

**BID BOOKLET  
FOR HIGHWAY CONSTRUCTION**



**LINN COUNTY ROAD DEPARTMENT  
ALBANY, OREGON**

**SIDEWALKS, RAMPS AND ACCESSES  
OLD SALEM ROAD SIDEWALK CONNECTIVITY  
OLD SALEM ROAD  
LINN COUNTY  
FEBRUARY 25, 2020**

**CLASS OF PROJECT COUNTY**  
**CLASS OF WORK MISCELLANEOUS HIGHWAY APPURTENANCES**  
**BID OF \_\_\_\_\_**

**Old Salem Road Sidewalk Connectivity  
Sidewalks, Ramps and Accesses**

**DESCRIPTION OF WORK**

Sidewalks, Ramps and Accesses  
Old Salem Road Sidewalk Connectivity  
Old Salem Road  
Linn County

**TIMES AND PLACES OF RECEIVING BIDS (BID CLOSING)**

Bid Closing for the work described above will be 9:00:00 a.m. on the 25th day of February, 2020.

Before 9:00:00 a.m. on the day of Bid Closing, Bids shall be submitted to:

Ralph Wyatt, County Administrative Officer, Linn County Courthouse, 300 Fourth Avenue S.W.,  
Room 201, Albany, Oregon 97321

Bids, Bid modifications, and Bid withdrawals will not be accepted on or after 9:00:00 a.m. on the day of Bid Closing.

**PLACE, TIME, AND DATE OF READING BIDS (BID OPENING)**

Bid Opening for the work described above will be opened and read at the Linn County Courthouse, Board of Commissioners, 300 Fourth Avenue S.W., Room 201, Albany, Oregon, beginning at approximately 9:35 a.m. on the day of Bid Closing.

**COMPLETION TIME LIMIT**

See Special Provisions Subsection 00180.50(h).

**CLASS OF PROJECT**

This is a County Project. Old Salem Road is classified as a Rural Major Collector.

**CLASS OF WORK**

The Class of Work for this Project is: Miscellaneous Highway Appurtenances.

**APPLICABLE SPECIAL PROVISIONS**

The Special Provisions booklet applicable to the above-described work, for which Bids will be opened at the place, time, and date stated above, is that which contains the exact information as shown above on this page.

Bidders are cautioned against basing their Bids on a booklet bearing any different description, date(s), class of project, or class of work.

**INSTRUCTIONS FOR MODIFYING BID**

**General** - Bid modifications must be received in writing by hand delivery, mail, parcel delivery service, or by electronic facsimile (FAX) transmission prior to the time designated for Bid Closing.

## **Old Salem Road Sidewalk Connectivity Sidewalks, Ramps and Accesses**

Bid modifications received after Bid Closing will not be considered. **Incomplete or late transmittals will not be accepted, regardless of reason.**

Bids will be modified at the Bid Opening according to the information received.

**Instructions and Format** - Make modifications to Bids according to the "Letter Format for Modifying Bid" document located in this Bid Booklet and the following:

- Prepare the modifications on the Bidder's letterhead stationery.
- Include the Project title and the Bidder's company name.
- Make changes (increase/decrease statement) for each affected Bid Item. (*Lumping the changes into one Bid Item may result in the Bid Item being unbalanced, causing the Bid to be considered irregular and constituting grounds for Bid rejection.*)
- List all decreased-in-Bid items in numerical order first, then list all increased-in-Bid items.
- Show the total difference in the Bid last. (*Do not refer to your original Bid total. Do not show a new Bid total. Do not include a new Bid Schedule.*)
- Print name and sign the letter by an individual authorized to execute Bids.

**Hand Delivery, Mail, or Parcel Delivery Service** - If delivering by hand, mail or parcel delivery service deliver to:

Ralph Wyatt, County Administrative Officer, Linn County Courthouse, 300 Fourth Avenue S.W., Room 201, Albany, Oregon 97321

**FAX Transmittals** - If using FAX as transmission, send them according to the following:

- Send the FAX to the FAX telephone number 541-926-8228. FAX transmittals will be accepted only at this number. (*Contractors will be responsible for the payment for the transmission of Bid modifications.*)
- The time of receipt of FAX transmittals by the County will be determined by the time which is electronically imprinted upon the Bid change by the County facsimile machine.
- The Agency is not responsible for any failed or partial FAX transmissions of Bid changes, caused by whatever reason, mechanical failure or otherwise.
- **Complete Bids will not be accepted by FAX.**

**Old Salem Road Sidewalk Connectivity  
Sidewalks, Ramps and Accesses**

**LETTER FORMAT FOR MODIFYING BID**

(NOTE: Text shown as "italic-underline" are instructions for preparing the letter for modifying Bids.)

(Prepare on Bidders Letterhead Stationery)

(Bid Opening Date)

Attn: Ralph Wyatt, County Administrative Officer

Hand Delivery, Mail, or Parcel Delivery Service Address:

Linn County Courthouse  
300 Fourth Avenue S.W., Room 201  
Albany, Oregon 97321

SUBJECT: Modifications to Bid

(Project Title)

(Bidders Company Name)

**(For a decrease in a Bid amount: Copy and paste the following line for each Bid Item reduction.)**

Reduce Bid Item No. \_\_\_\_\_ by \$\_\_\_\_\_ per \_\_\_\_\_ (Indicate unit of measurement, e.g., ton, cu. yd., sq. ft., etc.)

**(For an increase in a Bid amount: Copy and paste the following line for each Bid Item increase.)**

Increase Bid Item No. \_\_\_\_\_ by \$\_\_\_\_\_ per \_\_\_\_\_ (Indicate unit of measurement, e.g., ton, cu. yd., sq. ft., etc.)

This will (increase/decrease) our total Bid by \$\_\_\_\_\_. (Only show the total increase or decrease of your Bid. Do not show a new Bid total.)

\_\_\_\_\_  
(Printed name of individual signing below.)

\_\_\_\_\_  
(Signed by an individual authorized to sign Bids and execute documents.)

**SPECIAL PROVISIONS  
FOR HIGHWAY CONSTRUCTION**



**LINN COUNTY ROAD DEPARTMENT  
ALBANY, OREGON**

**SIDEWALKS, RAMPS AND ACCESSES  
OLD SALEM ROAD SIDEWALK CONNECTIVITY**

**OLD SALEM ROAD**

**LINN COUNTY**

**FEBRUARY 25, 2020**

**Old Salem Road Sidewalk Connectivity  
Sidewalks, Ramps and Accesses**

**DESCRIPTION OF WORK**

Sidewalks, Ramps and Accesses  
Old Salem Road Sidewalk Connectivity  
Old Salem Road  
Linn County

**TIMES AND PLACES OF RECEIVING BIDS (BID CLOSING)**

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Bids, Bid modifications, and Bid withdrawals will not be accepted on or after 9:00:00 a.m. on the day  
of Bid Closing.

**PLACE, TIME, AND DATE OF READING BIDS (BID OPENING)**

Bid Opening for the work described above will be opened and read at the Linn County Courthouse,  
Board of Commissioners, 300 Fourth Avenue S.W., Room 201, Albany, Oregon, beginning at  
approximately 9:35 a.m. on the day of Bid Closing.

**START DATE**

No work included in this contract shall begin prior to the Preconstruction Meeting. Other Job Site  
Restrictions may apply as shown in Section 00130.80 of these Specifications.

**COMPLETION TIME LIMIT**

See Subsection 00180.50(h).

**CLASS OF PROJECT**

This is a County Project. Old Salem Road is classified as a Rural Major Collector.

**CLASS OF WORK**

The Class of Work for this Project is: Miscellaneous Highway Appurtenances.

**PROJECT INFORMATION**

Information pertaining to this Project may be obtained from the following:

Daineal Malone, P.E., Project Engineer/Project Manager, Linn County Road Department,  
3010 Ferry St, S.W., Albany, Oregon 97322; Phone 541-967-3919, Fax 541-924-0202.  
Email: [daineal.malone@co.linn.or.us](mailto:daineal.malone@co.linn.or.us)

Chuck Knoll, P.E., Linn County Engineer, Linn County Road Department,  
3010 Ferry Street, S.W., Albany, Oregon 97322; Phone 541-967-3919, Fax 541-924-0202.  
Email: [cknoll@co.linn.or.us](mailto:cknoll@co.linn.or.us)

**Old Salem Road Sidewalk Connectivity  
Sidewalks, Ramps and Accesses**

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**Old Salem Road Sidewalk Connectivity  
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**PROJECT WAGE RATES**

**Minimum Wage Requirements** - This Project is subject to State prevailing wage rate requirements. Not less than the existing State prevailing wage rates shall be paid to workers according to 00170.65(b) and 00170.65(e).

**Applicable Wages** - Prevailing wage rates published in the wage determinations and any applicable modifications or amendments apply to this Project and are incorporated by reference:

Oregon Bureau of Labor and Industries (BOLI), "Prevailing Wage Rates for Public Works Contracts in Oregon".

The applicable State prevailing wage rates last published prior to the time of Bid Opening, which is stated on the Description of Work page, apply to this Project.

**Wage Rates are Internet-Accessible** - The applicable BOLI wage rates can be found on the Oregon Bureau of Labor and Industries website at:

<http://www.oregon.gov/boli/WHD/PWR/Pages/index.aspx>

**Wage Rates are Subject to Change** - Modifications or amendments to the BOLI wage rates applicable to this Project may occur at any time before Bid Opening. Bidders are responsible to monitor the respective web page(s) for modifications and amendments up until Bid Opening.

**WEB SITE ADDRESSES**

**General Conditions for Construction for the Linn County Road Department:**

<http://www.co.linn.or.us/Roads/ContractConst.asp> - Project Title

**Plan Holder Registration (00120.05):**

<http://www.co.linn.or.us/Roads/Register.asp>

**Addenda Letters (00120.30):**

<http://www.co.linn.or.us/Roads/ContractConst.asp> - Project Title

**Notice of Intent to Award (00130.10):**

<http://www.co.linn.or.us/Roads/ContractConst.asp> - Project Title

**Old Salem Road Sidewalk Connectivity  
Sidewalks, Ramps and Accesses**

**FIRST-TIER SUBCONTRACTOR DISCLOSURE FORM INSTRUCTIONS**

**Instructions for Submitting Form**

Submit the First-Tier Subcontractor Disclosure form not later than two working hours after the time set for Bid Closing (For example, before 11:00 a.m. after a 9:00 a.m. Bid Closing.) by any of the following methods:

- By filling out the Subcontractor Disclosure Form included in the Bid Booklet and submitting it together with the Bid at the time designated for receipt of Bids.
- Hand delivering it to: The Linn County Courthouse, 300 Fourth Avenue S.W., Room 201, Albany, OR 97321, or
- FAX it to 541-924-0202

The Department is not responsible for partial, failed, illegible, or partially legible FAX transmissions or electronic submissions.

**Instructions for First-Tier Subcontractor Disclosure**

Without regard to the amount of a Bidder's Bid, if the Agency's cost range for a public improvement Project in the "Notice to Contractors", or in other advertisement or solicitation documents is greater than \$100,000 Bidders are required to disclose information about first-tier Subcontractors that will furnish labor or labor and materials (See ORS 279C.370). Specifically, when the contract amount of a first-tier Subcontractor is greater than or equal to: (1) 5% of the total project Bid, but at least \$15,000, or (2) \$350,000 regardless of the percentage of the total project Bid, you must disclose the following information about that Subcontractor not later than two working hours after the time set for opening Bids:

- The name of the Subcontractor
- The category of work that the Subcontractor will be performing
- The dollar amount of the subcontract

Total all work for each Subcontractor in making this determination.

If the Agency's cost range is greater than \$100,000 and you will not be using any first-tier Subcontractors, you are still required to submit the form, with the appropriate box checked or enter "NONE" on the first line.

If the Agency's cost range is greater than \$100,000 and you are not subject to the above disclosure requirements, you are still required to submit the form, with the appropriate box checked or enter "NONE" on the first line.

**THE AGENCY MUST REJECT BIDS if the Bidder fails to submit the disclosure form with this information by the stated deadline.**

**Old Salem Road Sidewalk Connectivity  
Sidewalks, Ramps and Accesses**

LINN COUNTY ROAD DEPARTMENT

SPECIAL PROVISIONS

FOR

Sidewalks, Ramps and Accesses  
Old Salem Road Sidewalk Connectivity  
Old Salem Road  
Linn County

**PROFESSIONAL OF RECORD CERTIFICATION(s):**

<p>Seal w/signature</p>  <p>EXPIRES: 06/30/20</p>	<p>I certify the Special Provision Section(s) listed below are applicable to the design for the subject project for environmental protection. Modified Special Provisions were prepared by me or under my supervision.</p> <p>Sections 00100, 00110, 00120, 00130, 00140, 00150, 00160, 00150, 00170, 0080, 00190, 00195, 00196, 00197, 00199, 00280, 00290, 01030, 03020</p>
<p>Date Signed: <u>01/27/2020</u></p>	

**Old Salem Road Sidewalk Connectivity  
Sidewalks, Ramps and Accesses**

LINN COUNTY ROAD DEPARTMENT

SPECIAL PROVISIONS

FOR

Sidewalks, Ramps and Accesses  
Old Salem Road Sidewalk Connectivity  
Old Salem Road  
Linn County

**PROFESSIONAL OF RECORD CERTIFICATION(s):**

<p>Seal w/signature</p>  <p>RENEWS: 12/31/2020</p>	<p>I certify the Special Provision Section(s) listed below are applicable to the design for the subject project for general conditions, traffic control, roadwork, drainage, wearing surfaces, and permanent traffic control. Modified Special Provisions were prepared by me or under my supervision.</p> <p>Sections 00210, 00220, 00225, 00305, 00310, 00320, 00330, 00340, 00405, 00440, 00445, 00470, 00490, 00495, 00596B, 00620, 00640, 000730, 00744, 00759, 00850, 00860, 00867, 00905, 00930, 00940, 01070, 01095, 01170, 02001, 02040, 025050, 02415, 02450, 02690, 02910</p>
<p>Date Signed: 01/27/2020</p>	

**Old Salem Road Sidewalk Connectivity  
Sidewalks, Ramps and Accesses**

**SPECIAL PROVISIONS**

**WORK TO BE DONE**

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

1. Furnish, install, maintain, and remove traffic control and erosion control devices
2. Perform excavation/embankment
3. Install storm pipes and catch basin
4. Asphalt pavement saw cutting
5. Cold plane pavement removal
6. Install asphalt concrete pavement
7. Install Concrete walks
8. Install concrete curb and gutter
9. Install curb ramps
10. Install pavement markings
11. Install signage
12. Install mailboxes
13. 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 are the November 15, 2019 edition of the "General Conditions for Construction for the Linn County Road Department" and the 2018 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.

