The bid documents must arrive at the address below by 2:30PM Wednesday, Nov. 13.

The envelope should contain the information listed below on the face of the envelope or the bid may be rejected by the Agency –

SEALED BID: ROADWAY SETTLEMENT STABILIZATION/052C0158
BUYER: TINA LEWIS
SOLICITATION NO.: ARFQ DOT2000000015
BID OPENING DATE: 11/13/2019
BID OPENING TIME: 2:30PM
FAX NUMBER: N/A

The sealed envelope needs to be mailed to:

FINANCE & ADMINISTRATION
DIVISION OF HIGHWAYS
BLDG 5, RM A-220
1900 KANAWHA BLVD E
CHARLESTON WV 25302

Submittals to be included in the bid envelope:

Document - AGENCY SOLICITATION NUMBER-ARFQDOT2000000015 AddendumNumber: 1

Page 21 – we need to fill in the information of the Contract Administrator and the Certification at the bottom of the page.

Page 22 – sign and date the Addendum Acknowledgement Form

Page 33 – need to provide the Contract Administrator information

Page 34 – Notary Signature and Seal

Page 35 – Contact information and signature needed

Final_ARFQ_0803_DOT2000000015_2_ARFQ_FORM

Page 1 – Signature, FEIN #, and Signature needed at the bottom of the page

Submittals mentioned in the Specifications that need to go with the bid documents:

- Certification Letter from our polymer manufacturer – it is attached
- NYSDOT Panel Test Certification – it is attached
- DCP Information – it is attached
- Vin Numbers and License Plates of the Fleet – it is attached
- Recent Calibration documents of the flow meters – they are attached
- List of Operations Team Years of Experience – it is attached
- Rex's Bio – it is attached
- Prior Experience 3 years with three different DOTs – it is attached

AGENCY SOLICITATION NUMBER-ARFQ DOT2000000015
Addendum Number: 1

The Purpose of this addendum is to modify the solicitation identified as ("Agency Solicitation") to reflect the change(s) identified and described below.

Applicable Addendum Category:

[ ] Modify bid opening date and time

[ ] Modify specification of product or service being sought

[ ] Attachment of pre-bid sign in sheet

[X] Correction of error

[ ] Other

Description of Modification to Solicitation:

Correction on Terms & Condition's & Specifications

Additional Documentation: Documentation related to this Addendum (if any) has been included herewith as Attachment A and is specifically incorporated herein by reference.

Terms and Conditions:

1. All provision of the Agency Solicitation and other addenda not modified herein shall remain in full force and effect.

2. Vendor should acknowledge receipt of all addenda issued for this Agency Solicitation by completing an Addendum Acknowledgement, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

ATTACHMENT A

INSTRUCTIONS TO VENDORS SUBMITTING BIDS
(Agency Delegated Procurements Only)

1. REVIEW DOCUMENTS THOROUGHLY: The attached documents contain a solicitation for bids. Please read these instructions and all documents attached in their entirety. These instructions provide critical information about requirements that if overlooked could lead to disqualification of a Vendor's bid. All bids must be submitted in accordance with the provisions contained in these instructions and the Solicitation. Failure to do so may result in disqualification of Vendor's bid.

2. MANDATORY TERMS: The Solicitation may contain mandatory provisions identified by the use of the words "must," "will," and "shall." Failure to comply with a mandatory term in the Solicitation will result in bid disqualification.

2A. PREBID MEETING: The item identified below shall apply to this Solicitation.

☑ A pre-bid meeting will not be held prior to bid opening

☐ A MANDATORY PRE-BID meeting will be held at the following place and time:

All Vendors submitting a bid must attend the mandatory pre-bid meeting. Failure to attend the mandatory pre-bid meeting shall result in disqualification of the Vendor's bid. No one individual is permitted to represent more than one vendor at the pre-bid meeting. Any individual that does attempt to represent two or more vendors will be required to select one vendor to which the individual's attendance will be attributed. The vendors not selected will be deemed to have not attended the pre-bid meeting unless another individual attended on their behalf. The required attribution of attendance to a single vendor should be addressed during the pre-bid but may occur at any time deemed appropriate by the Purchasing Division.

An attendance sheet provided at the pre-bid meeting shall serve as the official document verifying attendance. Any person attending the pre-bid meeting on behalf of a Vendor must list on the attendance sheet his or her name and the name of the Vendor he or she is representing.

Additionally, the person attending the pre-bid meeting should include the Vendor's E-Mail address, phone number, and Fax number on the attendance sheet. It is the Vendor's responsibility to locate the attendance sheet and provide the required information. Failure to complete the attendance sheet as required may result in disqualification of Vendor's bid.

All Vendors should arrive prior to the starting time for the pre-bid. Vendors who arrive after the starting time but prior to the end of the pre-bid will be permitted to sign in, but are charged with knowing all matters discussed at the pre-bid.

Questions submitted at least five business days prior to a scheduled pre-bid will be discussed at the pre-bid meeting if possible. Any discussions or answers to questions at the pre-bid meeting are preliminary in nature and are non-binding. Official and binding answers to questions will be published in a written addendum to the Solicitation prior to bid opening.

3. BID SUBMISSION: All bids must be submitted electronically through wvOASIS or signed and delivered by the Vendor to the Agency on or before the date and time of the bid opening. Any bid received by the Agency staff is considered to be in the possession of the Agency and will not be returned for any reason.

3A. BID SUBMISSION

A bid that is not submitted electronically through wvOASIS should contain the information listed below on the face of the envelope or the bid may be rejected by the Agency.

SEALED BID: ROADWAY SETTLEMENT STABILIZATION/052C0158
BUYER: TINA LEWIS
SOLICITATION NO.: ARFQ DOT2000000015
BID OPENING DATE: 11/13/2019
BID OPENING TIME: 2:30PM
FAX NUMBER: N/A

4. ADDENDUM ACKNOWLEDGEMENT: Changes or revisions to this Solicitation will be made by an official addendum issued by the Agency. Vendor should acknowledge receipt of all addenda issued with this Solicitation by completing an Addendum Acknowledgment Form, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

5. BID FORMATTING: Vendor should type or electronically enter the information onto its bid to prevent errors in the evaluation. Failure to type or electronically enter the information may result in bid disqualification.

6. ALTERNATE MODEL OR BRAND: Unless the box below is checked, any model, brand, or specification listed in this Solicitation establishes the acceptable level of quality only and is not intended to reflect a preference for, or in any way favor, a particular brand or vendor. Vendors may bid alternates to a listed model or brand provided that the alternate is at least equal to the model or brand and complies with the required specifications. The equality of any alternate being bid shall be determined by the State at its sole discretion. Any Vendor bidding an alternate model or brand should clearly identify the alternate items in its bid and should include manufacturer's specifications, industry literature, and/or any other relevant documentation demonstrating the equality of the alternate items. Failure to provide information for alternate items may be grounds for rejection of a Vendor's bid.

☐ This Solicitation is based upon a standardized commodity established under West Virginia Code § 5A-3-61. Vendors are expected to bid the standardized commodity identified. Failure to bid the standardized commodity will result in your firm's bid being rejected.

7. EXCEPTIONS AND CLARIFICATIONS: The Solicitation contains the specifications that shall form the basis of a contractual agreement. Vendor shall clearly mark any exceptions, clarifications, or other proposed modifications in its bid. Exceptions to, clarifications of, or modifications of a requirement or term and condition of the Solicitation may result in bid disqualification.

8. REGISTRATION: Prior to Contract award, the apparent successful Vendor must be properly registered with the West Virginia Purchasing Division and must have paid the $125 fee, if applicable.

9. UNIT PRICE: Unit prices shall prevail in cases of a discrepancy in the Vendor's bid.

10. PREFERENCE: Vendor Preference may be requested in purchases of motor vehicles or construction and maintenance equipment and machinery used in highway and other infrastructure projects. Any request for preference must be submitted in writing with the bid, must specifically identify the preference requested with reference to the applicable subsection of West Virginia Code § 5A-3-37, and should include with the bid any information necessary to evaluate and confirm the applicability of the requested preference. A request form to help facilitate the request can be found at: http://www.state.wv.us/admin/purchase/vrc/Venpref.pdf.

10A. RECIPROCAL PREFERENCE: The State of West Virginia applies a reciprocal preference to all solicitations for commodities and printing in accordance with W. Va. Code § 5A-3-37(b). In effect, if reciprocal preference is requested by a West Virginia resident vendor, non-resident vendors receiving a preference in their home states, will see that same preference granted to West Virginia resident vendors bidding against them in West Virginia. A request form to help facilitate the request can be found at: http://www.state.wv.us/admin/purchase/vrc/Venpref.pdf.

11. SMALL, WOMEN-OWNED, OR MINORITY-OWNED BUSINESSES: For any solicitations publicly advertised for bid, in accordance with West Virginia Code §5A-3-37(a)(7) and W. Va. CSR § 148-22-9, any non-resident vendor certified as a small, women-owned, or minority-owned business under W. Va. CSR § 148-22-9 shall be provided the same preference made available to any resident vendor. Any non-resident small, women-owned, or minority-owned business must identify itself as such in writing, must submit that writing to the Purchasing Division with its bid, and must be properly certified under W. Va. CSR § 148-22-9 prior to contract award to receive the preferences made available to resident vendors. Preference for a non-resident small, women-owned, or minority owned business shall be applied in accordance with W. Va. CSR § 148-22-9.

12. ELECTRONIC FILE ACCESS RESTRICTIONS: Vendor must ensure that its submission in wvOASIS can be accessed and viewed by the Agency staff immediately upon bid opening. The Agency will consider any file that cannot be immediately access and viewed at the time of the bid opening (such as, encrypted files, password protected files, or incompatible files) to be blank or incomplete as context requires, and therefore unacceptable. A vendor will not be permitted to unencrypt files, remove password protections, or resubmit documents after bid opening to make a file viewable if those documents are required with the bid. A Vendor may be required to provide document passwords or removed access restrictions to allow the Agency to print or electronically save documents provided that those documents

are viewable by the Agency prior to obtaining the password or removing the access restriction.

13. NON-RESPONSIBLE: The Purchasing Division Director reserves the right to reject the bid of any vendor as Non-Responsible in accordance with W. Va. Code of State Rules § 148-1-5.3, when the Director determines that the vendor submitting the bid does not have the capability to fully perform, or lacks the integrity and reliability to assure good-faith performance."

14. ACCEPTANCE/REJECTION: The State may accept or reject any bid in whole, or in part in accordance with W. Va. Code of State Rules § 148-1-4.5. and § 148-1-6.4.b."

15. YOUR SUBMISSION IS A PUBLIC DOCUMENT: Vendor's entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., 5G-1-1 et seq. and the Freedom of Information Act in West Virginia Code §§ 29B-1-1 et seq.

DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled "confidential," "proprietary," "trade secret," "private," or labeled with any other claim against public disclosure of the documents, to include any "trade secrets" as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

GENERAL TERMS AND CONDITIONS:
(Agency Delegated Procurements Only)

1. CONTRACTUAL AGREEMENT: Issuance of a Award Document signed by the Agency and approved as to form by the Attorney General's office, if required, constitutes acceptance of this Contract made by and between the State of West Virginia and the Vendor. Vendor's signature on its bid signifies Vendor's agreement to be bound by and accept the terms and conditions contained in this Contract.

2. DEFINITIONS: As used in this Solicitation/Contract, the following terms shall have the meanings attributed to them below. Additional definitions may be found in the specifications included with this Solicitation/Contract.

2.1. "Agency" or **"Agencies"** means the agency, board, commission, or other entity of the State of West Virginia that is identified on the first page of the Solicitation or any other public entity seeking to procure goods or services under this Contract.

2.2. "Bid" or "Proposal" means the vendors submitted response to this solicitation.

2.3. "Contract" means the binding agreement that is entered into between the State and the Vendor to provide the goods or services requested in the Solicitation.

2.4. "Director" means the Director of the West Virginia Department of Administration, Purchasing Division.

2.5. "Purchasing Division" means the West Virginia Department of Administration, Purchasing Division.

2.6. "Award Document" means the document signed by the Agency that identifies the Vendor as the contract holder.

2.7. "Solicitation" means the official notice of an opportunity to supply the State with goods or services.

2.8. "State" means the State of West Virginia and/or any of its agencies, commissions, boards, etc. as context requires.

2.9. "Vendor" or **"Vendors"** means any entity submitting a bid in response to the Solicitation, the entity that has been selected as the lowest responsible bidder, or the entity that has been awarded the Contract as context requires.

3. CONTRACT TERM; RENEWAL; EXTENSION: The term of this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below:

☑ **Term Contract**

Initial Contract Term: This Contract becomes effective on award date and extends for a period of one (1) year(s).

Renewal Term: This Contract may be renewed upon the mutual written consent of the Agency, and the Vendor. Any request for renewal should be delivered to the Agency thirty (30) days prior to the expiration date of the initial contract term or appropriate renewal term. A Contract renewal shall be in accordance with the terms and conditions of the original contract. Unless otherwise specified below, renewal of this Contract is limited to three (3) successive one (1) year periods or multiple renewal periods of less than one year, provided that the multiple renewal periods do not exceed the total number of months available in all renewal years combined. Automatic renewal of this Contract is prohibited.

☐ **Alternate Renewal Term** – This contract may be renewed for _____ successive _____ year periods or shorter periods provided that they do not exceed the total number of months contained in all available renewals. Automatic renewal of this Contract is prohibited. Renewals must be approved by the Vendor and Agency.

Delivery Order Limitations: In the event that this contract permits delivery orders, a delivery order may only be issued during the time this Contract is in effect. Any delivery order issued within one year of the expiration of this Contract shall be effective for one year from the date the delivery order is issued. No delivery order may be extended beyond one year after this Contract has expired.

☐ **Fixed Period Contract:** This Contract becomes effective upon Vendor's receipt of the notice to proceed and must be completed within _____ days.

☐ **Fixed Period Contract with Renewals:** This Contract becomes effective upon Vendor's receipt of the notice to proceed and part of the Contract more fully described in the attached specifications must be completed within _____ days. Upon completion of the work covered by the preceding sentence, the vendor agrees that maintenance, monitoring, or warranty services will be provided for _____ year(s) thereafter.

☐ **One Time Purchase:** The term of this Contract shall run from the issuance of the Award Document until all of the goods contracted for have been delivered, but in no event will this Contract extend for more than one fiscal year.

☐ **Other:** See attached.

4. NOTICE TO PROCEED: Vendor shall begin performance of this Contract immediately upon receiving notice to proceed unless otherwise instructed by the Agency. Unless otherwise specified, the fully executed Award Document will be considered notice to proceed.

5. QUANTITIES: The quantities required under this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below.

☑ **Open End Contract:** Quantities listed in this Solicitation are approximations only, based on estimates supplied by the Agency. It is understood and agreed that the Contract shall cover the quantities actually ordered for delivery during the term of the Contract, whether more or less than the quantities shown.

☐ **Service:** The scope of the service to be provided will be more clearly defined in the specifications included herewith.

☐ **Combined Service and Goods:** The scope of the service and deliverable goods to be provided will be more clearly defined in the specifications included herewith.

☐ **One Time Purchase:** This Contract is for the purchase of a set quantity of goods that are identified in the specifications included herewith. Once those items have been delivered, no additional goods may be procured under this Contract without an appropriate change order approved by the Vendor, Agency, Purchasing Division, and Attorney General's office.

6. EMERGENCY PURCHASES: The Purchasing Division Director may authorize the Agency to purchase goods or services in the open market that Vendor would otherwise provide under this Contract if those goods or services are for immediate or expedited delivery in an emergency. Emergencies shall include, but are not limited to, delays in transportation or an unanticipated increase in the volume of work. An emergency purchase in the open market, approved by the Purchasing Division Director, shall not constitute of breach of this Contract and shall not entitle the Vendor to any form of compensation or damages. This provision does not excuse the State from fulfilling its obligations under a One Time Purchase contract.

7. REQUIRED DOCUMENTS: All of the items checked below must be provided to the Agency by the Vendor as specified below.

☐ **PERFORMANCE BOND:** The apparent successful Vendor shall provide a performance bond in the amount of 100% of the contract value. The performance bond must be received by the Agency prior to Contract award.

☐ **LABOR/MATERIAL PAYMENT BOND:** The apparent successful Vendor shall provide a labor/material payment bond in the amount of 100% of the Contract value. The labor/material payment bond must be received by the Agency prior to Contract award.

☐ **MAINTENANCE BOND:** The apparent successful Vendor shall provide a two (2) year maintenance bond covering the roofing system. The maintenance bond must be issued and delivered to the Agency prior to Contract award.

☐ **LICENSE(S) / CERTIFICATIONS / PERMITS:** In addition to anything required under the Section of the General Terms and Conditions entitled Licensing, the apparent successful Vendor shall furnish proof of the following licenses, certifications, and/or permits prior to Contract award, in a form acceptable to the Agency.

☐

☐

☐

☐

The apparent successful Vendor shall also furnish proof of any additional licenses or certifications contained in the specifications prior to Contract award regardless of whether or not that requirement is listed above.

8. INSURANCE: The apparent successful Vendor shall furnish proof of the insurance identified by a checkmark below and must include the State as an additional insured on each policy prior to Contract award. The insurance coverages identified below must be maintained throughout the life of this contract. Thirty (30) days prior to the expiration of the insurance policies Vendor shall provide the Agency with proof that the insurance mandated herein has been continued. Vendor must also provide Agency with immediate notice of any changes in its insurance policies, including but not limited to, policy cancelation, policy reduction, or change in insurers. The apparent successful Vendor shall also furnish proof of any additional insurance requirements contained in the specifications prior to Contract award regardless of whether or not that insurance requirement is listed in this section.

Vendor must maintain:

☑ **Commercial General Liability Insurance** in at least an amount of: $100,000.00 per occurrence.

☑ **Automobile Liability Insurance** in at least an amount of: $100,000.00 per occurrence.

☐ **Professional/Malpractice/Errors and Omission Insurance** in at least an amount of: _____ per occurrence. Notwithstanding the forgoing, Vendor's are not required to list the State as an additional insured for this type of policy.

☐ **Commercial Crime and Third Party Fidelity Insurance** in an amount of: _____ per occurrence.

☐ **Cyber Liability Insurance** in an amount of: _____ per occurrence.

☐ **Builders Risk Insurance** in an amount equal to 100% of the amount of the Contract.

☐ **Pollution Insurance** in an amount of: _____ per occurrence.

☐ **Aircraft Liability** in an amount of: _____ per occurrence.

☐

☐

☐

☐

9. WORKERS' COMPENSATION INSURANCE: The apparent successful Vendor shall comply with laws relating to workers compensation, shall maintain workers' compensation insurance when required, and shall furnish proof of workers' compensation insurance upon request.

10. LIQUIDATED DAMAGES: This clause shall in no way be considered exclusive and shall not limit the State or Agency's right to pursue any other available remedy. Vendor shall pay liquidated damages in the amount specified below or as described in the specifications:

☐ _____ for _____

☐ Liquidated Damages Contained in the Specifications

11. ACCEPTANCE: Vendor's signature on its bid, or on the certification and signature page, constitutes an offer to the State that cannot be unilaterally withdrawn, signifies that the product or service proposed by vendor meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise indicated, and signifies acceptance of the terms and conditions contained in the Solicitation unless otherwise indicated.

12. PRICING: The pricing set forth herein is firm for the life of the Contract, unless specified elsewhere within this Solicitation/Contract by the State. A Vendor's inclusion of price adjustment provisions in its bid, without an express authorization from the State in the Solicitation to do so, may result in bid disqualification. Notwithstanding the foregoing, Vendor must extend any publicly advertised sale price to the State and invoice at the lower of the contract price or the publicly advertised sale price.

