

LINN COUNTY ROAD DEPARTMENT

REQUEST FOR QUOTES

**SUPPLY, DELIVERY, DISTRIBUTION, AND APPLICATION
OF LIQUID ASPHALT EMULSION FOG SEAL**

SUMMER 2025

QUOTES DUE:

Wednesday, February 12th, 2025 – 1:00 P.M., P.S.T.

LINN COUNTY ROAD DEPARTMENT

**3010 FERRY STREET SW
ALBANY OREGON 97322**

Attn: Kevin Hamilton

THIS IS A REQUEST FOR QUOTES TO SUPPLY, DELIVER, DISTRIBUTE, AND APPLY LIQUID ASPHALT EMULSION FOG SEAL. This **REQUEST FOR QUOTES** is solicited in accordance with LCPR 137-047-0830, Class Special Procurements.

INSTRUCTIONS TO SUPPLIERS:

IP-1 Time and Place for Receiving Quotes

Quotes for the herein described supply of materials will be received by the Linn County Road Department at 3010 Ferry Street SW, Albany, Oregon 97322 on or before Wednesday, February 12th, 2025, 1:00 P.M., P.S.T.

IP-2 Scope of Work

- A. Contractor shall furnish approximately 143 tons of liquid asphalt emulsion (CQS-1h dilute or approved equal), and asphalt distributor(s) with qualified operator(s) for applying a fog seal to various surface treatment projects. Material estimates provided herein were calculated with a conversion factor of 240 gallons per ton. Fog seals will be applied to chip seal projects performed by Linn County forces in advance of Contractor's operations.

Additional work within the Albany Maintenance District's yard and parking lot is included in the work under this contract. Contractor shall furnish and apply approximately 6,825 gallons of an approved polymerized, sand-embedded liquid asphalt emulsion surface-sealing fog seal. Approved products include *Onyx* manufactured by Ingevity, and *Polymer-Modified Masterseal* (PMM) manufactured by Sealmaster. Contractor shall be certified by the manufacturer to apply the product, or shall hire a manufacturer's certified sub-contractor for application of the product.

- B. This Summer 2025 project includes approximately 17.6 miles of roadway for Linn County fog seals.

CQS-1h (or approved equal) fog seal shall be applied at a typical shot rate of 0.12 gallons to 0.13 gallons per square yard on chip seals with 3/8" – No. 4 rock on the surface. Polymer-modified fog seal (*Onyx* or PMM) has been estimated with an application rate of 0.32 gallons per square yard.

Actual quantities and shot rates used may differ from the estimated quantity depending upon site conditions, material performance, and the discretion of the County. Linn County may add, subtract, or alter road segments and/or quantities at its sole discretion, with no change to the quoted prices under this contract, except as provided in GP-6 below. See Appendix B for maps of the intended road sections.

- C. Polymer-modified fog seal shall be applied as a surface sealer to the asphalt concrete pavement in the Linn County Road Department's Albany Maintenance District facility located at 3010 Ferry St., Albany OR 97322.

- D. Contractor shall furnish personnel, equipment, tools, and materials necessary to provide for surface preparation and traffic control at each project site. See SP-3 and SP-4 below.

Contractor shall thoroughly remove loose rock, dust, and debris from the chip-sealed road surface prior to application of the fog seal.

Contractor shall use vacuum sweepers capable of collecting and containing all swept materials when performing surface preparation work on Old Salem Road, and on the Albany Maintenance yard as needed.

- E. Contractor shall coordinate with the County as may be needed to facilitate the County's application of permanent pavement markings (striping) upon completion of fog sealing each project site. The Contractor shall provide temporary pavement markings upon completion of fog seal application.
- F. Contractor shall coordinate with the County to ensure fog seal is applied as soon as possible following completion of County's application of a chip-seal, in accordance with the schedule provided by the County. The schedule may change.
- G. The intended period of operations is proposed as Thursday, August 7th, 2025 through Saturday, August 9th, 2025, but subject to change. This work is estimated for 3 consecutive working days. This work will adapt as needed to coordinate with Linn County's performance of chip seals and subsequent pavement markings. Schedules are subject to change.

IP-3 Submission of Quotes / Minimum Requirements

- A. The submission of a quote signifies that the Contractor has the necessary personnel and equipment and will be able to perform the specified work as outlined without interruption.
- B. Electronic submission of a quote will be accepted as original, in lieu of submission of a paper quote, at the discretion of the proposer.
An electronic submission of a quote shall consist of a scanned image (.pdf, .jpg, or .tif) of the completed quotation sheet, with signature; submitted by email to Kevin Hamilton as shown above.
A fax transmission to the Linn County Road Department, attention to Kevin Hamilton, (541) 924-0202, will also be accepted as an electronic submission.
- C. A quote will not be accepted after the time as stated in IP-1, above, whether or not quotes are reviewed exactly at the stated time.
- D. Contractors shall submit the cost portion of the request for quotes on the attached Quote Schedule which shall be signed in the place provided.
- E. A quote may not modify any of the provisions stated herein.
- F. Contractors who have not worked for Linn County in the preceding five years shall include a minimum of three references from public agencies who have purchased similar services utilizing the same products specified in the accompanying specifications.

IP-4 Withdrawal of Quotes

- A. A quote may be withdrawn at any time prior to the due date/time, by written request to the Linn County Road Department, which may be mailed, faxed, or presented in person. The request to withdraw shall be signed by the supplier, or the supplier's authorized representative.
- B. The withdrawal of a quote does not prejudice the right of the supplier to submit a new quote.
- C. No quote can be withdrawn after the request for quotes due time. The quote constitutes an offer to enter into a contract if accepted by Linn County.

IP-5 Review of Quotes

Quotes will be reviewed at the Linn County Road Department on or about the time and place specified in IP-1, above.

IP-6 Right to Reject Offers

Linn County may reject any offer not in compliance with all prescribed public procurement procedures and requirements, and may reject for good cause any or all offers upon a finding of the County that it is in the public interest to do so.

IP-7 Contract Award

- A. Quotes will be evaluated by a committee appointed by the Roadmaster. The contract will be awarded to the Responsible Proposer with the lowest Responsive, Responsible Quote as those terms are defined in the Linn County Public Contracting Rules.
- B. Award of the contract will be made in its entirety to a single supplier.
- C. Linn County reserves the right to accept or reject any or all offers; and to waive any informalities or irregularities in offers.
- D. A "Purchase of Supplies Contract" (Appendix A) will be executed by Linn County and the vendor with the most advantageous quote.

IP-8 Contract Documents

- A. These contract documents are intended to be mutually cooperative and to provide all details reasonably required for the execution of the proposed work.
- B. Any person contemplating the submission of a quote and being in doubt as to the meaning or intent of said contract document should request, in writing, interpretation by the Linn County Roadmaster.
 - 1. Any interpretation or change will be mailed or delivered to each person receiving a set of contract documents.
 - 2. Linn County will not be responsible for any other explanations or interpretations of said contract documents.
- C. Any person submitting a quote shall not, at any time after submission, dispute, complain or assert that there was any misunderstanding in regard to the nature, quality or description of the materials to be supplied.

IP-9 Contractor's Bonds

A quote bond is not required for submission of a quote.

A performance bond is not required with this contract.

A payment bond is not required with this contract.

IP-10 Prequalification

Prequalification is not required.

IP-11 Appeal Process

- A. Appeal of any decision(s) by the County that are adverse to the supplier must be delivered in writing, within five (5) working days, to the Linn County Contract Review Board, which is composed of the Linn County Board of Commissioners.
- B. Written appeals must include a concise statement of the complaint, setting forth all pertinent facts, citation to applicable law or authorities, and the relief requested.