**CLASS OF PROJECT**

This is a County Project. Old Salem Road is classified as a Rural Major Collector.

**SECTION 00100 - GENERAL CONDITIONS**

Comply with Section 00100 of the General Conditions for Construction for the Linn County Road Department modified as follows:

**SECTION 00110 - ORGANIZATION, CONVENTIONS, ABBREVIATIONS AND DEFINITIONS**

Comply with Section 00110 of the Standard Specifications modified as follows:

**00110.05(a) Grammar** - Add the following bullet to the bullet list:

- For the purposes of this Contract, the terms "sidewalk ramp" and "sidewalk ramps" shall respectively refer to and shall be read to mean "curb ramp" and "curb ramps".

Replace the bullet that begins "Certain Subsections labeled "Payment" contain..." with the following bullet:

## **Old Salem Road Sidewalk Connectivity Sidewalks, Ramps and Accesses**

- Certain Subsections labeled “Payment” contain statements to the effect that the accepted quantities “will be paid for at the Contract unit price, per unit of measurement, for the following items” (followed by a list of items). In such cases, the Agency will pay for only those Pay Items listed in the Schedule of Items.

**00110.05(e) Reference to Websites** - Add the following bullet list to the end of this subsection:

- American Traffic Safety Services Association (ATSSA)  
[www.atssa.com](http://www.atssa.com)
- ODOT Construction Section  
[www.oregon.gov/odot/construction/pages/index.aspx](http://www.oregon.gov/odot/construction/pages/index.aspx)
- ODOT Construction Section - Qualified Products List (QPL)  
[www.oregon.gov/ODOT/Construction/Pages/Qualified-Products.aspx](http://www.oregon.gov/ODOT/Construction/Pages/Qualified-Products.aspx)
- ODOT Estimating  
[www.oregon.gov/ODOT/Business/Pages/Steel.aspx](http://www.oregon.gov/ODOT/Business/Pages/Steel.aspx)
- Oregon Legislative Counsel  
[www.oregonlegislature.gov/lc](http://www.oregonlegislature.gov/lc)
- ODOT Procurement Office - Construction Contracts Unit prequalification forms  
[www.oregon.gov/odot/business/procurement/pages/bid\\_award.aspx](http://www.oregon.gov/odot/business/procurement/pages/bid_award.aspx)
- Oregon Secretary of State: State Archives  
[sos.oregon.gov/archives/Pages/default.aspx](http://sos.oregon.gov/archives/Pages/default.aspx)
- ODOT Traffic Control Plans Unit  
[www.oregon.gov/ODOT/Engineering/Pages/Work-Zone.aspx](http://www.oregon.gov/ODOT/Engineering/Pages/Work-Zone.aspx)
- ODOT Traffic Standards  
[www.oregon.gov/ODOT/Engineering/Pages/Signals.aspx](http://www.oregon.gov/ODOT/Engineering/Pages/Signals.aspx)

### **SECTION 00120 - BIDDING REQUIREMENTS AND PROCEDURES**

Comply with Section 00120 of the Standard Specifications modified as follows:

**00120.05 Request for Plans, Special Provisions, and Bid Booklets** - Add the following to the end of this subsection:

The Plans, which are applicable to the Work to be performed under the Contract, bear title and date as follows:

“Sidewalks, Ramps and Accesses  
Old Salem Road Sidewalk Connectivity  
Old Salem Road  
February 2020”

**00120.10 Bid Booklet** - In the paragraph that begins "The Bid Section includes all pages after...", add the following bullet to the bullet list:

- Certificate of nondiscrimination regarding ORS 279A.110 and certificate regarding policy and practice against sexual harassment, sexual assault and discrimination against employees who are members of a protected class as required by ORS 279A.112 (House Bill 3060, 2017)

**Old Salem Road Sidewalk Connectivity  
Sidewalks, Ramps and Accesses**

**00120.70 Rejection of Nonresponsive Bids** - Add the following bullet to the end of the bullet list:

- The Bidder has liquidated and delinquent debt owed to the State or any department or agency of the State.

**SECTION 00130 - AWARD AND EXECUTION OF CONTRACT**

Comply with Section 00130 of the Standard Specifications.

**SECTION 00140 - SCOPE OF WORK**

Comply with Section 00140 of the Standard Specifications.

**SECTION 00150 - CONTROL OF WORK**

Comply with Section 00150 of the Standard Specifications modified as follows:

**00150.30 Delivery of Notices** - Add the following to the end of this subsection:

For purposes of this subsection, the time zone is Pacific Standard Time (PST) to determine time of receipt of notices and other documents. For purposes of this subsection, non-business days are Saturdays, Sundays and legal holidays as defined by ORS 187.010 and 187.020.

Following Notice to Proceed, all notices and other documents submitted to the Contractor by the Engineer, or to the Engineer by the Contractor, electronically under 00170.08.

Claims must be submitted on paper documents according to Section 00199.

Add the following subsection:

**00150.50(f) Utility Information (No Anticipated Relocations)** - Within the Project limits, there are no anticipated relocations with the Utilities listed below. The Contractor shall contact those Utilities having buried facilities and request that they locate and mark them for their protection prior to construction.

<b>Utility</b>	<b>Contact Person's Name, Address, Email, and Phone Number</b>
Integra (Allstream)	uscustomerservice@allstream.com, (866) 468-3472
AT&T (Shasta)	Ron Pimentel, rpimentel@shastagroup.net, (925) 437-0374
Comcast	Ryan Hanson, ryan_hansen@comcast.com, (541) 230-0079
City of Millersburg	Matt Thompson (City of Albany) matt.thompson@cityofalbany.net, (541) 979-1970
Level 3 (CenturyLink)	Caleb King, caleb.king@centurylink.net (918) 547-0007 (file number 118558 CA)
LS Networks	Valerie Starr, vstarr@lsnetworks.net, (503) 414-0463
MCI (Verizon)	investigations@verison.com
NW Natural	Dave Bellinger, d6b@nwnatural.com, (541) 974-3512
Pacific Power	Eddie Steiner, eddie.steiner@pacificcorp.com, (541) 967-6146
CenturyLink	Travis Vaughn, travis.vaughn@centurylink.com, (541) 749-0347

**Old Salem Road Sidewalk Connectivity  
Sidewalks, Ramps and Accesses**

The Contractor shall notify, in writing, the Utilities listed above, with a copy to the Engineer, at least 14 Calendar Days before beginning Work on the Project.

**(NW Natural) - Gas Utilities** - In the event of an emergency, and in addition to the calls required by the Utilities notification system, the Contractor shall call:

- Northwest Natural Gas 1-800-882-3377

**(Pacific Power) - Power Suppliers** - The Contractor shall maintain at least 10 feet of safety clearance from energized power lines. Exceptions require written approval from Power Supplier(s) and will require an On-Site safety watcher at no cost to the Contractor. The Contractor shall provide the Engineer with a copy of the written approval of exception before beginning Work.

**00150.90(b) All Contract Work** – Replace the bullet that reads “The Contractor has removed...” with the following bullet:

- The Contractor has removed all Equipment, other than that incorporated into the Work; and

**00150.97 Responsibility for Materials and Workmanship** - Add the following to the end of this subsection:

**(c)** Full or partial termination of the Contract under 00180.90 shall not relieve the Contractor of responsibility for completed or performed Work, or relieve the Contractor's Surety of the obligation for any just claims arising from the completed or performed Work.

**SECTION 00160 - SOURCE OF MATERIALS**

Comply with Section 00160 of the Standard Specifications modified as follows:

**00160.30 Agency-Furnished Material** - Add the following to the end of this subsection:

The Agency will furnish the listed items at the Linn County Road Department, located at: 3010 Ferry St, SW, Albany, OR.

- Utility vault risers for alignment “Kathryn to End” Sta: 6+28 Lt and Sta:14+09 Lt.

**SECTION 00165 - QUALITY OF MATERIALS**

Comply with Section 00165 of the Standard Specifications.

**SECTION 00170 - LEGAL RELATIONS AND RESPONSIBILITIES**

Comply with Section 00170 of the Standard Specifications modified as follows:

**00170.70(a) Insurance Coverages** - Add the following to the end of this subsection:

The following insurance coverages and dollar amounts are required pursuant to this subsection:

<b>Insurance Coverages</b>	<b>Combined Single Limit per Occurrence</b>	<b>Annual Aggregate Limit</b>
Commercial General Liability	\$1,000,000	\$2,000,000
Commercial Automobile Liability	\$1,000,000	(aggregate limit not required)
Pollution Liability	\$1,000,000	(aggregate limit not required)

**Old Salem Road Sidewalk Connectivity  
Sidewalks, Ramps and Accesses**

**SECTION 00180 - PROSECUTION AND PROGRESS**

Comply with Section 00180 of the Standard Specifications modified as follows:

**00180.20(c)(3) Submittals** – Replace the reference to “00180” to the reference “00180.20(a)”.

**00180.40(b) On-Site Work** - Add the following paragraph to the end of the subsection:

The Contractor shall not begin On-Site Work before a preconstruction conference has been held, unless approved by the Engineer.

Add the following subsection:

**00180.40(c) Specific Limitations** - Limitations of operations specified in these Special Provisions include, but are not limited to, the following:

<b>Limitations</b>	<b>Subsection</b>
Cooperation with Utilities .....	00150.50
On-Site Work .....	00180.40(b)
Contract Time .....	00180.50(h)
Noise Control .....	00290.32

The Contractor shall be aware of and subject to schedule limitations in the Standard Specifications that are not listed in this subsection.

**00180.50(c) Beginning of Contract Time** - Replace this subsection, except for the subsection number and title, with the following:

When the Contract Time is stated in Calendar Days, counting of Contract Calendar Days will begin on the day the Contractor begins On-Site Work as defined in 00110.20.

Add the following subsection:

**00180.50(h) Contract Time** - There is one Contract Time on this Project as follows:

The Contractor shall complete all Work to be done under the Contract not later than **August 14, 2020**.

**00180.70(b) Contractor’s Responsibility during and after Suspension** - Replace the reference to “00150.40(b)” to the reference “00150.40”.

**00180.85(b) Liquidated Damages** – Add the following:

The liquidated damages for failure to complete the Work on time required by 00180.50(h) will be \$675.00 per Calendar Day \*.

\*Calendar Day amounts are applicable when the Contract time is expressed on the Calendar Day or fixed date basis.

Add the following subsection:

**00180.85(c) Lane Closures** - Lane closures beyond the limits specified will inconvenience the traveling public and will be a cost to the Agency.

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It is impractical to determine the actual damages the Agency will sustain in the event Traffic Lanes are closed beyond the limits listed in 00220.40(e). Therefore, the Contractor shall pay to the Agency, not as a penalty, but as liquidated damages, \$500 per 15 minutes, or for a portion of 15 minutes, per lane, for any lane closure beyond the limits listed in 00220.40(e). In addition to the liquidated damages, all added cost for traffic control measures, including flagging, required to maintain the lane closures beyond the allowed time limits, will be at no additional cost to the Agency. The required traffic control measures will be as determined by the Engineer.

The Engineer will determine when it is safe to reopen lanes to traffic. Assessment of liquidated damages will stop when all lanes have been safely reopened. Any liquidated damages assessed under these provisions will be in addition to those listed in 00180.85(b).

### **SECTION 00190 - MEASUREMENT OF PAY QUANTITIES**

Comply with Section 00190 of the Standard Specifications.

### **SECTION 00195 - PAYMENT**

Comply with Section 00195 of the Standard Specifications modified as follows:

**00195.12(d) Steel Materials Pay Item Selection** - Add the following paragraph to the end of this subsection:

No Pay Items under this Contract qualify for the steel escalation/de-escalation program for this Project.

**00195.50(b) Retainage** – Replace this Subsection, except for the Subsection number and title, with the following:

The Agency reserves the right in its sole discretion to not withhold retainage from progress payments or to begin withholding retainage at any time. If the Agency withholds retainage from progress payments, the amount to be retained from progress payments will be 2.5% of the value of Work accomplished, and will be retained in one of the forms specified in Subsection (c) below. If the Agency determines that satisfactory progress is not being made on the Work, the Agency may withhold up to 5% of the value of Work accomplished from subsequent progress payments. No retainage will be withheld from Work performed as Force Account Work, escalation/de-escalation, bonuses, or other items decided by the Agency.

As provided in 00170.65(b)(3) in addition to any retainage, a withholding of 25% of amounts earned will be withheld and released according to ORS 279C.845 when the Contractor fails to file the certified statements required in ORS 279C.845, FHWA Form 1273, and 00170.65.

**00195.50(c) Forms of Retainage** - Replace the paragraph that begins "Forms of acceptable retainage are specified below ..." with the following paragraph:

If the Agency withholds retainage, forms of acceptable retainage are specified below in Subsections (1) through (3). Unless the Contractor requests and the Agency accepts a form of retainage under Subsections (2) or (3), the Agency will use the "Cash, Alternate A" in this Subsection. If the Agency incurs additional costs as a result of the Contractor's election to use a form of retainage other than Cash, Alternate A, the Agency may recover such costs from the Contractor by a reduction of the final payment.

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**00195.50(c)(1) Cash, Alternate A** - Replace the paragraph that begins "The Agency will deposit the cash retainage ..." with the following two paragraphs:

Except as otherwise provided, the Agency will deposit the cash retainage withheld in an interest-bearing escrow account as required by ORS 279C.570(2). The Contractor shall execute such documentation and instructions respecting the interest-bearing escrow account as the Agency may require to protect its interests, including but not limited to a provision that no funds may be paid from the account to anyone without the Agency's advance written authorization. Interest earned on the account shall accrue to the Contractor. Amounts retained and interest earned will be included in the final payment made according to 00195.90, unless otherwise specified in the Contract.

For a contract over \$500,000, if the Contractor requests that the Agency deposit the retainage in an interest-bearing account under ORS 279C.560(5), the Agency will use the "Cash, Alternate A" in this Subsection. For a contract \$500,000 or less, if the Contractor requests that the Agency deposit the retainage in an interest-bearing account under ORS 279C.560(5), the Agency will use an interest-bearing account (in a bank, savings bank, trust company, or savings association) as provided under ORS 279C.560(5).