13. PAYMENT IN ARREARS: Payment in advance is prohibited under this Contract. Payment may only be made after the delivery and acceptance of goods or services. The Vendor shall submit invoices, in arrears.

14. PAYMENT METHODS: Vendor must accept payment by electronic funds transfer or P-Card. (The State of West Virginia's Purchasing Card program, administered under contract by a banking institution, processes payment for goods and services through state designated credit cards.)

15. ADDITIONAL FEES: Vendor is not permitted to charge additional fees or assess additional charges that were not either expressly provided for in the solicitation published by the State of West Virginia or included in the unit price or lump sum bid amount that Vendor is required by the solicitation to provide. Including such fees or charges as notes to the solicitation may result in rejection of vendor's bid. Requesting such fees or charges be paid after the contract has been awarded may result in cancellation of the contract.

16. TAXES: The Vendor shall pay any applicable sales, use, personal property or any other taxes arising out of this Contract and the transactions contemplated thereby. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.

17. FUNDING: This Contract shall continue for the term stated herein, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise made available, this Contract becomes void and of no effect beginning on July 1 of the fiscal year for which funding has not been appropriated or otherwise made available.

18. CANCELLATION: The State reserves the right to cancel this Contract immediately upon written notice to the vendor if the materials or workmanship supplied do not conform to the specifications contained in the Contract. The Agency may also cancel any purchase or Contract upon 30 days written notice to the Vendor in accordance with West Virginia Code of State Rules § 148-1-5.2.b.

19. TIME: Time is of the essence with regard to all matters of time and performance in this Contract.

20. APPLICABLE LAW: This Contract is governed by and interpreted under West Virginia law without giving effect to its choice of law principles. Any information provided in specification manuals, or any other source, verbal or written, which contradicts or violates the West Virginia Constitution, West Virginia Code or West Virginia Code of State Rules is void and of no effect.

21. COMPLIANCE WITH LAWS: Vendor shall comply with all applicable federal, state, and local laws, regulations and ordinances. By submitting a bid, Vendor acknowledges that it has reviewed, understands, and will comply with all applicable laws, regulations, and ordinances. Vendor shall notify all subcontractors providing commodities or services related to this Contract that as subcontractors, they too are required to comply with all applicable laws, regulations, and ordinances.

22. ARBITRATION: Any references made to arbitration contained in this Contract, Vendor's bid, or in any American Institute of Architects documents pertaining to this Contract are hereby deleted, void, and of no effect.

23. MODIFICATIONS: This writing is the parties' final expression of intent. Notwithstanding anything contained in this Contract to the contrary, no modification of this Contract shall be binding without mutual written consent of the Agency, and the Vendor.

24. WAIVER: The failure of either party to insist upon a strict performance of any of the terms or provision of this Contract, or to exercise any option, right, or remedy herein contained, shall not be construed as a waiver or a relinquishment for the future of such term, provision, option, right, or remedy, but the same shall continue in full force and effect. Any waiver must be expressly stated in writing and signed by the waiving party.

25. SUBSEQUENT FORMS: The terms and conditions contained in this Contract shall supersede any and all subsequent terms and conditions which may appear on any form documents submitted by Vendor to the Agency or Purchasing Division such as price lists, order forms, invoices, sales agreements, or maintenance agreements, and includes internet websites or other electronic documents. Acceptance or use of Vendor's forms does not constitute acceptance of the terms and conditions contained thereon.

26. ASSIGNMENT: Neither this Contract nor any monies due, or to become due hereunder, may be assigned by the Vendor without the express written consent of the Agency and any other government agency or office that may be required to approve such assignments.

27. WARRANTY: The Vendor expressly warrants that the goods and/or services covered by this Contract will: (a) conform to the specifications, drawings, samples, or other description

furnished or specified by the Agency; (b) be merchantable and fit for the purpose intended; and (c) be free from defect in material and workmanship.

28. STATE EMPLOYEES: State employees are not permitted to utilize this Contract for personal use and the Vendor is prohibited from permitting or facilitating the same.

29. PRIVACY, SECURITY, AND CONFIDENTIALITY: The Vendor agrees that it will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the Agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the Agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in http://www.state.wv.us/admin/purchase/privacy/default.html

30. YOUR SUBMISSION IS A PUBLIC DOCUMENT: Vendor's entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., and 5G-1-1 et seq. and the Freedom of Information Act West Virginia Code §§ 29B-1-1 et seq.

DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled "confidential," "proprietary," "trade secret," "private," or labeled with any other claim against public disclosure of the documents, to include any "trade secrets" as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

31. LICENSING: In accordance with West Virginia Code of State Rules § 148-1-6.1.e, Vendor must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agency or political subdivision. Obligations related to political subdivisions may include, but are not limited to, business licensing, business and occupation taxes, inspection compliance, permitting, etc. Upon request, the Vendor must provide all necessary releases to obtain information to enable the Purchasing Division Director or the Agency to verify that the Vendor is licensed and in good standing with the above entities. Vendor shall notify all subcontractors providing commodities or services related to this Contract that as subcontractors, they too are required to be licensed, in good standing, and up-to-date on all state and local obligations as described in this section.

32. ANTITRUST: In submitting a bid to, signing a contract with, or accepting an Award Document from any agency of the State of West Virginia, the Vendor agrees to convey, sell, assign, or transfer to the State of West Virginia all rights, title, and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular

commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to Vendor.

33. VENDOR CERTIFICATIONS: By signing its bid or entering into this Contract, Vendor certifies (1) that its bid or offer was made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, person or entity submitting a bid or offer for the same material, supplies, equipment or services; (2) that its bid or offer is in all respects fair and without collusion or fraud; (3) that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; and (4) that it has reviewed this Solicitation in its entirety; understands the requirements, terms and conditions, and other information contained herein. Vendor's signature on its bid or offer also affirms that neither it nor its representatives have any interest, nor shall acquire any interest, direct or indirect, which would compromise the performance of its services hereunder. Any such interests shall be promptly presented in detail to the Agency. The individual signing this bid or offer on behalf of Vendor certifies that he or she is authorized by the Vendor to execute this bid or offer or any documents related thereto on

Vendor's behalf; that he or she is authorized to bind the Vendor in a contractual relationship; and that, to the best of his or her knowledge, the Vendor has properly registered with any State agency that may require registration.

34. VENDOR RELATIONSHIP: The relationship of the Vendor to the State shall be that of an independent contractor and no principal-agent relationship or employer-employee relationship is contemplated or created by this Contract. The Vendor as an independent contractor is solely liable for the acts and omissions of its employees and agents. Vendor shall be responsible for selecting, supervising, and compensating any and all individuals employed pursuant to the terms of this Solicitation and resulting contract. Neither the Vendor, nor any employees or subcontractors of the Vendor, shall be deemed to be employees of the State for any purpose whatsoever. Vendor shall be exclusively responsible for payment of employees and contractors for all wages and salaries, taxes, withholding payments, penalties, fees, fringe benefits, professional liability insurance premiums, contributions to insurance and pension, or other deferred compensation plans, including but not limited to, Workers' Compensation and Social Security obligations, licensing fees, etc. and the filing of all necessary documents, forms, and returns pertinent to all of the foregoing. Vendor shall hold harmless the State, and shall provide the State and Agency with a defense against any and all claims including, but not limited to, the foregoing payments, withholdings, contributions, taxes, Social Security taxes, and employer income tax returns.

35. INDEMNIFICATION: The Vendor agrees to indemnify, defend, and hold harmless the State and the Agency, their officers, and employees from and against: (1) Any claims or losses for services rendered by any subcontractor, person, or firm performing or supplying services, materials, or supplies in connection with the performance of the Contract; (2) Any claims or losses resulting to an y person or entity injured or damaged by the Vendor, its officers, employees, or subcontractors by the publication, translation, reproduction, delivery,

performance, use, or disposition of any data used under the Contract in a manner not authorized by the Contract, or by Federal or State statutes or regulations; and (3) Any failure of the Vendor, its officers, employees, or subcontractors to observe State and Federal laws including, but not limited to, labor and wage and hour laws.

36. PURCHASING AFFIDAVIT: In accordance with West Virginia Code §§ 5A-3-10a and 5-22-1(i), the State is prohibited from awarding a contract to any bidder that owes a debt to the State or a political subdivision of the State, Vendors are required to sign, notarize, and submit the Purchasing Affidavit to the Purchasing Division affirming under oath that it is not in default on any monetary obligation owed to the state or a political subdivision of the state.

37. CONFLICT OF INTEREST: Vendor, its officers or members or employees, shall not presently have or acquire an interest, direct or indirect, which would conflict with or compromise the performance of its obligations hereunder. Vendor shall periodically inquire of its officers, members and employees to ensure that a conflict of interest does not arise. Any conflict of interest discovered shall be promptly presented in detail to the Agency.

38. REPORTS: Vendor shall provide the Agency and/or the Purchasing Division with the following reports identified by a checked box below:

☐ Such reports as the Agency and/or the Purchasing Division may request. Requested reports may include, but are not limited to, quantities purchased, agencies utilizing the contract, total contract expenditures by agency, etc.

☐ Quarterly reports detailing the total quantity of purchases in units and dollars, along with a listing of purchases by agency. Quarterly reports should be delivered to the Purchasing Division via email at purchasing.requisitions@wv.gov.

39. BACKGROUND CHECK: In accordance with W. Va. Code § 15-2D-3, the Director of the Division of Protective Services shall require any service provider whose employees are regularly employed on the grounds or in the buildings of the Capitol complex or who have access to sensitive or critical information to submit to a fingerprint-based state and federal background inquiry through the state repository. The service provider is responsible for any costs associated with the fingerprint-based state and federal background inquiry. After the contract for such services has been approved, but before any such employees are permitted to be on the grounds or in the buildings of the Capitol complex or have access to sensitive or critical information, the service provider shall submit a list of all persons who will be physically present and working at the Capitol complex to the Director of the Division of Protective Services for purposes of verifying compliance with this provision. The State reserves the right to prohibit a service provider's employees from accessing sensitive or critical information or to be present at the Capitol complex based upon results addressed from a criminal background check.

Service providers should contact the West Virginia Division of Protective Services by phone at (304) 558-9911 for more information.

40. PREFERENCE FOR USE OF DOMESTIC STEEL PRODUCTS: Except when authorized by the Director of the Purchasing Division pursuant to W. Va. Code § 5A-3-56, no contractor may use or supply steel products for a State Contract Project other than those steel

products made in the United States. A contractor who uses steel products in violation of this section may be subject to civil penalties pursuant to W. Va. Code § 5A-3-56. As used in this section:

a. "State Contract Project" means any erection or construction of, or any addition to, alteration of or other improvement to any building or structure, including, but not limited to, roads or highways, or the installation of any heating or cooling or ventilating plants or other equipment, or the supply of and materials for such projects, pursuant to a contract with the State of West Virginia for which bids were solicited on or after June 6, 2001.

b. "Steel Products" means products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated or otherwise similarly processed, or processed by a combination of two or more or such operations, from steel made by the open heath, basic oxygen, electric furnace, Bessemer or other steel making process. The Purchasing Division Director may, in writing, authorize the use of foreign steel products if:

c. The cost for each contract item used does not exceed one tenth of one percent (.1%) of the total contract cost or two thousand five hundred dollars ($2,500.00), whichever is greater. For the purposes of this section, the cost is the value of the steel product as delivered to the project; or

d. The Director of the Purchasing Division determines that specified steel materials are not produced in the United States in sufficient quantity or otherwise are not reasonably available to meet contract requirements.

41. PREFERENCE FOR USE OF DOMESTIC ALUMINUM, GLASS, AND STEEL: In Accordance with W. Va. Code § 5-19-1 et seq., and W. Va. CSR § 148-10-1 et seq., for every contract or subcontract, subject to the limitations contained herein, for the construction, reconstruction, alteration, repair, improvement or maintenance of public works or for the purchase of any item of machinery or equipment to be used at sites of public works, only domestic aluminum, glass or steel products shall be supplied unless the spending officer determines, in writing, after the receipt of offers or bids, (1) that the cost of domestic aluminum, glass or steel products is unreasonable or inconsistent with the public interest of the State of West Virginia, (2) that domestic aluminum, glass or steel products are not produced in sufficient quantities to meet the contract requirements, or (3) the available domestic aluminum, glass, or steel do not meet the contract specifications. This provision only applies to public works contracts awarded in an amount more than fifty thousand dollars ($50,000) or public works contracts that require more than ten thousand pounds of steel products.

The cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than twenty percent (20%) of the bid or offered price for foreign made aluminum, glass, or steel products. If the domestic aluminum, glass or steel products to be supplied or produced in a "substantial labor surplus area", as defined by the United States Department of Labor, the cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than thirty percent (30%) of the bid or offered price for foreign made aluminum, glass, or steel products.

This preference shall be applied to an item of machinery or equipment, as indicated above, when the item is a single unit of equipment or machinery manufactured primarily of aluminum, glass or steel, is part of a public works contract and has the sole purpose or of being a permanent part of a single public works project. This provision does not apply to equipment or machinery purchased by a spending unit for use by that spending unit and not as part of a single public works project.

All bids and offers including domestic aluminum, glass or steel products that exceed bid or offer prices including foreign aluminum, glass or steel products after application of the preferences provided in this provision may be reduced to a price equal to or lower than the lowest bid or offer price for foreign aluminum, glass or steel products plus the applicable preference. If the reduced bid or offer prices are made in writing and supersede the prior bid or offer prices, all bids or offers, including the reduced bid or offer prices, will be reevaluated in accordance with this rule.

ADDITIONAL TERMS AND CONDITIONS (Construction Contracts Only)

1. CONTRACTOR'S LICENSE: West Virginia Code § 21-11-2 requires that all persons desiring to perform contracting work in this state be licensed. The West Virginia Contractors Licensing Board is empowered to issue the contractor's license. Applications for a contractor's license may be made by contacting the West Virginia Division of Labor. West Virginia Code § 21-11-11 requires any prospective Vendor to include the contractor's license number on its bid. If an apparent low bidder fails to submit a license number in accordance with this section, the Purchasing Division will promptly request by telephone and electronic mail that the low bidder and the second low bidder provide the license number within one business day of the request. Failure of the bidder to provide the license number within one business day of receiving the request shall result in disqualification of the bid. Vendors should include a contractor's license number in the space provided below.

Contractor's Name: URETEK USA, Inc.

Contractor's License No.: WV-28769

The apparent successful Vendor must furnish a copy of its contractor's license prior to the issuance of a contract award document

2. AIA DOCUMENTS: All construction contracts that will be completed in conjunction with architectural services procured under Chapter 5G of the West Virginia Code will be governed by the attached AIA documents, as amended by the Supplementary Conditions for the State of West Virginia, in addition to the terms and conditions contained herein.

2A. PROHIBITION AGAINST GENERAL CONDITIONS: Notwithstanding anything contained in the AIA Documents or the Supplementary Conditions, the State of West Virginia will not pay for general conditions, or winter conditions, or any other condition representing a delay in the contract. The Vendor is expected to mitigate delay costs to the greatest extent possible and any costs associated with Delays must be specifically and concretely identified. The state will not consider an average daily rate multiplied by the number of days extended to be an acceptable charge.

3. GREEN BUILDINGS MINIMUM ENERGY STANDARDS: In accordance with § 22-29-4, all new building construction projects of public agencies that have not entered the schematic design phase prior to July 1, 2012, or any building construction project receiving state grant funds and appropriations, including public schools, that have not entered the schematic design phase prior to July 1, 2012, shall be designed and constructed complying with the ICC International Energy Conservation Code, adopted by the State Fire Commission, and the ANSI/ASHRAE/IESNA Standard 90.1-2007: Provided, That if any construction project has a commitment of federal funds to pay for a portion of such project, this provision shall only apply to the extent such standards are consistent with the federal standards.

ADDITIONAL TERMS AND CONDITIONS
(Architectural and Engineering Contracts Only)

1. PLAN AND DRAWING DISTRIBUTION: All plans and drawings must be completed and available for distribution at least five business days prior to a scheduled pre-bid meeting for the construction or other work related to the plans and drawings.

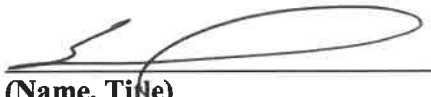
2. PROJECT ADDENDA REQUIREMENTS: The Architect/Engineer and/or Agency shall be required to abide by the following schedule in issuing construction project addenda. The Architect/Engineer shall prepare any addendum materials for which it is responsible, and a list of all vendors that have obtained drawings and specifications for the project. The Architect/Engineer shall then send a copy of the addendum materials and the list of vendors to the State Agency for which the contract is issued to allow the Agency to make any necessary modifications. The addendum and list shall then be forwarded to the Purchasing Division buyer by the Agency. The Purchasing Division buyer shall send the addendum to all interested vendors and, if necessary, extend the bid opening date. Any addendum should be received by the Purchasing Division at least fourteen (14) days prior to the bid opening date.

3. PRE-BID MEETING RESPONSIBILITIES: The Architect/Engineer shall be available to attend any pre-bid meeting for the construction or other work resulting from the plans, drawings, or specifications prepared by the Architect/Engineer.

4. AIA DOCUMENTS: All construction contracts that will be completed in conjunction with architectural services procured under Chapter 5G of the West Virginia Code will be governed by the attached AIA documents, as amended by the Supplementary Conditions for the State of West Virginia, in addition to the terms and conditions contained herein. The terms and conditions of this document shall prevail over anything contained in the AIA Documents or the Supplementary Conditions.

5. GREEN BUILDINGS MINIMUM ENERGY STANDARDS: In accordance with West Virginia Code § 22-29-4, all new building construction projects of public agencies that have not entered the schematic design phase prior to July 1, 2012, or any building construction project receiving state grant funds and appropriations, including public schools, that have not entered the schematic design phase prior to July1, 2012, shall be designed and constructed complying with the ICC International Energy Conservation Code, adopted by the State Fire Commission, and the ANSI/ASHRAE/IESNA Standard 90.1-2007: Provided, That if any construction project has a commitment of federal funds to pay for a portion of such project, this provision shall only apply to the extent such standards are consistent with the federal standards.

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.



(Name, Title)

Edward Hibbard

(Printed Name and Title)

13900 Humble Rd. Tomball, Tx. 77375

(Address)

281-351-7800 281-351-0884

(Phone Number) / (Fax Number)

ehibbard@uretekusa.com

(E-mail address)

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

URETEK USA, Inc.

(Company)

(Authorized Signature) (Representative Name, Title)

Edward Hibbard VP Sales

(Printed Name and Title of Authorized Representative)

11-8-19

(Date)

281-351-7800 281-351-0884

(Phone Number) (Fax Number)

ADDENDUM ACKNOWLEDGEMENT FORM

SOLICITATION NO.: ARFQDOT2000000015

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification. Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

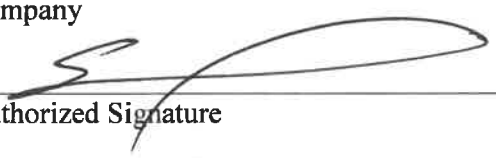
Addendum Numbers Received:
(Check the box next to each addendum received)

- [x] Addendum No. 1
- [ ] Addendum No. 2
- [ ] Addendum No. 3
- [ ] Addendum No. 4
- [ ] Addendum No. 5
- [ ] Addendum No. 6
- [ ] Addendum No. 7
- [ ] Addendum No. 8
- [ ] Addendum No. 9
- [ ] Addendum No. 10

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

URETEK USA, Inc.

Company



Authorized Signature

11-8-19

Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.

