868 - COLORED LANE MARKINGS**

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

Section 00868, which is not a Standard Specification, is included in this Project by Special Provision.

### Description

**00868.00 Scope** - In addition to the requirements of Section 00850, install colored lane markings according to the following Specifications.

### Labor

**00868.30 Manufacturer's Representative** - Provide a manufacturer's representative according to 00850.30.

**00868.31 Manufacturer-Certified Installers** - Provide certified installers according to 00850.31.

### Construction

**00868.45 Installation** - Place markings only when the manufacturer's representative determines that the pavement is ready for the pavement marking material.

Apply the material to the pavement according to the manufacturer's installation instructions to the full width shown in the Plans. Joints will be allowed with no overlap or gap allowed at the joint.

Do not install reflective elements.

Install the pavement marking material surface according to the manufacturer's installation instructions to achieve a uniform initial skid resistance greater than or equal to 50 British Pendulum Number (BPN) when tested according to ASTM E303.

Apply one or more of the following marking material types:

- **Preformed, Fused Thermoplastic Film High Skid** - Install preformed, fused thermoplastic film high skid that has factory installed crushed glass or Aggregate on the surface.
- **Methyl Methacrylate** - Apply methyl methacrylate to the pavement to the full width shown in a single application. Colored lane markings shall be 90 mils to 120 mils in thickness, exclusive of projecting surface-applied friction elements, with a continuous and uniform cross sectional configuration.

**00868.75 Manufacturer's Warranty** - Furnish a manufacturer warranty that unconditionally warrants to the Agency the product(s) and installation under this Section against failure, according to this subsection and 00170.85(c)(1). Use Agency-supplied warranty forms, available from the Engineer.

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

“Unconditionally warrant” means that the warranty covers all failures, regardless of the source or cause of the failure, including, without limitation, whether the source or cause is or may be related to workmanship, inspection, or choice of materials.

The Agency inspection of any portion of the Work during the Contract and during the product installation, the Agency acceptance of the Work, corrections under the warranty, or expiration of the warranty shall not relieve the obligations under this warranty.

**(a) Warranty Period** - The warranty period shall be for 18 months.

**(b) Failure** - For purposes of this warranty, failure is defined as one or more of the following:

- **Insufficient Color Stability:**
  - Green markings fail to meet the requirements of the Federal Highway Administration Interim Approval for Optional Use of Green Colored Pavement for Bike Lanes (IA-14) tested according to ASTM D6628.
- **Loss of Adhesion** - Markings show 5 percent or greater loss of marking material due to non-adhesion.
- **Skid Resistance** - Markings fail to maintain an average skid resistance greater than or equal to 50 British Pendulum Number (BPN) when tested in an equal number of test locations in both wheel path and non-wheel path locations according to ASTM E303.

**(c) Remedy** - Upon notification by the Engineer of a failure, provide the following remedy at no additional cost to the Agency:

- Repair or replace, at the discretion of the Engineer, all failed pavement markings within 6 months of the Agency’s request to do so.
- Use materials and procedures meeting the Specifications.
- Match repairs to adjoining Work.
- Coordinate timing of repair Work with the Engineer.

**(d) Agency’s Right to Make Repairs** - If, in the opinion of the Engineer, a failure causes or may cause a hazard, the failure may be temporarily corrected by Agency or other forces at no additional cost to the Agency. Replace temporary repairs with permanent repairs at no additional cost to the Agency and according to the Specifications and within the time specified in 00868.75(c).

### Measurement

**00868.80 Measurement** - The quantities of colored lane markings will be measured on the linear foot basis and based on a nominal line width of 4 inches.

### Payment

**10<sup>th</sup> St. & Salamo Rd. Streetscape**

**00868.90 Payment** - The accepted quantities of Work performed under this Section will be paid for at the Contract unit price, per unit of measurement, for the following items:

<b>Pay Item</b>	<b>Unit of Measurement</b>
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(e) Green Bicycle Lane Line, Preformed Thermoplastic Film.....	Linear Foot
--	-------------

Payment will be payment in full for furnishing and placing all Materials, and for furnishing all Equipment, labor, and Incidentals necessary to complete the Work as specified.

Payment for Work under this Section will be limited to 75 percent of the amount due until the Agency has received the signed warranty.

**SECTION 00905 - REMOVAL AND REINSTALLATION OF EXISTING SIGNS**

Comply with Section 00905 of the Standard Specifications.

**SECTION 00910 - WOOD SIGN POSTS**

Comply with Section 00910 of the Standard Specifications.

**SECTION 00920 - SIGN SUPPORT FOOTINGS**

Comply with Section 00920 of the Standard Specifications modified as follows:

**00920.80 Measurement** - Add the following to the end of this subsection:

The estimated quantities of concrete for minor sign supports are:

<b>Support Type</b>	<b>Quantity</b>
Perforated Steel Square Tube Slip Base Sign Supports	0.2 cu. yd.
Perforated Steel Square Tube Anchor Sign Supports	3.2 cu. yd.

**SECTION 00930 - METAL SIGN SUPPORTS**

Comply with Section 00930 of the Standard Specifications modified as follows:

**00930.02 Working Drawings** - Add the following to the end of this subsection:

Submit working drawings according to 00150.35 for the following types of steel supports for Intelligent Transportation Systems:

- Multi-Post Breakaway Sign Supports
- Triangular Base Breakaway Sign Supports
- Signal Pole Mounts
- Secondary Sign Supports

Include the completed field verification of post lengths forms that are available from the Engineer for these Intelligent Transportation Systems supports. Material ordered or work done before receiving approved Working Drawings from the Engineer will be at the Contractor's risk.