**00195.50(c)(2) Cash, Alternate B (Retainage Surety Bond)** - Replace the paragraph that begins " Upon receipt of an approved retainage surety ..." with the following paragraph:

Upon receipt of an approved retainage surety bond, the Agency will limit the amount of cash retainage withheld to \$10,000, which will be deposited in an interest-bearing escrow account as described in (1) above. The surety bond must be in the bond form provided by the Agency. The bond must be provided by the same Surety that provides the Performance and Payment Bonds.

Replace the paragraph that begins "Amounts of retainage withheld under ..." with the following paragraph:

Amounts retained and interest earned will be included in the final payment made according to 00195.90, unless otherwise specified in the Contract.

**00195.50(d) Release of Retainage** - Add the following paragraph to the end of this Subsection:

The Contractor shall comply with all applicable legal requirements for withholding and releasing retainage and for prompt payments, including but not limited to those in ORS Chapters 279C and 701, and 49 CFR 26.29.

**00195.50(e) Withholding Payments** In the paragraph that begins "Notwithstanding ORS 279C.555 or ORS 279C.570..." , delete the word "retain" and replace with the word "withhold".

**00195.50(f) Prompt Payment Policy** - Replace the paragraph that begins "Payments shall be made promptly ..." with the following paragraph:

Payments shall be made promptly according to ORS 279C.570, ORS 279C.580 and other applicable legal requirements.

**SECTION 00196 - PAYMENT FOR EXTRA WORK**

Comply with Section 00196 of the Standard Specifications.

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**SECTION 00197 - PAYMENT FOR FORCE ACCOUNT WORK**

Comply with Section 00197 of the Standard Specifications.

**SECTION 00199 - DISAGREEMENTS, PROTESTS, AND CLAIMS**

Comply with Section 00199 of the Standard Specifications.

**SECTION 00210 - MOBILIZATION**

Comply with Section 00210 of the Standard Specifications.

**SECTION 00220 - ACCOMMODATIONS FOR PUBLIC TRAFFIC**

Comply with Section 00220 of the Standard Specifications modified as follows:

Add the following subsection:

**00220.01(d) Terminology** - According to 00110.05(a), for the purposes of this Contract, the terms "sidewalk ramp" and "sidewalk ramps" shall respectively refer to and shall be read to mean "curb ramp" and "curb ramps".

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

- Delineate all business accesses with blue tubular markers on 10-foot maximum spacing. Mark the access with 36-by-24-inch "BUSINESS ACCESS" (CG20-11) signs. Locate and install these signs as directed.
- Do not block one or more business accesses at any time during construction, unless approved by the Engineer. Construct accesses in such a manner that traffic will be allowed to each business at any given time.
- 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.

**00220.02(b) Temporary Pedestrian Accessible Route Plan** - Add the following bullet to the end of the bullet list:

- For an active work area controlled at each end by flaggers and pilot car, provide transportation for pedestrians and bicyclists through the active work area according to Section 00225.

**SECTION 00225 - WORK ZONE TRAFFIC CONTROL**

Comply with Section 00225 of the Standard Specifications modified as follows:

Add the following subsection:

**00225.01(d) Terminology** - According to 00110.05(a), for the purposes of this Contract, the terms "sidewalk ramp" and "sidewalk ramps" shall respectively refer to and shall be read to mean "curb ramp" and "curb ramps".

**00225.02(a) Temporary Signs** - Add the following to the end of the bullet list:

- Place a "PEDESTRIANS ON ROADWAY" (CW11-2) sign at the beginning of each end of the Work Area, facing incoming traffic as shown, or as directed.

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- Install "ROAD WORK AHEAD" (W20-1-48) signs with a 36 by 24-inch "FINES DOUBLE" (R2-6aP) rider on Old Salem 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.
- Install beyond each end of the Project, facing outgoing traffic, an "END ROAD WORK" (CG20-2A-24) sign a distance of  $(A \div 2)$  according to the "TCD Spacing Table" shown on the Standard Drawings or as modified by the Plans.
- When construction requires bicycles to use the Traffic Lanes, install a "Bicycle ON ROADWAY" (CW11-1) symbol sign on 1/2 mile spacing through the affected area. Keep the signs in place until completion of the Shoulder or bikeway final surface.

**00225.13(a) Tubular Markers** - Add the following two paragraphs to the end of this subsection:

Use blue plastic markers for temporary business accesses only. Use orange plastic markers for all other applications of Work Zone traffic control.

Blue plastic tubular markers shall be reflectorized with at least two blue, flexible reflective bands at least 3 inches wide, securely attached no more than 2 inches from the top with no more than 6 inches but not less than 1 inch between the bands.

**00225.32(b) Traffic Control Inspection Without TCS** - Add the following bullet(s) to the end of the bullet list:

- Shall report to the Project Site within 1 hour after being notified in the event of a Work Zone incident during non-work periods.

**00225.88(a) Flaggers** - Replace this subsection, except for the subsection number and title, with the following:

No measurement will be made for flaggers.

**00225.98 Flaggers and Traffic Control Supervisors** - Replace this subsection, except for the subsection number and title, with the following:

No separate or additional payment will be made for flaggers.

## **SECTION 00280 - EROSION AND SEDIMENT CONTROL**

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

**00280.00 Scope** - Add the following paragraph to the end of this subsection:

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

**00280.01 National Pollutant Discharge Elimination System** - Add the following:

A copy of the General Construction Permit, NPDES 1200CA, is available at the Linn County Road Department, 3010 Ferry Street, SW, Albany, Oregon 97322, and will also be made available on-site for review, by the Linn County Road Department project manager.

**00280.04 Erosion and Sediment Control Plan on Agency Controlled Lands** - Add the following three paragraphs:

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The erosion control plans as shown in the plans, have been developed for anticipated site conditions. The Contractor shall submit a revised ESCP plan for approval which represents actual staging conditions for this project. Submit an initial ESCP for review and approval ten Calendar Days before the pre-construction conference, as stipulated in section 00280.02. The plan may be developed and submitted in stages for each type of work shown in the Contractor's schedule. When submitted in stages, each type of work will not begin until the Engineer approves the ESCP.

At the preconstruction conference, the Engineer will present an evaluation of the submitted Erosion and Sediment Control Plan (ESCP) or submitted ESCP modifications, and their implementation schedules. Update plan as revisions are implemented or changes are made in the original plan. During the life of the contract, submit proposed changes to the approved ESCP or schedule to the Engineer for approval before implementing the changes.

Other erosion control measures may be required depending on the Contractor's methods of operations and scheduling.

**00280.15(f)(1) Filter Sock Material** - Add the following sentence to the end of this subsection:

Furnish filter sock material with a diameter of 8 inches.

**00280.16(d) Inlet Protection** – Replace the bullet that begins “**Type 3: Prefabricated Filter Inserts ...**” with the following bullet:

- **Type 3: Prefabricated Filter Inserts** - Prefabricated filter inserts manufactured specifically for collecting sediment in drainage inlets and from the QPL. Include handles and fasteners sufficient to keep the insert from falling into the inlet during maintenance and removal of the insert from the inlet.

**00280.16(e) Sediment Barriers** – Replace the bullet that begins “**Type 7: Prefabricated Barrier System ...**” with the following bullet:

- **Type 7: Prefabricated Barrier System** - Prefabricated barriers manufactured specifically for temporarily obstructing the flow of sediment-laden water and from the QPL.

**00280.62 Inspection and Monitoring** - Replace this subsection, except for the subsection number and title, with the following:

Inspect the Project Site and all ESC devices for potential erosion or sediment movement on a weekly basis and when 1/2 inch or more of rainfall occurs within a 24-hour period, including weekends and holidays.

If a significant noncompliance or serious water quality issue occurs that could endanger health or the environment, verbally report it to the Engineer within 24 hours.

## **SECTION 00290 - ENVIRONMENTAL PROTECTION**

Comply with Section 00290 of the Standard Specifications modified as follows:

**00290.10 Staging and Disposal Sites** – Replace the paragraph that begins "Locate staging areas and disposal..." with the following paragraphs:

Locate staging areas and disposal sites in previously improved or disturbed sites, including existing Roadways, pullouts, turnouts, parking lots, and storage yards that have been compacted, and

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graveled or paved unless otherwise specified in Section 00236 or Section 00237 or approved, in writing, by the Engineer,

Do not stage Equipment, park Equipment or store Materials in any City, County, State, or Federal park, wayside or recreational facility.

**00290.20(c)(1) General** - Replace the paragraph that begins “Segregate all demolition debris according to...” with the following paragraph:

Segregate all demolition and construction debris according to its intended end use (reuse, recycle, or dispose). If required, store in designated areas in a manner that prevents contamination to Soil and water and prevents fugitive dust emissions. Remove all waste materials recovered from the site unless otherwise approved, in writing. Retain disposal and recycling facility receipts for wastes generated on site for at least 1 year after completion of the Project. Provide copies of the receipts to the Engineer within 7 Calendar Days of the disposal or recycling.

**00290.20(c)(3) Reuse, Recycle and Dispose of Materials** - Replace the title of this subsection with “**Reuse, Recycle, Compost and Dispose of Materials**”.

Replace the three bullets with the following bullets:

- Reuse demolition and construction debris.
- Recycle demolition and construction debris.
- Compost or mulch yard waste material from lawn and landscape maintenance.
- If it is not feasible to reuse, recycle, or compost, (“feasible” is defined as a facility that is capable of handling the material, will take the material and the cost of transportation plus the cost to reuse or recycle the material is equal to or less than the costs of disposal) dispose of waste material according to the following:

**00290.30(b) Pollution Control Plan** - Replace the paragraph that begins “Develop and submit a PCP...” with the following:

Develop a PCP using ODOT Form 734-2445 and submit it for approval 10 Calendar Days before the preconstruction conference. Maintain a copy of the PCP on-site at all times during construction activities, readily available to employees and Inspectors. Ensure that all employees comply with the provisions of the PCP.

Delete the paragraph that begins “A Pollution Control Plan...”.

**00290.32 Noise Control** - Replace the first bullet with the following:

- Do not perform construction operations, including staging, within 1000 feet of any occupied dwelling unit on Sundays, legal holidays and between the hours of 8:00 p.m. and 7:00 a.m. on weekdays and between the hours of 8:00 p.m. and 8:00 a.m. on Saturdays, unless otherwise approved by the Engineer.

**00290.36(a) Migratory Birds** - Add the following paragraphs to the end of this subsection:

Bird management activities to comply with the Migratory Bird Treaty Act (16 U.S.C. 703 712) will be performed by the Agency. Ensure that the Agency and its permitted agents have access to the project area, including existing work platforms, as needed to prevent migratory bird nesting. Nesting prevention may include daily bird harassment and the installation and maintenance of devices that exclude birds.

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Notify the Engineer, in writing, a minimum of 10 calendar days prior to starting activities that could harm nesting birds. Avoid disturbing migratory bird nesting habitat (shrubs, trees, and structures) from March 1 to September 1 of each year. If avoidance is not possible, obtain approval from the Engineer before falling trees or clearing vegetation that could disturb migratory bird nesting habitat between March 1 and September 1.

**00290.41 Protection of Wetlands** – Replace the title of this subsection with “**Protection of Waters of the U.S. or State**”

Delete the paragraph that begins with “For the purposes of this Section...”.

**00290.41(a) Identifying Wetlands** – Replace the title of this subsection with “**Identifying Waters of the U.S. or State, Including Wetlands**”

### **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.

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. The Contractor will be furnished a copy of these documents.

#### **00305.01 Definitions:**

**Confidence Points** - Random points measured in the field within the boundary of a digital terrain model (DTM), the purposes of which are to verify the accuracy of the DTM and to provide evidence just prior to construction that the DTM is a reasonable representation of the original ground for computation of volumes and pay quantities. Similarly, confidence points are used to verify that a constructed grade has been built according to the design DTM. Additional information is available from the Engineer.

Confidence point locations follow these guidelines:

- Randomly selected without regard for the location of DTM points or triangles
- Evenly distributed over the entire DTM area to be validated
- Proportionately distributed between confidence point classifications as applicable
- At a density sufficient to validate the surface, generally ten per instrument location as used in collecting DTM data or if not applicable, as in data collected photogrammetrically, 2% of DTM points

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

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**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.

**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.

**Subgrade Area** – The area of Subgrade from Subgrade shoulder to Subgrade shoulder.

**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 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 be present at the preconstruction meeting or shall schedule to 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** - The Agency Shall perform or provide the following items of work:

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- Perform and provide a Pre-Construction Survey.
- 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 grade elevations to establish lines, grades, slopes, cross sections, and curve superelevation for each phase of roadwork.
- Evaluate grade for acceptance at each course of material.
- Perform measurements and calculations for pay quantities.
- Review Contractor's work and records periodically.

**00305.05 Contractor Responsibilities** - The Contactor shall 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.
- Preserve survey monuments and control stations according to 00305.71 and as governed by applicable law.
- Give the Engineer such facilities and assistance in establishing lines, grades and points as the Engineer may require.
- In the case of alterations, which involve any changes in stakes, the Contractor shall cooperate with the Engineer and facilitate the prompt re-establishment of field control for the altered or adjusted work.
- Replace and augment control stations as necessary to control the Project.
- Establish additional control stations as necessary to control the Project.
- Perform slope staking necessary for construction of earthwork including intersections and matchlines.
- 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 Project work.
- Set stakes to define the work, that may include but is not limited to the following:
  - Roadway location and grade. Set stakes and/or hubs at 50-foot intervals on tangents and 25-foot intervals on curves
  - Controls for sanitary and domestic water systems
  - Fences and gates.
  - Guardrail, barrier, barricades, and associated features.
  - Traffic delineators, reflectors, and guide devices.
  - Temporary and permanent signing \*
  - Temporary and permanent pavement striping and pavement marking devices.
  - Poles and footings, cabinets, junction boxes, sensors, and other features associated with illumination and signal facilities \*
  - Curbs, walks, ADA ramps, stairs, walls, mailboxes, and other miscellaneous structures.\*

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- Pipes, manholes, inlets, weirs, settlement basins and other storm water, drainage and water quality structures and facilities \*  
\*This includes field verification of fit and functionality or as instructed by the Engineer.
- Landscaping items.
- Earthwork features including guardrail flares and mounds, berms, and mounds
- Buildings and other structures and facilities.
- Environmental impact mitigation features.
- Other incidental survey Work common to this type of construction project.
- Remove and dispose of all flagging, lath, stakes and other temporary staking material after the Project is completed.
- Perform final "as constructed" measurements.
- Complete a Post-Construction survey of monuments and control stations and submit as-built documentation to Linn County Surveyor's Office.
- For bridge work, supply survey drawings depicting the location and elevations of the elements of substructure and superstructure and place stakes for features including, but not limited, to the following:

### **Substructure:**

- Piling
- Footings
- Columns, walls, and abutments
- Pile caps and cross beams
- Bearing pads or devices

### **Superstructure:**

- Horizontal alignment and deck edges
  - Soffit grades
  - Seismic restraints
  - Wing walls and retaining walls
  - Bridge end panels
  - Deck elevations
  - Railings
  - Deck drains and other bridge drainage facilities
- Set reference stakes and elevations in the vicinity of the structure work, as are necessary for the Engineer to check the layout. This may include establishment of a control network.