GENERAL PROVISIONS:

GP-1 Definitions and Terms

Whenever the following terms are used in the contract documents, they shall be understood to have the meanings given herein:

- A. **County** - Linn County, Oregon, the party awarding the Contract.
- B. **County Roadmaster** - The County Roadmaster of Linn County, acting either directly or through an authorized representative.
- C. **Contractor** - The party awarded the contract.
- D. **Fog Seal** - As referred to in these Specifications is a treatment applied to a recently chip-sealed (surface treatment) road to seal surface, as described in Section 00705 of the *Oregon Standard Specifications for Construction* using CQS-1h dilute liquid asphalt emulsion.
- E. **Standard Specifications** - The *Oregon Standard Specifications for Construction* are hereby referenced and contained within the contract, except as follows:
 - 1. Standard Specifications may be modified, supplemented or superseded by the General and Special Provisions herein contained.
 - 2. Wherever the words "State Highway Commission," "Department," "State of Oregon," "Highway Commission," or "State," appear in Standard Specifications, they shall mean Linn County, Oregon.

GP-2 Insurance

- A. The Contractor shall carry all necessary insurance for the labor employed and assume all responsibility for any accidents, which may occur to any of Contractor's workers or the public in the performance of the project. The Worker's Compensation coverage provided shall be in full compliance with ORS Chapter 656.
- B. General Liability Insurance is required in the amount of the limits set forth in the Oregon Tort Claims Act, Table of Liability Limits for the current period. That amount is \$1,710,000 at the time of distribution of this Request For Quotations. Linn County shall be listed as a "certificate holder."
- C. Automobile liability insurance in the amount of \$1,000,000 must be maintained for the duration of the contract.

GP-3 Laws to be Observed

- A. The Contractor shall at all times observe and comply with all Federal, State and local laws, ordinances and regulations in any manner affecting the work.
- B. The Contractor shall indemnify and save harmless Linn County, its officers, employees and agents against any claims or liability arising from the violation by Contractor's officers, employees and agents, or Contractor's sub-contractors, their officers, employees or agents, of laws described in GP-3 A. above.
- C. The Contractor shall be responsible for acts of Contractor's employees and sub-contractors and shall indemnify and save harmless Linn County, its officers, employees and agents against any claims or liability arising from the Contractor's negligence.

GP-4 Labor Provisions

A contract issued pursuant to this Request For Quotation will not be a "Public Improvement Contract" as defined in ORS 279C.305 (5). However, this contract will meet the definition of a "Public Works Contract" as defined in OAR 839-025-0004 (20)(a) and (22). Supplier shall therefore comply with the applicable requirements defined in OAR 839-025 including but not limited to:

- A. Supplier must submit a certified payroll statement to the County by the fifth business day of each month following the month in which workers were employed upon this public works project.
- B. Supplier must have a public works bond filed with the Construction Contractors Board before starting work on the project, unless exempt under ORS 279C.836(4), (7), (8) or (9).
- C. Supplier must require, in every subcontract, that the subcontractor have a public works bond filed with the Construction Contractors Board before starting work on the project, unless exempt under ORS 279C.836(4), (7), (8) or (9).
- D. If the Supplier fails, neglects, or refuses to make prompt payment of any claim for labor or services furnished to the supplier or a subcontractor by any person, or the assignee of the person, in connection with the public works contract as such claim becomes due, the proper officer or officers of the public agency may pay such claim and charge the amount of the payment against funds due or to become due the supplier by reason of the contract (Reference: ORS 279C.515).
- E. Supplier must give notice to employees who work on a public works contract in writing, either at the time of hire or before commencement of work on the contract, or by posting a notice in a location frequented by employees, of the number of hours per day and days per week that the employees may be required to work (Reference: ORS 279C.520(2))
- F. Supplier must promptly, as due, make payment to any person, co-partnership, association or corporation, furnishing medical, surgical and hospital care or other needed care and attention, incident to sickness or injury, to employees of such supplier, of all sums which the supplier agrees to pay for such services and all moneys and sums which the supplier collected or deducted from the wages of the supplier's employees pursuant to any law,

contract or agreement for the purpose of providing or paying for such service (Reference: ORS 279C.530)

Pursuant to Oregon Revised Statute, ORS279B.235:

- G. Supplier shall comply with the provisions of ORS 279C.800 through ORS 279C.870 regarding prevailing rate of wage on public contracts
- H. Supplier shall pay employees for overtime work performed under the public contract in accordance with ORS 653.010 to 653.261 and the Fair Labor Standards Act of 1938 (29 U.S.C. 201 et seq.).
- I. Pursuant to ORS 279B.235, Supplier may not employ an employee for more than 10 hours in any one day, or 40 hours in any one week, except in cases of necessity, emergency, or when the public policy absolutely requires otherwise. Supplier shall pay his or her employees at least time and a half for all overtime in excess of eight hours in any one day, or 40 hours in any one week if the work week is five consecutive days, Monday through Friday; or for all overtime in excess of ten hours in any one day, or 40 hours in any one week if the work week is four consecutive days, Monday through Friday; or if the employee performs work on Saturday or on any legal holiday specified in ORS 279C.540.
- J. Supplier shall comply with ORS 652.220 and shall not discriminate with regard to any protected class in the payment of wages for work of comparable character, the performance of which requires comparable skills. Protected classes include race, color, religion, national origin, age, sex, pregnancy, citizenship, familial status, disability status, veteran status, and/or genetic information. Compliance is a material element of this contract and failure to comply is a breach that entitles County to terminate the contract for cause.
- K. Pursuant to ORS 279B.235, Supplier may not prohibit any of the supplier's employees from discussing the employee's rate of wage, salary, benefits, or other compensation with another employee or another person, and may not retaliate against an employee who discusses the employee's rate of wage, salary, benefits, or other compensation with another employee or another person.
- L. Pursuant to ORS 279B.230(1), Supplier shall, promptly, as due, make payment to any person, co-partnership, association or corporation furnishing medical, surgical and hospital care services or other needed care and attention, incident to sickness or injury, to the employees of the supplier, of all sums that the Supplier agrees to pay for the services and all moneys and sums that the Supplier collected or deducted from the wages of employee under any law, contract or agreement for the purpose of providing or paying for the services.
- M. Pursuant to ORS 279B.230(2) all subject employers working under the contract are either employers that will comply with ORS 656.017 or employers that are exempt under ORS 656.126.

GP-5 Contract Performance

- A. Contractor shall meet with County staff and review the proposed work and schedule prior to the start date. Contractor shall provide their plans for all project sites for temporary traffic control.
- B. Work on Sundays and/or legal holidays will not be permitted without written permission from the Roadmaster.
- C. Linn County reserves the right to void the contract at any time due to unforeseen occurrences (weather, mechanical breakdowns, union strike, lack of funds, inferior workmanship, etc.).

GP-6 Payment

- A. Liquid asphalt will be paid at the quoted unit price for product used and applied to the road surface only. Partial loads returned, and return freight costs, will not be assessed to County. Individual daily tickets shall be provided to Linn County in accordance with SP-1 below.
- B. Traffic control will be paid on a lump sum basis for the quantity of work described in this contract. Payment of the quoted lump sum price constitutes payment in full for all equipment, personnel, materials, and other incidentals necessary to accomplish the work. Adjustments to the work described in this contract (such as altering start or stop locations, etc.) will be incidental to the quoted lump sum payment. Addition or subtraction of project sites to or from the work described in this contract may be cause for increased or decreased payment of the lump sum quoted price. Changed payment, if applicable, will be addressed through a Change Order in conformance with 00195.20(a) "Insignificant Changed Work" in the *Oregon Standard Specifications for Construction*.
- C. Surface preparation will be paid on a lump sum basis for the quantity of work described in this contract. Payment of the quoted lump sum price constitutes payment in full for all equipment, personnel, materials, and other incidentals necessary to accomplish the work. Adjustments to the work described in this contract (such as altering start or stop locations, etc.) will be incidental to the quoted lump sum payment. Addition or subtraction of project sites to or from the work described in this contract may be cause for increased or decreased payment of the lump sum quoted price. Changed payment, if applicable, will be addressed through a Change Order in conformance with 00195.20(a) "Insignificant Changed Work" in the *Oregon Standard Specifications for Construction*.
- D. Pavement marking will be paid on a lump sum basis for the quantity of work described in this contract. Payment of the quoted lump sum price constitutes payment in full for all equipment, personnel, materials, and other incidentals necessary to accomplish the work. Adjustments to the work described in this contract (such as altering start or stop locations, etc.) will be incidental to the quoted lump sum payment. Addition or subtraction of project sites to or from the work described in this contract may be cause for increased or decreased payment of the lump sum quoted price. Changed payment, if applicable, will be addressed through a Change Order in conformance with 00195.20(a) "Insignificant Changed Work" in the *Oregon Standard Specifications for Construction*.
- E. Any aspect of work not described by the specified pay items will be considered incidental to those specified pay items.