SPECIFICATIONS

1. **PURPOSE AND SCOPE:** The West Virginia Purchasing Division is soliciting bids on behalf of the West Virginia Division of Highways – District Five to establish an open-end contract for undersealing and slabjacking concrete pavement, as needed, utilizing a two-part 1:1 by volume, water resistant, high density polyurethane method. District Five consists of Berkeley, Grant, Hampshire, Hardy, Jefferson, Mineral and Morgan counties.

   Work shall consist of soil densification to strengthen base and sub-base soils under flexible asphalt, concrete, or composite pavement, and structures such as bridge approaches with sleeper slabs, by furnishing and injecting expansive polyurethane material into the foundation soils beneath the pavement through holes or injection tubes inserted into drilled holes at locations and depths, as shown on the plans or as directed by the Engineer, while monitoring for movement at the surface. If necessary, injection of material shall continue as needed to lift the pavement to grade.

2. **DEFINITIONS:** The terms listed below shall have the meanings assigned to them below. Additional definitions can be found in section 2 of the General Terms and Conditions.

   2.1 "Contract Item" or **"Contract Items"** means the list of items identified in Section 3.1 below and on the Pricing Pages.

   2.2 "Pricing Pages" means the schedule of prices, estimated order quantity, and totals contained in wvOASIS or attached hereto as Exhibit A, and used to evaluate the Solicitation responses.

   2.3 "Solicitation" means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division.

   2.4 "WVDOH" used throughout this Solicitation means the West Virginia Division of Highways.

   2.5 "ASTM" used throughout this Solicitation means American Society for Testing and Materials. Reference: www.astm.org

   2.6 "ANSI" used throughout this Solicitation means American National Standards Institute Manual. Reference: www.ansi.org

   2.7 "OSHA" used throughout this Solicitation means Occupational Safety and Healthy Administration. Reference: hhtps://www.osha.gov/

2.8 "Contractor" or "Vendor" used throughout this Solicitation are interchangeable.

3. GENERAL REQUIREMENTS:

3.1 Contract Items and Mandatory Requirements: Vendor shall provide Agency with the Contract Items listed below on an open-end and continuing basis. Contract Items must meet or exceed the mandatory requirements as shown below.

3.1.1 High Density Polyurethane Material:
Prior to the start of work, provide a supplier certification with each shipment for review. Certify that the material conforms to the following requirements for property test results and properties listed in this section:

PROPERTY	TEST	RESULTS
Density, lbs./cu. ft.	ASTM D-1622	3.8 - 4.2
Compressive Strength, psi (min.)	ASTM D-1621	60
Tensile Strength, psi (min.)	ASTM D-1623	90
Shear Strength, psi (min.)	ASTM C-273	45
Flexural Strength, psi (min.)	ASTM D-790	90
Closed Cell content (%)	ASTM D-1940	+85

High-density polyurethane shall reach 90% compressive strength within 30 minutes of injection. The material used shall be a two-part 1:1 by volume HDPF: URETEK 486 STAR or approved equal. The material shall be water blown, not chemical blown. The material shall be a polyurethane-forming mixture, having a water insoluble diluent, which permits the formation of polyurethanes in excess water. The presence of these water insoluble diluents provides polyurethane foam with improved dimensional stability properties. The presence of a water insoluble diluent and the characteristics and properties listed above must be certified by the manufacturer. The certification shall be submitted with the bid documents.

The polymer must pass the NYSDOT Panel Test for hydro-insensitivity. See Exhibit B for description and requirements of this testing procedure. Contractor must submit a certificate from an independent testing lab under the supervision and review of a licensed Professional Engineer certifying that the polyurethane material meets or exceeds the limits set forth in the panel test specification. The certification from the third-party testing lab shall be submitted with the bid documents.

3.1.2 Non-Shrink Grout to Patch Drill Holes:
Supplied by an approved manufacturer and used within the shelf life and temperature limitation set by the manufacturer.

3.1.3 Equipment Requirements:

3.1.3.1 Portable Dynamic Cone Penetrometer (DCP): Contractor is to provide a portable DCP for on-site soils investigation to assist in location and depth of weak foundation soils and determination of correct injection pattern and injection elevations through tubes to densify weak soils. The DCP is to be a Pagani DPM 30 or similar, capable of taking readings up to 30 feet below grade. Dynamic cone penetrometer testing may be required as directed by the Engineer to confirm existing sub-grade soil conditions. The Contractor shall submit with the bid documents the name, model number, and a description of the DCP unit that they will use on projects.

3.1.3.2 Pumping Units: As a minimum, 3 trucks in the equipment fleet, each with 2 mounted pumping units capable of injecting the polyurethane material at a controlled rate into the aggregate base, subbase, or foundation soils to the required depth(s). Ensure the pumping units are equipped with certified flow meters to precisely measure the amount of each component injected, so that the 1:1 ratio by volume is maintained for quality control and a certified volume of injected polymer material obtained for proper payment. Ensure that the units are equipped with pressure and temperature control devices capable of maintaining proper temperature and proportionate mixing of the two chemical components. The Contractor shall submit with the bid documents an equipment list including the VIN number and license plate numbers of all their production trucks, and the VIN number and license plate numbers of any other equipment that may be used on projects.

3.1.3.3 Drills: Pneumatic or electric drills are required, capable of efficiently drilling 5/8" injection holes through the pavement without damaging the structural integrity of the existing pavement as per the Drawings, or as indicated on the Field Quality Control plan, as approved by the Representative.

3.1.3.4 Equipment for Monitoring Movement: Contractor must supply satisfactory equipment such as rotating laser levels and receivers to

monitor movement of pavement to within 1mm, to verify that the injected voids and base material have been properly densified and to ensure proper lift of pavement to grade if required. Supply satisfactory differential fault meters to monitor movement of bridge approach at abutment walls and for correction of faulted jointed pavement. Supply satisfactory horizontal movement monitoring equipment when injecting in the vicinity of MSE walls.

3.1.4 Procedure

3.1.4.1 **Drilling Holes and Installation of Injection Tubes:** Drill injection holes in the pattern shown on the Standard Drawings, or as indicated on the Field Quality Control plan, as approved by the Representative. Drill 5/8" diameter holes, vertical and round, and to a depth indicated on the approved Field Quality Control plan.

3.1.4.2 **Mixing:** Using the flow meters, a quality check shall be performed on the ratio of the two-part chemical system. The part A (Resin) to the part B (ISO) ratio by volume should be 1:1. Prior to performing the work each day, the contractor shall reset the flow meters on the pumping units to zero. The contractor shall perform a test shot of material from 1 injection gun at a time with a minimum of 0.5 gallons of each material, comparing the digital output in gallons of resin to the gallons of ISO to determine the injected ratio. If the ratio is less than 0.95 or greater than 1.05, the system is to be checked for problems, adjusted, and the ratio rechecked until a proper ratio is assured. Contractor shall repeat the quality check for all the injection guns to be used on the project. The Contractor shall submit with other bid documents the most recent calibration documents for the flow meters.

3.1.4.3 Pavement Foundation Soil Stabilization: Inject the high-density polyurethane material through holes, beneath the pavement to the prescribed depth or depths. Control the stabilization of the concrete by regulating the rate of injection of the material. Continuously monitor for movement of the pavement. Pavement is sufficiently stabilized when movement

of the pavement is detected. Injection may continue as needed to lift the pavement to grade. If no vertical movement has occurred, the Representative may direct the Contractor to cease injecting.

3.1.4.4 Hole Patching: Push down or drill out injection tubing down 3" below the pavement surface and install a rapid set, non-shrink patching material into the drilled-out hole. Strike patches flush with the surface of the surrounding pavement.

3.1.4.5 Opening to Traffic: Injected pavement may be opened to traffic within 30 minutes of final injection of polyurethane material as material is at a minimum 90% strength within 30 minutes. Pavement shall be free of debris and swept clean prior to opening to traffic.

3.1.4.6 Mobilization:

3.1.4.6.1 Standard Projects: The awarded Contractor must have at least two qualified crews readily available for deployment to work in multiple locations simultaneously. The vendor shall have 14 working days to perform all work and operations necessary to load and unload equipment, move personnel, supplies and incidentals to and from the project site to accomplish all other miscellaneous associated work items or operations that must be performed, including cost that must be incurred, to mobilize and begin work on a standard project.

3.1.4.6.2 Emergency Projects: The vendor shall have 48 hours or an agreed upon timeframe between the WVDOH and the Contractor to perform all work and operations necessary to mobilize and begin work on an emergency project including all of the same procedures as a standard project listed in Section 3.1.4.6.1.

If the equipment can be transported under its own power to an adjacent site within a reasonable distance, as agreed upon by the WVDOH and the Contractor, mobilization/demobilization will not be paid by the WVDOH for the second site.

3.2 Contractor's Experience and Personnel Requirements

3.2.1 The Contractor and his personnel shall meet the following requirements listed in this section. The awarded Contractor must have at least two qualified crews readily available for deployment to work in multiple locations simultaneously.

3.2.1.1 Contractor must assign a crew supervisor that has at least 3 years of experience in stabilization of pavement foundation soils by injecting two-part 1:1 by volume expansive polymers through holes or tubes into soils, while monitoring at the surface for movement to demonstrate sufficient densification of the soils. The Contractor shall submit with the bid documents a list of all supervisors, lead mean, and technicians with their years of experience. Failure to do so will result in a disqualified bid.

3.2.1.2 Crews shall have a minimum of 1 supervisor, 1 lead man, 1 technician, and 1 helper.

3.2.1.3 The Contractor, as well as the project supervisor, proposed for the project must have a minimum 3 years of experience injecting 1:1 by volume, two-part, expansive polymers through holes while monitoring at the surface of the pavement for movement to demonstrate sufficient stabilization. As part of the bid submittal, the Contractor shall submit evidence of prior experience: 3 awarded contracts by separate State DOT clients for each of the previous 3 years.

3.2.1.4 The Contractor must have as an employee of the company, a licensed professional engineer (P.E.) with a minimum of 3 years of experience in stabilization of pavement by injecting 1:1 by volume, two-part, expansive polymers through tubes,

into soils while monitoring at the surface of the pavement for movement to demonstrate sufficient stabilization of the pavement. The Contractor shall submit with the bid documents the name, hire date, and resume of the registered professional engineer.

3.3 Safety Requirements

3.3.1 The Contractor must have a comprehensive Safety Manual pertaining to the equipment, material, and process, demonstrating capability of safely conducting the work specific to undersealing and stabilizing pavement with a two-part, 1:1 by volume polymer.

3.3.2 The Contractor shall be responsible for meeting all federal, state and local safety code requirements including OSHA, WV OSHA and accepted industry standards requirements.

3.3.3 The Contractor's staff/crew shall obey all traffic and safety rules and regulations and shall not create any hazardous conditions with the operation of the equipment. All Contractor supplied equipment, tools and personal safety equipment shall meet or exceed the safety standards specified for such items by ANSI Z133.1-1994.

3.3.4 All staff/crew shall wear approved hard hat, protective clothing, ANSI approved safety vets and any other requirements to meet OSHA standards.

4. CONTRACT AWARD:

4.1 Contract Award: The Contract is intended to provide Agencies with a purchase price on all Contract Items. The Contract shall be awarded to the Vendor that provides the Contract Items meeting the required specifications for the lowest overall total cost as shown on the Pricing Pages. Vendor must be able to do work in all counties of District Five: Berkeley, Grant, Hardy, Hampshire, Jefferson, Mineral and Morgan.

4.2 Pricing Pages: Vendor should complete the Pricing Pages by providing a Unit price per item. Vendor should complete the Pricing Pages in their entirety as failure to do so may result in Vendor's bids being disqualified.

The Pricing Pages contain a list of the Contract Items and estimated purchase volume. The estimated purchase volume for each item represents the approximate volume of anticipated purchases only. No future use of the Contract or any individual item is guaranteed or implied.

Each unit price shall include labor, equipment, materials and incidental costs associated with the Contract Item being bid.

Vendor should electronically enter the information into the Pricing Pages through wvOASIS, if available, or as an electronic document. In most cases, the Vendor can request an electronic copy of the Pricing Pages for bid purposes by sending an email request to the following address: Crystal.G.Hustead@wv.gov.

5. ORDERING AND PAYMENT:

5.1 Ordering: Vendor shall accept orders through wvOASIS, regular mail, facsimile, e-mail, or any other written form of communication. Vendor may, but is not required to, accept on-line orders through a secure internet ordering portal/website. If Vendor has the ability to accept on-line orders, it should include in its response a brief description of how Agencies may utilize the on-line ordering system. Vendor shall ensure that its on-line ordering system is properly secured prior to processing Agency orders on-line.

5.2 Payment: Vendor shall accept payment in accordance with the payment procedures of the State of West Virginia. Payment will be based on pounds as measured by certified flow meters on each of the two chemical components and totaled to indicate total pounds of material. Mobilization should be listed separately or indicated they are included in the "per pound price". If drilling holes and incidentals are not included in the "per pound price", they should be listed separately as well.

6. DELIVERY AND RETURN:

6.1 Delivery Time: Vendor shall deliver standard orders within 14 working days or an agreed upon acceptable date by the WVDOH and Vendor. Vendor shall deliver emergency orders within 48 hours or an agreed upon acceptable date by the WVDOH and Vendor. Vendor shall ship all orders in accordance with the above schedule and

shall not hold orders until a minimum delivery quantity is met.

Starting times and scheduled hours may vary and will be at the discretion of the WVDOH District Engineer. All work performed under this contract shall be performed Monday through Friday. Saturday work may be performed if approved in advance by the WVDOH District Engineer. Work will not be performed on any state or federal holiday unless approved in advance by the WVDOH District Engineer.

6.2 Late Delivery: The Agency placing the order under this Contract must be notified in writing if orders will be delayed for any reason. Any delay in delivery that could cause harm to an Agency will be grounds for cancellation of the delayed order, and/or obtaining the items ordered from a third party.

Any Agency seeking to obtain items from a third party under this provision must first obtain approval of the Purchasing Division.

6.3 Delivery Payment/Risk of Loss: Standard order delivery shall be F.O.B. destination to the Agency's location. Vendor shall include the cost of standard order delivery charges in its bid pricing/discount and is not permitted to charge the Agency separately for such delivery. The Agency will pay delivery charges on all emergency orders provided that Vendor invoices those delivery costs as a separate charge with the original freight bill attached to the invoice.

6.4 Return of Unacceptable Items: If the Agency deems the Contract Items to be unacceptable, the Contract Items shall be returned to Vendor at Vendor's expense and with no restocking charge. Vendor shall either make arrangements for the return within five (5) days of being notified that items are unacceptable or permit the Agency to arrange for the return and reimburse Agency for delivery expenses. If the original packaging cannot be utilized for the return, Vendor will supply the Agency with appropriate return packaging upon request. All returns of unacceptable items shall be F.O.B. the Agency's location. The returned product shall either be replaced, or the Agency shall receive a full credit or refund for the purchase price, at the Agency's discretion.

6.5 Return Due to Agency Error: Items ordered in error by the Agency will be returned for credit within 30 days of receipt, F.O.B. Vendor's location. Vendor shall not charge a restocking fee if returned products are in a resalable condition. Items shall be deemed to be in a resalable condition if they are unused and in the original packaging. Any restocking fee for items not in a resalable condition shall be the lower of the Vendor's customary restocking fee or 5% of the total invoiced value of the returned items.

7. VENDOR DEFAULT:

7.1 The following shall be considered a vendor default under this Contract.

7.1.1 Failure to provide Contract Items in accordance with the requirements contained herein.

7.1.2 Failure to comply with other specifications and requirements contained herein.

7.1.3 Failure to comply with any laws, rules, and ordinances applicable to the Contract Services provided under this Contract.

7.1.4 Failure to remedy deficient performance upon request.

7.2 The following remedies shall be available to Agency upon default.

7.2.1 Immediate cancellation of the Contract.

7.2.2 Immediate cancellation of one or more release orders issued under this Contract.

7.2.3 Any other remedies available in law or equity.

8. MISCELLANEOUS:

8.1 No Substitutions: Vendor shall supply only Contract Items submitted in response to the Solicitation unless a contract modification is approved in accordance with the provisions contained in this Contract.

8.2 Vendor Supply: Vendor must carry sufficient inventory of the Contract Items being offered to fulfill its obligations under this Contract. By signing its bid, Vendor certifies that it can supply the Contract Items contained in its bid response.

8.3 Reports: Vendor shall provide quarterly reports and annual summaries to the Agency showing the Agency's items purchased, quantities of items purchased, and total dollar value of the items purchased. Vendor shall also provide reports, upon request, showing the items purchased during the term of this Contract, the quantity purchased for each of those items, and the total value of purchases for each of those items. Failure to supply such reports may be grounds for cancellation of this Contract.

8.4 Contract Manager: During its performance of this Contract, Vendor must designate and maintain a primary contract manager responsible for overseeing Vendor's responsibilities under this Contract. The Contract manager must be available during normal business hours to address any customer service or other issues related to this Contract. Vendor should list its Contract manager and his or her contact information below.

Contract Manager: _____
Telephone Number: 281-351-7800
Fax Number: 281-351-0884
Email Address: chibbard@uretekusa.com

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

CONSTRUCTION CONTRACTS: Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

ALL CONTRACTS: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (*W. Va. Code* §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: URETEK USA, INC.

Authorized Signature: _____ Date: 11-8-19

State of Texas

County of Harris, to-wit:

Taken, subscribed, and sworn to before me this 8th day of November, 2019.

My Commission expires 10-26, 2023.

AFFIX SEAL HERE

THERESA UHLMANN
My Notary ID # 11776045
Expires October 26, 2023

NOTARY PUBLIC Theresa Uhlmann

PRICING PAGE - EXHIBIT A
052C0158/DOT 20*07
ROADWAY SETTLEMENT STABILIZATION

Item Number	Unit of Measure	Description	Unit Price	Estimated Quantity	Total Item Cost
1	POUND	EXPANSIVE POLYURETHANE MATERIAL		50,000	$ -
2	EACH	PRICE PER INJECTION (IF NOT INCLUDED IN PRICE PER POUND OF EXPANSIVE POLYURETHANE MATERIAL)		1500	$ -
3	EACH	MOBILIZATION FEE		12	$ -
4	EACH	EMERGENCY MOBILIZATION FEE		2	$ -
5	EACH	2 YEAR WARRANTY WITH DCP		14	$ -
			Total Bid Amount		$0.00

Vendor Information	
Company Name	URETEK USA, INC.
Contract Manager	Edward Hibbard / V P Sales
Address	13900 Humble Rd. Tomball, Tx. 77375
Phone Number	281-351-7800
Email	ehibbard@uretekusa.com
Signature	

GTP-9

TEST PROCEDURE FOR HYDRO-INSENSITIVITY OF HIGH DENSITY POLYURETHANE GROUT – PANEL TEST

GEOTECHNICAL TEST PROCEDURE
GTP-9
Revision #1

AUGUST 2015

NEW YORK STATE OF OPPORTUNITY. Department of Transportation | Office of Technical Services | Geotechnical Engineering Bureau

GEOTECHNICAL TEST PROCEDURE:
HYDRO-INSENSITIVITY OF HIGH DENSITY POLYURETHANE GROUT – PANEL TEST

GTP-9
Revision #1

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION

GEOTECHNICAL ENGINEERING BUREAU

AUGUST 2015

TABLE OF CONTENTS

1. SCOPE

1.1 This procedure is used to demonstrate that the high density polyurethane material meets the 90% density and compressive strength requirements in dry and wet conditions.