**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.

Survey equipment must be properly calibrated and kept in good repair.

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**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.

When a Project affects any permanent change to vertical clearances within the traveled way, complete and submit a Standard Vertical Clearance form (Form 734-2614) within 30 days of the change to the vertical clearance.

When a Project temporarily restricts any vertical clearances submit a Standard Vertical Clearance form (Form 734-2614) 28 days before the restriction takes effect.

For bridges, furnish all computations, layout notes, and drawings of the structure to the Engineer for review 7 Calendar Days before beginning construction.

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 the 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. Compressed data provided by the Engineer or the Contractor will be in a "self-expanding executable" format. The method of exchange of electronic data will be mutually agreed upon at the pre-survey conference.

**00305.10 File Formats for Digital Data Exchange** - Below are the preferred formats for data exchanged between the Agency and the Contractor. Other formats may be used, but must be pre-approved by the Engineer.

- **CAD (graphics) Files** - AutoCAD Civil 3D 2012 (.DWG) format.
- **Alignments (Horizontal and Vertical)** - AutoCAD Civil 3D 2012 (.DWG) format.
- **Elevations** - ASCII Elevation File format.
- **DTM Data** - AutoCAD Civil 3D DTM or AutoCAD Civil 3D (.DWG) format.
- **Coordinates of Miscellaneous Survey Points Set** - ASCII Coordinate File format.

**00305.12 Other Documents** - Adobe Acrobat Portable Document Format (pdf) is the preferred format for exchanging documents such as reports, drawings and maps.

### **Materials**

**00305.20 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,

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hubs, and guinies 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**

**00305.30 Survey Equipment** - Furnish survey equipment required to accomplish the work that meets the following requirements:

- 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**

**00305.40 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 working on the Project.
- Notifying the Project inspector of conflicts and changes necessary due to utilities, match point variations, design revisions, or other variables.

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**Construction**

**00305.50 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
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 Bike Paths	± 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. footings)	± 0.20 ft	± 0.03 ft

Stakes for 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.

Staking tolerances for special circumstances will be discussed at the pre-construction meeting. These staking tolerances are not cumulative to the construction tolerances identified for the appropriate items in which construction tolerances are required.

In constructing the work, the contractor shall meet the appropriate construction tolerances for the material as specified in the special provisions or standard specifications, regardless of the construction staking tolerances, specific to the work item.

**00305.51 Slope Stakes and References** - Set slope stakes and references at even design stationing on both sides of centerline at 50-foot stations on tangents, at 25-foot stations on curves, and at terrain breaks and changes in the typical section. Establish slope stakes in the field as the actual point of intersection of the design roadway slope with the existing ground line. Direct staking of the theoretical (computer generated) slope stake catch point requires prior approval of the Engineer.

Set slope stake references farther out from centerline than the actual catch point. Include all reference point and slope stake information on the reference stakes.

If an automated slope staking routine is intended to be used, the system shall be able to perform the proper superelevation, lane transitions, and benching, as well as duplicate other details in the design surface. The system shall record field modifications made to the final catch slopes. Any modifications shall be recorded and provided to the Engineer.

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Record the actual as staked (three dimensional) position of the slope and reference stakes. Prepare field notes showing slope stake and reference information, and provide to the Engineer.

**00305.52 Clearing Limits** - Set clearing limit stakes according to Section 00320. Space clearing limit stakes at intervals not greater than 50 feet on tangents and not greater than 25 feet on curves, or as directed.

**00305.53 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 on tangents and at 25-foot stations on curves, 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.

Stakes and hubs shall be checked by the inspector as a representative of the Engineer. Do not begin placement of the next material course until the Engineer has accepted the grade and approval is given to proceed.

**00305.54 Walls** - Set stakes or other devices to control the location and elevation of walls, including retaining walls, geotextile walls, wing walls, sound walls and other walls as specified. Provide horizontal and vertical control for elements of wall(s) including but not limited to footings, leveling pads, batter slope and direction, and top elevation. Stake drainage facilities, electrical conduits water pipes and other items shown or identified that are to be integrated into the construction of the wall(s).

**00305.55 Pipes and Culverts** - Stake pipes and culverts to fit field conditions. Their location may be different from the plans. Perform the following:

- Determine the roadbed slope catch points at the inlet and outlet of pipes and culverts.
- Set reference point offsets to pipes and culverts. Record information necessary to determine structure length and end treatments.
- Stake ditches or grade to make pipes and culverts functional.
- Complete and submit a Culvert Data Sheet (Form 734-3247)
- Submit a copy of the field notes to the Engineer by the next working day following completion of the staking work.

**00305.56 Manholes and Inlets** - Determine the location of manholes, inlets, siphon boxes, slope protectors, and other similar structures. This may require an approved field adjustment to the planned location in order to avoid obstacles or assure placement at the low point. Determine the elevation of the center of the grate.

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

- Type of structure
- Centerline station
- Centerline offset
- Reference distance
- Cut or fill to top of structure
- Center of structure elevation

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Establish a reference line to control the alignment of the structure. Record data on the Culvert Data Sheet (Form 734-3247) containing staking information for the outlet pipe from the specific drainage structure.

**00305.57 Box Culverts** - Set stakes or other devices to control the location and elevation of box culverts as specified. Provide horizontal and vertical control for elements of the box culvert(s) including but not limited to footing, side walls, wing walls, weirs, fish ladders, apron and top elevation. Stake other drainage facilities, electrical conduits, water pipes, and other items shown or identified that are to be integrated into the construction of the box culvert(s). Stake ditches to make the box culverts(s) functional.

**00305.60 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.
- 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** - At least squares adjustment shall be accepted based 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.

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### (4) Data Requirements:

- Field notes containing a detailed point description and vicinity sketch for each control station and survey monument established or used.

### (b) Terrestrial 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.

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- **Set Reduction Report** - This report summarizes the reduction of the angle sets and mean distances.
- **Least Squares Adjustment Report** – 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) GNSS Networks:

#### (1) Equipment:

- GNSS 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.

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

- **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:
  - GNSS observation data file
  - GNSS 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 Report** – 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.

(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.

**00305.61 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 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.

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- 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 observation 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:

$$\text{Allowable Error} = 0.05 \text{ ft. } \sqrt{D}$$

D = Shortest level line distance in miles

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

$$\text{Allowable Error} = 0.035 \text{ ft. } \sqrt{E}$$

E = Perimeter of level loop in miles

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

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- **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
- **ASCII Point Elevation Data File**

**00305.62 Bridges** - Set stakes, nails, or other devices to control the location and elevation of the various parts of bridges and progressive phases of construction. Provide horizontal and vertical control for all elements of bridge construction. Stake drainage facilities, electrical conduits, water and sewer pipes, pedestrian and bicycle facilities, traffic signal and sign supports, illumination devices, and other items shown or identified that are to be integrated into the construction of the bridge.

Identify marks or provide field notes or reports to the Engineer. Such provision of information shall be adequate for the Engineer to review the location and elevation of the mark for the intended purpose prior to incorporating material that is based on the mark.

**(a) Bridge Survey Control Stations** - Use the smallest number of original Project control stations as is practical for establishing positions and reference points for bridge construction on one bridge. Use of multiple control station will increase the probability of incorporating error into the construction. Use control stations that are as closely related mathematically as practical. The Contractor may establish additional control stations as necessary to complete the survey work. Additional control stations shall be established in such a manner as to provide the accuracy needed to meet the tolerances in Section 00305.

Original Project stations shall be used only after the following evaluation is completed for each bridge:

- Supply a list of original Project horizontal and vertical control stations intended by the Contractor to be used in establishing positions on a given bridge.
- Measure relative positions of original Project horizontal control stations intended to be used.
- Measure elevation differences between original Project vertical control stations intended to be used.
- Supply horizontal and vertical measurement data to the Engine
- Compare measured values with those computed from original horizontal network coordinates and vertical network elevations.
- Any discrepancy of concern to either the Contractor or the Engineer will be resolved before that combination of control stations is used.

**(b) Layout Marks and Reference Points:**

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**(1) Substructure** - Stake, reference, or otherwise identify locations, orientations, and elevations necessary for placement of substructure components, including but not limited to cofferdams, piling (including batter), drilled shafts, footings, columns, abutments, caps, cross beams, bearing devices, temporary supports or falsework, and excavations and embankments associated with any of the above.

Verify and document the locations, elevations and spatial relationships with adjacent substructure components. On bridges where prefabricated beams will be used, measure and document span lengths between bearing devices at each beam location as soon as practical. Supply a copy of such documentation to the Engineer for review before the next stage of construction.

Compute the final elevations after studying the plans, specifications, and shop drawings. Adjust the grades as needed to compensate for camber or prefabricated beams, chording of beams across the low side of superelevations, width of flat beams on superelevated surfaces, and any other factor resulting from design or construction methods.

**(2) Superstructure** - Stake, reference, or otherwise identify locations, orientations, and elevations necessary for placement of superstructure components, including but not limited to beams, girders, diaphragms, earthquake restraints, deck, rails, structure mounted traffic control and illumination devices, and concrete forms, temporary supports or falsework, and excavations and embankments associated with any of the above.

Stake alignment of structure as needed at each stage of construction. Stake alignment of poured-in-place items at 10-foot stations or as established by the Engineer. Stake alignment for the following items as needed to maintain the horizontal tolerance defined in section 00305.50:

- Outside edge of girder(s)
- Face(s) or centerline(s) of internal girders or stem walls
- Edge of deck
- Alignment of grade breaks
- Pedestrian and bicycle facilities
- Rails and railings

Stake grades at each stage of construction. Stake grade of poured-in-place items 10-foot stations, or as established by the Engineer. Apply corrections to design grades based on the dynamics of the evolving structure. Corrections that may be required depend upon the design of the bridge and the construction methods employed. Provide correction values to the Engineer at least 15 working days prior to incorporating into the structure. The following list is examples of possible corrections:

- Design camber (upward adjustment to compensate for anticipated deflection)
- Structural deflection (deflection of the bridge under its own increasing weight)
- Structural shifting (dynamics of the bridge under eccentric loading)
- Falsework deflection (deflection of falsework beams under increasing weight)
- Falsework crush (compression of falsework supports under increasing weight)
- Form crush (compression of forms under increasing weight)
- Equipment deflection (deflection of deck finishing machine or deck rails)
- Other adjustments to staked value to achieve the design grade.

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**(c) Bridge Deck Grades** - Set stakes or other devices to control the deck grade elevations. The exact process will depend upon the type of deck and the equipment being used.

**(1) Portland Cement Concrete Deck** - The surveyor and survey crew leader shall attend the first of the two deck pre-placement conferences, described in the Oregon Standard Specifications for Construction, subsection 00540.02(a), required for each deck placement.

Control of a PCC deck may involve significant work with the deck placement crew to establish control for a deck finishing machine. Rails for supporting the deck finishing machine are generally set up on either side of the deck. Each rail is held up by adjustable supports every 5 feet. Adjust the rail at each support to the desired grade while the rail is supporting the weight of the finishing machine. Corrections may need to be applied as listed in subsection 00305.52(c-2)

**(2) Asphalt Concrete Deck** - Control of an AC deck will not generally involve as many variables as PCC. An AC deck serves as a wearing surface, but not a structural component. Asphaltic concrete will frequently be used as filler to create the desired superelevations when flat beams form the superstructure. Stake control of the finish grade like any asphalt finish grade. Under some circumstances, design camber and structural deflection may need to be considered.

**00305.63 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.

**00305.64 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 existing features for the following items:

- Posts and poles including foundations
- Cabinets
- Junction boxes
- Detectors
- Other similar sign, signal, and illumination appurtenances
- New fabricated items

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

Field adjustment to the planned location may be required in order to avoid obstacle 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.

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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
- 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.

Have bridge layout and roadway layout features staked, including referencing, no more than seven calendar days before submitting field verification documents.

**00305.70 Temporary Protection and Direction of Traffic** - Provide work zone signing conforming to "Oregon Temporary Traffic Control Handbook for Operations of 3 Days or Less."

Provide temporary roll-up signs and sign supports meeting the requirements of the Oregon Standard Specifications for Construction, subsection 00225.11. Provide flaggers and flagger equipment meeting the requirements of the Oregon Standard Specifications for Construction, Section 00225.

### **00305.71 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 subsection 00170.82(c), 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.

**(c) Post Construction Survey** - At the completion of the project, file a post construction survey with the Linn County Surveyor's Office. Provide the Engineer with a copy of the approved survey. If no monuments were disturbed or destroyed during construction activities submit stamped, written verification to the Engineer.

**00305.72 Project Monumentation** - The Contractor will not be responsible for performing right-of-way monumentation.

**00305.73 Pre-Construction Survey** - The Contractor will not be responsible for performing a pre-construction Survey.

### **Measurement**

**00305.80 Measurement** - No measurement of quantities will be made for work performed under this section.

### **Payment**

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

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Payment will be payment in full for furnishing all material, equipment, labor, and incidentals necessary to complete the work as specified.

No separate or additional payment will be made for 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.

The amount to be allowed for "Construction Survey Work" in the progress payments will not be in excess of the reasonable value of the surveying work performed under this specification as said reasonable value is 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.

In cases where changes, not due to the Contractor's operations, necessitate redesign of the work, increased Contractor survey costs due to these changes will be paid for as Extra Work.

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

Comply with Section 00310 of the Standard Specifications.