- F. Payment will be made by Linn County upon receipt of a request for payment from Contractor. Contractor's request for payment will be made for periods beginning with the first day of the calendar month, and ending with the last day of the calendar month, except as otherwise mutually agreed upon.

SPECIAL PROVISIONS:

SP-1 Distributor Trucks

- A. The distributor truck(s) shall be designed, equipped, operated and maintained so the emulsified asphalt material is applied uniformly and at even temperature.
- B. Distributor trucks shall be tandem axle with a minimum tank capacity of 3,800 gallons, and equipped with Computer Rate Control distributor bars. Distributor trucks shall be late model in good mechanical condition, capable of working ten (10) hour shifts without mechanical breakdowns.
- C. The distributor bars shall be a minimum of twenty (20) feet in width, full flow circulating, with enclosed nozzle valves. Bar shall be operated from the cab of the truck(s) in two (2) foot increments on an eight (8) foot main and one (1) foot increments on each four (4) foot wing, or otherwise as approved by the County.
- D. The bars shall be capable of spreading liquid asphalt at any rate from 0.10 to 0.30 gallons per square yard at varying widths to sixteen (16) feet or more, all cab controlled.
- E. A written report (ticket) from each distributor truck shall be given daily to Linn County. Contractor shall use a form provided by the County, or an approved equal. Contractor shall supply a copy of the bills of lading for the emulsified liquid asphalt used each day.

SP-2 Asphalt

- A. The contractor shall procure and deliver CQS-1h emulsified liquid asphalt, or an approved substitute, to be used as fog seal. For every part emulsified asphalt add no more than one (1) part water. Add water at point of supply and mix with emulsified asphalt to obtain a homogenous emulsion. Dilution water must be potable and free from detectable solids or incompatible soluble salts (hard water). Acceptable substitutes for CQS-1h include QSE as manufactured by Idaho Asphalt, dba Western Emulsions.
- B. Asphalt material shall conform to the current edition, with revisions, of the Oregon Department of Transportation *Standard Specifications for Asphalt Materials*, and/or as described herein. The cationic emulsified asphalt furnished under this specification shall be an emulsion of liquid asphalt cement, water, and emulsifying agent. The emulsified asphalt shall be homogeneous. It shall show no separation of asphalt after thorough mixing within 30 days after delivery.
- C. The emulsified liquid asphalt shall meet the below requirements when tested within 30 days of sampling according to AASHTO Method T 59. Samples shall be taken according to AASHTO T 40 before the emulsified asphalt is diluted with water. The County or its designated representative may perform additional quality control testing at the project locations. Material not in compliance with the Standard Specifications will be rejected by the County and returned to the supplier (at suppliers expense) when a noncompliance determination has been made prior to application of any or the entire subject product. If testing reveals an out of compliance product after all or part of the product has been applied, there will be a penalty assessed on the product that has been used. County will charge to Contractor a five percent (5%) penalty for each 10 Saybolt Furol Seconds out

of compliance. Samples submitted for Elastic Recovery testing that fail to meet state specifications will be assessed a ten percent (10%) penalty for each percentage point that is out of state specifications for the load the sample originated from.

1. CQS-1H Dilute Specifications

TESTS ON EMULSION:	MIN	MAX
Saybolt Viscosity @ 25 ⁰ C, (77 ⁰ F) SFS	20	100
Settlement % (5 days) ⁽¹⁾		5
Storage Stability, % (1 day) ⁽²⁾		1
Particle Charge	Positive ⁽³⁾	
Sieve Test, % ⁽⁴⁾		0.10
Cement Mixing Test, %		2.0
Distillation to 260 ⁰ C (500 ⁰ F) Oil Distillate, % (by volume of emulsion)	60	
Residue, % (by weight)		
Tests on Residue from Distillation:	MIN	MAX
Penetration @ 25 ⁰ C (77 ⁰ F), 100g, 5s, dmm	40	90
Ductility @ 25 ⁰ C (77 ⁰ F), cm	40	
Solubility in Trichloroethylene, %	97.5	

⁽¹⁾ The test requirement for settlement may be waived when the emulsified asphalt is used in less than 5 days’ time; or the purchaser may require that the settlement test run from the time the sample is received until it is used, if the elapsed time is less than 5 days.

⁽²⁾ The 24-hour (1 day) stability test may be used instead of the 5-day settlement test.

⁽³⁾ Must meet pH requirement of 6.7 maximum (AASHTO T 200 pH of Aqueous Solutions with Glass Electrode) if the Particle Charge Test is inconclusive.

⁽⁴⁾ This test requirement on representative samples is waived, if successful application of the material has been achieved in the field. (Per AASHTO M-140)

2. Onyx and PMM Specifications

See Appendix D for manufacturer’s specifications.

SP-3 Traffic Control

- A. The Contractor shall be responsible for directing and protecting all traffic while asphalt application work is in progress.
- B. The Contractor shall provide signs and flaggers as necessary for the safety and protection of the public, County employees, and the Contractor’s workers. Traffic delays shall be limited to no more than 15 minutes to the greatest extent possible, and in no case more than 20 minutes.
- C. The Contractor shall not close a road to public traffic, except as expressly permitted by the County in advance.
- D. The Contractor shall conform to the standards and requirements set forth in the most current edition of the *Oregon Temporary Traffic Control Handbook*, and the *Manual of Uniform Traffic Control Devices*, as applicable.
- E. The Contractor shall submit a detailed traffic control plan to the County no less than two weeks prior to the start of work. The Contractor’s traffic control plan is subject to approval or rejection by the County. Work may not commence without County’s approval of the traffic control plan.
- F. Old Salem Road: Contractor shall maintain traffic through the work zone without road closures. Work on the northern portion of Old Salem Road shall be performed on Saturday due to the

intent to avoid weekday traffic volumes. Truck access in and out of Love's Truck Stop shall be maintained at all times.

SP-4 Surface Preparation

- A. Prior to applying the fog seal, Contractor shall sweep the entire road surface throughout the project site, including clearing driveways and intersections. Contractor shall make multiple "passes", as needed, to remove all loose rock, dust and fines, and other deleterious materials from the roadway. Contractor shall ensure that sweeping activities minimize to the greatest extent possible the dislodgement of chip rock that has been adhered to the road surface.
- B. Contractor shall employ the use of no less than two (2) diesel powered, self-propelled sweepers meeting or exceeding the following minimum specifications:
 - Engine Horsepower: 74 HP minimum
 - High End Travel Speed: At least 25 mph
 - Hydraulic System: 25 gallon per minute min. at 3,000 psi operating pressure
 - Brooms: 96 inch minimum width, with two replacement brooms or broom cores/strips for two full brooms available on site; capable of 45° left and right angle adjustment
 - Amber Lights: Warning flashers visible from front and rear of sweeper
 - Headlights: Permanently mounted white lights; mounted to the front of the sweeper to illuminate forward progress area
- C. Contractor shall employ a pilot vehicle with mounted amber warning lights (front and rear visibility) to escort the sweepers during operations within one half hour of dusk and dawn; during night-time operations; and at any time the sweeper activity obscures visibility of traffic approaching from the rear of the sweeper. A separate pilot vehicle shall be employed with each sweeper at any time the sweepers are operating more than 650 feet apart from one another when a pilot vehicle is required.
- D. Contractor shall use a vacuum sweeper to remove excess chip rock, dust, and fines on city project sites. This includes the following sections:
 - Old Salem Road

SP-5 Pavement Marking

- A. Contractor shall delineate the separation between opposing lanes of traffic. County forces will place temporary, flexible pavement markers with bi-directional reflective surfaces, aka "stick 'n stomps", prior to performing chip seal operations. Where the plastic cover may be removed from the County-provided marker (after fog seals are complete) such that the reflective strip is functional, Contractor may forego placement of a new marker.
Where the County's markers do not provide reflective delineation, Contractor shall place new "Stick 'n Stomps". Yellow markers shall be placed at a rate of one per every 40 horizontal feet along tangent sections of the road; and one per every 20 horizontal feet along horizontal curves in the road.