2 APPLICABLE DOCUMENTS

2.1 ASTM D 1622 Standard Test Method for Apparent Density of Rigid Cellular Plastics.
2.2 ASTM D 1621 Standard Test Method for Compressive Properties of Rigid Cellular Plastics.
2.3 ASTM D 1623 Standard Test Method for Tensile and Tensile Adhesion Properties of Rigid Cellular Plastics.
2.4 NYSDOT Geotechnical Test Procedure (GTP-8) Test Procedure for Hydro-Insensitivity of High Density Polyurethane Grout – Barrel Test.

3 TERMINOLOGY

3.1 **Slabjacking** is used to correct settlement and stability problems associated with concrete slabs positioned over unstable ground materials. As defined in *Ground Improvement Technology Manual*, FHWA DP-3 (1996), slabjacking procedures include:

- ✓ Raising or leveling;
- ✓ Under-slab void filling (no raising);
- ✓ Grouting slab joints; and
- ✓ Asphalt subsealing.

Proprietary methods for slabjacking utilize chemical grouts to create a reaction to fill the void, seal the crack, or create uplift pressure to realign the slab.

3.2 **Hydrophilic** chemical grouts can produce either closed cell foam or a non-cellular gel when mixed with water. Hydrophilic chemical grout attracts water and is able to bond to wet surfaces. This product seeks out water as it reacts and allows the resin to work its way into water filled pores. Hydrophilic chemical grouts are flexible and resilient after full cure and will allow movement to occur in the structure without damaging the seal or bond.

3.3 **Hydrophobic** chemical grouts require a catalyst that is blended into the resin prior to installation. The dosage of catalyst added to the resin controls the reaction time and the volume of foam produced. Hydrophobic chemical grouts repel water after activation. Hydrophobic resins cure rigid and do not recover from compression. Hydrophobic chemical grout is low viscosity and permeates loose and non-consolidated soils readily.

4 SUMMARY OF METHOD

4.1 This laboratory test procedure is used to ensure that the High Density Polymer Material maintains 90% of the density of the dry polyurethane grout when injected directly into water.

4.2 Hydro-insensitivity is the inherent chemical property of a material to be unaffected by water (i.e. to behave in such a manner as if there was no water present). For hydro-insensitive polyurethanes (hydrophobic), the reacting components will polymerize even in the presence of water. This procedure tests and compares dry injection shots and wet injection shots.

5 SIGNIFICANCE AND USE

5.1 Polyurethane grouting is a grouting technique that employs a high density expanding polymer used as fill to densify and stabilize low-density compressible soils. The process may be used to fill voids beneath concrete slabs, or behind walls, or may be used to cutoff water flow through concrete joints. The grout, injected through predrilled injection ports, or "packers", expands under reaction to fill the crack or void. Polyurethane grouts can be single or multi-component grouts and can react when coming in contact with water or require a reactant.

6 APPARATUS

6.1 Provide a wood box constructed of 2" x 4" framing and ¾" thick plywood on the top and bottom as indicated in the detail. The box dimensions will be 48" in length and 48" in width by 3" in depth. Ensure that the bottom seams of the box are sealed with latex caulk so that the box is capable of holding water. Provide an injection tube with ½" diameter steel or copper tubing on the top in the center of the box for injecting HDP material. The plywood on the top of the box will be fixed with 1½" long wood screws. The inside of the box will also contain four 2" x 4" blocks (3½" by 9" by 1½" in dimension) spaced equidistant at 9½" from the injection tube and parallel to the sides of the box.

6.2 Provide a stop watch to keep time.

6.3 Provide axle grease to coat the inside of the box so that the HDP material can be easily removed.

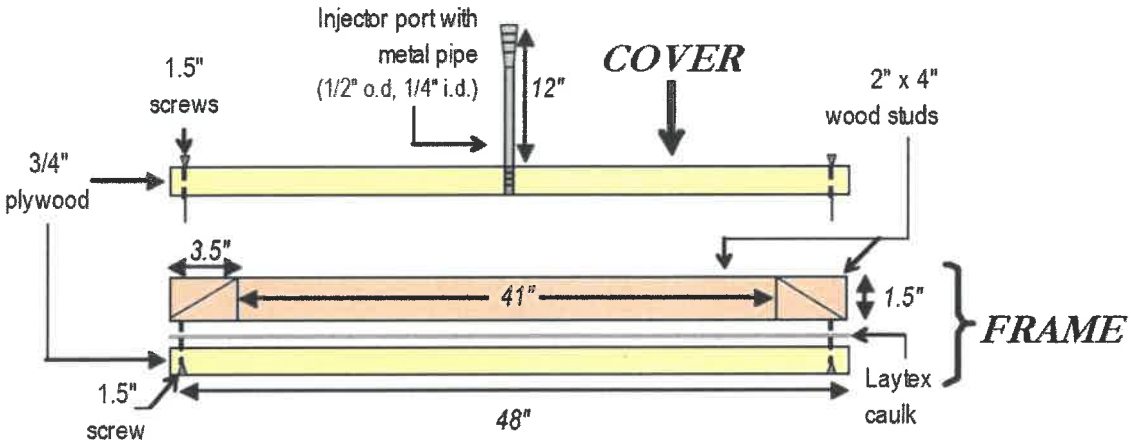


Figure 1 Apparatus - Side View

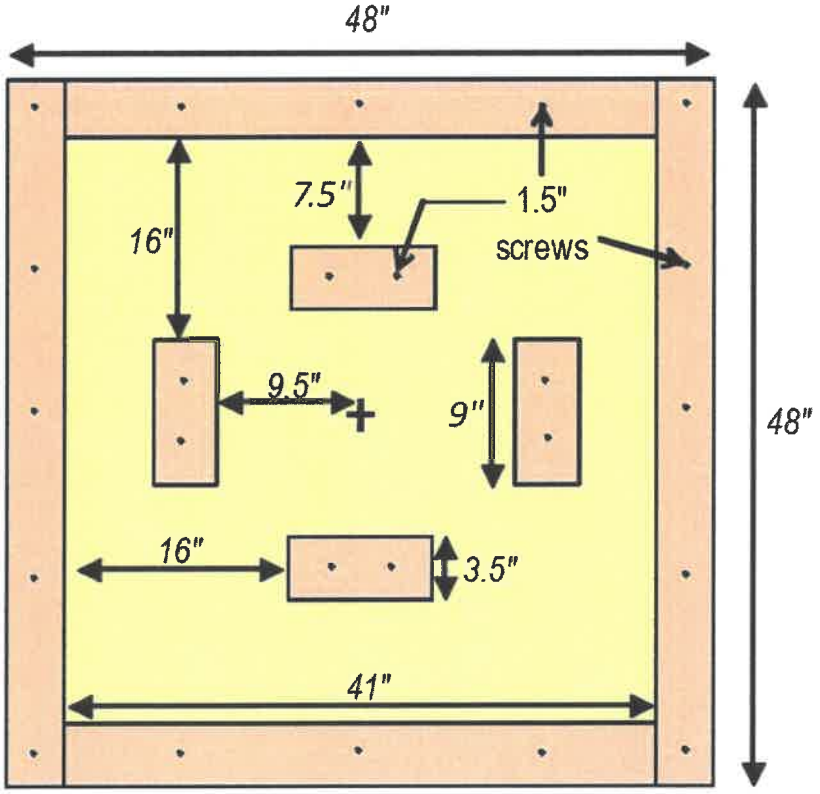


Figure 2 Apparatus – Top View (Frame)

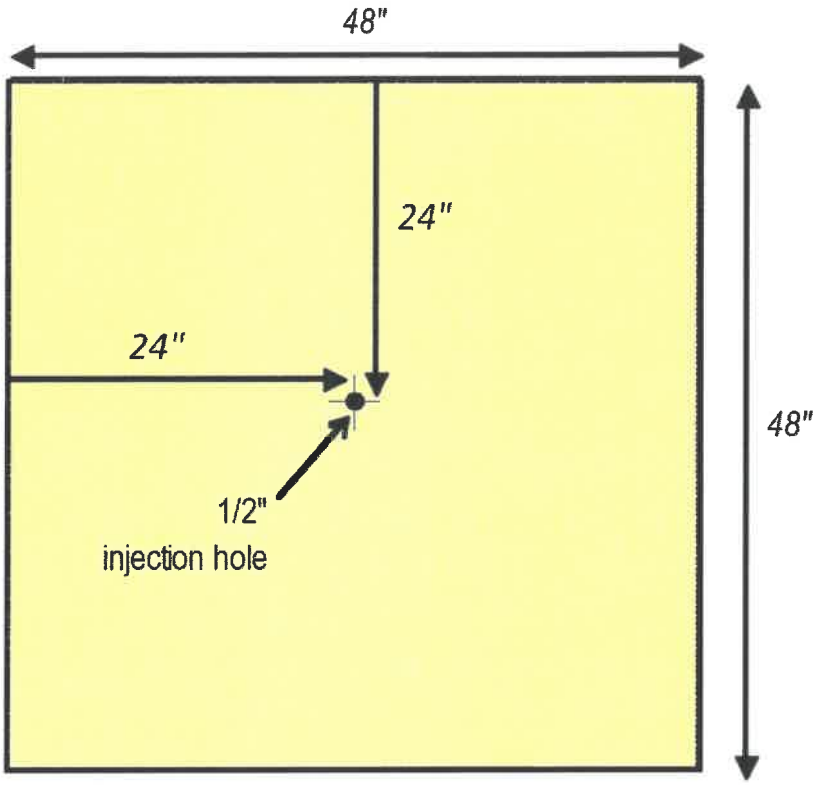


Figure 3 Apparatus – Top View (Cover)

7 PROPORTIONING EQUIPMENT

7.1 Record the type and setting of the metering and proportioning equipment for the HDP material.
7.2 Record the temperature of components A and B, air temperature and water temperature.
7.3 Record the pressure settings for components A and B.

8 PROCEDURE

8.1 Place the box on a flat and level surface.
8.2 Coat the inside surface with a light coating of axle grease so that the HDP material can be easily removed.
8.3 Fix the top cover of the box with 1½" wood screws to provide the necessary confinement for the HDP material.

8.4 Perform a calibration injection of the HDP material and record the time required to inject 5 lbs. of material. Record the time. Weigh the sample to check against the certified flow meter weights to ensure correct calibration.

8.5 Inject the HDP material into the box using 5 lbs. of material. After 10 minutes of completing the injection, remove the top cover off the box. After 30 minutes, sample the HDP material for density (ASTM D1622) and compressive strength (ASTM D1621) testing. Density and compressive strength samples shall be taken from the center portion of the box in the interior of the 2" x 4" blocks.

8.6 Repeat steps 8.2 and 8.3. Add 15 lbs. of water to the box and repeat step 8.5.

Figure 4 Frame Assembly

Figure 5 Sampling Area

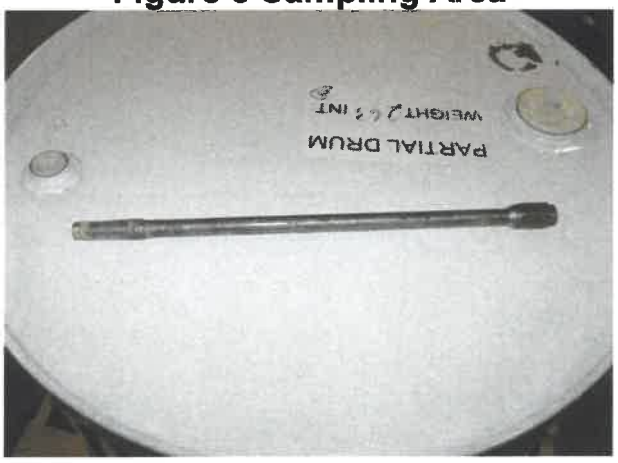


Figure 6 Injector

Figure 7 Cover

9 DOCUMENTATION

Report the following:

9.1 Type and settings of the metering and proportioning equipment.
9.2 Temperatures and pressures of components A, B, air and water during test.
9.3 Density and compressive strength results of the HDP in the dry and wet conditions.
9.4 Percent of density: **PASS** or **FAIL**.

APPENDIX

Hydro-Insensitivity of High Density Polyurethane Grout - Panel Test Data Sheet

Polymer Type & Manufacturer _____

Lot # & Date on Component Containers _____

PROPORTIONING EQUIPMENT

Proportioner _____ Hose Length (ft.) _____

Gun _____ Gun Set-up _____

A/B/H Temperature (°F) _____ A/B Pressure (psi) _____

CALIBRATION TEST

_____ Time at Beginning of Injection (HH:MM:SS)

_____ Time at End of Injection (HH:MM:SS)

_____ Sample Weight (lbs.) vs. _____ Certified Flow Meter Weight (lbs.)

INJECTION PROCEDURE – DRY

_____ (✓) 5 lbs. of Material Injected into Box

_____ (✓) After 10 minutes, Remove Top Cover

_____ (✓) After 30 minutes, Sample the HDP Material

INJECTION PROCEDURE - WET

_____ (✓) Add 15 lbs. of Water into Box

_____ (✓) 5 lbs. of Material Injected into Box

_____ (✓) After 10 minutes, Remove Top Cover

_____ (✓) After 30 minutes, Sample the HDP Material

MATERIAL ANALYSIS

	Dry Injection Shots		**Wet Injection Shots**	
	Density (pcf)	Compressive Strength (psi)	Density (pcf)	Compressive Strength (psi)
Sample 1	_____	_____	_____	_____
Sample 2	_____	_____	_____	_____

	% Retention of Density
Sample 1	_____
Sample 2	_____

Technician _____

Date _____

State of West Virginia
Request For Quotation

Procurement Folder : 644704

Document Description : Addendum #1

Procurement Type : Agency Master Agreement

Date Issued	Solicitation Closes	Solicitation No	Version	Phase
2019-10-30	2019-11-13 14:30:00	ARFQ 0803 DOT2000000015	2	Final

SUBMIT RESPONSES TO:	VENDOR
FINANCE & ADMINISTRATION DIVISION OF HIGHWAYS BLDG 5, RM A-220 1900 KANAWHA BLVD E CHARLESTON WV 25302 US	**Vendor Name, Address and Telephone** **URETEK USA, Inc.** **PO Box 1929** **13900 Humble Rd.** **Tomball, TX 77377**

FOR INFORMATION CONTACT THE
Tina L Lewis
(304) 558-9398
tina.l.lewis@wv.gov

Signature X FEIN # 421329866 DATE 11-8-19

All offers subject to all terms and conditions contained in this solicitation

ADDITIONAL INFORMATION:

Addendum #1
Correct Terms & Conditions and Specifications

*********NOTICE*********

WE DO NOT ACCEPT EMAIL BIDS

MUST USE ONE THE FOLLOWING TO SUBMIT A BID:
* UPLOAD TO OASIS
* HAND DELIVERY
* MAIL IN HARD COPY

MAKE SURE YOU DOWNLOAD ALL INFORMATION
TERMS AND CONDITIONS-SPECIFICATIONS-INFORMATIONAL ATTACHMENTS-PURCHASING AFFIDAVIT-PRICING PAGES-SIGN THE PAGES THAT NEED SIGNED

PLEASE NOTE THAT TO BE AWARDED THIS CONTRACT YOU WILL BE TO A REGISTER VENDOR WITH WV STATE PURCHASING, AND COMPLIANT WITH SEVERAL AGENCIES SUCH AS THE WVSOS, TAX DEPARTMENT, WORKER'S COMPENSATION, AND UNEMPLOYMENT INSURANCE

INVOICE TO	SHIP TO
DIVISION OF HIGHWAYS DISTRICT FIVE PO BOX 99 BURLINGTON WV26710 US	STATE OF WEST VIRGINIA VARIOUS LOCATIONS AS INDICATED BY ORDER No City WV 99999 US

Line	Commodity Line Description	Qty	Unit Issue	Unit Price	Total Price
1	EXPANSIVE POLYRETHANE MATERIAL	50000.00000	LB	$7.50	$375,000.00

Commodity Code	Manufacturer	Model #	Specification
72152700			

Extended Description
contract for undersealing and slabjacking concrete pavement, as needed, utilizing a two-part 1:1 by volume, water resistant, high density polyurethane method

INVOICE TO	SHIP TO
DIVISION OF HIGHWAYS DISTRICT FIVE PO BOX 99 BURLINGTON WV26710 US	STATE OF WEST VIRGINIA VARIOUS LOCATIONS AS INDICATED BY ORDER No City WV 99999 US

Line	Commodity Line Description	Qty	Unit Issue	Unit Price	Total Price
2	INJECTION PRICE (IF NOT INCLUDED IN EXPANSIVE	1500.00000	EA	**$0.00**	**$0.00**

Commodity Code	Manufacturer	Model #	Specification
72152700			

Extended Description
contract for undersealing and slabjacking concrete pavement, as needed, utilizing a two-part 1:1 by volume, water resistant, high density polyurethane method

INVOICE TO		SHIP TO	
DIVISION OF HIGHWAYS DISTRICT FIVE PO BOX 99 BURLINGTON US	WV26710	STATE OF WEST VIRGINIA VARIOUS LOCATIONS AS INDICATED BY ORDER No City US	WV 99999

Line	Commodity Line Description	Qty	Unit Issue	Unit Price	Total Price
3	MOBILIZATION FEE	12.00000	EA	**$5,000.00**	**$60,000.00**

Commodity Code	Manufacturer	Model #	Specification
72152700			

Extended Description
contract for undersealing and slabjacking concrete pavement, as needed, utilizing a two-part 1:1 by volume, water resistant, high density polyurethane method

INVOICE TO		SHIP TO	
DIVISION OF HIGHWAYS DISTRICT FIVE PO BOX 99 BURLINGTON US	WV26710	STATE OF WEST VIRGINIA VARIOUS LOCATIONS AS INDICATED BY ORDER No City US	WV 99999

Line	Commodity Line Description	Qty	Unit Issue	Unit Price	Total Price
4	EMERGENCY MOBILIZATION FEE	2.00000	EA	**$20,000.00**	**$40,000.00**

Commodity Code	Manufacturer	Model #	Specification
72152700			

Extended Description
contract for undersealing and slabjacking concrete pavement, as needed, utilizing a two-part 1:1 by volume, water resistant, high density polyurethane method

INVOICE TO	SHIP TO
DIVISION OF HIGHWAYS DISTRICT FIVE PO BOX 99 BURLINGTON WV26710 US	STATE OF WEST VIRGINIA VARIOUS LOCATIONS AS INDICATED BY ORDER No City WV 99999 US

Line	Commodity Line Description	Qty	Unit Issue	Unit Price	Total Price
5	2 YEAR WARRANTY WITH DCP	14.00000	EA	$400.00	$5,600.00

Commodity Code	Manufacturer	Model #	Specification
72152700			

Extended Description
contract for undersealing and slabjacking concrete pavement, as needed, utilizing a two-part 1:1 by volume, water resistant, high density polyurethane method

SCHEDULE OF EVENTS

Line	Event	Event Date
1	TECHNICAL QUESTONS DUE AT 10:00AM	2019-11-04

ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions

Jorge Majano
Purchasing
Uretek USA, Inc.
13900 Humble Rd.
Tomball, TX 77375

January 22, 2019

Covestro LLC
1 Covestro Circle
Pittsburgh, PA 15205
USA

Stephen J Harasin
Polyurethanes
Development

Telephone
412-413-2672

Email
Steve-J.Harasin@
covestro.com

Subject: BaySystems 486Star4 PUR Properties

Dear Mr. Majano,

BaySystems 486Star4 PUR is a two part closed cell high density polyurethane foam that are combined in a one-to-one ratio by volume and comprise a water insoluble diluent to render the foam insensitive to water.