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

Comply with Section 00320 of the Standard Specifications modified as follows:

**00320.01 Areas of Work** - Replace this subsection, except for the subsection number and title, with the following:

Clearing and grubbing will be required to the extents needed to complete the work unless otherwise shown on the plans or directed by the Engineer.

### **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 excavation basis.

Earthwork performed under this provision including excavation, haul, and embankment construction, unless otherwise specified, will be paid for by excavation measurement.

**00330.41(a)(4) Excess Materials** - Replace this subsection, except for the subsection number and title, with the following:

If the quantities of excavated materials are greater than required to construct embankments and to do all filling and backfilling, the Contractor may use the remaining materials to uniformly widen embankments or to flatten slopes in a manner satisfactory to the Engineer.

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**00330.41(a)(5) Waste Materials** - Replace this subsection, except for the subsection number and title, with the following:

Unless otherwise specifically allowed and subject to the requirements of 00280.03, dispose of materials, classed as waste materials in 00330.41(a)(3), outside and beyond the limits of the Project and Agency controlled property according to 00290.20. Do not dispose of materials on wetlands, either public or private, or within 300 feet of rivers or streams.

**00330.80 Measurement** – Add the following bullet:

- Lump Sum basis – under this method, no measurement of quantities will be made.

Add the following two sentences:

The estimated quantity of excavation is 472 Cubic Yards.

The estimated quantity of embankment is 370 Cubic Yards.

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

- Excess material used to widen embankments or flatten slopes according to 00330.41(a)(4).
- 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.

**00330.93 Excavation Basis Payment** – Replace item (d) with the following:

(d) General Excavation .....Lump Sum

**SECTION 00340 - WATERING**

Comply with Section 00340 of the Standard Specifications.

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

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

**00405.12 Bedding** - Replace this subsection, except for the subsection number and title with the following:

All pipe shall be placed on a bedding of a minimum of 6 inches of compacted 1"-0 or 3/4"-0 aggregate base material conforming to 02630.10.

**00405.14 Trench Backfill** - Delete this subsection, except for the subsection number and title, with the following:

Use Class B backfill, consisting of gravel or crushed rock meeting the requirements of Section 00640. Designated size shall be 1" - 0 or 3/4" - 0.

**00405.14(b) Class B Backfill** - Replace the words "Section 00641" with the words "Section 00640".

**00405.46(c)(2) Class A, B, C, or D Backfill** - Replace the paragraph that begins "Compact the top 3 feet..." with the following paragraph:

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Compact each layer of trench backfill material within the Roadway and Shoulders, and within a 2V:1H Slope line projected from each Subgrade Shoulder, to not less than 95 percent of maximum density. Compact all other trench backfill material to not less than 90 percent of maximum density.

**SECTION 00440 - COMMERCIAL GRADE CONCRETE**

Comply with Section 00440 of the Standard Specifications modified as follows:

Add the following subsection:

**00440.01 Terminology** - According to 00110.05(a), for the purposes of this Contract, the terms "sidewalk ramp" and "sidewalk ramps" shall respectively refer to and shall be read to mean "curb ramp" and "curb ramps".

Add the following subsection:

**00440.02 Abbreviations and Definitions:**

**ASTV – Actual Strength Test Value** – See 02001.02 for definition.

**00440.12 Properties of Commercial Grade Concrete** - Replace the bullet that begins "Compressive strength..." with the following bullet:

- **Compressive Strength** - ASTV minimum of 3,300 psi at 28 days

**00440.14(d) Hardened CGC** - Add the following to the end of this subsection:

The ASTV at 28 Days is the average compressive strength of the three cylinders tested. Discard all specimens that show definite evidence, other than low strength, of improper sampling, molding, handling, curing, or testing. The average strength of the remaining cylinders shall then be considered the test result.

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

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

**00445.40(h) Damages to Pipe** - Any repairs to pipe that is damaged or dislocated by subsequent work in the vicinity of the pipe will be the responsibility of the Contractor at no additional cost to the Agency.

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

Comply with Section 00470 of the Standard Specifications.

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

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

**00490.10 Materials** - Replace the "Precast Concrete Sections" line with the following line:

Precast Concrete Sections .....02450

Replace the "Metal Frames, Covers, Grates, and Ladders" line with the following line:

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Metal Frames, Covers, Grates, and Steps .....02450.30

**SECTION 00495 - TRENCH RESURFACING**

Comply with Section 00495 of the Standard Specifications.

**SECTION 00596B - PREFABRICATED MODULAR RETAINING WALLS**

Comply with Section 00596B of the Standard Specifications modified as follows:

Add the following subsection:

**000596B.10(d) Ecology Blocks** – Furnish 2' x 2' x 4' interlocking concrete ecology blocks meeting the following requirements, or as approved by the Engineer:

- Concrete design strength minimum of 4000 psi at 28-days
- ASTM A615 grade 60 steel reinforcement
- Interlocking
- Quarrystone or cutstone surface finish (front side only)

Add the following subsection:

**000596B.11(f) Ecology Block Backfill** – Furnish ecology block backfill meeting the following requirements:

**(a) Gravel Leveling Pads Backfill** – Furnish dense graded 1' - 0 or 3/4" – 0 crushed quarry rock meeting the requirements of 02630.10.

**(b) Retaining Wall Backfill** – Furnish dense graded 1' - 0 or 3/4" – 0 crushed quarry rock meeting the requirements of 02630.10 and the following:

**(1) Material Passing the No. 200 Sieve** – The amount of material passing the No. 200 sieve shall not exceed 15 percent by weight. Test according to AASHTO T11.

**(1) Plasticity Index** – The plasticity index of the material passing the No. 40 sieve shall not exceed 6. Test according to AASHTO T90.

Add the following subsection:

**000596B.40(d) Ecology Blocks** – Construct ecology blocks as shown and per the manufacturer's recommendations.

Add the following subsection:

**000596B.44(f) Erecting Ecology Blocks** – Begin placing the first course of retaining wall units on top of and in full contact with the prepared leveling pad surface. Level and align all blocks. Lay blocks as close together as possible and parallel to the straight or curved line of the wall face. Place blocks in vertical or battered positions as shown. Level and set each block on the blocks below without rocking. Stack all blocks in a running bond pattern with each block spanning the joint below.

Add the following subsection:

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**00596B.44(f)(1) Placement** - Begin placing the first course of bin wall units on top of and in full contact with the prepared leveling pad surface. Concurrently with the assembly of the bins, place retaining wall granular backfill within and around the bins of the assembled wall to the limits shown. Maintain the outside backfill approximately level with the inside backfill.

**000596B.80 Measurement** – Add the following to the end of this subsection:

The quantities of ecology blocks will be measured on the unit basis.

**000596B.90 Payment** – Add the following item to the pay item list:

<b>Pay Item</b>	<b>Unit of Measurement</b>
(a) Ecology Blocks.....	Each

Add the following paragraphs:

Excavation will be paid for under Section 00330.

No separate or additional payment will be made for aggregate required for retaining wall leveling pads or backfill.

**SECTION 00620 - COLD PLANE PAVEMENT REMOVAL**

Comply with Section 00620 of the Standard Specifications.

**SECTION 00640 - AGGREGATE BASE AND SHOULDERS**

Comply with Section 00640 of the Standard Specifications modified as follows:

**00640.10 Materials** - Replace this subsection, except for the subsection number and title, with the following:

Aggregates shall be 1"-0 or ¾"-0 (as the Contractor elects) crushed quarry rock only. Crushed river rock will not be allowed. Base and shoulder aggregates shall meet the applicable requirements of Subsection 02630 and 02640, respectively.

Where required, rock shall be placed at driveways and field approaches in a manner that provides an adequate transition between the new surface and the existing surface, subject to approval by the Engineer.

**SECTION 00730 - EMULSIFIED ASPHALT TACK COAT**

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

**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.

**SECTION 00744 - ASPHALT CONCRETE PAVEMENT**

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

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

Provide 64-22 grade asphalt cement for this Project.

**00744.44(b) Drop-Offs:** Replace the bullet that begins "Construct, maintain, remove, and dispose ..." with the following bullet:

- Construct, maintain, remove, and dispose of the temporary wedge at no additional cost to the Agency. ACP for the temporary wedge will be paid for at the Contract unit price.

**00744.45(a)(1) Temporary End Panel** - Replace the bullet that begins "Construct, maintain, remove, and dispose ..." with the following bullet:

Construct, maintain, remove, and dispose of the temporary wedge at no additional cost to the Agency. ACP for the temporary wedge will be paid for at the Contract unit price.

**00744.45(a)(3) Excess Asphalt Concrete Pavement-** Delete the sentence that begins "Payment will be made...." And replace with the following:

After completing end panels as specified, dispose of unused, remaining ACP outside and beyond the limits of the Project and Agency controlled property according to 00290.20. Do not dispose of materials on wetlands, either public or private, or within 300 feet of rivers or streams. Payment will be made for the actual material placed. A weigh ticket shall be provided for any material not used on the project. If a weigh ticket is not provided, the Engineer will make an appropriate determination on the amount of Asphalt that was not used.

**00744.90 Payment** - In the paragraph that begins "No separate or..." add the following bullets:

- Asphalt tack coat
- Unused, remaining, or excess ACP

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

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

Add the following subsection:

**00759.01 Terminology** - According to 00110.05(a), for the purposes of this Contract, the terms "sidewalk ramp" and "sidewalk ramps" shall respectively refer to and shall be read to mean "curb ramp" and "curb ramps".

Add the following subsection:

**00759.02(c) ADA Certification for Contractors** - For all supervisory personnel who will directly supervise the curb ramp Work, submit the names, telephone numbers, and copies of the ODOT ADA Certification for Contractors 10 Calendar Days before the preconstruction conference.

**00759.03 Preplacement Conference** - Add the following to the end of this subsection:

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

**00759.11 Aggregate Base** - Add the following:

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Aggregate shall be crushed quarry rock only. Crushed river rock will not be accepted.

### **00759.12 Sidewalk Ramp Treatment** – Replace the title of this subsection with “**Curb Ramp Treatment**”

Replace the paragraph that begins “Furnish truncated dome detectable warning...” with the following paragraph:

Furnish truncated dome detectable warning surfaces for curb ramps and accessible route islands from the QPL. Furnish truncated dome detectable warning surfaces that are safety yellow in color on or along State Highways.

Add the following subsection:

**00759.22 Smart Level** - Slopes will be verified with the use of a 24-inch SmartTool level model 92379 or model 92500, and a 6-inch SmartTool level model 92346. The 6-inch level will only be used to measure counter slope when there is a concrete gutter. All other locations will use a 24-inch level to measure slopes.

Add the following subsection:

**00759.31 Qualifications** - Use supervisory personnel who have an active ODOT ADA Certification for Contractors to directly supervise the curb ramp Work.

**00759.80 Measurement** - Replace this subsection, except for the subsection number and title, with the following:

The quantities of Structures constructed under this Section will be measured according to the following:

- **Volume Basis** - Measurement will be limited to the Neat Lines of the finished Structure as shown or directed.
- **Area Basis** - Measurement will be the finished surface, limited to the Neat Lines shown or directed.

Measurement of concrete walks will include the total area of concrete walk, including the area of concrete curb ramps within the footprint of the concrete walk.

When monolithic curb and sidewalks are measured on the area basis, measurement will include the total area of monolithic curb and sidewalk, including the area of concrete curb ramps within the footprint of the monolithic curb and sidewalk.

Measurement of concrete islands will include the total area of concrete islands, including the area of concrete curb ramps within the footprint of the concrete islands.

When concrete curb ramp construction is not adjacent to concrete walk, monolithic curb and sidewalk, or concrete island Work, the area of the concrete curb ramp Work will be included in the measurement of concrete walks.

- **Length Basis** - Measurement of concrete items will be along the face of the Structure, from end to end including curb tapers or depressed lengths at driveways and ramps. Measurement of metal handrail will be along the top rail member, from center of end post to center of end post.

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- **Each Basis** - Measurement will be by actual count. Extra for Curb Ramps will be counted for each instance of where a curb ramp crosses a curb at the transition between a pedestrian facility and a roadway.

**00759.90 Payment** - Replace pay items (m) and (n) with the following pay item:

(n) Extra for Curb Ramps ..... Each

Add the following after the sentence that begins “In item (a)”;

Item (a) includes the curb runs constructed adjacent to the curb ramps.

Delete the paragraph that begins "Item (m) includes...".

Replace the paragraph that begins "Item (n) includes the..." with the following paragraph:

Item (n) includes the additional Work required to construct a curb ramp or replace an existing curb ramp. When replacing an existing curb ramp or retrofitting a curb ramp into an existing concrete pedestrian facility, Item (n) also includes saw cutting and removal.

Add the following to the end of this subsection:

No separate or additional payment will be made for providing supervisory personnel who have an active ODOT ADA Certification for Contractors to directly supervise the curb ramp Work.

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

Comply with Section 00850 of the Standard Specifications modified as follows:

**00850.45 Installation** - Add the following bullet before the bullet that begins “Place material according to...”:

- Place material between May 1 and October 15.

Replace the bullet that begins “Place material according to...” with the following bullet:

- Place material according to the manufacturer’s installation instructions.

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

Comply with Section 00860 of the Standard Specifications.

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

Comply with Section 00867 of the Standard Specifications.

**SECTION 00905 - REMOVAL AND REINSTALLATION OF EXISTING SIGNS**

Comply with Section 00905 of the Standard Specifications.

**SECTION 00930 - METAL SIGN SUPPORTS**

Comply with Section 00930 of the Standard Specifications modified as follows:

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**00930.10 Materials** - Replace the paragraph that begins “Furnish structural steel materials...” with the following paragraph:

Furnish perforated steel square tube slip base sign supports and perforated steel square tube anchor sign supports from the QPL. Furnish other structural steel materials meeting the applicable portions of Section 02530, with weights and sizes as shown or specified.

**00930.40(e)(1) General** – Add the following sentence to the end of the paragraph:

The installation will be rejected if the geometry does not satisfy the requirements of 02560.05.

**SECTION 00940 - SIGNS**

Comply with Section 00940 of the Standard Specifications.

**SECTION 01030 - SEEDING**

Comply with Section 01030 of the Standard Specifications modified as follows:

**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 (lb/acre)</b>	<b>÷ (% Purity (minimum)</b>	<b>x % Germination) (minimum)</b>	<b>= Amount (lb/acre)</b>
<u>Festuca rubra</u> (Creeping Red Fescue)	175	_____	_____	_____
<u>Lolium perenne</u> (Perennial Ryegrass)	20	_____	_____	_____

**SECTION 01070 - MAILBOX SUPPORTS**

Comply with Section 01070 of the Standard Specifications.