**00930.40(d) Bolt Installation** - Delete the sentence beginning "Clean and lubricate fasteners..."

**00930.40(d)(1) Bolt Installation for Slip Bases (Breakaway)** - Replace the paragraph beginning "Remove any dirt and moisture..." with the following paragraph:

Remove any dirt and moisture from the lubricated anchor rods, and recoat the lubricated fasteners with a fresh, second coat of lubricant to the bolt threads and bearing surfaces that turn during installation according to 02560.70 immediately before tightening. Tighten the bolts, in the presence of the Engineer, to the minimum torque or tension shown to seat the bolts in the base plate slots. After all the bolts in the slip base are tightened, loosen each bolt and retighten to the prescribed torque or tension shown in the same order as the initial tightening.

**00930.40(d)(2)(a) Direct Tension Indicator Tightening** - Replace the paragraph beginning "After attaining a snug-tight condition,..." with the following paragraph:

After attaining a snug-tight condition, tighten all fasteners in the connection by progressing systematically from the most rigid part of the connection to the free edges until the direct tension indicator spaces between the protrusions refuse entry of a 0.005 inch feeler gauge in all spaces except one. "Cheater" bars, multiplier wrenches, or impact wrenches are allowed. Provide impact wrenches with enough capacity and supplied air to tighten each bolt in 10 seconds or less. Do not use a slugging wrench or similar method for final tightening.

**00930.40(e)(1) General** - Add the following sentence to the beginning of this subsection:

Notify the Engineer in writing at least 24 hours before starting installation.

**00930.40(e)(2) Direct Tension Indicator Method** – Replace this subsection, except subsection number and title, with the following:

Upon completion of a bolted joint, the Engineer will determine that all bolts have been tightened. A minimum of 10 percent, but not less than two bolts in each joint, will be inspected.

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

The joint will be accepted as properly tightened when one open space allows entry of a 0.005 inch feeler gauge. If there is more than one space between the direct tension indicator protrusions that allow entry of a 0.005 inch feeler gauge, re-inspect all bolts, retighten bolts in the joint as required, and resubmit the joint for inspection. If no spaces exist between the direct tension indicator protrusions that allow entry of a 0.005 inch feeler gauge, replace bolt assembly, tighten bolts in the joint as required, and resubmit the joint for inspection. For connections with all bolts fully tightened, one bolt at a time may be replaced without providing crane support of the mast arm.

**00930.80 Measurement** - Add the following to the end of this subsection:

The estimated quantities of structural steel are as follows:

Item	Estimated Quantity (Pound)
<b>Minor Sign Supports</b>	
Perforated Steel Square Tube Slip Base Sign Supports	95
Perforated Steel Square Tube Anchor Sign Supports	1,850

## SECTION 00940 - SIGNS

Comply with Section 00940 of the Standard Specifications modified as follows:

**00940.46 Inspection** - Replace this subsection, except for the subsection number and title, with the following:

The Engineer will inspect signs at the fabrication shop or at the Project Site or both. Inspection will be for conformance to the Plans and Specifications, for conformance to nighttime visibility, and for rejectable defects. Rejectable defects include scratches, scuffs, tears, or any defect that impacts reflectiveness, readability, or performance. Signs not meeting inspection criteria are to be replaced at no additional cost to the Agency. The Contractor's expense for sign inspection will be according to 00165.91.

**00940.47 Sign Erecting** - Replace the paragraph that begins "When signs are installed on supports..." with the following paragraph:

When signs are installed on supports 10 feet or less from the edge of guardrail, curb, or Shoulder, set them to reflect 0 to 3 degrees away from traffic. When signs are installed on supports more than 10 feet from the edge of guardrail, curb or Shoulder, set them to reflect 0 to 3 degrees toward traffic.

**SECTION 00960 - COMMON PROVISIONS FOR ELECTRICAL SYSTEMS**

Comply with Section 00960 of the Standard Specifications modified as follows:

**00960.02 Equipment List and Drawing Submittals** - Replace the paragraph that begins "Within 30 Calendar Days after execution of the Contract, submit ..." with the following paragraph:

Within 30 Calendar Days after execution of the Contract, submit the Blue Sheets (see 00160.00 and 00160.07) and the Green Sheets (see 00160.00 and 00160.07) according to 00150.37 for all materials the Contractor proposes to install. Blue Sheets and Green Sheets contain submittal instructions and will be made available to the Contractor by the Engineer.

**00960.30 Licensed Electricians** - Replace the paragraph that begins "According to the Oregon Administrative Rule ..." with the following paragraph:

According to the Oregon Administrative Rule 918-282-0120(1), no person or entity shall allow any individual to perform electrical work for which the individual is not properly registered or licensed. Every person who installs electrical systems on the Project shall submit a copy of their electrical license or apprentice registration to the Engineer prior to performing any Work. They must be licensed as an S or a J under Oregon Administrative Rule 918-282.

**SECTION 00962 - METAL ILLUMINATION AND TRAFFIC SIGNAL SUPPORTS**

Comply with Section 00962 of the Standard Specifications modified as follows:

**00962.10 Materials** - Replace this subsection, except subsection number and title, with the following:

Furnish Materials meeting the following requirements:

Anchor Rods .....	02560
Commercial Grade Concrete .....	00440
High-Strength Fasteners .....	02560

The rotational capacity test of 02560.60(a) does not need to be repeated at the Project Site for luminaire slip base high-strength bolts.

The rotational capacity test of 02560.60(a) is not required by the supplier and does not need to be repeated at the Project Site for high-strength bolts installed in tapped holes.



## 10<sup>th</sup> St. & Salamo Rd. Streetscape

The repeated Project Site rotational capacity test of 02560.60(a) for the high-strength thru bolt lots can be performed within 14 Days of installation at a testing facility or project staging location as approved by the Engineer. Keep all bolts in the original sealed containers at all times up until installation.

Furnish steel pole Materials meeting the requirements of Section 02530 modified as follows:

- Provide steel sheet for pole and arms meeting the requirements of ASTM A595, Grade A or B, ASTM A572, or approved equal.
- Provide all other steel sheet and plate meeting the requirements of ASTM A36 or ASTM A572, or approved equal.
- Supplementary Requirement S18 (ASTM A6), maximum tensile strength, is required.
- Galvanized base plates and small and hidden pieces do not require controlled silicon content.