Covestro LLC has measured the typical properties of BaySystems 486Star4, when combined with Mondur MR Light in the proper ratio in our laboratory, and these are listed below.

BaySystems 486Star4 PUR Typical Properties*

Property	Method	Typical Value
Free Rise Density	ASTM D1622	4.0 lb./ft^3
Compressive Strength	ASTM D1621	60 psi
Tensile Strength	ASTM D1623	90 psi
Shear Strength	ASTM C 273	40 psi
Closed Cell Content	ASTM D2858	85 %

Furthermore, our evaluation also indicates that the foam obtains approximately 85% of its final compressive strength within 15 minutes and 95% of its final compressive strength with 30 minutes of application. Material produced from the following batches would all meet these specifications:

PB95018013, PA86001789

Covestro LLC is the manufactuer of BaySystems 486Star4 and Mondur MR, and provides these materials to Uretek ICR and Uretek USA for application. All products are sold pursuant to Covestro LLC's Conditions of Sale, which are available upon request.

Sincerely,

Stephen J Harasin

Stephen J Harasin
Principal Scientist

*Typical properties generated under controlled laboratory conditions. These properties may vary, depending on environmental conditions including atmospheric pressure (altitude) and other factors.

Boudreau
Engineering, Inc.
Pavement Design Evaluation
& Materials Consultants

August 15, 2017

Randall W. Brown, PhD, PE
Vice President for Engineering
URETEK USA, Inc.
PO Box 1929
Tomball, Texas 77377

Subject: Hydro-Insensitivity Certification for
URETEK High Density Polyurethane Grout
URETEK 02-40R-V3
BEI Project No. 13-071

Dear Dr. Brown:

Boudreau Engineering, Inc. (BEI) has completed the required inspection and physical property testing of a high density polyurethane grout referenced as URETEK 02-40R-V3. The testing was conducted in general conformance with the New York Department of Transportation (NYDOT) Geotechnical Test Procedure (GTP-9): *Hydro-Insensitivity of High Density Polyurethane Grout – Panel Test (March 2013).*

A dry panel and a wet panel were injected with the polymer on the afternoon of October 2, 2013. The attached data form documents the particulars with respect to material and equipment utilized, as witnessed by Mr. Richard Boudreau.

GTP-9 requires a minimum of 90 percent density retention between the wet panel samples and the dry panel samples. **Test results indicate that this requirement was satisfied**—as highlighted at the bottom of the attached data form. The specified minimum compressive strength requirement of 50psi was also achieved.

If you have any questions, please do not hesitate to contact me at (404) 388-1137.

Sincerely,

Richard L. Boudreau, P.E.
Executive VP – Director of Engineering

attachment: Panel Test Data Sheet
clients\uretek\panel tests\02-40R-V3_2oct2013-Rev1.docx

Hydro-Insensitivity of High Density Polyurethane Grout - Panel Test Data Sheet

Polymer Type & Manufacturer: URETEK 02-40R-V3

Lot # & Date on Component Containers: Resin: URETEK 4R (Lot #1309LK) / 10-01-2013
Component A Isocyanate (Batch# PB93000674) / 09-20-2013

PROPORTIONING EQUIPMENT

Proportioner: Graco Reactor H25 — Hose Length (ft.): 50ft

Gun: Graco GX-7 — Gun Set-up: A20

A/B/H Temperature (°F): 100 — A/B Pressure (psi): 1000/1000

CALIBRATION TEST

1:34:00 Time at Beginning of Injection (HH:MM:SS)

1:34:24 Time at End of Injection (HH:MM:SS)

5.0 Sample Weight (lbs.) vs. 5.0 Certified Flow Meter Weight (lbs.)

INJECTION PROCEDURE - DRY

√ (√) 5 lbs. of Material Injected into Box

√ (√) After 10 minutes, Remove Top Cover

√ (√) After 30 minutes, Sample the HDP Material

INJECTION PROCEDURE - Wet

√ (√) Add 15 lbs. of Water into Box

√ (√) 5 lbs. of Material Injected into Box

√ (√) After 10 minutes, Remove Top Cover

√ (√) After 30 minutes, Sample the HDP Material

MATERIAL ANALYSIS

	Dry Injection Shots		Wet Injection Shots	
	Density (pcf)	Compressive Strength (psi)	Density (pcf)	Compressive Strength (psi)
Sample 1	5.31	59	5.24	64
Sample 2	5.24	67	5.03	52

	% Retention of Density
Sample 1	98.7%
Sample 2	96.0%

Technician: Richard L. Boudreau

Date: 2-Oct-13

PAGANI

GEOTECHNICAL EQUIPMENT

PORTABLE PENETROMETER DPM30

Dynamic penetrometric tests in portable equipment.

Pagani Geotechnical Equipment
Località Campogrande – 29010 Calendasco (Pc) – Tel +39 0523/771535
Fax +39 0523/773449 – Italia – e-mail: info@pagani-geotechnical.com

PAGANI
GEOTECHNICAL EQUIPMENT

Dynamic penetrometric tests in portable equipment.

DPM30 penetrometer enables us to carry out penetrometric tests exclusively of dynamic continuous type.

For the dynamic tests, the penetrometer is fitted with a beating system consisting of a hammer of 30 kgs (66 pounds) and a stroke of 200 mm (7.87 inches), activated by a hydraulic motor. To drive it there is a motor-pump unit, where the motor might be petrol or electric (220v or 110v). For pulling out rod, casing tubes and samplers a hydraulic extractor is used. The penetrometer is controlled by a pedal distributor. The hydraulic connection of the various components is carried out with rapid connectors. Reliability is proven by hundreds of operative examples throughout Italy and all over the world.

Pagani Geotechnical Equipment
Località Campogrande – 29010 Calendasco (Pc) – Tel +39 0523/771535
Fax +39 0523/773449 – Italia – e-mail: info@pagani-geotechnical.com

PAGANI
GEOTECHNICAL EQUIPMENT

DP tests

It is possible to carry out the dynamic tests with following values:

	Hammer		Stroke		Rods		Tips		
	30 kg	66 pound	200 mm	7.87 inch	Ø20 mm	0.79 inch	10 cm²	1.6 inch²	60°

Petrol engine

Type	4-time mono-cylinder, unleaded petrol supply, pressurised air cooling, exhaust emission satisfying EC directives 97/68 and 2002/88, silencer
Starting	Pull-crank ignition
Power (Hp) – (Kw)	3,5 – 2.6 at 3600 rpm
Displacement (cm³) – (inch³)	148 – 9.03
Torque (kgm) – (inch-pound) – (Nm)	0.70 – 60.8 – 6.85 at 2500 rpm
Air filter	Slip-on pre-filter and cartridge filter
Consumption liters/h – (US gallon/h)	Ranging from 0.57 to 1.20 (from 0.15 to 0.31)

220V electric motor (optional)

Type	Mono-phase asynchronous motor
Absorbed Watt (W)	1800
Used current	Alternate 220V at 50 hz
Power (Hp) – (Kw)	2.5 – 1.8 at 2800 rpm
Start controls	Built in electrics box with start button and emergency stop
Connection to electrical network	The box has a 2 pole (plus earth) plug. In addition, a 2 pole socket (plus earth) 16A and 250V is also supplied

110V electric motor (optional)

Type	Mono-phase asynchronous motor
Absorbed Watt (W)	1800
Used current	Alternate 110V at 60 hz
Power (Hp) – (Kw)	2.5 – 1.8 at 3400 rpm
Start controls	Built in electrics box with start button and emergency stop
Connection to electrical network	The box has a 2 pole (plus earth) plug. In addition, a 2 pole socket (plus earth) 16A and 250V is also supplied

Hydraulic system

Circuit capacity (liters) – (US gallon)	7.8 – 2.1
Max operating pressure (bar) – (psi) – (kPa)	150 – 2176 - 15000
Pumps	N°1
Filter	Cartridge filter with 25µm filtering capacity

Hydraulic extractor unit

Max extraction speed (cm/sec) – (foot/sec)	0/4 – 0/0.132
Hydraulic extractor pistons stroke (mm) – (inches)	300 – 11.81

Noise

L_{WA} (dB) 102 (ISO 3744)

Tanks

Fuel tank capacity (liters) – (US gallon)	3.8 - 1
Hydraulic oil tank capacity (liters) – (US gallon)	7.2 – 1.9

Colours and treatments

Hydraulic extractor colour	Ruby red RAL 3003
Motor pump control unit case treatment	Galvanization

Documentation

Penetrometer use and maintenance manual, engine use and maintenance manual, certificate folder, software use manual

Plates

To identify the pedal functions which activate the hydraulic distributor, there is an aluminium engraved plate riveted on it for protection purposes

Software

DP tests software

Weights with petrol motor - pump unit

	Weight
Petrol motor pump unit	32.3 kgs 71.2 pound
Beat system	47.5 kgs 104.7 pound
Hydraulic extractor	16.1 kgs 35.5 pound
Pedal distributor	9.7 kgs 21.4 pound
Total	105.6 kgs 232.8 pound

Weights with electric motor - pump unit

	Weight
Electric motor pump unit	34.5 kgs 76 pound
Beat system	47.5 kgs 104.7 pound
Hydraulic extractor	16.1 kgs 35.5 pound
Pedal distributor	9.7 kgs 21.4 pound
Total	107.8 kgs 237.6 pound

Pagani Geotechnical Equipment
Località Campogrande – 29010 Calendasco (Pc) – Tel +39 0523/771535
Fax +39 0523/773449 – Italia – e-mail: info@pagani-geotechnical.com

#	Vehicle Model	Year	Vin #	Plate #	Registration Due
S-01	16 Ford F250	2016	1FT7W2BT7GEB76153	HZR8157	OCT
S-02	16 Ford F250	2016	1FT7W2BT7GED46396	16H6202	NOV
S-03	16 Ford F250	2016	1Ft7W2BT3GED37968	HZP6367	DEC
S-04	17 DODGE RAM 2500 4X4	2017	3C6UR5HL5HG589337	JDY6816	DEC
S-05	17 DODGE RAM 2500 4X4	2017	3C6UR5HL7HG589338	JDY6817	
S-06	17 DODGE RAM 2500 4X4	2017	3C6UR5HL1HG589321	JDY6818	DEC
S-07	17 FORD F250	2017	1FT7W2BT9HEF45676	KMZ0895	JAN
S-08	17 FORD F250	2017	1FT7W2BTXHEF36582	KMZ0896	JAN
S-09	06 FORD F350	2006	1FTWWP36EA94499	K090666	
S-10	14 FORD F350	2014	1FT8W3DT0EEA09251	K090801	
S-11	17 FORD F350	2017	1FT8W3DT0HEF46237	K091540	
S-12	11 CHEVY 3500	2011	1GC4KZC84BF106839	K093808	AUG
S-13	15 CHEVY 3500	2015	1GB4KYC87FF658968	K093809	AUG
S-14	19 CHEVY	2019	1GC1KTEY0KF214730	LWD6922	
S-15	19 FORD F250	2019	1FT7W2B2KEE72917	MBW2719	APR
S-16	19 FORD F250	2019	1FT7W2BT6KEC57993	MBZ6796	APR
S-17	19 FORD F150	2019	1FTEW1E58KKC47658		
S-77	12 FORD F250	2012	1FT7W2ATXCEB68995	BX80083	JUN
S-79	12 FORD F150	2012	1FTEW1CM0CFB83524	BX80018	JUN
S-80	13 FORD F150	2013	1FTEW1CM7DKE19580	BXM5762	MAR
S-81	13 TOYOTA TUNDRA	2013	5TFEY5F17DX146632	CKK6769	DEC
S-82	13 TOYOTA TUNDRA	2013	5TFEY5F14DX134227	CKH4460	AUG
S-83	13 TOYOTA TUNDRA	2013	5TFEY5F14DX135765	CKH4459	AUG
S-84	13 TOYOTA TUNDRA	2013	5TFEY5F18DX147109	KDJ2212	SEPT
S-85	13 TOYOTA TUNDRA	2013	5TFEY5F1XDX145393	CKH4464	NOV
S-86	14 FORD F250	2014	1FT7W2BT1EEB12235	CRK5670	DEC
S-87	15 FORD F550	2015	1FDOW5HT1FEA48026	K046835	AUG
S-88	15 FORD F250	2015	1FT7W2BT7FEA39633	HXV9323	DEC
S-89	16 FORD F450	2016	1FT8W4DT0GEA37270	K060361	FEB
S-90	15 FORD F450	2015	1FDOW4GT4FEC65520	K060362	FEB
S-92	15 FORD F450	2015	1FDOW4GTXFED58882	K060363	AUG
S-93	15 FORD F250	2015	1FT7W2BT6FEB59794	GBV9037	SEPT
S-94	16 FORD F250	2016	1FT7W2BT9GEA64034	GXP3241	JAN
S-95	16 FORD F250	2016	1FT7W2BT1GEB04736	GXP3240	JAN
S-97	16 FORD F250	2016	1FT7W2BT2GEC02271	HHX3761	APR
S-98	16 FORD F250	2016	1FT7W2BT4GEC68885	HHX3730	APR
S-99	16 FORD F150	2016	1FTEW1CF2GKD62839	HHX3731	APR
T-10	99 FREIGHTLINER	1999	1FUYSDYB6XPA87281	R197358	AUG
T-13	02 FREIGHTLINER	2002	1FUJBBCG82LJ55053	R197359	AUG
T-14	02 FREIGHTLINER	2002	1FUJBBCG92LJ55059	R197360	AUG
T-17	05 FREIGHTLINER	2005	1FUJBBCK35LN99627	R197362	AUG
T-18	05 FREIGHTLINER	2005	1FUJBBCK85LN99607	R197363	AUG
T-19	09 FREIGHTLINER	2009	1FUJGLDR39LAH7314	R197365	AUG
T-22	09 FREIGHTLINER	2009	1FUJGLDR59LAH7315	R197366	AUG

T-23	12 FREIGHTLINER	2012	1FUJGBDVOCSBM5805	R252493	AUG
T-24	12 FREIGHTLINER	2012	1FUJGLDRXCLBE9620	R252494	AUG
T-27	07INTERNATIONAL 4400	2007	1HTMSAAR67H361956	K060364	AUG
T-28	14 FORD F750	2014	3FRNF7FC4FV643680	K060365	AUG
T-30	12 FREIGHTLINER	2012	1FUJGNDV3CDBN8408	R281604	AUG
T-31	17 PETERBILT	2017	1XPCD49X8HD367823	R325074	AUG
T-32	18 PETERBILT	2018	1XPCDP9X1JD455149	R325075	AUG
T-47	16 HINO	2016	5PVNV8JV9G4S55457	K054834	AUG
T-48	16 HINO	2016	5PVNV8JV1G4S55467	K054835	AUG
T-51	16 Peterbilt	2016	2NP3LJ0X1GM325639	K060915	
T-52	16 Peterbilt	2016	2NP3LJ0X9GM326182	K065755	
T-53	18 Peterbilt	2018	2NP2HM6X5JM479204	JTB2134	JUL
T-54	18 PETERBILT	2018	2NP2HM6X7JM479205	JXW8246	
TC4	03 INTERNATIONAL	2003	3HTMPAFN03N574943	K005107	AUG
TC5	06 FORD F650	2006	3FRNF65F06V307921	K005108	AUG
H02	2002 FORD F650	2002	3FDNF65Y92MA30468	BL6B514	AUG
U-20	Buildout				
U-30	99 UTILITY TRAILER	1999	1UYVS2489XU953001	Y55671	MAR
U-31	02 GREAT DANE	2002	1GRAA72212B055904	090B516	JUL
U-35	97 UTILITY TRAILER	1997	1K9133426V2054558	077B148	NOV
U-36	00 UTILITY TRAILER	2000	1K9133427Y2054590	122B979	SEPT
U-39	04 UTILITY TRAILER	2004	1GRAA72284S701734	Y05340	FEB
U-40	04 UTILITY TRAILER	2004	1GRAA72244S701732	122C068	DEC
U-47	FAST TRACK VAN 26' BO	2016	SN MTX15VB47886001		
U-48	FAST TRACK VAN 26' BO	2016			
U-49	UTILITY TRAILER	2007	1UYVS248X7M207401	107B646	MAY
U-50	08 UTILITY TRAILER	2008	1UYVS25368G269302	090C053	JAN
UT-01	83 GOOSENECK TRLR	1983	TR158278	84644D	JUN
U-55	2011 HORTON TRLR	2011	5E2G12026B1042976	139c119	
U-56	2011 HORTON TRLR	2011	5E2G12020B1042388	122C123	
U-57	2015 CARGO MATE	2015	49TCB1625F1017728	122C110	
U-60	13 HORTON	2013	5E2G12028D1046644	139C19	MAR
UT-02	64 SAW TRAILER	1964	64-12,73ZTPB	865543H	NOV
UT-06	01 SAW TRAILER	2001	SHOP MADE	344888H	MAR
UT-09	04 ECONOLINE	2004	42ETGFG2341000536	68754G	AUG
UT-10	05 GOOSENECK TRLR	2005	17YGN32225B029215	059B156	DEC
UT-14	12 UTILITY TRAILER	2012	16VPX2027C2330397	86440L	JUL
UT-15	12 UTILITY TRAILER	2012	4ZECH1827C1029524	182117H	DEC
UT-16	14 LOW BOY UTILITY	2014	5VNBU2021ET122232	178504K	FEB
UT-17	14 LOW BOY UTILITY	2014	5VNBU2021ET122733	CK6123	?
UT-18	14 LOW BOY UTILITY	2014	5VNBU1826ET125559	692352J	JUL
UT-32	95 UTILITY TRAILER	1995	1UYVS2453SU568001	07617Z	JUL
UT-37	01 UTILITY TRAILER	2001	1UYVS248X1M446907	Y05343	JUL
UT-42	07 UTILITY GOOSENECK	2007	1B9GU25287T867073	986990H	JUL
UT-43	08 UTILITY TRAILER	2008	1UYVS25348G269301	107B780	
UT-46	10 UTILITY TRAILER	2010	IUYVS2531AP830401	122c184	
UT-47	16 LOW BOY UTILITY	2016	4P5LY3220G1249396	290315J	FEB

UT-48	Load Trail	2016	4ZECH2026G1098261	496818J	OCT
UT-49	FEAT	2013	4FGA42021DC128669	63368N	JUL
UT-50	Big Tex	2017	16VEX1820H2016250	4PX6246	NOV
UT-51	17 Big Tex	2017	16VHX2023H6034376	695594J	JAN
UT-52	17 Big Tex Tilt	2017	16VCX2023H2017983	691792J	MAR
UT-53	12 Horton	2012	5E2G22421C1044370	122C171	APR
UT-54	19 BIG TEX	2019	16VEX2020K2005371	213486K	MAY
UT-55	19 BIG TEX	2019	16VEX2026K2001986	338456K	JUN
U3993	00 CHEETAH CHASIS	2000	5EF2GC405YB741038	093B68	MAR
U4000	01 CHEETAH CHASIS	2001	5EF2GC4001B744550	093B369	MAR
SIT-1	00 EXIS ALUM TRAILER	2000	4LAAU2423410055341	761731H	DEC
A-24	13 TOYOTA VAN	2013	5TDZK3DC6DS392069	CKG8806	AUG
A-25	16 MERCEDES-BENZ GLE350	2016	4JGDA5JB4GA658187	GLN8625	
A-26	17 CHEVROLET TAHOE	2017	1GNSCCKC1HR114094	HTX7575	NOV
A-27	17 NISSAN ARMADA	2017	JN8AY2NE8H9703967	JTB0176	FEB
A-29	17 Ford Edge	2017	2FMPK3J87HBB56248	7YHT385	MAR
A-30	17 Ford Edge	2017	2FMPK3J95HBB03850	JPF7819	APR
A-31	14 Toyota Tundra	2014	5TFAW5F12EX403377	FJG9238	JAN
A-32	18 Ford Edge	2018	2FMPK3J86HBC27178	8ADF027	
A-33	18 Ford Edge	2018	2FMPK3J96JBB26267	8CSW255	