**SECTION 01095 - SITE FURNISHINGS**

Section 01095, which is not a Standard Specification, is included in this Project by Special Provision.

**Description**

**01095.00 Scope** - This work consists of constructing site furnishings such as benches, picnic tables, litter receptacles, bicycle racks, and other furnishings as shown or directed.

**Materials**

**01095.10 Concrete Wheel Stops** - Provide concrete wheel stops and hardware meeting the following requirements, or as approved by the Engineer:

- Minimum 3500 psi concrete reinforced with #4 ASTM A615 grade 60 steel rebar
- Dimensions: 6' long 6" tall 6" wide

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- Water relief holes
- Minimum 15", #4 ASTM A615 grade 60 steel rebar spikes (2 each)

**Construction**

**01095.40 General** - Install all site furnishings as shown and according to the manufacturers recommendations.

**Measurement**

**01095.80 Measurement** - The quantities of site furnishings will be measured on the unit basis.

**Payment**

**01095.90 Payment** - The accepted quantities of site furnishings will be paid for at the Contract unit price, per unit of measurement, for the following item:

<b>Pay Item</b>	<b>Unit of Measurement</b>
(a) Concrete Wheel Stops .....	Each

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.

**SECTION 01170 - POTABLE WATER SERVICE CONNECTIONS, 2 INCH AND SMALLER**

Comply with Section 01170 of the Standard Specifications modified as follows:

Add the following subsection:

**001170.11 Resin Cast Water Meter Boxes** – Furnish resin cast water meter boxes and covers meeting the following requirements:

**(a) Boxes:**

- Armorcast #38, size 13 x 24 x 12, Part Number A6001946PCx12
- Armorcast #66, size 17 x 30 x 18, Part Number A6001640PCx28
- Meter box without cutouts for service line penetrations

**(b) Covers:**

- Armorcast #38, size 13 x 24 "20k", Part Number A6001969TRCI-H7
- Armorcast #66, size 17 x 30 "20k", Part Number A6001947TRCI-H7
- Covers shall include a hinged cast iron welding lid and shall be constructed with a recessed circle and hole to receive "touch read" sensor housings.

**001170.90 Payment** – Add the following item to the pay item list:

<b>Pay Item</b>	<b>Unit of Measurement</b>
(f) Water Meter Boxes.....	Each

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Item (f) includes removing and disposing of the existing water meter box and installing a new water meter box as shown or directed.

### SECTION 02001 - CONCRETE

Comply with Section 02001 of the Standard Specifications modified as follows:

**02001.01 General** - Replace the sentence that begins "Provide quality control...", with the following sentence:

Provide quality control according to Section 00165 and this Section.

**02001.02 Abbreviations and Definitions** – Delete the following abbreviations and definitions:

- **cm**
- **Cementitious Materials**
- **w**
- **High Performance Concrete**

Add the following abbreviations and definitions:

**SCM** - Supplementary Cementitious Materials

**SSD** - Saturated Surface-Dry

**w/cm Ratio** - Water-Cementitious Material Ratio

**Cementitious Materials** - Portland cement and supplementary cementitious materials.

**High Performance Concrete** - Concrete designed for enhanced durability and performance characteristics. High performance concrete is identified by the letters "HPC" in front of the concrete class designation (for example, HPC4500 - 1 1/2).

**Supplementary Cementitious Materials** - Fly ash, silica fume, metakaolin, and ground granulated blast furnace slag.

**02001.10 Materials** – Delete the material "Admixtures".

**02001.20 Concrete Properties, Tolerances, and Limits** - Replace the paragraph that begins "Provide concrete that is a workable..." with the following paragraph:

Provide concrete that is workable, placeable, uniform in composition and consistency, and having the following properties:

**02001.30 Concrete Mix Design** - Replace this subsection, except for the subsection number, with the following subsection:

**02001.30 Concrete Constituents:**

(a) **Portland Cement** - Use AASHTO M 85 or ASTM C150, Type I or II cement for structural or paving concrete. Use AASHTO M 85 or ASTM C150, Type III cement for precast prestressed concrete. Provide all cement from the QPL.

(b) **Supplementary Cementitious Materials** - SCM may be used separately or in combinations up to the specified maximum percentage by mass according to the following:

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(1) **General Limits** - SCM may be used separately or in combination as shown:

<b>Separate SCM</b>	<b>Maximum</b>
Fly Ash + Other Pozzolans	25%
GGBFS	50%
Silica Fume	5%

  

<b>Combined SCM</b>	<b>Maximum</b>
Fly Ash + Other Pozzolans + GGBFS + Silica Fume	50%*
Fly Ash + Other Pozzolans + Silica Fume	30%*

\* Fly ash + other pozzolans shall constitute no more than 25% and silica fume shall constitute no more than 5% of the total weight of cementitious materials.

When silica fume is added to truck mixed concrete, mix the batch a minimum of 100 revolutions at the mixing speed specified by the manufacturer before leaving the batch plant.

(c) **Chemical Admixtures** - Use chemical admixtures according to the manufacturer's recommendations. Use WRA in all seal concrete and in Class 5000 concrete or greater. Use HRWRA in all HPC.

Use a superset extender from the QPL in all concrete for bridge decks. Use an appropriate amount to extend the initial set time of the concrete by 90 minutes.

(d) **Aggregate** - If the nominal maximum size of the coarse Aggregate is not included as a part of the class of concrete, or shown on the Plans, any size from 1 1/2-inch to 3/8-inch nominal maximum size Aggregate may be used according to ACI guidelines.

Two or more Aggregate products or sources meeting Specifications may be blended to improve concrete properties. Blending non-specification Aggregate Materials, except for gradation, with specification Materials is not allowed.

**02001.31 Concrete Constituents** - Replace this subsection, except for the subsection number, with the following:

**02001.31 Concrete Mix Design** - Submit new or current mix designs, prepared by a CCT, for each required class of structural or paving concrete to the Engineer for review. Allow 21 Calendar Days for the review. Design mixes by the volumetric method in ACI 211.1 to achieve the properties of 02001.20. Do not proceed with concrete placement until the Engineer has determined that the mix design complies with the Specifications. Review of concrete mix designs does not relieve the Contractor of the responsibility to provide concrete meeting the Specification requirements.

**02001.32(a) Trial Batch** - Replace this subsection, except for the subsection number and title, with the following:

Make at least one trial batch for each concrete mix design. Notify the Engineer at least 48 hours before making each trial batch. The Engineer may witness preparation and testing. Prepare and test trial batches using the same materials, at the same proportions, and having the same plastic properties of concrete that will be used in the Project. Simulate haul time and mixing conditions to ensure proper workability at the jobsite. Furnish all materials, Equipment and Work required for designing the mixes, testing Materials, and making trial batches to verify the final design for final use at no additional cost to the Agency.

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**02001.32(c) Strength Tests** - Replace this subsection, except for the subsection number, with the following:

**02001.32(c) Hardened Concrete** - When applicable, test properties according to the following test methods:

<b>Test</b>	<b>Test Method</b>
Compressive Strength	AASHTO T 22
Flexural Strength	AASHTO T 97
Length Change	ASTM C157
Permeability	AASHTO T 277

**(1) Compressive Strength Tests** - For each trial batch, cast and cure at least three test cylinders according to AASHTO T 23 or AASHTO R 39, in 6 inch by 12 inch or 4 inch by 8 inch single use plastic molds. Test at 28 days according to AASHTO T 22.

**(2) Flexural Strength Tests** - For each paving concrete trial batch, cast and cure at least three flexural beams according to AASHTO T 23 or AASHTO R 39. Test flexural beams at 28 days according to AASHTO T 97.

**(3) Length Change Tests** - For all HPC and SFC mix designs, except for precast bridge rail elements, make at least three specimens from the trial batch for length change testing. Sample prisms shall have a square, 4 inch by 4 inch cross section. Wet cure the samples until they have reached an age of 28 days, including the period in the molds. Store and measure samples according to ASTM C157, Section 11.1.2. Report length change results at 28 days.

**(4) Permeability Tests** - For alternate HPC mix designs, make at least three specimens from the trial batch for permeability testing. Prepare, cure, dry and test according to AASHTO T 277. Report permeability in coulombs at 90 days.

**02001.32(d) Length Change Tests** - Delete this subsection.

**02001.32(e) Permeability Tests** - Delete this subsection.

**02001.33 Required Over Design Strength ( $f'_{cr}$ ) for New Mix Designs** - Delete this subsection.

**02001.34(a) Length Change Tests** - Delete this subsection.

**02001.34(b) Permeability Tests** – Delete this subsection.

**02001.35 Required Submittals for Mix Designs** - Replace this subsection, except for the subsection number and title with the following subsection:

Submit the following information for each concrete mix design:

**(a) Supplier's Information** - Provide the supplier's unique mix design identification number and batch plant location.

**(b) Mix Design Constituent Proportions:**

- Weight per cubic yard (pounds per cubic yard) of cement, SCM, fine Aggregates and coarse Aggregates (SSD), mix water, concrete modifiers, and chemical admixtures

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- Absolute volumes of cement, SCM, fine Aggregates and coarse Aggregates (SSD), mix water, air content, concrete modifiers, and chemical admixtures
- Dosage rates for chemical admixtures (ounces per cubic yard)
- w/cm ratio including all chemical admixtures

**(c) Aggregates** - Identify the Aggregate source by the ODOT source number. Report current values of the following:

- Bulk specific gravities (SSD)
- Fine Aggregate absorptions
- Coarse Aggregate absorptions
- Dry-rodded density of coarse Aggregates
- Average stockpile gradations
- Fineness modulus of sand used in the mix design calculations

**(d) Cement** - For each cement used, provide the following:

- Manufacturer
- Brand name
- Type
- Source or location plant
- QPL product number

**(e) SCM** - For each SCM used, provide the following:

- Manufacturer
- Brand name
- Source
- Class
- QPL product number

**(f) Concrete Modifiers** - For each concrete modifier used, provide the following:

- Manufacturer
- Brand name
- QPL product number

**(g) Admixtures** - For each admixture used, identify the following:

- Manufacturer
- Brand name
- Design dosage rate
- QPL product number

**(h) Water** - Identify the source of water to be used and provide a certificate of compliance certifying that the water meets the requirements of 02020.10.

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(i) **Compressive Strength Test Results** - Report the individual test results and the ASTV of cylinders from the trial batch for new mix designs. For current designs, provide the individual tests and the average of the cylinder sets presented for evaluation.

(j) **Strength Analysis** - Provide an analysis, showing all calculations, demonstrating that the mix design meets the requirements of 02001.20(a).

(k) **Quality Control Personnel** - Provide the name and certification number of the CCT who prepared the mix design, the QCT who performed the plastic concrete tests and cast the test cylinders, the CSTT who tested the cylinders, and the ODOT certification number of the laboratory where the cylinders were tested.

**02001.36 Adjusting Concrete Proportions** - Replace this subsection, except for the subsection number and title, with the following:

After a mix design has been reviewed and accepted, submit any proposed adjustments to concrete proportions for review. Significant changes to the mix design, as determined by the Engineer, may require verification of performance by trial batch according to 02001.32. Significant changes include, but are not limited to the following:

- Decreases in cementitious material content.
- Changes in cement source.
- Increases in SCM quantity replacing cement.
- Changes in SCM source.
- Substitution of aggregates from a different source.
- Admixture product changes.
- Large admixture dosage adjustments.
- Excluding seasonal adjustments for air entraining agents and Type A or D water reducers ( $\pm$  25 oz/cubic yard).

**02001.37 Trial Batch Costs** – Delete this subsection.

**02001.50(a) Certified Aggregate Technician (CAgT)** - Add the following bullet to the bullet list of duties:

- Notify the CCT whenever a fine aggregate fineness modulus varies by more than  $\pm$  0.20 from the mix design it is to be used in.

**02001.50(b) Quality Control Technician (QCT)** – Delete the following two bullets:

- Notify the CCT immediately whenever the air content varies from the mix design target by more than  $\pm$  1.5 percent.
- Notify the CCT immediately whenever the slump varies from the allowable limits of Table 02001-3.

**02001.50(c) Concrete Control Technician (CCT)** – Add the following bullets:

- Notify the Engineer 48 hours prior to trial batching.
- Control the quality of concrete during production.
- Submit proposed adjustments of the mix design, in writing, to the Engineer for approval by the middle of the following work shift.

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- Ensure approved adjustments are implemented prior to proceeding with production.
- Make adjustments to loads that fail to meet the air content or slump criteria of these Specifications prior to the 90-minute time limit. Adjustments shall comply with the provisions of ASTM C94.
- Perform an analysis and verify the accuracy of coarse and fine aggregate moistures whenever the w/cm ratio varies from the mix design target by more than  $\pm 0.03$ .
- Perform an analysis whenever the fineness modulus of the fine aggregate varies by more than  $\pm 0.20$  from the established mix design. If necessary to maintain proper workability, ability to pump or ability to finish, make an adjustment to the coarse/fine aggregate ratio and submit to the Engineer by the middle of the following work shift.

### SECTION 02040 - CHEMICAL ADMIXTURES

Comply with Section 02040 of the Standard Specifications modified as follows:

**02040.10 Materials** - Replace this subsection, except for the subsection number and title, with the following:

Furnish admixtures from the QPL.

### SECTION 02050 - CURING MATERIALS

Comply with Section 02050 of the Standard Specifications modified as follows:

**02050.10 Liquid Compounds** - Delete 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.

Delete the paragraph that begins "Before using liquid compounds, submit..."

**02050.20 Polyethylene Films** - Delete the paragraph that begins "Furnish clear or white..." with the following paragraph:

Furnish clear or white polyethylene films for curing concrete meeting the requirements of ASTM C171.