**00962.46(j)(2) Assembly of Supports and Bolt Tightening** – Delete the sentence “Nuts shall have full thread engagement.”

**00962.46(j)(2)(a) Anchor Rods for Signal Supports and Fixed Base Luminaire Supports** - Replace this subsection, except for the subsection number and title, with the following:

**1. Installation** - After foundation concrete strength and curing requirements are satisfied and after inspection of the foundation, pole installation may begin.

Protect anchor rods, washers, and nuts from dirt and moisture. Lubricate anchor rod threads, nuts, and bearing surfaces that will turn during installation according to 02560.70. Estimate the required rake, if any, and set the lubricated leveling nuts accordingly, so that when pole installation is complete and all appurtenances are installed on the pole, the top of the pole is plumb with the base of the pole.

Lift the pole into position on the leveling nuts and washers. Make sure all leveling nuts and washers are in full contact with the base plate.

Install washers with lubricated bearing surfaces that turn during installation and lubricated top nuts, and bring to a snug tight condition. Snug tight is defined as the condition when all plies of the connection are in firm contact and can be obtained by the full effort of a worker on the end of a 12 inch long wrench. Several passes may be required to obtain uniform snug tightness.

When all anchor rods are snug tight, proceed with installation of arms and other appurtenances, if not previously installed. When installation of arms and appurtenances is complete, and the pole is plumb as defined above, final anchor rod tightening may begin. If the pole is not plumb, adjust as required and repeat snug tightening as described above. Make sure all leveling nuts and washers are in full contact with the base plate. As a safety measure, provide crane support of the pole until anchor rods tightening is completed.

Mark the initial relative position of each anchor rod and an outside ridge of each first nut above the base plate with a permanent felt tip pen or similar marker. Retain visibility of the marks for at least 7 Days to verify subsequent nut rotation. Rotate all first nuts above the

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

base plate past snug tight an additional amount shown in 00962.46(j)(2)(e) in two passes. "Cheater" bars, multiplier wrenches, or slugging wrenches are allowed if required for large diameter anchor rods. After final tightening of the first nut above the base plate, tighten the second nut to a snug tight condition for assemblies with two nuts above the base plate.

**2. Inspection** - Notify the Engineer in writing at least 24 hours before starting installation. The Engineer will observe the installation and tightening operations to ensure that proper procedures are followed.

The installation will be rejected if the geometry does not satisfy the requirements of 02560.05 or no permanent felt tip pen marks are present for at least 7 Days after installation showing the rotation past snug tight.

**00962.46(j)(2)(b) Anchor Rods for Slip Base (Break-away) Luminaire Supports** - Replace this subsection with the following:

**00962.46(j)(2)(b) Anchor Rods and High-Strength Bolts for Slip Base (Break-away) Luminaire Supports**

**1. Installation** - After foundation concrete strength and curing requirements are satisfied and after inspection of the foundation, pole installation may begin.

Furnish, at no additional cost to the Agency, a calibrated torque wrench of a capacity appropriate to the size and type of the bolts being tightened. Confirm the accuracy of the calibrated torque wrench through calibration by an approved independent testing agency at least once a year.

Protect anchor rods, washers, and nuts from dirt and moisture. Lubricate anchor rods, nuts, and bearing surfaces that will turn during installation according to 02560.70. Estimate the required rake, if any, and set the lubricated leveling nuts accordingly, so that when pole installation is complete and all appurtenances are installed on the pole, the top of the pole is plumb with the base of the pole.

Install the anchor plate on the leveling nuts and washers. Make sure all leveling nuts and washers are in full contact with base plate.

Install washers with lubricated bearing surfaces that turn during installation and lubricated top nuts, and bring to a snug tight condition. Snug tight is defined as the condition when all plies of the connection are in firm contact, and can be obtained by the full effort of a worker on the end of a 12 inch long wrench. Several passes may be required to obtain uniform snug tightness.

When all anchor rods are snug tight, proceed with the "Slip Base Bolting Procedure" as shown and lubricate bolt threads and bearing surfaces that turn during installation according to 02560.70. When the slip base bolting procedure is complete, final anchor rod tightening may begin. As a safety measure, provide crane support of the pole until anchor rod tightening is complete.

Mark the initial relative position of each anchor rod and an outside ridge of each first nut above the base plate with a felt tip pen or similar marker. Retain visibility of the marks for at least 7 Days to verify subsequent nut rotation. Rotate all first nuts above the base plate

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

past snug tight an additional amount shown in 00962.46(j)(2)(e) in two passes. "Cheater" bars, multiplier wrenches, or slugging wrenches are allowed if required for large diameter anchor rods.

**2. Inspection** - Notify the Engineer in writing at least 24 hours before starting installation. The Engineer will observe the installation and tightening operations to ensure that proper procedures are followed.

The installation will be rejected if the geometry does not satisfy the requirements of 02560.05 or no permanent felt tip pen marks are present for at least 7 Days after installation showing the rotation past snug tight.

**00962.46(j)(2)(c) High-Strength Bolts in Mast Arm-to-Pole Connections and Luminaire Arm-to-Pole Connections** - Replace this subsection with the following:

**00962.46(j)(2)(c) High-Strength Thru Bolts in Mast Arm-to-Pole Connections and Luminaire Arm-to-Pole Connections** -

**1. Installation** - Do not reuse galvanized high strength bolts. Retightening previously tightened bolts that may have been loosened by the tightening of adjacent bolts will not be considered a reuse.

Provide all high strength bolts according to the details shown. Use bolt, nut, and washer combinations from the same rotational capacity lot with new and unused direct tension indicators with protrusions in contact with the hardened washer.

Protect fasteners from dirt and moisture. Do not remove the lubricant that is present in as-delivered condition. Lubricate threads, nuts, and bearing surfaces that turn during installation according to 02560.70.