Emerson Process Management

URETEK USA INC
Dallas Tx.
SR 1771606

MASS FLOW FIELD CALIBRATION CERTIFICATE

TAG: **UNIT 51 RESIN**

Customer tolerance: +/- 1.00 % Final Test Status: Pass Test Date: 1/18/2019

Customer Test Due Date: 1/18/2020

Customer Sensor:	M/N	F100	S/N:	14644041
Customer Core Processor:	M/N		S/N:	
Customer Transmitter:	M/N	2700	S/N:	3360703
Customer Accessory:	M/N		S/N:	

Scale Certification & Traceability information

Procedure No.:	G000003875	**Performed At:**	Uretek Dallas
Tolerance:	PER ICP-26 APPENDIX A	**Equipment ID:**	Cardinal
Temp./RH:	69°F / 47%	**Manufacturer:**	Cardinal Detecto
Cal Interval:	12 MONTHS	**Model Number:**	205
Cal Date:	Customer has certs	**Serial Number:**	E31108-0051
Cal Due Date:	Customer has certs	**Description:**	Cardinal Detecto
Calibration Result:	PASS	**Capacity & Resolution:**	0-5000 LB 1.0 lb error

As Found Configuration Data		Final Configuration Data (As Left)	
D1: **0**	Mass Units: **Lbs/min**	D1: **0**	Mass Units: **Lb/min**
D2: **1**	Vol. Units: **US GPM**	D2: **1**	Vol. Units: **US GPM**
K1: **3588.6320000**	Dens. Units: **lb/gal**	K1: **3588.632**	Dens. Units: **Lb/gal**
K2: **4262.160000**	Temp. Units: **°F**	K2: **4262.16**	Temp. Units: **°F**
DT: **0**		DT: **0**	
FD: **0**	Mass Cutoff: **1.4 lb/min**	FD: **0**	Mass Cutoff: **1.4 Lb/Min**
DTG: **0**	Vol. Cutoff: **0.17 Gpm**	DTG: **0**	Vol. Cutoff: **0.17 Gpm**
FlowCal: **266.804.67**	unusual configuration data	FlowCal: **266.804.67**	unusual configuration data
DensCal: **0**		DensCal: **0.00**	**0**
FCF: **0**		FCF: **0**	
FT: **0**	mA 2 Output	FT: **0**	mA 2 Output
Zero: **0**		Zero: **0**	
Mass MF: **1**		Mass MF: **1.0000**	
Vol. MF: **1**	Pulse output	Vol. MF: **1.0000**	Pulse output
Dens MF: **1**		Dens MF: **1.0000**	**0**

Calibration Verification by Bucket & Scale Method (Gravimetric)

Batch #	Meter Reading		Scale Reading		FCF	% Error	MF	With Buoyancy Correction % Error	With Buoyancy Correction MF
1	42.4	LBS	42.00	LBS	0	0.9524	0.9906	0.853	0.9916
2	43.4	LBS	43.00	LBS	0	0.9302	0.9908	0.831	0.9918
3	43.3	LBS	43.00	LBS	0	0.6977	0.9931	0.598	0.9941
4					0				
5					0				
6					0				
Average						0.8601	0.9915	0.7609	0.9925

Note: Buoyancy correction is nominal 0.1%

NOTES & COMMENTS:

No Changes necessary.

Note: This Calibration is traceable to: *NIST*

Emerson Flow - Field Service Technician

Oscar Gonzalez

7070 Winchester Circle
Boulder CO. 80301
800-522-6277 678-891-8345

Micro Motion

EMERSON
Process Management

Emerson Process Management

URETEK USA INC
Dallas Tx.
SR 1771606

MASS FLOW FIELD CALIBRATION CERTIFICATE

TAG: UNIT 51 ISO

Customer tolerance: +/- 1.00 % Final Test Status: Pass Test Date: 1/18/2019

Customer Test Due Date: 1/18/2020

Customer Sensor: M/N	F100	S/N:	14644036	
Customer Core Processor: M/N		S/N:		
Customer Transmitter: M/N	2700	S/N:	3360846	
Customer Accessory: M/N		S/N:		

Scale Certification & Traceability information

Procedure No.:	G000003875	**Performed At:**	Uretek Dallas
Tolerance:	PER ICP-26 APPENDIX A	**Equipment ID:**	Cardinal
Temp./RH:	69°F / 47%	**Manufacturer:**	Cardinal Detecto
Cal Interval:	12 MONTHS	**Model Number:**	205
Cal Date:	Customer has certs	**Serial Number:**	E31108-0051
Cal Due Date:	Customer has certs	**Description:**	Cardinal Detecto
Calibration Result:	PASS	**Capacity & Resolution:**	0-5000 LB 1.0 lb error

As Found Configuration Data		Final Configuration Data (As Left)	
D1: **0**	Mass Units: **Lbs/min**	D1: **0**	Mass Units: **Lb/min**
D2: **1**	Vol. Units: **US GPM**	D2: **1**	Vol. Units: **US GPM**
K1: **3562.0520000**	Dens. Units: **lb/gal**	K1: **3562.052**	Dens. Units: **Lb/gal**
K2: **4227.769000**	Temp. Units: **°F**	K2: **4227.769**	Temp. Units: **°F**
DT: **0**		DT: **0**	
FD: **0**	Mass Cutoff: **1.4 lb/min**	FD: **0**	Mass Cutoff: **1.4 Lb/Min**
DTG: **0**	Vol. Cutoff: **0.17 Gpm**	DTG: **0**	Vol. Cutoff: **0.17 Gpm**
FlowCal: **268.644.67**	unusual configuration data	FlowCal: **268.644.67**	unusual configuration data
DensCal: **0**		DensCal: **0.00**	**0**
FCF: **0**		FCF: **0**	
FT: **0**	mA 2 Output	FT: **0**	mA 2 Output
Zero: **0**		Zero: **0**	
Mass MF: **1**		Mass MF: **1.0000**	
Vol. MF: **1**	Pulse output	Vol. MF: **1.0000**	Pulse output
Dens MF: **1**		Dens MF: **1.0000**	**0**

Calibration Verification by Bucket & Scale Method (Gravimetric)

Batch #	Meter Reading		Scale Reading		FCF	% Error	MF	With Buoyancy Correction % Error	With Buoyancy Correction MF
1	52.5	LBS	52.00	LBS	0	0.9615	0.9905	0.862	0.9915
2	53.4	LBS	53.00	LBS	0	0.7547	0.9925	0.655	0.9935
3	53.5	LBS	53.00	LBS	0	0.9434	0.9907	0.844	0.9916
4					0				
5					0				
6					0				
Average						0.8866	0.9912	0.7873	0.9922

Note: Buoyancy correction is nominal 0.1%

NOTES & COMMENTS:

No Changes necessary.

Note: This Calibration is traceable to: *NIST*

Emerson Flow - Field Service Technician

Oscar Gonzalez

7070 Winchester Circle
Boulder CO. 80301
800-522-6277 678-891-8346

Micro Motion

EMERSON
Process Management

Emerson Process Management

URETEK USA INC
Dallas Tx.
SR 1782476

MASS FLOW FIELD CALIBRATION CERTIFICATE

TAG: UNIT 48 RESIN

Customer tolerance: +/- 1.00 % Final Test Status: Pass Test Date: 2/22/2019

Customer Test Due Date: 2/22/2020

Customer Sensor: M/N	F100	S/N:	14511176
Customer Core Processor: M/N		S/N:	
Customer Transmitter: M/N	1700	S/N:	3337572
Customer Accessory: M/N		S/N:	

Scale Certification & Traceability information

Procedure No.:	G000003875	**Performed At:**	Uretek Dallas
Tolerance:	PER ICP-26 APPENDIX A	**Equipment ID:**	Cardinal
Temp./RH:	69°F / 47%	**Manufacturer:**	Cardinal Detecto
Cal Interval:	12 MONTHS	**Model Number:**	205
Cal Date:	Customer has certs	**Serial Number:**	E31108-0051
Cal Due Date:	Customer has certs	**Description:**	Cardinal Detecto
Calibration Result:	PASS	**Capacity & Resolution:**	0-5000 LB 1.0 lb error

As Found Configuration Data		Final Configuration Data (As Left)	
D1: **0**	Mass Units: **Lbs/min**	D1: **0**	Mass Units: **Lb/min**
D2: **1**	Vol. Units: **US GPM**	D2: **1**	Vol. Units: **US GPM**
K1: **3590.8340000**	Dens. Units: **lb/gal**	K1: **3590.834**	Dens. Units: **Lb/gal**
K2: **4232.267000**	Temp. Units: **°F**	K2: **4232.267**	Temp. Units: **°F**
DT: **0**		DT: **0**	
FD: **0**	Mass Cutoff: **1.42 lb/min**	FD: **0**	Mass Cutoff: **1.42 Lb/Min**
DTG: **0**	Vol. Cutoff: **0.5 Gpm**	DTG: **0**	Vol. Cutoff: **0.5 Gpm**
FlowCal: **265.654.67**	unusual configuration data	FlowCal: **265.654.67**	unusual configuration data
DensCal: **0**		DensCal: **0.00**	**0**
FCF: **0**		FCF: **0**	
FT: **0**	mA 2 Output	FT: **0**	mA 2 Output
Zero: **0**		Zero: **0**	
Mass MF: **1**		Mass MF: **1.0000**	
Vol. MF: **1**	Pulse output	Vol. MF: **1.0000**	Pulse output
Dens MF: **1**		Dens MF: **1.0000**	**0**

Calibration Verification by Bucket & Scale Method (Gravimetric)

Batch #	Meter Reading		Scale Reading		FCF	% Error	MF	With Buoyancy Correction % Error	With Buoyancy Correction MF
1	43.3	LBS	43.00	LBS	0	0.6977	0.9931	0.598	0.9941
2	43.4	LBS	43.00	LBS	0	0.9302	0.9908	0.831	0.9918
3	43.1	LBS	43.00	LBS	0	0.2326	0.9977	0.133	0.9987
4					0				
5					0				
6					0				
Average						0.6202	0.9938	0.5207	0.9948

Note: Buoyancy correction is nominal 0.1%

NOTES & COMMENTS:

Changed meter mass factor to 1.0465

Note: This Calibration is traceable to: *NIST*

Emerson Flow - Field Service Technician

Oscar Gonzalez

7070 Winchester Circle
Boulder CO. 80301
800-522-6277 678-891-8346

Micro Motion

EMERSON
Process Management

Emerson Process Management

URETEK USA INC
Dallas Tx.
SR 1782476

MASS FLOW FIELD CALIBRATION CERTIFICATE

TAG: UNIT 48 ISO

Customer tolerance: +/- 1.00 % Final Test Status: Pass Test Date: 2/22/2019

Customer Test Due Date: 2/22/2020

Customer Sensor:	M/N	F100	S/N:	14511231
Customer Core Processor:	M/N		S/N:	
Customer Transmitter:	M/N	1700	S/N:	3328506
Customer Accessory:	M/N		S/N:	

Scale Certification & Traceability information

Procedure No.:	G000003875	**Performed At:**	Uretek Dallas
Tolerance:	PER ICP-26 APPENDIX A	**Equipment ID:**	Cardinal
Temp./RH:	69*F / 47%	**Manufacturer:**	Cardinal Detecto
Cal Interval:	12 MONTHS	**Model Number:**	205
Cal Date:	Customer has certs	**Serial Number:**	E31108-0051
Cal Due Date:	Customer has certs	**Description:**	Cardinal Detecto
Calibration Result:	PASS	**Capacity & Resolution:**	0-5000 LB 1.0 lb error

As Found Configuration Data		Final Configuration Data (As Left)	
D1: **0**	Mass Units: **Lbs/min**	D1: **0**	Mass Units: **Lb/min**
D2: **1**	Vol. Units: **US GPM**	D2: **1**	Vol. Units: **US GPM**
K1: **3641.0650000**	Dens. Units: **lb/gal**	K1: **3641.065**	Dens. Units: **Lb/gal**
K2: **4322.466000**	Temp. Units: **°F**	K2: **4322.466**	Temp. Units: **°F**
DT: **0**		DT: **0**	
FD: **0**	Mass Cutoff: **1.42 lb/min**	FD: **0**	Mass Cutoff: **1.42 Lb/Min**
DTG: **0**	Vol. Cutoff: **0.5 Gpm**	DTG: **0**	Vol. Cutoff: **0.5 Gpm**
FlowCal: **261.724.67**	unusual configuration data	FlowCal: **261.724.67**	unusual configuration data
DensCal: **0**		DensCal: **0.00**	**0**
FCF: **0**		FCF: **0**	
FT: **0**	mA 2 Output	FT: **0**	mA 2 Output
Zero: **0**		Zero: **0**	
Mass MF: **1**		Mass MF: **1.0000**	
Vol. MF: **1**	Pulse output	Vol. MF: **1.0000**	Pulse output
Dens MF: **1**		Dens MF: **1.0000**	**0**

Calibration Verification by Bucket & Scale Method (Gravimetric)

Batch #	Meter Reading		Scale Reading		FCF	% Error	MF	With Buoyancy Correction % Error	With Buoyancy Correction MF
1	52.1	LBS	52.00	LBS	0	0.1923	0.9981	0.092	0.9991
2	52.2	LBS	52.00	LBS	0	0.3846	0.9962	0.285	0.9972
3	52	LBS	52.00	LBS	0	0.0000	1.0000	-0.100	1.0010
4					0				
5					0				
6					0				
Average						0.1923	0.9981	0.0924	0.9991

Note: Buoyancy correction is nominal 0.1%

NOTES & COMMENTS:

No Changes necessary.

Note: This Calibration is traceable to: *NIST*

Emerson Flow - Field Service Technician

Oscar Gonzalez

7070 Winchester Circle
Boulder CO. 80301
800-522-6277 678-891-8346

Micro Motion

EMERSON
Process Management

Emerson Process Management

URETEK USA INC
Dallas Tx.
SR 1771606

MASS FLOW FIELD CALIBRATION CERTIFICATE

TAG: UNIT 52 RESIN

Customer tolerance: +/- 1.00 % Final Test Status: Pass Test Date: 1/18/2019

Customer Test Due Date: 1/18/2020

Customer Sensor: M/N	F100	S/N:	14667204
Customer Core Processor: M/N		S/N:	
Customer Transmitter: M/N	2700	S/N:	3365446
Customer Accessory: M/N		S/N:	

Scale Certification & Traceability information

Procedure No.:	G000003875	**Performed At:**	Uretek Dallas
Tolerance:	PER ICP-26 APPENDIX A	**Equipment ID:**	Cardinal
Temp./RH:	69°F / 47%	**Manufacturer:**	Cardinal Detecto
Cal Interval:	12 MONTHS	**Model Number:**	205
Cal Date:	See customers certs	**Serial Number:**	E31108-0051
Cal Due Date:	See customers certs	**Description:**	Cardinal Detecto
Calibration Result:	PASS	**Capacity & Resolution:**	0-5000 LB 1.0 lb error

As Found Configuration Data		Final Configuration Data (As Left)	
D1: **0**	Mass Units: **Lbs/min**	D1: **0**	Mass Units: **Lb/min**
D2: **1**	Vol. Units: **US GPM**	D2: **1**	Vol. Units: **US GPM**
K1: **3591.5840000**	Dens. Units: **lb/gal**	K1: **3591.584**	Dens. Units: **Lb/gal**
K2: **4268.350000**	Temp. Units: **°F**	K2: **4268.35**	Temp. Units: **°F**
DT: **0**		DT: **0**	
FD: **0**	Mass Cutoff: **0.4 lb/min**	FD: **0**	Mass Cutoff: **1.4 Lb/Min**
DTG: **0**	Vol. Cutoff: **0.04 Gpm**	DTG: **0**	Vol. Cutoff: **0.04 Gpm**
FlowCal: **265.264.67**	unusual configuration data	FlowCal: **265.264.67**	unusual configuration data
DensCal: **0**		DensCal: **0.00**	**0**
FCF: **0**		FCF: **0**	
FT: **0**	mA 2 Output	FT: **0**	mA 2 Output
Zero: **0**		Zero: **0**	
Mass MF: **1**		Mass MF: **1.0000**	
Vol. MF: **1**	Pulse output	Vol. MF: **1.0000**	Pulse output
Dens MF: **1**		Dens MF: **1.0000**	**0**

Calibration Verification by Bucket & Scale Method (Gravimetric)

Batch #	Meter Reading		Scale Reading		FCF	% Error	MF	With Buoyancy Correction % Error	With Buoyancy Correction MF
1	43.4	LBS	43.00	LBS	0	0.9302	0.9908	0.831	0.9918
2	43.3	LBS	43.00	LBS	0	0.6977	0.9931	0.598	0.9941
3	43.4	LBS	43.00	LBS	0	0.9302	0.9908	0.831	0.9918
4					0				
5					0				
6					0				
Average						0.8527	0.9915	0.7535	0.9925

Note: Buoyancy correction is nominal 0.1%

NOTES & COMMENTS:

No Changes necessary.

Note: This Calibration is traceable to: *NIST*

Emerson Flow - Field Service Technician

Oscar Gonzalez

7070 Winchester Circle
Boulder CO. 80301
800-522-6277 678-891-8346

Micro Motion

EMERSON
Process Management

Emerson Process Management

URETEK USA INC
Dallas Tx.
SR 1771606

MASS FLOW FIELD CALIBRATION CERTIFICATE

TAG: UNIT 52 ISO

Customer tolerance: +/- 1.00 % Final Test Status: Pass Test Date: 1/18/2019

Customer Test Due Date: 1/18/2020

Customer Sensor:	M/N	F100	S/N:	14667204
Customer Core Processor:	M/N		S/N:	
Customer Transmitter:	M/N	2700	S/N:	3365446
Customer Accessory:	M/N		S/N:	

Scale Certification & Traceability information

Procedure No.:	G000003875	**Performed At:**	Uretek Dallas
Tolerance:	PER ICP-26 APPENDIX A	**Equipment ID:**	Cardinal
Temp./RH:	69*F / 47%	**Manufacturer:**	Cardinal Detecto
Cal Interval:	12 MONTHS	**Model Number:**	205
Cal Date:	See customers certs	**Serial Number:**	E31108-0051
Cal Due Date:	See customers certs	**Description:**	Cardinal Detecto
Calibration Result:	PASS	**Capacity & Resolution:**	0-5000 LB 1.0 lb error

As Found Configuration Data		Final Configuration Data (As Left)	
D1: **0**	Mass Units: **Lbs/min**	D1: **0**	Mass Units: **Lb/min**
D2: **1**	Vol. Units: **US GPM**	D2: **1**	Vol. Units: **US GPM**
K1: **3591.5840000**	Dens. Units: **lb/gal**	K1: **3591.584**	Dens. Units: **Lb/gal**
K2: **4268.350000**	Temp. Units: **°F**	K2: **4268.35**	Temp. Units: **°F**
DT: **0**		DT: **0**	
FD: **0**	Mass Cutoff: **0.4 lb/min**	FD: **0**	Mass Cutoff: **1.4 Lb/Min**
DTG: **0**	Vol. Cutoff: **0.04 Gpm**	DTG: **0**	Vol. Cutoff: **0.04 Gpm**
FlowCal: **265.264.67**	unusual configuration data	FlowCal: **265.264.67**	unusual configuration data
DensCal: **0**		DensCal: **0.00**	**0**
FCF: **0**		FCF: **0**	
FT: **0**	mA 2 Output	FT: **0**	mA 2 Output
Zero: **0**		Zero: **0**	
Mass MF: **1**		Mass MF: **1.0000**	
Vol. MF: **1**	Pulse output	Vol. MF: **1.0000**	Pulse output
Dens MF: **1**		Dens MF: **1.0000**	**0**

Calibration Verification by Bucket & Scale Method (Gravimetric)

Batch #	Meter Reading		Scale Reading		FCF		% Error		MF	With Buoyancy Correction % Error	With Buoyancy Correction MF
1	53.5	LBS	53.00	LBS	0		0.9434		0.9907	0.844	0.9916
2	54.4	LBS	54.00	LBS	0		0.7407		0.9926	0.641	0.9936
3	54.5	LBS	54.00	LBS	0		0.9259		0.9908	0.827	0.9918
4					0						
5					0						
6					0						
Average							0.8700		0.9914	0.7708	0.9924

Note: Buoyancy correction is nominal 0.1%

NOTES & COMMENTS:

No Changes necessary.