### SECTION 02415 - PLASTIC PIPE

Comply with Section 02415 of the Standard Specifications modified as follows:

**02415.10 Corrugated Polyethylene Pipe** - Replace this subsection, except for the subsection number and title, with the following:

**02415.10 Corrugated Polyethylene Pipe** - Furnish corrugated polyethylene pipe from the QPL and meeting the following requirements:

Corrugated polyethylene drain pipe .....AASHTO M 252  
Corrugated polyethylene culvert pipe.....AASHTO M 294, Type S or D  
Corrugated polyethylene storm sewer pipe.....AASHTO M 294, Type S or D

The allowable nominal inside diameter of corrugated polyethylene pipe is as follows:

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Corrugated polyethylene drain pipe .....	Up to 24"
Corrugated polyethylene culvert pipe.....	12" - 60"
Corrugated polyethylene storm sewer pipe.....	12" - 60"

Furnish watertight joints for corrugated polyethylene pipe from the QPL and meeting the requirements of ASTM D3212 when used for culvert or storm sewer. Furnish soil tight joints for corrugated polyethylene drain pipe.

**02415.40 Polypropylene Pipe** - Replace the sentence that begins "Furnish polypropylene pipe..." with the following sentence:

Furnish polypropylene pipe and fittings from the QPL and meeting the following requirements:

**SECTION 02450 - MANHOLE AND INLET MATERIALS**

Comply with Section 02450 of the Standard Specifications modified as follows:

**02450.30 Metal Frames, Covers, Grates, and Ladders** – Replace the title of this subsection with "Metal Frames, Covers, Grates, and Steps".

Replace the sentence that begins "As an alternate..." with the following:

Steps for manholes shall be steel-reinforced plastic conforming to AASHTO M 199 (ASTM C478) and AASHTO T 280 (ASTM C497). The steel shall be deformed reinforcing bar conforming to AASHTO M 31 (ASTM A615) Grade 60, No. 4 minimum. The plastic material surrounding the reinforcing steel bar shall be injection molded, with a textured, non-slip surface and a minimum thickness over the steel of 1/16 inch. Voids in the plastic will be cause for rejection of the step.

**SECTION 02690 - PCC AGGREGATES**

Replace Section 02690 of the Standard Specifications with the following Section 02690:

**SECTION 02690 - PCC AGGREGATES**

**Description**

**02690.00 Scope** - This Section includes the requirements for coarse and fine aggregates for portland cement concrete.

**02690.01 Definitions:**

**Coating** - Foreign or deleterious substances found adhering to the aggregate particles.

**Detrimental Materials** - Materials that adversely affect concrete, including but not limited to clay, shale, mica, silt, bark, alkali, sticks, organic matter, soft and flaky particles.

**Nominal Maximum Size Of Aggregate** - One sieve larger than the first sieve that retains more than 10 percent of the material using an agency specified set of sieves based on cumulative percent retained. Where large gaps in specification sieves exist, intermediate sieves may be inserted to determine nominal maximum size.

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**Materials**

**02690.10 Materials** - PCC Aggregates shall consist of natural or crushed rock that is hard, strong, durable and free from adherent coatings or other detrimental materials.

Produce, handle and store the aggregates in a way that will maintain passing material properties and avoid introducing deleterious materials or segregation prior to its use in portland cement concrete.

**02690.11 Alternate Grading** - The Contractor may request approval to produce coarse and fine aggregates in sizes other than those stated in 02690.20 and 02690.30. The request shall be in writing, and shall state the proposed target value and specified tolerances for each of the individual sieve sizes of the materials the Contractor proposes to produce.

**02690.12 Acceptance of Aggregate** - Acceptance of aggregate will be according to Section 00165 and based on the Contractor's quality control testing, if verified, according to Section 00165.

**(a) Aggregate Gradation** - A stockpile contains specification aggregate gradation when the quality level for each sieve size calculated according to 00165.40 is equal to or greater than the quality level indicated in Table 00165-2 for a PF of 1.00. Each required sample represents a subplot. When the quality level indicated in Table 00165-2 yields a PF of less than 1.00 for any constituent, the material is non-specification.

**(b) Non-specification Aggregate Gradation** - Stockpiled aggregates that contain non-specification aggregate gradation will be rejected by the Engineer unless non specification material is removed from the stockpile. Do not add additional material to the stockpile until enough non-specification material is removed so that the quality level for each constituent is equal to or greater than the quality level in Table 00165-2 for a 1.00 PF.

Reprocessing of non-conforming material and the testing required for acceptance will be at no additional cost to the Agency. Acceptance of reprocessed material will be based on passing test results or accepted visually by the Engineer.

**02690.20 Coarse Aggregate:**

**(a) Harmful Substances** - Harmful substances shall not exceed the following limits:

Test	Test Method		Percent (by Weight)
	ODOT	AASHTO	
Lightweight Pieces	–	T 113	1.0
Material passing No. 200 sieve	–	T 11	1.0
Wood Particles	TM 225	–	0.05

**(b) Soundness** - Coarse aggregates for concrete shall be tested for soundness using sodium sulfate salt, according to AASHTO T 104. The weighted percentage loss shall not exceed 12 percent by weight.

**(c) Durability** - Coarse aggregates shall meet the following durability requirements:

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Test	Test Method		Requirements
	ODOT	AASHTO	
Abrasion	–	T 96	30.0% Max.
Oregon Air Aggregate Degradation:			
Passing No. 20 sieve	TM 208	–	30.0% Max.
Sediment Height	TM 208	–	3.0" Max.

**(d) PCC Paving Aggregate** - In addition to requirements above, comply with the following:

**(1) Fracture** - Provide aggregate with at least two fractured faces on at least 50 percent of the particles retained on the 3/8 inch, 1/2 inch, 3/4 inch, 1 inch, and 1 1/2 inch sieves, as determined by AASHTO T 335.

**(2) Elongated Pieces** - Provide aggregate with elongated pieces not exceeding 10 percent by weight of the material retained on the No. 4 sieve when tested according to ODOT TM 229 with the proportional caliper device set at a ratio of 5:1.

**(e) Grading and Separation by Sizes for Prestressed Concrete** - Sampling shall be according to AASHTO T 2 and sieve analysis shall be determined according to AASHTO T 27 and AASHTO T 11. PCC coarse aggregate shall conform to grading and separated sizes as follows:

**(1)** Where indicated in Table 02690-1, the coarse aggregate shall be separated into two sizes and each separated size shall be measured into the batch in the quantity determined by the mix design.

For each of the indicated maximum sizes of coarse aggregates, the separated sizes shall be as indicated in Table 02690-2:

**Table 02690-1**

Maximum Nominal Size of Aggregates	Separated Sizes
1"	1" - No. 4
3/4"	3/4" - No. 4
3/4"	3/4" - 1/2" and 1/2" - No. 4
3/4"	3/4" - 3/8" and 3/8" - No. 4

**(2)** The grading of each of the specified separated sizes of coarse aggregate shall conform to the following:

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**Table 02690-2**

**Separated Sizes**

Sieve Size	1" - No. 4	3/4" - No. 4	3/4" - 1/2"	3/4" - 3/8"	1/2" - No. 4	3/8" - No. 4
	<b>Percent Passing (by Weight)</b>					
1 1/2"	100	—	—	—	—	—
1"	90 - 100	100	100	100	—	—
3/4"	50 - 80	90 - 100	85 - 100	85 - 100	100	100
1/2"	—	—	0 - 15	—	85 - 100	—
3/8"	15 - 40	20 - 50	—	0 - 15	35 - 65	85 - 100
No. 4	0 - 10	0 - 10	—	—	0 - 15	0 - 15
No. 200	*	*	*	*	*	*

\* See 02690.20(a). Do not evaluate material passing the No. 200 sieve according to 00165.40.

**(f) Grading and Separation by Sizes for Other Concrete** - Sampling shall be according to AASHTO T 2. Sieve analysis shall be according to AASHTO T 27 and AASHTO T 11. Provide aggregates meeting the gradation requirements of Tables 02690-3 and 02690-4 for structural concrete. Provide a CAgT to perform sampling and testing when required.

**Table 02690-3**

**Gradation of Coarse Aggregates**

Sieve Size	Combined*	Separated	Separated	Separated
	Sizes	Sizes	Sizes	Sizes
	1 1/2" - No. 4	1 1/2" - 3/4"	1" - No. 4	3/4" - 1/2"
	<b>Percent Passing (by Weight)</b>			
2"	100	100	—	—
1 1/2"	90 - 100	90 - 100	100	—
1"	70 - 89	20 - 55	90 - 100	100
3/4"	35 - 70	0 - 15	—	85 - 100
1/2"	—	—	25 - 60	0 - 15
3/8"	10 - 30	0 - 5	—	—
No. 4	0 - 5	—	0 - 10	—
No. 8	—	—	0 - 5	—
No. 200	**	**	**	**

\* For 1 1/2 inch coarse aggregate use two or more separated sizes which when combined shall meet the gradation limits for 1 1/2" - No. 4

\*\* See 02690.20(a). Do not evaluate material passing the No. 200 sieve according to 00165.40.

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**Table 02690-4  
Gradation of Coarse Aggregates**

Sieve Size	Separated or Combined Sizes			
	Separated Sizes 3/4" - 3/8"	Combined Sizes 3/4" - No. 4	Separated Sizes 1/2" - No. 4	Separated Sizes 3/8" - No. 8
	<b>Percent Passing (by Weight)</b>			
1"	100	100	—	—
3/4"	90 - 100	90 - 100	100	—
1/2"	20 - 55	—	90 - 100	100
3/8"	0 - 15	20 - 55	40 - 70	85 - 100
No. 4	0 - 5	0 - 10	0 - 15	10 - 30
No. 8	—	0 - 5	0 - 5	0 - 10
No. 16	—	—	—	0 - 5
No. 200	*	*	*	*

\* See 02690.20(a). Do not evaluate material passing the No. 200 sieve according to 00165.40.

**02690.30 Fine Aggregates:**

**(a) Different Sources** - Do not mix fine aggregates from different sources of supply, or store in the same pile. Do not use alternately in the same class of mix, without prior approval.

**(b) Harmful Substances** - The amount of harmful substances shall not exceed the following limits:

Test	Test Method (AASHTO)	Percent (by Weight)
Lightweight Pieces	T 113	2.0%
Material passing No. 200 sieve	T 11	3.0%

**(c) Soundness** - Fine aggregate shall be tested for soundness using sodium sulfate salt, according to AASHTO T 104. The weighted percentage loss shall not exceed 10 percent by weight.

**(d) Organic Impurities** - All fine aggregate shall meet the requirements of AASHTO M 6 for organic impurities.

**(e) Sand Equivalent** - Fine aggregate shall be tested according to AASHTO T 176 and shall have a sand equivalent of not less than 75.

**(f) Sand for Mortar** - Sand for mortar shall conform to the requirements of this Section.

**(g) Grading** - Sampling shall be according to AASHTO T 2. Sieve analysis shall be determined according to AASHTO T 27 and AASHTO T 11. Provide aggregates meeting the gradation requirements of Table 02690-5 for structural concrete. Provide a CAgT to perform sampling and testing when required.

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**Table 02690-5**

**Gradation of Fine Aggregate\***

<b>Sieve Size</b>	<b>Percent Passing (by Weight)</b>
3/8"	100
No. 4	90 - 100
No. 8	70 - 100
No. 16	50 - 85
No. 30	25 - 60
No. 50	5 - 30
No. 100	0 - 10
No. 200	**

\* Determine the fineness modulus according to AASHTO T 27 and AASHTO T 11. Maintain the fine aggregate fineness modulus within plus or minus 0.20 from the fineness modulus used in the Contractor's mix design. Fine aggregates in which the fineness modulus varies by more than 0.20 from the mix design target shall not be incorporated until an assessment is done to determine whether an adjustment in the aggregate proportions is necessary. Proportion changes must be performed by a CCT according to the provisions of ACI 211. Submit analysis of FM and mix design adjustments to the Engineer for approval.

\*\* See 02690.30(b). Do not evaluate material passing No. 200 sieve according to 0165.40.

**SECTION 02910 - SIGN MATERIALS**

Comply with Section 02910 of the Standard Specifications modified as follows:

**02910.20 Reflective and Retroreflective Sheeting** - Replace the title of this subsection with **"Retroreflective Sheeting"**

**02910.20(a) General** - Replace the paragraph that begins "Use retroreflective sheeting Type..." with the following paragraph:

Use retroreflective sheeting from the QPL and the following:

**02910.32(b) Retroreflective Sheeting Legend** – Replace the paragraph that begins "The Silver-white or white letters..." with the following paragraph:

Removable legend shall be fabricated with sheeting conforming to 02910.20 that is permanently adhered to a flat aluminum frame.

**02910.40 Hardware** - Replace the paragraph that begins "The bolts, nuts, and washers..." with the following paragraph:

The bolts, nuts, and washers used to fabricate and erect signs shall be aluminum alloy, stainless steel, or hot-dip galvanized steel. Aluminum for bolts and nuts shall conform to ASTM B211, alloys 2024-T4 or 6061-T6 as the Contractor elects. Aluminum washers shall conform to ASTM B209, alloy Alclad 2024-T4. Stainless steel for bolts, nuts, and washers shall be Type 304 or Type 316. Galvanized steel bolts, nuts and washers shall be medium carbon steel. Galvanize steel hardware according to AASHTO M 232 (ASTM A153).

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**02910.75(a) Warranty Period** – Replace the bullet that begins “For retroreflective Type III and Type IV ...” with the following paragraph:

- For retroreflective ASTM Type III and Type IV sheeting used for permanent signs, the warranty period shall be for 10 years.

Replace the bullet that begins “For retroreflective Type IX sheeting used ...” with the following paragraph:

- For retroreflective ASTM Type IX and Type XI sheeting used for permanent signs, the warranty period shall be for 12 years.

**02910.75(b) Failure** – Replace the bullet that begins “70 percent of minimum coefficient...” with the following paragraph:

- 70 percent of minimum coefficient of retroreflection for designated sheeting or cuttable film according to ASTM D4956 for the remaining 3 years of the warranty period for Type III and Type IV sheeting and remaining 5 years of the warranty period for Type IX and Type XI sheeting.

**02910.75(c) Remedy** – Replace the bullet that begins “For the remaining 3 years ...” with the following paragraph:

- For the remaining 3 years (5 years for ASTM Type IX and Type XI sheeting), furnish replacement sheeting required to restore the sign panel to a condition that meets the Specifications.