Bring the connection to a snug-tight condition. Snug-tight is defined as the condition when all plies of the connection are in firm contact and can be attained by applying the full effort of a worker on the end of a 12 inch long wrench to each bolt in the connection. Tighten all fasteners in the connection by progressing systematically from the most rigid part of the connection to the free edges in a manner that will minimize relaxation of previously tightened fasteners. In some cases, proper tensioning of the bolts may require more than a single cycle of systematic partial tightening. After attaining a snug-tight condition, tighten all fasteners in the connection by progressing systematically from the most rigid part of the connection to the free edges until the direct tension indicator spaces between the protrusions refuse entry of a 0.005 inch feeler gauge in all spaces except one. "Cheater" bars, multiplier wrenches, or impact wrenches are allowed. Provide impact wrenches with enough capacity and supplied air to tighten each bolt in 10 seconds or less. Do not use a slugging wrench or similar method for final tightening.

**2. Inspection** - Notify the Engineer in writing at least 24 hours before starting installation. The Engineer will observe the installation and tightening of bolts to determine that the tightening procedures are properly used. Inspect all bolts in each joint. The joint will be accepted as properly tightened when one open space allows entry of a 0.005 inch feeler gauge. If there is more than one space between the direct tension indicator protrusions that allow entry of a 0.005 inch feeler gauge, re-inspect all bolts, retighten bolts in the joint as required, and resubmit the joint for inspection. If no spaces exist between the direct

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

tension indicator protrusions that allow entry of a 0.005 inch feeler gauge, replace bolt assembly, tighten bolts in the joint as required, and resubmit the joint for inspection. Connections that have all bolts fully tightened can replace one bolt at a time without providing crane support of the mast arm.

The installation will be rejected if the geometry does not satisfy the requirements of 02560.05.

**00962.46(j)(2)(d) Final Tightening** - Replace this subsection with the following:

### **00962.46(j)(2)(d) High-Strength Bolts in Tapped Holes in Mast Arm-to-Pole Connections and Luminaire Arm-to-Pole Connections -**

**1. Installation** - Protect fasteners from dirt and moisture. Lubricate bolt threads and bearing surfaces that turn during installation according to 02560.70. Provide all high-strength bolts with hardened flat washers under the element turned during tightening.

If arms or appurtenances are attached after pole erection, support them until bolts are snug tight.

Install high-strength tapped hole connections to a snug tight condition. Snug tight is defined as the condition when all plies of the connection are in firm contact, and can be obtained by the full effort of a worker on the end of a 12 inch long wrench. Mark the initial relative position of the outside ridge of each turned element (nut or bolt head) and plate with a permanent felt tip pen or similar marker. Retain visibility of the marks for at least 7 Days to verify subsequent nut rotation. Rotate the top nut of each bolt past snug tight by the amount in 00962.46(j)(2)(e). Several passes may be required to obtain uniform snug tightness. "Cheater" bars, multiplier wrenches, and impact wrenches are allowed. Provide impact wrenches with enough capacity and supplied air to tighten each bolt in 10 seconds or less. Do not use a slugging wrench or similar method for final tightening.

**2. Inspection** - Notify the Engineer in writing at least 24 hours before starting installation. The Engineer will observe the installation and tightening operations to ensure that proper procedures are followed.

The installation will be rejected if the geometry does not satisfy the requirements of 02560.05 or no permanent felt tip pen marks are present showing the rotation past snug tight.

Add the following subsection:

**00962.46(j)(2)(e) Final Tightening** - Required final tightening of anchor rods and high-strength bolts are shown in the following Table:

<b>Connection Type</b>	<b>Rotation Past Snug Tight</b>
ASTM F1554, Grade 36 Anchor Rods	30° (1/12 turn)
ASTM A449 Anchor Rods	60° (1/6 turn)
ASTM F1554 Grade 55 Anchor Rods	60° (1/6 turn)
ASTM F3125, Grade A325 Bolts	60° (1/6 turn)

## SECTION 00970 - HIGHWAY ILLUMINATION

Comply with Section 00970 of the Standard Specifications modified as follows

Replace Section 00970 in its entirety with the following:

**00970.00 Scope** – Portland General Electric (PGE) will maintain the Highway Illumination system for the project. Highway Illumination is also referred to as Street Lighting. In addition to the requirements of Section 00960, install the highway illumination according to the specifications of this Section.

The Street Lighting System will be installed under PGE Option A. The Contractor will be required to provide the materials to install the street light conduits, conduit bends, junction boxes, ground rods, anchor bolts and any other incidental work required for the installation of the street lights required for PGE Option A. Foundations will be provided by PGE and installed by the Contractor. The Contractor shall also provide all trench excavation, bedding, and backfill for the installation of the street light conduits. It is not necessary that a licensed electrician install the conduits for the PGE system. However, PGE has specific requirements related to approval of excavation contractors. Refer to the following website for PGE installation requirements:

<https://www.portlandgeneral.com/construction/electric-service-requirements>

The Contractor shall also install the conduit from the street light junction boxes or poles to the power source. The power source is considered the PGE electrical service point of connection.

All backfill shall be compacted granular material.

Comply with the “Statement of Streetlight Installation Responsibilities,” latest revision.

All highway illumination materials shall be approved by PGE and shall be listed on the most recent listing of PGE approved materials. PGE updates this list two to three times a year. The most current update may be found at the following PGE website (click on the link, then click on the “Approved Street Lighting Equipment link from that website):

<https://www.portlandgeneral.com/safety/outdoor-area-lighting>

The contractor shall notify PGE when underground work will be constructed so they can provide an inspector. The PGE inspector will need to be present during all horizontal drilling activity. For open trenching operations, the contractor must receive PGE approval prior to covering underground work. After PGE has accepted the street lighting underground system installed by the Contractor, PGE will install the street light poles, luminaire arms, and luminaires, and pull the cable and wires.