Note: This Calibration is traceable to: *NIST*

Emerson Flow - Field Service Technician

Oscar Gonzalez

7070 Winchester Circle
Boulder CO, 80301
800-522-6277 678-891-8346

Micro Motion

EMERSON
Process Management

Emerson
Field Calibration Record

EMERSON

Emerson - North American Response Center
Tel: 1-800-654-7768

Date 1/11/2019
Tag Unit 4000
FSR 1770338
Service Rep Andrew Parker

Contact Jorge Majano
eMail jmajano@uretekusa.com
Company URETEK USA INC
Address 13900 HUMBLE RD
City/State TOMBALL, TX
Zip 77375

	Reference	MMI	Corr Factor	% Error
Batch 1	12.20	12.40	0.9839	1.6393
Batch 2	10.51	10.50	1.0010	-0.0951
Batch 3	12.60	12.70	0.9921	0.7937
		Average CF	0.9923	Average 0.7793
		Existing FCF/MF	1.0000	
		New FCF/MF	0.9923	

Sensor
Model F100SB81CQBAZZZZ
S/N 14499409 14512715

	Reference	MMI	Corr Factor	% Error
Batch 1	0.00	0.00	0.0000	0.0000
Batch 2	0.00	0.00	0.0000	0.0000
Batch 3	0.00	0.00	0.0000	0.0000
		Average CF	0.0000	Average 0.0000
		Existing FCF/MF	0.0000	
		New FCF/MF	0.0000	

Transmtter
Model 1700R12CBAEZZZ
S/N 3338251 3338251

Batcher/Totalizer
Model N/A
S/N

	Reference	MMI	Corr Factor	% Error
Batch 1	0.00	0.00	0.0000	0.0000
Batch 2	0.00	0.00	0.0000	0.0000
Batch 3	0.00	0.00	0.0000	0.0000
		Average CF	0.0000	Average 0.0000
		Existing FCF/MF	0.0000	
		New FCF/MF	0.0000	

Reference
Manufacturer U Line
Model H-4593
S/N A16217893
Calibration Date NOT CALIBRATED

Company Representative

Emerson Representative

Emerson
Field Calibration Record

EMERSON

Emerson - North American Response Center
Tel: 1-800-654-7768

Date 1/11/2019
Tag Unit 3993
FSR 1770338
Service Rep Andrew Parker

Contact Jorge Majano
eMail jmajano@uretekusa.com
Company URETEK USA INC
Address 13900 HUMBLE RD
City/State TOMBALL, TX
Zip 77375

	Reference	MMI	Corr Factor	% Error
Batch 1	11.01	11.00	1.0009	-0.0908
Batch 2	11.40	11.50	0.9913	0.8772
Batch 3	10.60	10.80	0.9815	1.8868
		Average CF	0.9912	Average 0.8911
		Existing FCF/MF	1.0000	
		New FCF/MF	0.9912	

Sensor
Model F100SB81CQBAZZZZ
S/N 14499413 14511214

	Reference	MMI	Corr Factor	% Error
Batch 1	0.00	0.00	0.0000	0.0000
Batch 2	0.00	0.00	0.0000	0.0000
Batch 3	0.00	0.00	0.0000	0.0000
		Average CF	0.0000	Average 0.0000
		Existing FCF/MF	0.0000	
		New FCF/MF	0.0000	

Transmtter
Model 1700R12CBAEZZZ
S/N 3329602 3338667

Batcher/Totalizer
Model N/A
S/N

	Reference	MMI	Corr Factor	% Error
Batch 1	0.00	0.00	0.0000	0.0000
Batch 2	0.00	0.00	0.0000	0.0000
Batch 3	0.00	0.00	0.0000	0.0000
		Average CF	0.0000	Average 0.0000
		Existing FCF/MF	0.0000	
		New FCF/MF	0.0000	

Reference
Manufacturer U Line
Model H-4593
S/N A16217893
Calibration Date NOT CALIBRATED

Company Representative

Emerson Representative

Emerson
Field Calibration Record

EMERSON

Emerson - North American Response Center
Tel: 1-800-654-7768

Date 1/11/2019
Tag Unit 54
FSR 1770338
Service Rep Andrew Parker

Contact Jorge Majano
eMail jmajano@uretekusa.com
Company URETEK USA INC
Address 13900 HUMBLE RD
City/State TOMBALL, TX
Zip 77375

	Reference	MMI	Corr Factor	% Error
Batch 1	9.84	9.90	0.9939	0.6098
Batch 2	7.78	7.78	1.0000	0.0000
Batch 3	9.14	9.17	0.9967	0.3282
		Average CF	0.9969	Average 0.9380
		Existing FCF/MF	1.0000	
		New FCF/MF	0.9969	

Sensor
Model F100SB81CQBAZZZZ
S/N 14697443 14690387

	Reference	MMI	Corr Factor	% Error
Batch 1	0.00	0.00	0.0000	0.0000
Batch 2	0.00	0.00	0.0000	0.0000
Batch 3	0.00	0.00	0.0000	0.0000
		Average CF	0.0000	Average 0.0000
		Existing FCF/MF	0.0000	
		New FCF/MF	0.0000	

Transmtter
Model 1700R12CBAEZZZ
S/N 3375902 3375948

Batcher/Totalizer
Model N/A
S/N

	Reference	MMI	Corr Factor	% Error
Batch 1	0.00	0.00	0.0000	0.0000
Batch 2	0.00	0.00	0.0000	0.0000
Batch 3	0.00	0.00	0.0000	0.0000
		Average CF	0.0000	Average 0.0000
		Existing FCF/MF	0.0000	
		New FCF/MF	0.0000	

Reference
Manufacturer U Line
Model H-4593
S/N A16217893
Calibration Date NOT CALIBRATED

Company Representative

Emerson Representative

Emerson
Field Calibration Record

EMERSON

Emerson - North American Response Center
Tel: 1-800-654-7768

Date 1/11/2019
Tag Unit 53
FSR 1770338
Service Rep Andrew Parker

Contact Jorge Majano
eMail jmajano@uretekusa.com
Company URETEK USA INC
Address 13900 HUMBLE RD
City/State TOMBALL, TX
Zip 77375

	Reference	MMI	Corr Factor	% Error
Batch 1	6.52	6.70	0.9731	2.7607
Batch 2	7.59	7.60	0.9987	0.1318
Batch 3	8.90	9.10	0.9780	2.2472
		Average CF	0.9833	Average 1.7132
		Existing FCF/MF	1.0000	
		New FCF/MF	0.9833	

Sensor
Model F100SB81CQBAZZZZ
S/N 14676371 14683364

	Reference	MMI	Corr Factor	% Error
Batch 1	0.00	0.00	0.0000	0.0000
Batch 2	0.00	0.00	0.0000	0.0000
Batch 3	0.00	0.00	0.0000	0.0000
		Average CF	0.0000	Average 0.0000
		Existing FCF/MF	0.0000	
		New FCF/MF	0.0000	

Transmtter
Model 1700R12CBAEZZZ
S/N 3369680 3373630

Batcher/Totalizer
Model N/A
S/N

	Reference	MMI	Corr Factor	% Error
Batch 1	0.00	0.00	0.0000	0.0000
Batch 2	0.00	0.00	0.0000	0.0000
Batch 3	0.00	0.00	0.0000	0.0000
		Average CF	0.0000	Average 0.0000
		Existing FCF/MF	0.0000	
		New FCF/MF	0.0000	

Reference
Manufacturer U Line
Model H-4593
S/N A16217893
Calibration Date NOT CALIBRATED

Company Representative

Emerson Representative

Emerson
Field Calibration Record

EMERSON.
Emerson Automation Solutions
Tel: 1-800-654-7768

Date 3/6/2019
Tag Unit 49
FSR 1783116
Service Rep Eric Clark

Contact Magdaleno "Leno" Rangel
Email mguerrero@uretekusa.com
Company Uretek USA
Address 15245 Texaco Ave.
City/State Paramount, CA
Zip 90723

	Reference	MMI	Corr Factor	% Error
Batch 1	12.50	12.62	0.9905	0.9600
Batch 2	13.50	13.67	0.9876	1.2593
Batch 3			0.0000	0.0000
		Average CF	0.9890	Average 1.1096
		Existing FCF/MF	1.0000	
		New FCF/MF	1.0000	

Notes: Scale used only .5 Lb increments and 400 Lb max rating.
Advise more accurate resolution scale with minimum .05 increments.

	Reference	MMI	Corr Factor	% Error
Batch 1	0.00	0.00	0.0000	0.0000
Batch 2	0.00	0.00	0.0000	0.0000
Batch 3	0.00	0.00	0.0000	0.0000
		Average CF	0.0000	Average 0.0000
		Existing FCF/MF	0.0000	
		New FCF/MF	0.0000	

	Reference	MMI	Corr Factor	% Error
Batch 1	0.00	0.00	0.0000	0.0000
Batch 2	0.00	0.00	0.0000	0.0000
Batch 3	0.00	0.00	0.0000	0.0000
		Average CF	0.0000	Average 0.0000
		Existing FCF/MF	0.0000	
		New FCF/MF	0.0000	

Sensor
Model F100SB81CQBAEZZZZ
S/N 14524797 / 14526033

Transmtter
Model 1700R12ABAEZZZ
S/N 3346503 / 3346513

Batcher/Totalizer
Model
S/N

Reference
Manufacturer Dymo
Model S400 (400 lbs x 0.5 lb)
S/N 1141835017876
Calibration Date Not calibrated or certified.

Company Representative

Eric Clark
Emerson Representative

Emerson
Field Calibration Record

EMERSON

Emerson - North American Response Center
Tel: 1-800-654-7768

	Reference	MMI	Corr Factor	% Error
Batch 1	3.67	3.65	1.0055	-0.5450
Batch 2	3.40	3.38	1.0059	-0.5882
Batch 3	2.50	2.49	1.0040	-0.4000
		Average CF	1.0051	Average -0.5111
		Existing FCF/MF	1.0000	
		New FCF/MF	1.0051	

	Reference	MMI	Corr Factor	% Error
Batch 1	0.00	0.00	0.0000	0.0000
Batch 2	0.00	0.00	0.0000	0.0000
Batch 3	0.00	0.00	0.0000	0.0000
		Average CF	0.0000	Average 0.0000
		Existing FCF/MF	0.0000	
		New FCF/MF	0.0000	

	Reference	MMI	Corr Factor	% Error
Batch 1	0.00	0.00	0.0000	0.0000
Batch 2	0.00	0.00	0.0000	0.0000
Batch 3	0.00	0.00	0.0000	0.0000
		Average CF	0.0000	Average 0.0000
		Existing FCF/MF	0.0000	
		New FCF/MF	0.0000	

Company Representative

Date 11/15/2018
Tag Truck 47 ISO/Resin
FSR 1759504
Service Rep Andrew Parker

Contact Jorge Majano
eMail jmajano@uretekusa.com
Company URETEK USA INC
Address 13900 HUMBLE RD
City/State TOMBALL, TX
Zip 77375

Sensor
Model F100SB81CQBAZZZZ
S/N 14512696 14512695

Transmtter
Model 1700R12ABAEZZZ
S/N 3337577 3338675

Batcher/Totalizer
Model N/A
S/N

Reference
Manufacturer U Line
Model H-4593
S/N A16217893
Calibration Date NOT CALIBRATED

Emerson Representative

MASS FLOW FIELD CALIBRATION CERTIFICATE

Customer tolerance: +/- 0.50 %

Initial Test Status: Fail
Final Test Status: Pass

Calibration Date: 1/11/2019

Next Customer Cal Date: 1/11/2019

Customer Sensor: M/N	**F100**	S/N:	14443422	Tag:	**Truck 40 - Resin**
Customer Core Processor: M/N	**700**	S/N:	3113413	Tag:	**Truck 40 - Resin**
Customer Transmitter: M/N	**1700**	S/N:	3298771	Tag:	**Truck 40 - Resin**
MMI Reference Sensor: M/N	**Pennsylvania 7600S**	S/N:	295842	Cert#:	**WS1-04 & WS1-07**
MMI Reference Sensor Cal Date:	1/11/2019				

As Found Configuration Data

D1: 0.00000	Mass Units: **lbs/min**			
D2: 1.00000	Mass Time Unit:			
K1: 3600.992	Vol. Units: **US GPM**			
K2: 4258.072	Vol Time Unit:			
DT: 4.40	Dens. Units: **g/cc**			
FD: 0	Temp. Units: **°F**			
DTG: 0	Mass Cutoff: **0.2**			
DGQ1: 0	Vol. Cutoff: **0.040**			
DFQ2: 0	Please see Notes for any			
FlowCal: 275.820 4.67	unusual configuration data			
FFQ: 0	mA1 LRV:	0.0	L/min	
FTG: 0	mA1 URV:	36.0	L/min	
DensCal: 3601 4258 4.40	mA2 LRV:	-3.2	g/cc	
FCF: 275.82001	mA2 URV:	3.2	g/cc	
FT: 4.67				
Zero: 0.039152637	Freq. Hz:	1000.0	Hz	
Mass MF: 1.0000	Freq. Rate:	36.0	L/min	
Vol. MF: 1.0000	Freq. Pulses/Unit:			
Dens MF: 1.0000	Freq. Units/Pulse			

Final Configuration Data (As Left)

D1: 0.00000	Mass Units: **lbs/min**			
D2: 1.00000	Mass Time Unit:			
K1: 3600.9919	Vol. Units: **US GPM**			
K2: 4258.0718	Vol Time Unit:			
DT: 4.40	Dens. Units: **g/cc**			
FD: 0	Temp. Units: **°F**			
DTG: 0	Mass Cutoff: **0.75**			
DGQ1: 0	Vol. Cutoff: **0.04**			
DFQ2: 0	Please see Notes for any			
FlowCal: 275.820 4.67	unusual configuration data			
FFQ: 0	mA1 LRV:	0.0	L/min	
FTG: 0	mA1 URV:	36.0	L/min	
DensCal: 3601 4258 4.40	mA2 LRV:	-3.2	g/cc	
FCF: 275.82001	mA2 URV:	3.2	g/cc	
FT: 4.67				
Zero: 0.039152637	Freq. Hz:	1000.0	Hz	
Mass MF: 1.0080	Freq. Rate:	36.0	L/min	
Vol. MF: 1.0000	Freq. Pulses/Unit:			
Dens MF: 1.0000	Freq. Units/Pulse			

NOTES & COMMENTS:

Transmitter is not using any outputs, reading is Display only. Product was circulated before testing.

Flow Technician

Micro Motion

Ray Edelbarger

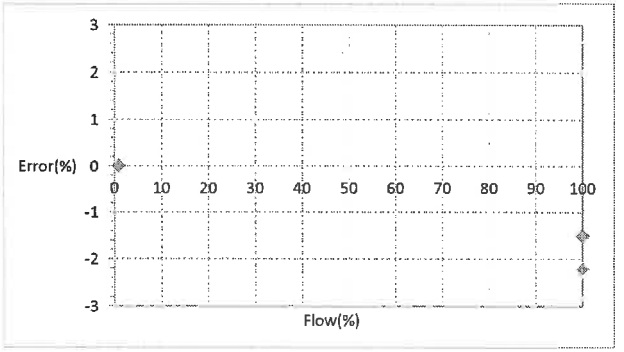
EMERSON

Note: This Calibration is traceable to NIST

Emerson Flow - Field Service Technician
0
7070 Winchester Circle
Boulder, CO 80301
303-809-2705
http://www.emerson.com

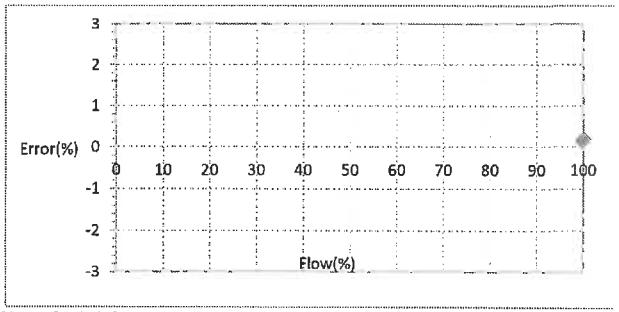
AS FOUND

Flow (%)	Nominal Flow Rate lbs/min	Meter Total lbs/min	Reference Total lbs	Error (%)	Meter Factor	Customer Tolerance %
100.0	14.50	21.60	21.93	-1.505	1.015	0.50
100.0	14.50	24.70	25.26	-2.217	1.023	0.50
Average		23.15	23.60	-1.886	1.0192	0.50



AS LEFT

Flow (%)	Nominal Flow Rate lbs/min	Meter Total lbs/min	Reference Total lbs	Error (%)	Meter Factor	Customer Tolerance %
100.0	14.50	27.20	27.15	0.184	0.998	0.50
100.0	14.50	28.00	27.97	0.107	0.999	0.50
100.0	14.50	26.00	25.96	0.154	0.998	0.50
Average		27.07	27.03	0.148	0.9985	0.50



Note: Do NOT zero sensor if tested in place. If removed from operating location, and the calibration is "As Left", then zero the sensor.