**SECTION 03020 - EROSION MATERIALS**

Comply with Section 03020 of the Standard Specifications modified as follows:

**03020.90 Acceptance** – Delete the bullet that begins “Quality compliance certification...”.

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**Old Salem Road Sidewalk Connectivity  
Sidewalks, Ramps and Accesses**

**APPENDIX A - PROJECT PLANS**

**Under Separate Cover**

The Plans, which are applicable to the Work to be performed under this Contract, bear title and date as follows:

Sidewalks, Ramps and Accesses  
Old Salem Road Sidewalk Connectivity  
Old Salem Road  
Linn County  
February 2020

**Old Salem Road Sidewalk Connectivity  
Sidewalks, Ramps and Accesses**

**APPENDIX B - BID SECTION**

**ATTENTION:**

DO NOT INCLUDE THE PLANS AND SPECIFICATIONS WHEN SUBMITTING YOUR BID PROPOSAL. SUBMIT ONLY THE ITEMS INCLUDED IN THE BID SECTION AND ANY ADDENDUM THAT MAY HAVE BEEN ISSUED FOR THIS PROJECT.

**INCLUDED IN THIS SECTION:**

- BID SCHEDULE
- PROPOSAL
- BID PROPOSAL BOND
- FIRST TIER SUBCONTRACTOR DISCLOSURE FORM

**Old Salem Road Sidewalk Connectivity  
Sidewalks, Ramps and Accesses**

**BID SCHEDULE**

Old Salem Road Sidewalk Connectivity  
Sidewalks, Ramps and Accesses

**Bid Opening: February 25, 2020 at 9:35 a.m., P.D.T.**

ITEM	UNIT	QUANT.	UNIT PRICE	TOTAL
1. Mobilization	LS	1	\$	\$
2. Temporary Protection & Direction of Traffic	LS	1	\$	\$
3. Erosion Control	LS	1	\$	\$
4. Sediment Barrier	FOOT	60	\$	\$
5. Inlet Projection	EACH	7	\$	\$
6. Pollution Control Plan	LS	1	\$	\$
7. Construction Survey Work	LS	1	\$	\$
8. Removal of Structures and Obstructions	LS	1	\$	\$
9. Asphalt Pavement Saw Cutting	FOOT	1,674	\$	\$
10. Clearing and Grubbing	LS	1	\$	\$
11. General Excavation	LS	1	\$	\$
12. 12" HDPE Storm Drain Pipe, 5 Ft Depth	FOOT	5	\$	\$
13. Catch Basin	EACH	1	\$	\$
14. Minor Adjustment of Manhole	EACH	2	\$	\$
15. Ecology Blocks	EACH	44	\$	\$
16. Metal Handrail, 2 Rail	FOOT	42	\$	\$
17. Cold Plane Pavement Removal 2" Depth	SQYD	126	\$	\$
18. Aggregate Base and Shoulders	TON	484	\$	\$
19. Level 2, 1/2" ACP Mixture	TON	52	\$	\$
20. Extra for Asphalt Approaches	EACH	22	\$	\$
21. Concrete Curbs	FOOT	90	\$	\$
22. Concrete Curbs, Curb and Gutter	FOOT	372	\$	\$
23. Concrete Valley Gutter	FOOT	75	\$	\$
24. Concrete Driveway, Residential, 6" Thick	SQFT	635	\$	\$
25. Concrete Driveway, Commercial, 8" Thick	SQFT	6,601	\$	\$
26. Concrete Walks	SQFT	11,007	\$	\$
27. Concrete Walks w/ Monolithic Curb	SQFT	259	\$	\$
28. Extra for New Curb Ramps	EACH	4	\$	\$
29. Longitudinal Pavement Markings – Paint	FOOT	225	\$	\$

**Old Salem Road Sidewalk Connectivity  
Sidewalks, Ramps and Accesses**

**BID SCHEDULE [CONT.]**

30. Transverse Pavement Markings, Legends and Bars	SQFT	209	\$	\$
31. Remove Existing Sign Supports	EACH	8	\$	\$
32. Remove and Reinstall Existing Signs	EACH	6	\$	\$
33. Signs, Standard Sheeting, Sheet Aluminum	SQFT	43.25	\$	\$
34. Permanent Seeding	ACRE	0.18	\$	\$
35. Single Mailbox Support	EACH	4	\$	\$
36. Multiple Mailbox Support	EACH	3	\$	\$
37. Concrete Wheel Stops	EACH	9	\$	\$
38. Remove and Install Water Meter Boxes	EACH	7	\$	\$
<b>PROJECT TOTAL</b>			\$	

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

\_\_\_\_\_  
Print

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

\_\_\_\_\_  
Address

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

\_\_\_\_\_  
Fax Number

\_\_\_\_\_  
Phone                      Date

\_\_\_\_\_  
Email

\_\_\_\_\_  
Oregon Construction Contractors Board Number

**Old Salem Road Sidewalk Connectivity  
Sidewalks, Ramps and Accesses**

**PROPOSAL**

TO: COUNTY BOARD OF COMMISSIONERS, LINN COUNTY, OREGON

**The undersigned, as bidder, declares that:**

This bid is for the work described on the "Description of Work" sheet bound in this bid.

This bid has been prepared from documents obtained from Linn County Road Department website at: <http://www.co.linn.or.us/Roads/ContractConst.asp> - Project Title

The only persons or parties interested in this bid as principals are those named in this bid.

The bidder submits this bid in accordance with and subject to the terms and conditions stated in Sections 00120 and 00130 of the specifications.

Bidder shall check one box: Bidder  is  is not a resident bidder as defined in ORS 279A.120.

The bidder has obtained and become acquainted with the applicable standard specifications, special provisions, plans, and other required provisions applicable to the particular work for which the bid is submitted.

The bidder has personally inspected the location and the site of the work and has become acquainted with all conditions, local and otherwise, affecting it.

The bidder has obtained and become acquainted with the forms of contract and bond which are to be signed by the successful bidder.

The bidder is satisfied as to the quantities and conditions and understands that in signing this bid the bidder waives all right to claim any misunderstanding regarding these quantities and conditions.

The bid guaranty submitted with this bid, if a bid bond, is by this reference made a part of this bid.

**The bidder also proposes and agrees that:**

If this bid is accepted, the bidder will execute the contract form furnished by the Agency, will provide all necessary machinery, equipment, tools, apparatus, labor and other means of construction, and will do all work and furnish all the materials specified in or called for by the contract in the manner and time prescribed in the contract and according to the requirements of the Engineer as given in the contract.

The bidder will accept, as full payment for the work performed and the materials, labor, equipment, machinery, tools, apparatus and other means of construction furnished, the amount earned under the contract as computed in the manner described in the specifications from the quantities of the various classes of work performed and the respective unit prices bid as these prices are given in the "Bid Schedule" bound in this bid.

Any contract awarded to the bidder shall include the provisions required by ORS 279C.830 or 40 U.S.C. 276a.

## **Old Salem Road Sidewalk Connectivity Sidewalks, Ramps and Accesses**

### **The bidder also certifies to the following:**

#### **A. Noncollusion:**

The price(s) and amount of this bid have been arrived at independently and without consultation, communication, or agreement with any other contractor, bidder, or potential bidder except as disclosed on a separately attached statement.

Neither the price(s) nor the amount of this bid, and neither the approximate price(s) nor approximate amount of this bid has been disclosed to any other firm or person who is a bidder or potential bidder, and they will not be disclosed before the opening of bids.

No attempt has been made or will be made to induce any firm or person to refrain from bidding on this contract, to submit a bid higher than this bid, or to submit any intentionally high or noncompetitive bid or other form of complementary bid.

This bid 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.

The bidder, its affiliates, subsidiaries, officers, directors, and employees are not currently under investigation by any governmental agency and have not in the last four years been convicted of 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 described on a separately attached statement.

The bidder understands and acknowledges that the above representations are material and important and will be relied on by the Agency, in awarding the contract(s) for which this bid is submitted. The bidder understands that any misstatement in this certification is and shall be treated as fraudulent concealment from the Agency, of the true facts relating to the submission of bids for this contract.

#### **B. Noninvolvement in Any Debarment and Suspension:**

The bidder, its owners, directors, and officers:

Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency.

Have not within a three-year period preceding this bid been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.

Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offenses enumerated in the preceding paragraph of this certification.

Have not within a three-year period preceding this bid had one or more public transactions (Federal, State, or local) terminated for cause or default.

## **Old Salem Road Sidewalk Connectivity Sidewalks, Ramps and Accesses**

Where the prospective primary participant is unable to certify to any of the statements in this certification, the prospective primary participant shall attach an explanation to this bid.

List exceptions. (For each exception noted, indicate to whom the exception applies, initiating agency, and dates of action. If additional space is required, attach another page with the following heading: Certification Exceptions continued, Bid Insert.)

Exceptions will not necessarily result in denial of award, but will be considered in determining bidder responsibility. Providing false information may result in criminal prosecution or administrative sanctions.

### **C. Lobbying Activities:**

To the best of my knowledge and belief, that:

No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying" to the Agency.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid that he or she shall require that the language of this certification be inserted in all lower tier subcontracts, which exceed \$100,000 and that all such subrecipients shall certify and disclose accordingly.

### **D. Compliance With Oregon Tax Laws:**

By signature on this bid, the undersigned hereby certifies under penalty of perjury that the undersigned is authorized to act on behalf of bidder, that the undersigned has authority and knowledge regarding bidder's payment of taxes, and that bidder is, to the best of the undersigned's knowledge, not in violation of any Oregon Tax Laws. For purposes of this

## **Old Salem Road Sidewalk Connectivity Sidewalks, Ramps and Accesses**

certification, "Oregon Tax Laws" means a state tax imposed by ORS 320.005 to 320.150 (Amusement Device Taxes), ORS 403.200 to 403.250 (Tax For Emergency Communications), and ORS Chapters 118 (Inheritance Tax), 314 (Income Tax), 316 (Personal Income Tax), 317 (Corporation Excise Tax), 318 (Corporation Income Tax), 321 (Timber And Forestland Tax), 323 (Cigarettes And Tobacco Products Tax), and the elderly rental assistance program under ORS 310.657, and any local taxes administered by the Department of Revenue under ORS 305.620.

### **E. Employee Drug Testing Program:**

Pursuant to ORS 279C.505(2), that the bidder has an employee drug testing program in place, and will maintain such program for the entire period of this contract. Failure to maintain such program shall constitute a material breach of contract.

### **F. Nondiscrimination:**

Pursuant to ORS 279A.110, that the bidder has not discriminated and will not discriminate against a disadvantaged business enterprise, a minority-owned business, a woman-owned business, a business that a service-disabled veteran owns, or an emerging small business in obtaining any required subcontracts. The bidder understands that it may be disqualified from bidding on this public improvement project if the Agency finds that the bidder has violated subsection (1) of ORS 279A.110.

### **G. Use of Registered Subcontractors:**

That all subcontractors performing work on this public improvement contract will be registered with the Construction Contractors Board or licensed by the State Landscape Contractors Board in accordance with ORS Chapter 701 before the subcontractors commence work under this contract.

### **H. Incorporation of All Addenda:**

The bidder has incorporated into this bid all addenda issued for this Project.

The bidder understands and acknowledges that the Agency will provide all addenda only by publishing them on the Agency's website. Addenda may be downloaded from the Agency's website.

The bidder shall be responsible for diligently checking the Agency's website for addenda. Bidders should check the website at least weekly until the week of Bid Closing and daily during the week of Bid Closing.

By submitting this bid, the bidder assumes all risks associated with its failure to access all addenda and waives all claims, suits, and actions against the State, the Transportation Commission, the Department of Transportation and their members, officers, agents, and employees that may arise out of the bidder's failure to access all addenda, in spite of any contingencies such as website failure, down-time, service interruptions, and corrupted, inaccurate, or incomplete addenda or information.

The party by whom this proposal is submitted, and by whom the contract will be entered into in case the award is made to bidder is:

**Old Salem Road Sidewalk Connectivity  
Sidewalks, Ramps and Accesses**

\_\_\_\_\_ [“An Individual,” “A Partnership,” “A Corporation,” “An Association”]

doing business under the name of \_\_\_\_\_

at \_\_\_\_\_  
[Street] [City] [State] [Zip Code]

which address is the address to which all communications concerning this bid and the contract should be sent.

The name of the surety by which the Performance Bond and Payment Bond covering the contract, if awarded, will be furnished and the name and address of the surety's local agent are as follows:

Name of Surety \_\_\_\_\_

Name of Agent \_\_\_\_\_

Accompanying this proposal is \_\_\_\_\_  
[“Proposal Bond,” “Cashier' s Check,” “Certified Check”]

in the amount of \_\_\_\_\_ percent of the bid.

The bidder further proposes to accept as full payment for the work proposed herein the amount computed under the provision of the contract documents and based on the unit price amounts, under Bid Schedule bound herein, it being expressly understood that the unit prices are independent of the exact quantities involved. The bidder agrees that the unit prices represent a true measure of the labor and materials required to perform the work, including all allowances for overhead and profit for each type and unit of work called for in these contract documents.

If this proposal shall be accepted and the undersigned shall fail or neglect to contract as aforesaid, and to give bonds in the amount specified, with surety satisfactory to the Linn County Board of Commissioners, within ten (10) days [not including Sunday], from the date of receiving from the Board of Commissioners the contract and prepared and ready for execution, the Board of Commissioners may, at its option, determine that the bidder has abandoned the contract, and thereupon forfeiture of the guaranty accompanying the bid shall operate and the same shall be the property of the Linn County Board of Commissioners.

\_\_\_\_\_  
Bidder

Dated \_\_\_\_\_, 20\_\_

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

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



**Old Salem Road Sidewalk Connectivity  
Sidewalks, Ramps and Accesses**

**FIRST-TIER SUBCONTRACTOR DISCLOSURE FORM**

**Project Name** Old Salem Road Sidewalk Connectivity

**Highway** Old Salem Road

**County** Linn

**Bid Opening Date** February 25, 2020

**Name of Bidding Contractor** \_\_\_\_\_

**Email Address** \_\_\_\_\_

*CHECK THIS BOX IF YOU WILL NOT BE USING ANY FIRST-TIER SUBCONTRACTORS OR IF YOU ARE NOT SUBJECT TO THE DISCLOSURE REQUIREMENTS (SEE INSTRUCTIONS).*

**FIRST-TIER SUBCONTRACTORS**

Firm Name	Dollar Amount
Category of Work	

Firm Name	Dollar Amount
Category of Work	

Firm Name	Dollar Amount
Category of Work	

Firm Name	Dollar Amount
Category of Work	

Firm Name	Dollar Amount
Category of Work	

Firm Name	Dollar Amount
Category of Work	

Firm Name	Dollar Amount
Category of Work	

(Attach additional sheets as necessary)