Field cutting of conduit bends is not allowed.

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

**00970.01 Regulations, Standards, and Codes** – Provide and install the PGE illumination system satisfying the requirements and standards of Portland General Electric (PGE) Option A. Comply with the requirements of the PGE Statement of Streetlight Installation Responsibilities, latest revision.

**00970.80 Measurement** - No measurement of quantities will be made for Work performed under this Section.

The estimated quantities of lighting poles and arms are listed on the Project Plans. If individual pole lengths or individual arm lengths increase or decrease by more than 3 feet from the estimated quantities shown, adjustments to the Contract lump sum amount for the item "Lighting Poles and Arms" will be made according to 00190.10(h). Adjustments will be made only for the increased or decreased individual pole lengths or individual arm lengths greater than 3 feet.

**00970.90 Payment** - The accepted quantities of Work performed under this Section will be paid for at the Contract unit price, per unit of measurement, for the following items:

<b>Pay Item</b>	<b>Unit of Measurement</b>
(a) Pole Foundations.....	Lump Sum
(b) Lighting Poles and Arms.....	Lump Sum
(c) Luminaires, Lamps, and Ballasts.....	Lump Sum
(d) Switching, Conduit, and Wiring.....	Lump Sum
(e) Refurbishing and Reinstalling Existing Illumination Systems.....	Lump Sum

Item (a) includes all precast concrete foundations for the PGE Option A lighting poles.

Item (b) includes all poles and arms for lighting poles.

Item (d) includes all switches, conduit, cabinets, wiring, delineators, junction boxes, and other items required to construct the lighting system as specified.

Item (e) includes all refurbishing, reinstalling, and other Work as specified and not included in the removal of existing illumination.

Payment will be payment in full for furnishing and placing all Materials, and for furnishing all Equipment, labor, and Incidentals necessary to complete the Work as specified.

**00970.92 Electrical Energy Costs** - All electrical energy costs for the lighting systems or subsystems will be paid for by the Agency.

## SECTION 00990 - TRAFFIC SIGNALS

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

**00990.90 Payment** - Delete Pay Item (c) from the pay item list.

Delete the paragraph that begins “Item (c) includes furnishing and installing...”

Replace the paragraph that begins “In Items (a), (b), (c), (d), (f) ...” with the following paragraph:

In Items (a), (b), (d), (f) and (g), the intersection location will be inserted in the blank.

Replace the paragraph that begins “Item (b) includes furnishing and replacing...” with the following paragraph:

Item (b) includes furnishing and replacing or installing items for an existing traffic signal installation and the detection system.

Replace the paragraph that begins "Mast arm pole and strain pole foundations ..." with the following paragraph:

Drilled shaft foundations for traffic signal 15 foot through 55 foot mast arm supports will be paid for according to 00963.90. Drilled shaft foundations for traffic signal 60 foot through 75 foot mast arm supports will be paid for according to 00921.90.

### SECTION 01030 - SEEDING

Comply with Section 01030 of the Standard Specifications modified as follows:

**01030.13(c) Pure Live Seed** - Replace this subsection, except subsection number and title, with the following subsection:

Use the PLS specified rate listed in 01030.13(f) for determining PLS application rates. Ensure the PLS application rate meets the PLS specified rate. Apply pre blended seed mixes, with multiple species, at a PLS application rate ensuring all species meet or exceed the PLS specified rate for each species in the seed mix.

PLS application rate for an individual seed species is determined as follows:

- PLS specified rate is listed in 01030.13(f)
- PLS factor is obtained by multiplying the seed label germination percentage times the seed label purity percentage. Use the purity and germination percentages from the label on actual bags of seed to be used on the Project.
- PLS application rate is obtained by dividing the PLS specified rate by the PLS factor.

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

For a seed mix, make this calculation for each seed species in the mix and then adjust as follows:

- Using the seed tag, determine the weight of each seed species in the bag and use this information to find the percentage, by weight, of each seed species is in 1 pound for the pre-blended mix.
- Divide the percentage by weight of each seed species, per pound, for the pre-blended mix, by the PLS application rate for that specific seed species.

Determine the highest application rate in the seed mix and apply the seed mix at that application rate.

**01030.13(f) Types of Seed Mixes** - Add the following to the end of this subsection:

Provide the following seed mix formulas:

- **Permanent Seeding:**

<b>Botanical Name (Common Name)</b>	<b>PLS Specified Rate (lb/acre)</b>
Hordeum brachyantherum (Meadow Barley)	17.45
Bromus carinatus (California Brome)	15.27
Festuca rubra rubra (Native Red Fescue)	8.73
Deschampsia cespitosa (Tufted Hairgrass)	1.31
Agrostis exerata (Spike Bentgrass)	0.87

\* Oregon Certified Seed

**01030.13(g) Availability** - Add the following sentence to the end of this subsection:

Submit the seed and seed mixes to be used on the project according to 00150.37.

**01030.40 General** - Add the following sentence after the sentence beginning “Notify the Agency...”:

Notify the Agency of the acreage to be seeded at least 7 Days before seeding begins.

Add the following subsection:

**01030.43(c) Seed Application Rates** - Determine the seeding application rate according to 01030.13(c). Apply seed mixes at the highest application rate calculated to provide not less than the specified application rate for each individual seed species in the mix.



## SECTION 01040 - PLANTING

Comply with Section 01040 of the Standard Specifications.

1040.80(b) Topsoil– Topsoil will be measured on the volume basis, using neat line field measurements after material has settled. Place sufficient material as required to account for settlement.

**1040.80(f) Mulch** – Bark Mulch will be measured on the volume basis using neat line field measurements after material has settled. Place sufficient material as required to account for settlement.