- B. Contractor shall use Stick 'n Stomps placed by County forces prior to the chip seal as a guide for placement of the new markers along the centerline. Contractor shall place new markers approximately 18 to 24 inches from the existing marker, in alignment with the lane line. Where the County's previously set marker is absent, the Contractor shall place a new marker according to the directions above.

SP-6 Construction

- A. Contractor shall not Fog Seal if the ambient temperature is less than 60⁰ F or moisture is present or expected.
- B. Contractor shall apply fog seal material only between the hours of 8:00 a.m. and 6:00 p.m. Contractor shall ensure the applied asphalt emulsion has "broken"; and that the road is safe for the travelling public before removing traffic control devices no later than 7:30 p.m. Application of fog seal on the south portion of Old Salem Road shall be limited to between the hours of 9:30 a.m. and 4:00 p.m. if performed on Friday, August 8th.
- C. Contractor shall apply emulsified asphalt to only one designated traffic lane at a time. Contractor shall protect the fog-sealed lane from traffic until the liquid asphalt emulsion "breaks" thoroughly.
- D. Contractor shall be attentive to "customer care" with regard to being respectful of residents and businesses fronting the project area, and to members of the public travelling within the project area.
- E. Application of Onyx or PMM shall be by use of computer-rate controlled application equipment capable of delivering product at a rate of 0.15 to 0.50 gallons per square yard, and calibrated to ensure accuracy within +/- 0.02 gallons per square yard. The application rate has been estimated for 0.32 gallons per square yard on bare pavement in the Albany maintenance yard; but may vary in actual application.
- F. Dates shown on the maps in Appendix B and on the Estimated Quantities by Date in Appendix C are the intended dates of Contractor's performance of work, based on County's work schedule. Contractor may vary dates of completion with prior Linn County approval except that:
- Surface preparation and fog seal application on Riverside Drive shall occur on Thursday, August 7th.
 - Fog seal application on Old Salem Road north of the RR trestle shall occur on Saturday, August 9th.
 - Surface preparation and polymer-modified fog seal application on the Road Department's parking lot shall occur on Saturday, August 9th. Yard work may occur on Friday or Saturday, or both.

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QUOTE SCHEDULE

SUPPLY, DELIVERY, DISTRIBUTION, AND APPLICATION OF LIQUID ASPHALT EMULSION FOG SEAL

SUMMER 2025

QUOTES DUE: Wednesday, February 12th, 2025; 1:00 P.M. P.S.T.

Quote Item	Quantity	Unit Rate	Total
Mobilization	Lump Sum	\$	\$
Traffic Control	Lump Sum	\$	\$
Surface Preparation	Lump Sum	\$	\$
Pavement Marking	Lump Sum	\$	\$
CQS-1h dilute Liquid Asphalt Emulsion	143 Tons	\$	\$
Polymer Modified Fog Onyx, MicroCoat, or PMM	6,825 Gallons	\$	\$

Project Total: _____

Emulsion Supplier: _____

Polymer Modified Fog Supplier: _____

Distributor Truck: Year: _____ Make: _____

Company Name: _____

Address: _____

Phone: _____ Fax: _____

E-mail address: _____

Printed Name: _____

Authorized Signature: _____ Date: _____

*Quantities provided are estimates only for the purpose of comparing quotes. Actual quantities may differ with no change to the quoted unit prices.

APPENDIX A

Purchase of Supplies Contract

PURCHASE OF SUPPLIES CONTRACT

In consideration of the covenants herein below set forth, **CONTRACTOR**, hereinafter referred to as "Contractor" and **LINN COUNTY**, a political subdivision of the State of Oregon, acting by and through its Board of Commissioners, hereinafter referred to as "County", mutually agree as follows:

1. Contractor agrees and covenants to County that it shall supply and deliver liquid asphalt emulsion and shall furnish asphalt distributor trucks with qualified operators as requested by County and as set forth in Contractor's Quote, which is attached hereto as Exhibit A and by this reference incorporated herein. Contractor further agrees and covenants to County that Contractor shall perform this Contract in a faithful and workmanlike manner as may be required by the Board of Commissioners, or their designated agent, the County Roadmaster, in accordance with the terms set forth in the provisions of the Request For Quotes, the "Specifications", which are attached hereto as Exhibit B and by this reference incorporated herein. Together, these documents are hereinafter referred to as the Contract Documents.
2. Any conflict or difference between the Contract Documents shall be called to the attention, first of the County Roadmaster and if a satisfactory solution is not reached, then to the Board of County Commissioners by Contractor before proceeding with work affected thereby. To the extent that any conflict or any discrepancy exists within the Contract Documents, the specific provisions of this Contract shall have priority over all others.
3. Contractor hereby sells and agrees to deliver, and County agrees to receive and thereafter pay for in accordance with the provisions herein, the products of the kind required by the Specifications in quantities specified from time to time by the County Roadmaster.
4. Contract period shall be from the awarding of the Contract until and including October 31, 2025. The County Roadmaster shall determine the quantities to be delivered on an as-needed basis. Contractor agrees that County has the option to purchase more or less than the quantity specified in the Quote, and that County shall not be liable or responsible for any payment for additional work or cost unless its Board of County Commissioners specifically assumes in writing such responsibility and liability on and by itself.
5. Payments shall be as set forth in the Specifications, Section GP-6.
6. Contractor shall comply with all federal, state and local laws, codes, regulations and ordinances applicable to the provision of goods and/or services under this Contract, including, without limitation, the provisions of ORS 279B.220 through 279B.235 and the provisions of: (i) Title VI of the Civil Rights Act of 1964; (ii) Section V of the Rehabilitation Act of 1973; (iii) the Americans with Disabilities Act of 1990 (Pub L No 101- 336), ORS 659.425, and all amendments of and regulations and administrative rules established pursuant to those laws; and (iv) all other applicable requirements of federal and state civil rights and rehabilitation statutes, rules and regulations.
7. County may terminate this Contract for convenience at any time with written notice to Contractor, stating the extent and effective date of termination. Upon receipt of this written notice, Contractor

shall stop performance under this Contract as directed by County. If this Contract is so terminated, Contractor shall be paid in accordance with the terms of the Contract for goods delivered or services provided and accepted if Contractor's damages arising out of return of the goods cannot be mitigated by the resale as provided in the Uniform Commercial Code (ORS 72.7060). Additionally, County may immediately terminate this Contract without liability or penalty for any of the following causes by the mailing of written notice to Contractor specifying the cause:

- Contractor breaches any of the provisions of this Contract. Contractor shall be liable for any and all damages suffered by County as the result of Contractor's breach of Contract, including, but not limited to, incidental and consequential damages, as provided in ORS 72.7110 to 72.7170;
- Contractor no longer holds all licenses or certificates that are required to provide the goods or perform the services required under this Contract;
- County lacks lawful funding, appropriations, limitations or other expenditure authority; or
- Federal, state or local laws, regulations or guidelines now prohibit performance of or payment for the goods and/or services under this Contract.

8. Contractor warrants all goods delivered under this Contract to be free from defects in labor, material, and manufacture and to be in compliance with the solicitation specifications. All implied and express warranty provisions of the Uniform Commercial Code (ORS Chapter 72) are hereby incorporated into this Contract. For any services provided under this Contract, Contractor warrants that performance shall be in a good and workmanlike manner and in accordance with professional standards applicable to the work. All warranties shall run to County and shall survive termination, cancellation or expiration of this Contract.
9. Contractor agrees to make all the provisions of this Contract applicable to any subcontractor performing hereunder.
10. Contractor shall not assign, delegate nor transfer any of its rights or obligations under this Contract without County's prior written consent. County's written consent does not relieve Contractor of any obligations under this Contract, and any assignee, transferee, or delegate is considered Contractor's agent. The provisions of this Contract shall be binding upon and shall inure to the benefit of the parties to the Contract and their respective successors and assigns.
11. To the fullest extent permitted by law, and in accordance with Article XI, Section 10, of the Oregon Constitution and the Oregon Tort Claims Act, Contractor shall indemnify, defend, save, and hold harmless (with counsel of County's choice) County and its officers, employees and agents from and against all claims, suits, actions, liabilities, damages, losses, or expenses, including attorney fees, arising out of the acts or omissions of the party, its officers, agents, or employees performing under this Contract, including, but not limited to Section GP-2 of the Specifications.
12. This Contract shall be governed and construed in accordance with the laws of the State of Oregon, without resort to any jurisdiction's conflict of laws rules or doctrines. Any claim, action, suit, or proceeding (collectively, "the claim") between County (and/or any other agency or department of Linn County) and Contractor that arises from or relates to this Contract shall be brought and conducted solely and exclusively within the Circuit Court of Linn County for the State of Oregon. Provided, however, if the claim must be brought in a federal forum, then it shall be brought and conducted solely and exclusively within the United States District Court for the District of Oregon.

Contractor hereby consents to the in personam jurisdiction of said courts. Each party shall be responsible for the party's attorney fees, costs and disbursements at all times including appeals.

13. Contractor shall maintain all fiscal records relating to this Contract in accordance with generally accepted accounting principles. In addition, Contractor shall maintain any other records pertinent to this Contract in such a manner as to clearly document Contractor's performance hereunder. Contractor acknowledges and agrees that County, the Oregon Secretary of State's Office, the Federal Government and their duly authorized representatives shall have access to such fiscal records and all other documents that are pertinent to this Contract for the purpose of performing audits and examinations and making transcripts and excerpts. All such fiscal records and documents shall be retained by Contractor for a minimum of three (3) years (except as required longer by law) following final payment and termination of this Contract, or until the conclusion of any audit, controversy or litigation arising out of or related to this Contract, whichever date is later.
14. Contractor, its subcontractors, and all employers working under this Contract deemed to be subject employers under the Oregon Workers' Compensation law shall comply with ORS 656.017, which requires them to provide workers' compensation coverage for all their subject workers.
15. The terms of this Contract shall not be waived, altered, modified, supplemented or amended in any manner whatsoever without prior written approval of County.
16. County's failure to enforce any provision of this Contract is not a waiver or relinquishment by County of its rights to such performance in the future or to enforce any other provisions. If any provision of this Contract shall be held invalid or unenforceable by any court or tribunal of competent jurisdiction, such holding shall not invalidate or render unenforceable any other provision, and the obligations of the parties shall be construed and enforced as if the Contract did not contain the particular term or provision held to be invalid.
17. The individual signing this Contract on behalf of Contractor certifies under penalty of perjury both individually and on behalf of Contractor that he or she is authorized to act on behalf of Contractor and that Contractor is, to the best of the undersigned's knowledge, not in violation of any Oregon Tax Laws. For purposes of this certification, "Oregon Tax Laws" means those programs listed in ORS 305.380(4).
18. All rights and obligations shall cease upon termination of this agreement, except for those rights and obligations that by their nature or express terms survive termination of this agreement. Termination shall not prejudice any rights or obligations accrued to the parties prior to termination.

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IN WITNESS WHEREOF, Each party, by the signature below of its authorized representative, hereby acknowledges that it has read this Contract, understands it, and agrees to be bound by its terms and conditions.

CONTRACTOR

LINN COUNTY

NAME

Wayne E. Mink, P.E., County Roadmaster

Date

Date

SAMPLE

APPENDIX B

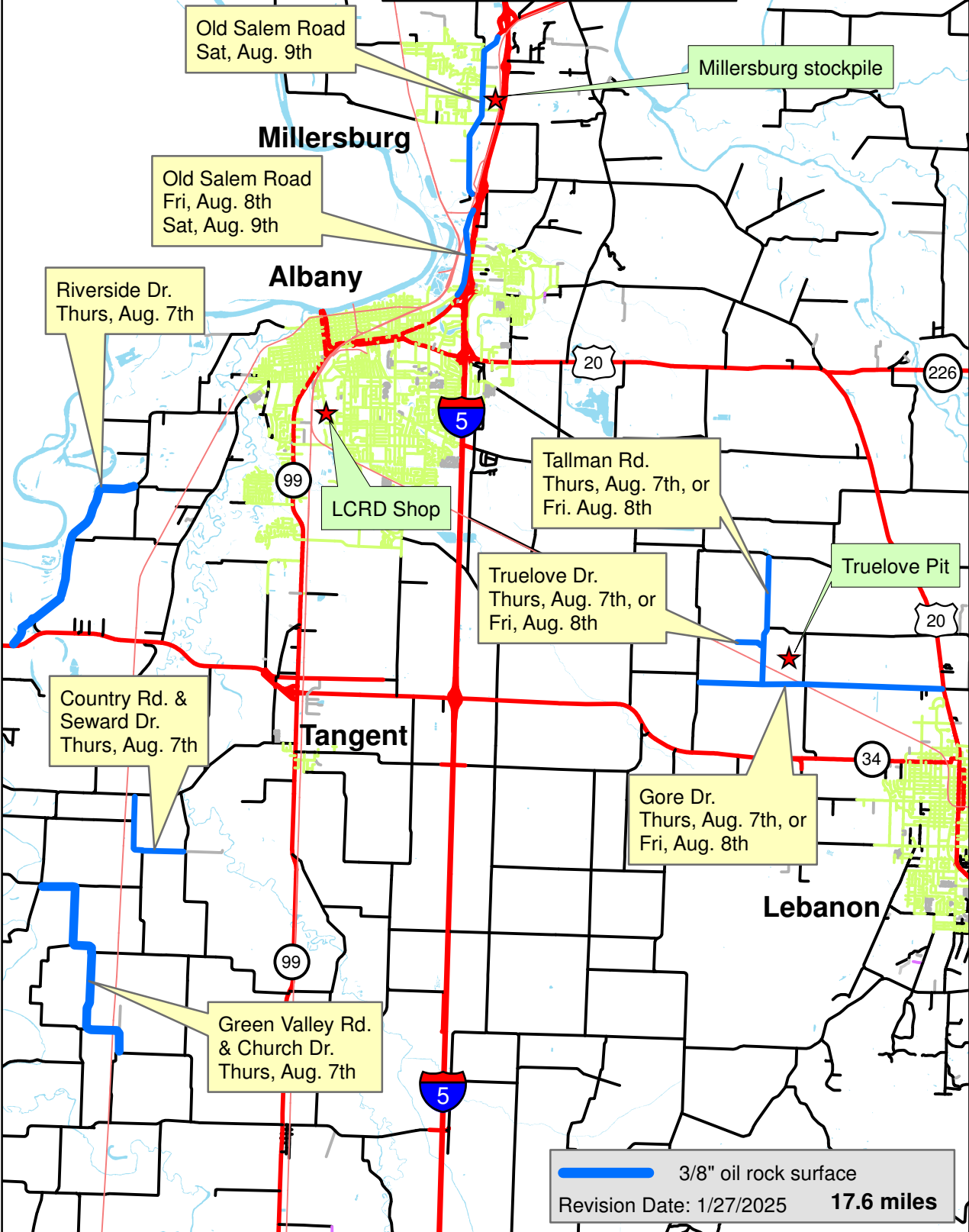
Summer 2025 Project Maps

Dates shown indicate scheduled dates for fog seal application.