## SECTION 01140 - POTABLE WATER PIPE AND FITTINGS

Comply with Section 01140 of the Standard Specifications modified as follows:

**01140.90 Payment** - In the paragraph that begins “No separate or additional payment will be...”, add the following bullet to the bullet list:

- pipe reconnections

**001140.90 Payment** – Replace the sentence that begins with “In items (a) and (b)..” with:

In items (a) and (b), the nominal diameter of pipe, fittings and couplings will be inserted in the first blank. The class of backfill will be inserted in the second blank. No allowance will be made for fittings and couplings, regardless of material.

## SECTION 01150 - POTABLE WATER VALVES

Comply with Section 01150 of the Standard Specifications modified as follows:

**01150.10 Materials** - Delete “Ball Valves” from the list of materials.

**01150.90 Payment** - Replace the paragraph that begins “No separate or additional...” with the following paragraph:

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

No separate or additional payment will be made for:

- earthwork not covered under other Pay Items
- jointing
- blocking of valves
- protective coatings
- valve boxes
- valve box extensions
- valve operator extensions
- valve reconnections
- hydrostatic testing

01150.90 Payment – Add the following Pay Item:

<b>Pay Item</b>	<b>Unit of Measurement</b>
(h) Relocate Existing Air Relief Valve.....	Each

In item (h), the relocation includes all materials, equipment, labor, and incidentals, including pipe, to complete the Work as specified.

### **SECTION 01160 - HYDRANTS AND APPURTENANCES**

Comply with Section 01160 of the Standard Specifications.

### **SECTION 01170 - POTABLE WATER SERVICE CONNECTIONS, 2 INCH AND SMALLER**

Comply with Section 01170 of the Standard Specifications modified as follows:

**001170.90 Payment** – Add the following to the end of this subsection:

Item (f) includes the water service piping from the water main as shown on the plans. New water meter boxes shall be relocated to the location as shown on the Contract Plans. The Contractor shall provide a 1-foot wide connection trench from the new meter box location to (1) one foot beyond the existing meter box on the house side of the service to a minimum depth of 2 inches below the existing service. City Forces shall perform all work necessary to disconnect the existing meter and reconnect the new meter. Following installation of new

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

water meters, all water service installation on the property owner side of the meter must be completed by a licensed plumber. Plumbing permits are required to be obtained by the Contractor. The cost of permits will be paid by the City. Following reconnection of the water service, the Contractor shall backfill all trenches with Class B backfill material and set the new meter box to match the existing grade.

In item (f), no pipe size will be included in the bid item. Pipe size will be incidental to this bid item.

### **SECTION 01210 – MISCELLANEOUS UTILITY SYSTEMS**

Section 01210, which is not in the Standard Specifications, is included for this project by special provision.

**01210.00 Scope** – This work consists of furnishing and installing underground facilities for the relocation of private utility systems for PGE, Lumen, Comcast, and Northwest Natural Gas.

The Contractor shall provide a joint trench for the relocation or new installation of underground utilities. The joint trench will be for the relocation of PGE, Lumen, Comcast and Northwest Natural Gas. The Contractor shall utilize the joint trench for street lighting and signal interconnect where possible.

This work for the joint trench shall be defined as “Joint Trench and Backfill”. This work shall include trench excavation, 3/4” - 0” bedding, and compacted 3/4” - 0” granular backfill. The joint trench shall be wide enough and deep enough to accommodate all utilities.

The Contractor shall be responsible for the installation of conduits and vaults to utility provider standards. PGE will have an on-site inspector reviewing the work. The work must conform to PGE standards.

#### **Materials**

**01210.10 General** - All materials shall conform to the requirements of the utility providers. Conduits shall be Schedule 40 Grey PVC. Vault specifications refer to vaults manufactured by Utility Vault. All vaults for the project must be Utility Vault or approved equal. For conduits 4 inch and smaller, the contractor shall install 3 ft radius fiberglass bends. For conduits larger than 4 inch, the contractor shall install 5 ft fiberglass bends.

Trench Excavation, Bedding and Backfill shall be completed in conformance with Section 00405. All backfill shall be compacted granular backfill.

#### **Construction**

**01210.40 General** – A utility pre-construction meeting is required prior to beginning Joint Trench work to review schedule and coordination with each utility provider that has facilities in the Joint Trench.

**10<sup>th</sup> St. & Salamo Rd. Streetscape**

The Contractor shall notify PGE, Lumen, Comcast and Northwest Natural Gas that the Joint Trench is being constructed for inspection by utility provider inspectors. The Contractor shall not backfill the trench until all utility providers have inspected their conduit, or as directed by the Project Manager.

The Contractor shall coordinate with the PGE field inspector on knock out and conduit locations into the vaults. All work completed for PGE, including the placement of conduits and vaults shall be completed to PGE standards and specifications.

The trench depth shall be of sufficient width and depth to accommodate all conduits while providing adequate clearances as identified by individual utilities.

**Measurement**

**01210.80 General** – The measurement of items installed under this section will be measured as follows:

- The accepted quantities for Vault installation shall be on a per each basis and shall include the complete installation of the vault including excavation, bedding, backfill, and other elements required for installation of the vault to the Engineer’s and the Utility Provider’s satisfaction.
- The accepted quantity for Joint Trench and Backfill will be the length, to the nearest foot regardless of the depth and width of the required trench. Only sections of the trench that include franchise utility conduit (street light and interconnect only trench are excluded) will be paid under this item. No separate or additional measurement will be made for bedding or backfill, or for construction or widening the trench to transition conduit from the joint trench to vaults. This work is incidental and included in payment made for the Joint Trench.
- The accepted quantity for Fiberglass Conduit Bends for Power will be per each installed, regardless of the angle of the bend. The quantities in the bid schedule are only estimated quantities and may be subject to change.
- The accepted quantity for conduit installed will be the length, to the nearest foot.
- If a lid is located in a sidewalk, an anti-slip lid must be installed. Anti-slip lids shall meet City of West Linn requirements.