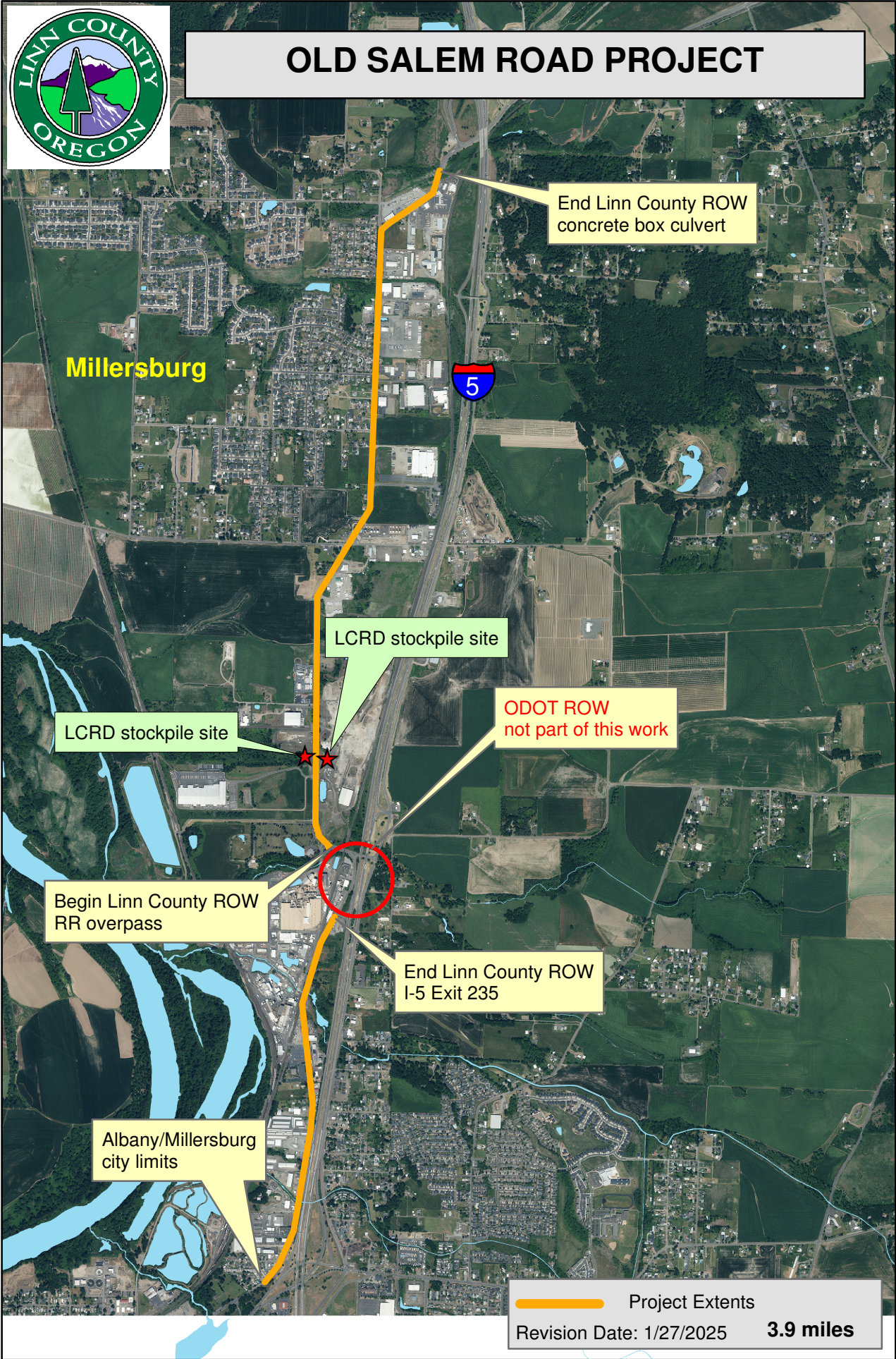
ALBANY MAINTENANCE DISTRICT

SUMMER 2025 FOG SEAL PROJECTS





OLD SALEM ROAD PROJECT



End Linn County ROW
concrete box culvert

Millersburg



LCRD stockpile site

LCRD stockpile site

ODOT ROW
not part of this work

Begin Linn County ROW
RR overpass

End Linn County ROW
I-5 Exit 235

Albany/Millersburg
city limits

Project Extents
Revision Date: 1/27/2025 **3.9 miles**



LCRD Albany Maintenance
Yard and Parking Lot

3010 Ferry St. SW
Albany, OR 97322

149,486 sq ft

42,406 sq ft

Ferry Street

APPENDIX C

**Estimate of Materials
by
Proposed Project Schedule**

- subject to change -

Linn County Oregon

2025 Fog Seals

Estimated Quantities by Date

Thursday, August 7th, 2025

Road Name	Begin	End	Project Length		Width (ft)	Product	Estimated
			miles	feet			Quantity
Country Rd.	Seward Dr.	Tangent Dr.	0.95	5,000	20	CQS-1h	6 tons
Seward Dr.	Country Rd.	McLagen Rd.	0.61	3,200	20	CQS-1h	4
Green Valley Rd.	Pugh Rd.	Church Dr.	2.35	12,400	22-23	CQS-1h	16
Church Dr.	Grrn. Villy. Dr.	Oakville Rd.	0.45	2,350	23	CQS-1h	3
Riverside Dr.	Highway 20	Meadow Rd.	3.38	17,850	29	CQS-1h	30
			7.73				59

Thursday or Friday*, August 7th - 8th, 2025

Road Name	Begin	End	Project Length		Width (ft)	Product	Estimated
			miles	feet			Quantity
Truelove Dr.	Tallman Rd.	End	0.42	2,220	20	CQS-1h	3
Tallman Rd.	Gore Dr.	Spicer Dr.	0.88	4,650	20	CQS-1h	5.5
Gore Dr.	Red Bridge	Highway 20	3.65	19,275	22	CQS-1h	24.5
			4.95				33

*Contractor may choose date of application within the range indicated.

Friday or Saturday*, August 8th - 9th, 2025

Road Name	Begin	End	Project Length		Width (ft)	Product	Estimated
			miles	feet			Quantity
Old Salem Rd.	city limits (So.)	ODOT ROW	1.33	7,020	36	CQS-1h	15

*Contractor may choose date of application within the range indicated.

Saturday, August 10th, 2025

Road Name	Begin	End	Project Length		Width (ft)	Product	Estimated
			miles	feet			Quantity
Old Salem Rd.	ODOT ROW	north end	2.54	13,410	44-72	CQS-1h	36 tons
LCRD Yard/Lot	Approx. 21,320 SY					PMM/Onyx	6,825 gallons

Total CQS-1h: 143 tons

County's measurements for estimates available upon request.

APPENDIX D

Material Specifications for Onyx and PMM

ONYX MASTIC SURFACE TREATMENT

1.0 DESCRIPTION

Apply a mixture of asphalt emulsion, mineral aggregate, water, and other additives spray applied on a prepared surface as specified in the Contract Documents.

BID ITEM

Mastic Surface Treatment

UNITS

Gallons or Pounds per
Square Yard

1.1 REFERENCES

A. AASHTO Standards

- a. AASHTO R 5: Selection and Use of Emulsified Asphalts
- b. AASHTO T 11: Materials Finer Than 75 μm (No. 200) Sieve in Mineral Aggregate
- c. AASHTO T 27: Sieve Analysis of Fine and Coarse Aggregates
- d. AASHTO T 308: Determining the Asphalt Binder Content of Hot-Mix Asphalt (HMA) by the Ignition Method.
- e. AASHTO T 49: Penetration of Bituminous Materials
- f. AASHTO T 59: Standard Method of Test for Emulsified Asphalts

B. ASTM Standards

- a. ASTM D2397: Standard Specification for Cationic Emulsified Asphalt
- b. ASTM D 6934: Residue by Evaporation of Emulsified Asphalt
- c. ASTM D 6937: Determining Density of Emulsified Asphalt
- d. ASTM E 303-93: Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester
- e. ASTM E 1911: Measuring Paved Surface Frictional Properties Using the Dynamic Friction Tester

C. ISSA Specifications and Guidelines

a. International Slurry Seal Association (ISSA) Specifications and Guidelines

2.0 MATERIALS

2.1 Cationic Emulsified Asphalt

Table 1: CSS-1HH - Emulsified Asphalt			
Test Method	Standard	Min	Max
Viscosity, Saybolt Furol at 77°F, seconds	T-59 / D244	15	100
Particle Charge Test In case of inconclusive particle charge, material having a maximum pH value of 6.0 will be acceptable as a CSS -1HH type	T-59 / D244	Positive	--
Sieve %	T-59	0	0.1
Residue by Distillation, percent	T-59	57	--
Penetration at 77° F, 100 g, 5 seconds (Test on Residue from Distillation)	T-49 / D-5	40	90

2.2 Aggregate

A. Use aggregate that is clean and free from organic matter or other detrimental substances

B. Ensure the aggregate meets requirements in table below

Table 2: Aggregate			
Physical Properties (a)			
Criterion	Standard	Min	Max
Water Absorption, percent	T 84	--	4
Gradation (b)			
Sieve	Standard	Master Grading Band Limits Percent Passing	Target Tolerance
No. 8	C136	100	
No. 16	C136	80 – 100	
No. 30	C136	75 – 100	+/- 5
No. 60	C136	50 – 85	+/- 5
No. 100	C136	40 – 65	+/- 5
No. 200	C117	25 – 65	+/- 5
a) Perform physical property tests on aggregates that are received before blending into sealer.			

b) Includes all mineral components

C. Mixture containing a minimum of 25 percent aggregate, by weight of wet mix.

2.3 Mix Design.

Develop and submit the job mix formula to the Agency for review and approval a minimum of 10 working days prior to applying the mastic surface treatment. Mix acceptance will be subject to satisfactory field performance and testing performed by the Agency, as needed, to verify compliance with the approved mix design.

- A.** Polymers, clays, and other additives may be used at the central plant, as necessary, to achieve mix design performance
- B.** Required minimum latex content by weight shall be 2% by weight of wet mix
- C.** The central plant shall use water that is clean, and free from salts and deleterious
- D.** Ensure the Mastic meets requirements in table below

Table 3: Asphalt Mastic			
Test	Standard	Min	Max
Wet-Track Abrasion Loss (3 day soak), g/m ² (a) & (b)	ISSA TB 100 D3910	--	80
Asphalt content by Ignition Method, percent	AASHTO T 308	30	--
<p>NOTES</p> <p>(a) Use the modified method to account for realistic application depth and fine emulsion mixture.</p> <p>(b) Use mastic formula as proposed before the addition of the coarse aggregate fraction</p>			

2.4 Production and Field Sample Testing

Table 4: Manufacturing and Field Sample Testing			
Asphalt Mastic – Manufacture & Field Samples			
Test	Standard Method	Min	Max
Solids content by evaporation	T-59*	48%	--
Asphalt content by Ignition Method, percent	T 308**	30%	--
Rotational Viscosity @ 20 RPM / RV spindle (cPs) @ 25 C	ASTM D2196 ***	800	4000
* T-59 sample shall be dried to a state where measurements taken 20 minutes apart do not change indicate ** Sample size should be reduced to achieve asphalt quantity Important! This test should be performed on a completely dry sample *** Perform within 7 days of sampling			

Provide certified test results for the combined aggregate and the mix in the design submittal. Also, include any adjusted requirements for the CSS-1HH.

3.0 CONSTRUCTION REQUIREMENTS

A. Mixing. Mix the aggregates, emulsified asphalt, water, and additives at a central mixing plant. Proportion all materials used in the mix by volume or weight utilizing the mix design approved by the Agency. Store the mastic surface treatment in a job site storage tank with a full sweep agitator capable of producing a homogeneous mixture and with the capacity to contain the entire transport load. Do not allow the temperature of the mix to fall to 32°F or less.

Provide individual volume or weight controls for proportioning each item to be added to the mix. Calibrate and mark each material control device. Locate the devices to be accessible for ready calibration, and place so the Agency can determine the amount of each material used at any time. Provide the Agency a certification showing the weight, gallons and temperature of mastic surface treatment in each transport load.

B. Surface Preparation. Immediately before applying the mastic surface treatment, thoroughly clean the surface of the roadway of all foreign material. Do not apply the mastic surface treatment if the roadway is wet.

C. Pre-Treatment - Apply a dilute adhesion promoter to the existing pavement surface at a rate of 0.023 to 0.030 gallons per square yard using a method approved by the Agency. Use a product that is supplied or approved by the mastic manufacturer and diluted per the manufacturer's recommendation.

D. Protection of Adjacent Structures. Protect the surfaces of all structures and other roadway appurtenances from damage or splatter of the mastic surface treatment. Restore any damaged or splattered appurtenances to their original condition at own expense.

F. Application of Mastic Surface Treatment. Uniformly apply the mastic surface treatment as shown in the Contract Documents. Maintain a homogenous mix conforming to the approved job mix formula as the mix is delivered to the job site and applied. Do not dilute the mix in the field with water or any other additives except as directed by the mastic manufacturer and approved by the Agency.

- a. Storage tank with full sweep agitation, hydraulic system, operator controls, pumping system with multiple pumps, material filters and a spray bar capable of applying a full lane width.
- b. Sufficient available power to operate the full spray system and the agitation system at the same time.
- c. System allowing the measurement and calculation of application rates.
- d. Pumps engineered to allow the system to handle fine aggregate materials.
- e. Pumps equipped with primary filter prior to the pumps and allow for a secondary filter system (if needed and capable) for fine post pump filtration of the material.
- f. Spray bar sized with volumetric capacity to dampen any possible pressure ripples by providing even pressure to all spray tips and capable of height adjustment during application process or as needed.
- g. Monitor the Mastic Treatment application and the condition and operation of the distributor equipment by using a qualified ground foreman with regular two-way radio communication to the distributor for maintaining application continuity and quality.
- h. Apply the mastic surface treatment utilizing one pass of the distributor supplying a total application rate of 0.25 to 0.42 gallons per square yard (2.5 – 5.25 pounds per square yard) at the spray temperature.
- i. Allow two pass applications of mastic surface treatment if needed for consistent surface texture needs and as required by Agency, mastic manufacturer or technology provider to maintain high quality in place final surface.
- j. At the beginning of each spread, start the application on a strip of building paper, approximately 3 feet in width and 1 foot longer than the spray bar. If the spray cut-off is not positive, use paper at the end of each spread. Remove and dispose of the paper in a satisfactory manner. The distributor shall be moving

- forward at proper speed when the spray bars are opened, unless the distributor is equipped to apply the specified rates from a standing start. Correct any skipped areas or deficiencies. Construct junctions (joints) of spreads to obtain a smooth riding surface. Alternative methods of constructing junctions may be approved by the Agency.
- k. Regulate the distribution of the mix to obtain a uniform application. Frequently check and adjust the angle of the spray nozzles and the height of the spray bars to obtain uniform distribution. If the spray bars rise as the load is removed, contributing to drilling and streaking, modify the distributor to maintain a constant spray bar height. Immediately stop distribution should any nozzle malfunction. Correct any deficiency before distribution is resumed.

G. Treatment of Adjacent Areas.

H. Curing. Provide adequate means to protect the mastic surface treatment from damage by traffic until the mix has cured sufficiently. Allow the mix to cure so as to not adhere to or be picked up by the tires of vehicles. Allow traffic on the surface once the mix has cured.

I. Weather Limitations. Do not place the mastic surface treatment when the ambient air temperature is less than 50°F, or the weather is foggy or raining, and the temperature is forecasted to go below 32°F within 24 hours following the placement.