**01210.90 Payment** – The items under this section will be paid as follows:

<b>Pay Item</b>	<b>Unit of Measurement</b>
(a) Joint Trench and Backfill-----	Foot
(b) _____ Vault for Power -----	Each
(c) Transformer Pad for Power -----	Each
(d) _____ inch Grey Schedule 40 PVC Conduit for Power-----	Foot
(e) _____ inch Fiberglass Conduit Bend for Power -----	Each
(f) Concrete Irrigation Box -----	Each
(g) _____ inch Grey Schedule 40 PVC Conduit for Irrigation-----	Foot

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

Item (a) will include excavation, bedding, and compacted granular backfill. Surface restoration will be considered incidental unless restoration is shown in the Contract Plans.

In Item (b), the type of Vault will be inserted into the Bid Schedule. The work shall include excavation and compacted granular backfill. Anti-slip lids will be considered incidental.

In Items (d), (e) and (g), the size of conduit will be inserted. PVC bends will be considered incidental.

Payment for all items in this section will be payment in full for furnishing and placing all materials, including all equipment, tools, labor, and incidentals necessary to complete the work.

### SECTION 02001 - CONCRETE

Comply with Section 02001 of the Standard Specifications modified as follows:

#### **02001.02 Abbreviations and Definitions:**

Add the following definition:

**Lightweight Concrete** - Structural concrete having a specified density using lightweight Aggregates.

Replace the sentence that begins “**Pozzolans** - Fly ash, silica fume...” with the following sentence:

**Pozzolans** - Fly ash, natural Pozzolans, silica fume, and high-reactivity Pozzolans.

Replace the sentence that begins “**Supplementary Cementitious Materials** - Fly ash, silica fume...” with the following sentence:

**Supplementary Cementitious Materials** - Pozzolans and ground granulated blast furnace slag.

**02001.15(a) Current Mix Designs** - Replace this subsection, except for the subsection number and title, with the following:

Mix designs that meet the requirements for the specified class of concrete and are currently being used or have been used within the past 24 months on any project, public or private, may be submitted for review. Provide individual test results that comprise the average if more than one data point exists. For paving designs the flexural strength testing must be from within the last two years. For HPC designs the length change and permeability tests must be from within the last two years.

**10<sup>th</sup> St. & Salamo Rd. Streetscape**

**02001.15(b)(1) Trial Batch Plastic Properties** - Replace this subsection, except for the subsection number and title, with the following:

For each trial batch, test according to the following test methods:

<b>Test</b>	<b>Test Method</b>
Sampling Fresh Concrete	WAQTC TM 2
Concrete Temperature	AASHTO T 309
Slump	AASHTO T 119 <sup>1</sup>
Air Content	AASHTO T 152 or T 196 <sup>2</sup>
Density	AASHTO T 121
Yield	AASHTO T 121
Molding Concrete Specimens	AASHTO T 23 or R 39 <sup>3</sup>
Water Cement Ratio	<sup>4</sup>

- <sup>1</sup> For drilled shaft concrete test the slump retention by subsequent tests at half-hour intervals for the duration of the estimated drilled shaft placement, including temporary casing extraction. Report in table or graphical format.
- <sup>2</sup> Use AASHTO T 196 for lightweight concrete.
- <sup>3</sup> Cast cylinders in single use plastic molds.
- <sup>4</sup> Use ODOT's Field Operating Procedure for AASHTO T 121 in the MFTP.

**02001.15(c)(12) Documentation of Average Compressive Strength** - Replace this subsection, except for the subsection number and title, with the following:

Provide an analysis, showing applicable data and calculations for documentation of average compressive strength according to ACI 301.

**02001.20(a) Strength** - Replace Table 2001-1 with the following Table 2001-1:

**Table 02001-1**

<b>Concrete Strength and Water/Cementitious Material (w/cm) Ratio</b>		
<b>Type of Concrete</b>	<b>Strength <math>f'_c</math> (psi)</b>	<b>Maximum w/cm Ratio</b>
<b>Structural</b>	3300	0.50
	3300 (Seal)	0.45
	4000	0.48
	4000 (Drilled Shaft)	
	HPC4500	0.40
	HPC(IC)4500	
	5000 +	
Paving	4000	0.44
<b>PPCM's (with cast-in-</b>	5000	0.48
	5500	0.44

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

place decks and no entrained air)	6000 +	0.42
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**02001.20(a)(1) Required Average Compressive Strength ( $f'_{cr}$ )** - Replace this subsection, except for the subsection number and title, with the following:

Except for PPCM designs, provide the required average compressive strength according to ACI 301 for mix design approval.

### SECTION 02030 – SUPPLEMENTARY CEMENTITIOUS MATERIALS

Comply with Section 02030, of the Standard Specifications modified as follows:

**02030.00 Scope** - Replace this subsection, except for the subsection number and title, with the following:

This Section includes the requirements for fly ash, natural pozzolans, silica fume, ground granulated blast furnace slag and high reactivity pozzolans used in portland cement concrete.

**02030.10 Fly Ash** - Replace this subsection, except for the subsection number and title, with the following:

Furnish Class C and Class F fly ash from the QPL and conforming to AASHTO M 295 (ASTM C618).

Add the following subsection:

**02030.15 Natural Pozzolans** - Furnish Class N natural pozzolans from the QPL and conforming to AASHTO M 295 (ASTM C618).

**02030.50 Metakaolin** - Replace this subsection with the following:

**02030.50 High Reactivity Pozzolans** - Furnish high-reactivity pozzolans from the QPL and conforming to AASHTO M 321.

### SECTION 02050 - CURING MATERIALS

Comply with Section 02050 of the Standard Specifications modified as follows:

**02050.10 Liquid Compounds** - Replace the paragraph that begins “Furnish liquid membrane-forming curing...” with the following paragraph:

Furnish liquid membrane-forming curing compounds from the QPL and meeting the requirements of ASTM C309. Before use, submit a one quart sample from each lot for testing. Samples will be tested according to ODOT TM 721. Samples are not required for curing compounds used on Commercial Grade Concrete.