K. Observation Period. The Agency (if needed with the Contractor) will inspect the mastic surface treatment 30 days after work is completed on the mastic surface treatment. Agency will inspect the mastic surface treatment between March 1 and April 1 the following year. Repair areas where there is no mastic surface treatment in place (bare areas) as directed by the Agency:

- a. In 5% the wheel paths; and
- b. Individual areas \geq 10 square yards;
- c. Where the total square yards of bare areas is greater than 5% of the total square yards of the mastic surface treatment.

4.0 MEASUREMENT AND PAYMENT

- A.** The Agency will measure mastic surface treatment by the square yard.
- B.** Payment for "Mastic Surface Treatment" at the contract unit price is full compensation for the specified work.



POLYMER-MODIFIED MASTERSEAL

Asphalt Based Pavement Sealer

SMT-169

PORTLAND, OR REVISED 05/3/18

PRODUCT DESCRIPTION

POLYMER-MODIFIED MASTERSEAL (PMM) is an environmentally friendly mineral reinforced asphalt emulsion pavement sealer blended with polymers and special surfactants for superior adhesion, flexibility, and durability. Polymer-Modified MasterSeal is a higher solids, faster drying pavement sealer designed to protect and beautify asphalt pavement. Polymer-Modified MasterSeal is formulated to be job-mixed with aggregate. Polymer-Modified MasterSeal meets ASTM D8099/D8099M-17 Standard Specification for Asphalt Emulsion Pavement Sealer.

RECOMMENDED USES

Polymer-Modified MasterSeal is ideal for all types of pavement surfaces including parking lots, shopping malls, airports, driveways, roadways and more.

ESTIMATING MATERIAL REQUIREMENTS

One gallon of Polymer-Modified MasterSeal will cover approximately 85-95 square feet (9.4 to 10.5 square yards) per coat when properly mixed and applied.

APPLICATION RATE OF MIXED MATERIALS

Apply properly mixed PMM (PMM and sand) and at a rate of 70-82 square feet (7.77 to 9.11 square yards) per gallon. Application rates may vary due to pavement porosity and method of application.

PERFORMANCE CHARACTERISTICS

TABLE I - PHYSICAL PROPERTIES OF PMM

ASTM	TEST DESCRIPTION	RESULT
D5	Penetration of Bituminous Materials-Base Asphalt	12-45 Pen
D6937	Density of Emulsified Asphalt	1,000 -1300 g/l
D6930	Settlement and Storage Stability of Emulsified Asphalts	20% max./24 hr.
D113	Ductility of Bituminous Materials-Base Asphalt	5-15 cm
Std. %	Percent Polymer Solids to Asphalt by wt.	2% min.
E70	PH of Aqueous Solutions with Glass Electrodes	6-8 PH
D6378	Vapor Pressure (VPX), mm Hg @ 25° C (77° F)	22-26 mm Hg
D36	Softening Point of Emulsion Residue (Ring and Ball Apparatus)	> 200° F
D93	Flash Point of Liquid Emulsion	> 450° F
D562	Viscosity using a Stormer-Type Viscometer	60-110 KU
D4060	Abrasion Resistance- Taber Abraser Dry Method	< 1% Loss
D522	Mandrel Bend Test of Attached Coatings	No Cracking
D870	Water Resistance of Coatings using Water Immersion	No Delamination
D6904	Resistance to Wind-Driven Rain	No Delamination
D4585	Water Resistance of Coatings Using Controlled Condensation	No Delamination

TABLE I - CONT.

ASTM	TEST DESCRIPTION	RESULT
D3910-6.4	Wet Track Abrasion Test	< 5 g/ft ² Loss
D1735	Water Resistance of Coatings Using Water Fog Apparatus	No Delamination
D2247	Water Resistance of Coatings in 100% Relative Humidity	No Delamination
D4541	Adhesion Strength over Asphalt Pavement	> 200 PSI
D2939-5	Uniformity of Emulsified Bituminous Coatings	PASS
D2939-7	Weight per Gallon	9-11 lbs./gal
D2939-8	Residue by Evaporation, %	50-60 %
D2939-13	Drying Time- 50% humidity, 73.4 ± 3.6°F	2-6 Hrs.
D2939-26	Resistance to Impact- No Chipping, Cracking or Delamination	PASS
D2939-5	Uniformity of Emulsified Bituminous Coatings	PASS
D2939-7	Weight per Gallon	9-11 lbs./gal
D2939-10	Ash Content of Residue, %	60-68%
D2939-14	Resistance to Heat- No Blistering, sagging or slipping	PASS
D2939-15	Resistance to water- No softening, delamination or re-emulsification	PASS
D2939-16	Flexibility- No Cracking or Delamination	PASS
D2939-22	Wet Film Continuity	PASS
D2939-26	Resistance to Impact- No Chipping, Cracking or Delamination	PASS
D2939-27	Resistance to Impact After Accelerated Weathering	PASS
D95	Water Content, %	40-60%
D2172	Asphalt Content by Weight, %	Min. 16%
D4799	QUV UV Aging- 1,000 Hours	No Color Fade
D3359	Measuring Adhesion by Tape- No More than a Trace of Peeling	PASS
Volatile Organic Compounds	Determination of Volatile Organic Compounds (VOC) in various Coatings	< 10 g/l
PAH Content (Percentage)	Polycyclic Aromatic Hydrocarbon Content (Percentage)	Less than one-tenth of 1% (< .10%)

SURFACE PREPARATIONS

Surface must be clean and free from loose material and dirt. Cracks should be filled with SealMaster Cold Pour or Hot-Applied Crack Filler. Oil stains should be cleaned and primed with SealMaster Oil Spot Primer.

MIXING PROCEDURES

Mix PMM in accordance with the following mix design (based on 100 gallons of PMM for ease of calculation):
 PMM..... 100 gallons
 Sand (40-70 mesh).....200-400 lbs.

Water may be added to facilitate application.

POLYMER-MODIFIED MASTERSEAL

Asphalt Based Pavement Sealer

SMT-169

PORTLAND, OR REVISED 05/3/18

APPLICATION EQUIPMENT

Properly mixed PMM shall be applied by mechanical squeegee/brush equipment or spray equipment capable of spraying coatings with sand. Equipment shall have continuous agitation or mixing capabilities to maintain homogeneous consistency of mixed material throughout the application process. Truck mount or self-propelled squeegee/brush equipment shall have at least 2 squeegee or brush devices (one behind the other) to assure adequate distribution and penetration of mixed PMM into bituminous pavement. Hand squeegees and brushes and brushes shall be acceptable in areas where practicality prohibits the use of mechanized equipment.

APPLICATION PROCEDURES

For optimum performance and durability apply a minimum of two coats of properly mixed PMM. One coat is accepted with capability of computer rate control equipment. Allow each coat to dry thoroughly before applying successive coats. Allow final coat of PMM to dry prior to opening to vehicle traffic. Specifier may alter knowing that each project is job specific.

APPLICATION CONDITIONS

Mixed PMM shall not be applied when temperature is expected to drop below 50°F during application and for a period of at least 24 hours after application.

LINE STRIPING AND TRAFFIC MARKINGS

Use SealMaster 100% Acrylic Traffic paint for line striping and traffic markings.

CAUTIONS

Both surface and ambient temperature shall be a minimum of 50°F and rising during PMM application. Do not apply if temperature is expected to drop below 50°F within a 24 hour period after PMM application.

PACKAGING AND AVAILABILITY

PMM is available in 5-gallon pails, 55-gallon drums and bulk tanker load quantities. PMM is supported by a national network of SealMaster manufacturing facilities along with a national network of qualified applicators.

WARRANTY AND DISCLAIMER

The statements made on this technical data sheet are believed to be true and accurate and are intended to provide a guide for approved application practices. As workmanship, weather, construction, condition of pavement, tools utilized, and other variables affecting results are all beyond our control, the manufacturer warrants only that the material conforms to product specifications and any liability to the buyer or user of this product is limited to the replacement value of the product only. The manufacturer expressly disclaims any implied warranties of merchantability or fitness for a particular purpose.



Phone: 1-800-395-7325

www.sealmaster.net