**SECTION 02415 - PLASTIC PIPE**

Comply with Section 02415 of the Standard Specifications modified as follows:

**02415.40 Polypropylene Pipe** - Replace the sentence that begins "Dual wall polypropylene pipe ..." with the following sentence:

Dual wall polypropylene pipe and fittings ..... ASTM F2764

**SECTION 02560 - FASTENERS**

Comply with Section 02560 of the Standard Specifications modified as follows:

**02560.30(b) High Strength Tie Rods, Anchor Bolts and Anchor Rods** - Add the following paragraph to the end of this subsection:

End stamp all ASTM F1554, Grade 105 according to ASTM F1554 Supplementary Requirements S2 and S3. If the end of the bolt is to be embedded in concrete, the projecting end from the concrete shall be the marked end.

**SECTION 02690 - PCC AGGREGATES**

Comply with Section 02690 of the Standard Specifications modified as follows:

**02690.20(e) Grading and Separation by Sizes for Prestressed Concrete** - Replace this subsection with the following subsection:

**02690.20(e) Grading and Separation by Sizes** - Sampling shall be according to AASHTO R 90. Sieve analysis shall be according to AASHTO T 27 and AASHTO T 11. Provide aggregates meeting the gradation requirements of Table 02690-1 for structural concrete. Provide a CAgT to perform sampling and testing when required.

**Table 02690-1**  
Gradation of Coarse Aggregates  
Percent passing (by Weight)



## 10<sup>th</sup> St. & Salamo Rd. Streetscape

Size Number	Nominal Size Square Openings	Sieve Size											
		(2½ in.)	(2 in.)	(1½ in.)	(1 in.)	(¾ in.)	(½ in.)	(¾ in.)	(No. 4)	(No. 8)	(No. 16)	(No. 50)	(No. 200)
3	(2 to 1 in.)	100	90 to 100	35 to 70	0 to 15	—	0 to 5	—	—	—	—	—	**
357*	(2 in. to No. 4)	100	95 to 100	—	35 to 70	—	10 to 30	—	0 to 5	—	—	—	**
4	(1½ to ¾ in.)	—	100	90 to 100	20 to 55	0 to 15	—	0 to 5	—	—	—	—	**
467*	(1½ to No. 4)	—	100	95 to 100	—	35 to 70	—	10 to 30	0 to 5	—	—	—	**
5	(1 to ½ in.)	—	—	100	90 to 100	20 to 55	0 to 10	0 to 5	—	—	—	—	**
56	(1 to ¾ in.)	—	—	100	90 to 100	40 to 85	10 to 40	0 to 15	0 to 5	—	—	—	**
57	(1 to No. 4)	—	—	100	95 to 100	—	25 to 60	—	0 to 10	0 to 5	—	—	**
6	(¾ to ½ in.)	—	—	—	100	90 to 100	20 to 55	0 to 15	0 to 5	—	—	—	**
67	(¾ to No. 4)	—	—	—	100	90 to 100	—	20 to 55	0 to 10	0 to 5	—	—	**
68	(¾ to No. 8)	—	—	—	100	90 to 100	—	30 to 65	5 to 25	0 to 10	0 to 5	—	**
7	(½ to No. 4)	—	—	—	—	100	90 to 100	40 to 70	0 to 15	0 to 5	—	—	**
78	(½ to No. 8)	—	—	—	—	100	90 to 100	40 to 75	5 to 25	0 to 10	0 to 5	—	**
8	(¾ to No. 8)	—	—	—	—	—	100	85 to 100	10 to 30	0 to 10	0 to 5	—	**
89	(¾ to No. 16)	—	—	—	—	—	100	90 to 100	20 to 55	5 to 30	0 to 10	0 to 5	**

\* Use two or more separated sizes which when combined meet these gradation limits.

\*\* See 02690.20(a). Do Not evaluate material passing the No. 200 sieve according to 00165.40.

**02690.20(f) Grading and Separation by Sizes for Other Concrete** - Delete this subsection.

**02690.30(g) Grading** - In the paragraph that begins “Sampling shall be according to...”, replace the words “AASHTO T 2” with the words “AASHTO R 90”.

### SECTION 02910 - SIGN MATERIALS

Comply with Section 02910 of the Standard Specifications modified as follows:

**02910.33(a) General** - Replace this subsection, except for the subsection number and title, with the following:

Permanent legends consist of white retroreflective screened, red retroreflective screened, black screened or cut-out white retroreflective sheeting. The letters and numerals of all permanent legends shall conform to the design of the FHWA Standard Rounded Capital Letter Alphabets.

Add following subsection:

**02910.50 Digitally Printed Signs, Temporary** - Temporary traffic control signs may use digitally printed signs from an integrated engineered match component system on the QPL and applied to furnished substrate according to 00222.10(b).

### SECTION 02926 - HIGHWAY ILLUMINATION MATERIALS

## 10<sup>th</sup> St. & Salamo Rd. Streetscape

Comply with Section 02926 of the Standard Specifications modified as follows:

Add following subsection:

**02926.41(f) Electrical Splice Materials** - Furnish electrical splice materials meeting the following requirements:

- **Split bolt** - Made of silicon bronze to securely join the wires both mechanically and electrically.
- **Heat-shrink tubing** - Split-resistant and adhesive-lined tube made of polyolefin complying with UL 224 or UL 486D, temperature range -67 °F to 230 °F, with 600 V rated inner melting wall or liner to provide void-free encapsulated insulation.
- **Insulating rubber tape** - Electrical grade, nondrying, rubber based, elastic type complying with ASTM D4388.
- **Insulating vinyl plastic tape** - Low temperature (0 °F) resistant, vinyl chloride plastic, electrical insulating tape with pressure-sensitive adhesive. Comply with ASTM D3005.



CITY OF  
**West  
Linn**

## **TECHNICAL PROVISIONS**

Solicitation Number: PW-23-03

**Public Works Department**  
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# **Appendix C**

## **PLANS**