MASS FLOW FIELD CALIBRATION CERTIFICATE

Customer tolerance: +/- 0.50 %

Initial Test Status: Pass
Final Test Status: Pass

Calibration Date: 12/27/2018

Next Customer Cal Date: 1/11/2019

Customer Sensor: M/N	F100	S/N:	14443329	Tag:	**Truck 40 - ISO**
Customer Core Processor: M/N	700	S/N:	3113492	Tag:	**Truck 40 - ISO**
Customer Transmitter: M/N	1700	S/N:	3295643	Tag:	**Truck 40 - ISO**
MMI Reference Sensor: M/N	Pennsylvania 7600S	S/N:	295842	Cert#:	**WS1-04 & WS1-07**
MMI Reference Sensor Cal Date:	1/11/2019				

As Found Configuration Data

D1: 0.00000	Mass Units: lbs/min			
D2: 1.00000	Mass Time Unit:			
K1: 3562.350	Vol. Units: US GPM			
K2: 4214.235	Vol Time Unit:			
DT: 4.40	Dens. Units: lbs/Gal			
FD: 0	Temp. Units: °F			
DTG: 0	Mass Cutoff: 0.2			
DGQ1: 0	Vol. Cutoff: 0.040			
DFQ2: 0	Please see Notes for any			
FlowCal: 277.460 4.67	unusual configuration data			
FFQ: 0	mA1 LRV:	0.0	L/min	
FTG: 0	mA1 URV:	36.0	L/min	
DensCal: 3562 4214 4.40	mA2 LRV:	-3.2	g/cc	
FCF: 277.45999	mA2 URV:	3.2	g/cc	
FT: 4.67				
Zero: 0.058693554	Freq. Hz:	1000.0	Hz	
Mass MF: 1.0000	Freq. Rate:	36.0	L/min	
Vol. MF: 1.0000	Freq. Pulses/Unit:			
Dens MF: 1.0000	Freq. Units/Pulse			

Final Configuration Data (As Left)

D1: 0.00000	Mass Units: lbs/min			
D2: 1.00000	Mass Time Unit:			
K1: 3562.3501	Vol. Units: US GPM			
K2: 4214.2349	Vol Time Unit:			
DT: 4.40	Dens. Units: lbs/Gal			
FD: 0.0000	Temp. Units: °F			
DTG: 0	Mass Cutoff: 0.8			
DGQ1: 0	Vol. Cutoff: 0.040			
DFQ2: 0	Please see Notes for any			
FlowCal: 277.460 4.67	unusual configuration data			
FFQ: 0	mA1 LRV:	0.0	L/min	
FTG: 0	mA1 URV:	36.0	L/min	
DensCal: 3562 4214 4.40	mA2 LRV:	-3.2	g/cc	
FCF: 277.45999	mA2 URV:	3.2	g/cc	
FT: 4.67				
Zero: 0.058693554	Freq. Hz:	1000.0	Hz	
Mass MF: 1.0000	Freq. Rate:	36.0	L/min	
Vol. MF: 1.0000	Freq. Pulses/Unit:			
Dens MF: 1.0000	Freq. Units/Pulse			

NOTES & COMMENTS:

Transmitter is not using any outputs, reading is Display only. Product was circulated before testing.

Flow Technician

Micro Motion

Ray Edelbarger

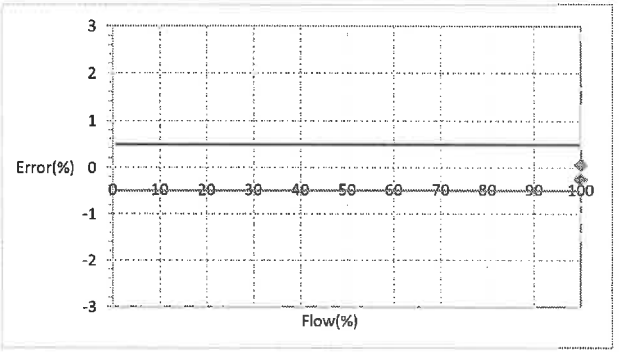
EMERSON

Note: This Calibration is traceable to NIST

Emerson Flow - Field Service Technician
0
7070 Winchester Circle
Boulder, CO 80301
303-809-2705
http://www.emerson.com

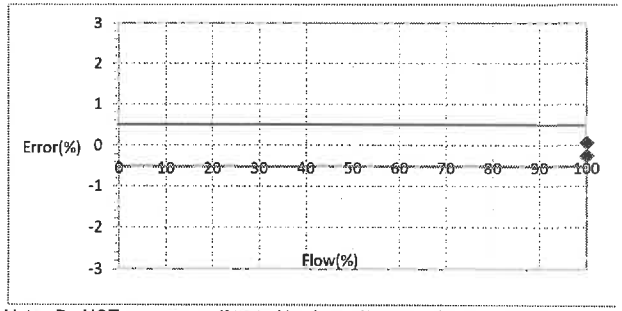
AS FOUND

Flow (%)	Nominal Flow Rate lbs/min	Meter Total lbs/min	Reference Total lbs	Error (%)	Meter Factor	Customer Tolerance %
100.0	20.00	32.20	32.18	0.062	0.999	0.50
100.0	20.00	33.20	33.28	-0.240	1.002	0.50
100.0	20.00	30.90	30.98	-0.258	1.003	0.50
Average		32.10	32.15	-0.145	1.0015	0.50



AS LEFT

Flow (%)	Nominal Flow Rate lbs/min	Meter Total lbs/min	Reference Total lbs	Error (%)	Meter Factor	Customer Tolerance %
100.0	20.00	32.20	32.18	0.062	0.999	0.50
100.0	20.00	33.20	33.28	-0.240	1.002	0.50
100.0	20.00	30.90	30.98	-0.258	1.003	0.50
Average		32.10	32.15	-0.145	1.0015	0.50



Note: Do NOT zero sensor if tested in place. If removed from operating location, and the calibration is "As Left", then zero the sensor.

EMERSON

Emerson - North American Response Center
Tel: 1-800-654-7768

Emerson
Field Calibration Record

Date 2/25/2019
Tag Unit 39
FSR 1781214
Service Rep Andrew Parker

Contact Jorge Majano
eMail jmajano@uretekusa.com
Company URETEK USA INC
Address 13900 HUMBLE RD
City/State TOMBALL, TX
Zip 77375

	Reference	MMI	Corr Factor	% Error
Batch 1	11.99	12.10	0.9909	0.9174
Batch 2	12.99	13.00	0.9992	0.0770
Batch 3	13.19	13.20	0.9992	0.0758
		Average CF	0.9965	Average 0.3567
s		Existing FCF/MF	1.0000	
		New FCF/MF	0.9965	

	Reference	MMI	Corr Factor	% Error
Batch 1	0.00	0.00	0.0000	0.0000
Batch 2	0.00	0.00	0.0000	0.0000
Batch 3	0.00	0.00	0.0000	0.0000
		Average CF	0.0000	Average 0.0000
		Existing FCF/MF	0.0000	
		New FCF/MF	0.0000	

	Reference	MMI	Corr Factor	% Error
Batch 1	0.00	0.00	0.0000	0.0000
Batch 2	0.00	0.00	0.0000	0.0000
Batch 3	0.00	0.00	0.0000	0.0000
		Average CF	0.0000	Average 0.0000
		Existing FCF/MF	0.0000	
		New FCF/MF	0.0000	

Sensor
Model F100SB81CQBAEZZZZ
S/N 14398454 14397119

Transmtter
Model 1700R12ABAEZZZ
S/N 3269208 3269399

Batcher/Totalizer
Model N/A
S/N

Reference
Manufacturer U Line
Model H-4593
S/N A16217893
Calibration Date NOT CALIBRATED

Company Representative

Emerson Representative

Emerson
Field Calibration Record

EMERSON

Emerson - North American Response Center
Tel: 1-800-654-7768

Date 1/11/2019
Tag Unit 30
FSR 1770338
Service Rep Andrew Parker

Contact Jorge Majano
eMail jmajano@uretekusa.com
Company URETEK USA INC
Address 13900 HUMBLE RD
City/State TOMBALL, TX
Zip 77375

	Reference	MMI	Corr Factor	% Error
Batch 1	11.39	11.39	1.0000	0.0000
Batch 2	12.90	12.81	1.0070	-0.6977
Batch 3	13.05	13.10	0.9962	0.3831
		Average CF	1.0011	Average -0.1048
		Existing FCF/MF	1.0000	
		New FCF/MF	1.0011	

Sensor
Model F100S999CQBAZZZZ
S/N 14144101 14144610

	Reference	MMI	Corr Factor	% Error
Batch 1	0.00	0.00	0.0000	0.0000
Batch 2	0.00	0.00	0.0000	0.0000
Batch 3	0.00	0.00	0.0000	0.0000
		Average CF	0.0000	Average 0.0000
		Existing FCF/MF	0.0000	
		New FCF/MF	0.0000	

Transmtter
Model 5700R12ABAAZZZ
S/N 12149004 12149003

Batcher/Totalizer
Model N/A
S/N

	Reference	MMI	Corr Factor	% Error
Batch 1	0.00	0.00	0.0000	0.0000
Batch 2	0.00	0.00	0.0000	0.0000
Batch 3	0.00	0.00	0.0000	0.0000
		Average CF	0.0000	Average 0.0000
		Existing FCF/MF	0.0000	
		New FCF/MF	0.0000	

Reference
Manufacturer U Line
Model H-4593
S/N A16217893
Calibration Date NOT CALIBRATED

Company Representative

Emerson Representative

EMERSON

Emerson - North American Response Center
Tel: 1-800-654-7768

Emerson
Field Calibration Record

PO 193089
Date 4/25/2019
Tag Unit 27
FSR 1799344
Service Rep Eric Edmunds

Contact Jorge Majano
eMail jmajano@uretekusa.com
Company URETEK USA INC
Address 13900 HUMBLE RD
City/State TOMBALL, TX
Zip 77375

	Reference	MMI	Corr Factor	% Error
Batch 1	17.55	17.75	0.9887	1.1396
Batch 2	15.45	15.55	0.9936	0.6472
Batch 3	17.50	17.35	1.0086	-0.8571
		Average CF	0.9970	Average 0.3099
		Existing FCF/MF	1.0000	
		New FCF/MF	0.9970	

	Reference	MMI	Corr Factor	% Error
Batch 1	0.00	0.00	0.0000	0.0000
Batch 2	0.00	0.00	0.0000	0.0000
Batch 3	0.00	0.00	0.0000	0.0000
		Average CF	0.0000	Average 0.0000
		Existing FCF/MF	0.0000	
		New FCF/MF	0.0000	

	Reference	MMI	Corr Factor	% Error
Batch 1	0.00	0.00	0.0000	0.0000
Batch 2	0.00	0.00	0.0000	0.0000
Batch 3	0.00	0.00	0.0000	0.0000
		Average CF	0.0000	Average 0.0000
		Existing FCF/MF	0.0000	
		New FCF/MF	0.0000	

Sensor
Model F100SB81CQBAZZZZ
S/N 14501502 Resin / 14500618 Iso

Transmtter
Model 1700R12CBAEZZZ
S/N 3328542 Resin / 3328506 Iso

Batcher/Totalizer
Model N/A
S/N

Reference
Manufacturer PSI-OP
Model OP-900
S/N AE20161011015
Calibration Date 4/24/2019

Eric Edmunds
Emerson Representative

Emerson
Field Calibration Record

EMERSON

Emerson - North American Response Center
Tel: 1-800-654-7768

Date 1/11/2019
Tag Unit 20
FSR 1770338
Service Rep Andrew Parker

Contact Jorge Majano
eMail jmajano@uretekusa.com
Company URETEK USA INC
Address 13900 HUMBLE RD
City/State TOMBALL, TX
Zip 77375

	Reference	MMI	Corr Factor	% Error
Batch 1	4.22	4.27	0.9883	1.1848
Batch 2	8.96	9.00	0.9956	0.4464
Batch 3	10.39	10.52	0.9876	1.2512
		Average CF	0.9905	Average 0.9608
		Existing FCF/MF	1.0000	
		New FCF/MF	0.9905	

	Reference	MMI	Corr Factor	% Error
Batch 1	0.00	0.00	0.0000	0.0000
Batch 2	0.00	0.00	0.0000	0.0000
Batch 3	0.00	0.00	0.0000	0.0000
		Average CF	0.0000	Average 0.0000
		Existing FCF/MF	0.0000	
		New FCF/MF	0.0000	

	Reference	MMI	Corr Factor	% Error
Batch 1	0.00	0.00	0.0000	0.0000
Batch 2	0.00	0.00	0.0000	0.0000
Batch 3	0.00	0.00	0.0000	0.0000
		Average CF	0.0000	Average 0.0000
		Existing FCF/MF	0.0000	
		New FCF/MF	0.0000	

Sensor
Model F050S239CQBAEZZZZ
S/N 14498246 1450603

Transmtter
Model 1700R12CBAEZZZ
S/N 3334751 3334834

Batcher/Totalizer
Model N/A
S/N

Reference
Manufacturer U Line
Model H-4593
S/N A16217893
Calibration Date NOT CALIBRATED

Company Representative

Emerson Representative

Uretek

Dunn, NC

Micro Motion

FICATE OF CONFORMANCE

TAG: **TRUCK UNIT#50**

Customer tolerance: +/- 1.00 % Final Test Status: Pass Test Date: 1/15/2019

Customer Test Due Date: 1/15/2020

Customer Sensor: M/N	RFH/100	S/N:	14526005	
Customer Core Processor: M/N	700	S/N:	3247586	
Customer Transmitter: M/N	1700	S/N:	3346616	
Customer Accessory: M/N		S/N:		

Scale Certification & Traceability information

Procedure No.:	ICP-26	**Performed At:**	J.A. King & Co.
Tolerance:	PER ICP-26 APPENDIX A	**Equipment ID:**	B10204
Temp./RH:	69*F / 47%	**Manufacturer:**	Rice Lake
Cal Interval:	12 MONTHS	**Model Number:**	120 PLUS
Cal Date:	2/7/2018	**Serial Number:**	B10204
Cal Due Date:	2/7/2019	**Description:**	Bench Scale
Calibration Result:	PASS	**Capacity & Resolution:**	300 x .05 LBS

As Found Configuration Data		Final Configuration Data (As Left)	
D1: 0	Mass Units: lbs/min	D1: 0	Mass Units: lbs/min
D2: 1	Vol. Units: US gal/min	D2: 1	Vol. Units: US gal/min
K1: 3611.0420000	Dens. Units: lbs/usgal	K1: 3611.042	Dens. Units: lbs/usgal
K2: 4290.615000	Temp. Units: °F	K2: 4290.615	Temp. Units: °F
DT: 4.4		DT: 4.4	
FD: 500	Mass Cutoff: 1.4286 lb/min	FD: 500	Mass Cutoff: 1.4286 lb/min
DTG: 0	Vol. Cutoff: .17118 Gal/min	DTG: 0	Vol. Cutoff: .17118 Gal/min
FlowCal: 261.074.67		FlowCal: 261.074.67	
DensCal: 0	mA 1 Output	DensCal: 0.00	mA 1 Output
FCF:	0 - 36 lbs/min	FCF:	0 - 36 lbs/min
FT: 0	Pulse output	FT: 0	Pulse output
Zero: 0	Pulses/unit = 1666.66700	Zero: 0	Pulses/unit = 1666.66700
Mass MF: 1	Units/Pulse = .00060	Mass MF: 1.0000	Units/Pulse = .00060
Vol. MF: 1	Freq = Flow	Vol. MF: 1.0000	Freq = Flow
Dens MF: 1	1000Hz = 36 lb.min	Dens MF: 1.0000	1000Hz = 36 lb.min

Calibration Verification by Truck Scale Comparison Method (Gravimetric)

	Batch #	Meter Reading		Scale Reading		FCF	% Error	MF	With Buoyancy Correction % Error	With Buoyancy Correction MF
9:16	1	18.05	LBS	18.04	LBS	261.07	0.0554	0.9994	-0.045	1.0004
	2	15.99	LBS	16	LBS	261.07	-0.0625	1.0006	-0.163	1.0016
	3	0	LBS	0	LBS	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	4	0		0		0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	5	0		0		0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	6	0		0		0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	Average						-0.0035	1.0000	-0.1036	1.0010

Note: Buoyancy correction is nominal 0.1%

NOTES & COMMENTS:

No adjustments made at this time.

MMI Technician:

Note: This Calibration is traceable to:

Emerson Flow - Field Service Technician

Jim Spieder

7070 Winchester Circle
Boulder CO, 80301
800-522-6277 678-891-8346

Micro Motion

Uretek

Dunn, NC

ICATE OF CONFORMANCE

TAG: TRUCK UNIT#50

Customer tolerance: +/- 1.00 % Final Test Status: Pass Test Date: 1/15/2019

Customer Test Due Date: 1/15/2020

Customer Sensor: M/N	RFH/100	S/N:	14524796
Customer Core Processor: M/N	700	S/N:	3247269
Customer Transmitter: M/N	1700	S/N:	3346624
Customer Accessory: M/N		S/N:	

Scale Certification & Traceability information

Procedure No.:	ICP-26	**Performed At:**	J.A. King & Co.
Tolerance:	PER ICP-26 APPENDIX A	**Equipment ID:**	B10204
Temp./RH:	69*F / 47%	**Manufacturer:**	Rice Lake
Cal Interval:	12 MONTHS	**Model Number:**	120 PLUS
Cal Date:	2/7/2018	**Serial Number:**	B10204
Cal Due Date:	2/7/2019	**Description:**	Bench Scale
Calibration Result:	PASS	**Capacity & Resolution:**	300 x .05 LBS

As Found Configuration Data		Final Configuration Data (As Left)	
D1: 0	Mass Units: **lbs/min**	D1: 0	Mass Units: **lbs/min**
D2: 1	Vol. Units: **US gal/min**	D2: 1	Vol. Units: **US gal/min**
K1: 3617.2920000	Dens. Units: **lbs/usgal**	K1: 3617.292	Dens. Units: **lbs/usgal**
K2: 4283.353000	Temp. Units: **°F**	K2: 4283.353	Temp. Units: **°F**
DT: 4.4		DT: 4.4	
FD: 500	Mass Cutoff: **1.4286 lb/min**	FD: 500	Mass Cutoff: **1.4286 lb/min**
DTG: 0	Vol. Cutoff: **.17118 Gal/min**	DTG: 0	Vol. Cutoff: **.17118 Gal/min**
FlowCal: 267.224.67		FlowCal: 267.224.67	
DensCal: 0	**mA 1 Output**	DensCal: 0.00	**mA 1 Output**
FCF: 267.22	0 - 36 lbs/min	FCF: 267.22	0 - 36 lbs/min
FT: 0	**Pulse output**	FT: 0	**Pulse output**
Zero: 0	Pulses/unit = 1666.66700	Zero: 0	Pulses/unit = 1666.66700
Mass MF: 1	Units/Pulse = .00060	Mass MF: 1.0000	Units/Pulse = .00060
Vol. MF: 1	Freq = Flow	Vol. MF: 1.0000	Freq = Flow
Dens MF: 1	1000Hz = 36 lb.min	Dens MF: 1.0000	1000Hz = 36 lb.min

Calibration Verification by Truck Scale Comparison Method (Gravimetric)

Batch #	Meter Reading		Scale Reading		FCF	% Error	MF	With Buoyancy Correction: % Error	With Buoyancy Correction: MF
1	21.58	LBS	21.45	LBS	267.22	0.6061	0.9940	0.507	0.9950
2	18.99	LBS	18.95	LBS	267.22	0.2111	0.9979	0.111	0.9989
3	0	LBS	0	LBS	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
4	0	LBS	0	LBS	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
5	0		0		0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
6	0		0		0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Average						0.4086	0.9959	0.3089	0.9969

Note: Buoyancy correction is nominal 0.1%

NOTES & COMMENTS:

No adjustments made at this time.

MMI Technician:

Note: This Calibration is traceable to:

Emerson Flow - Field Service Technician

Jim Speider

7070 Winchester Circle
Boulder CO. 80301
800-522-6277 678-891-8346

URETEK USA OPERATIONS PERSONNEL	EMP.START DATE	YRS EXPERIENCE
SUPERVISORS		
Magdaleno Rangel Guerrero	1/5/1999	20
Edward Lee Barnwell	5/17/1999	19
Kevin White	7/31/2006	12
Saturnino Govea	1/16/2005	14
Jose Osorio	10/19/2008	10
Bennie Lee Johnson	6/19/2005	13
AVERAGE YEARS OF EXPERIENCE		15
LEAD MEN AND TECHNICIANS		
Jose Hernandez Jr	6/8/1992	26
Armando Reyes	9/30/2001	17
Filiberto Aguilar	9/29/2002	16
Christopher T. Jackson	10/13/2002	16
Jose Luis Hernandez	1/16/2005	14
John Metoyer	1/18/2009	10
Christopher Phelps	7/29/2010	8
Keith McClure	7/5/2011	7
Hector Cardoza	8/15/2011	7
Jorge Parada	1/5/2011	8
AVERAGE YEARS OF EXPERIENCE		13

All of our supervisors are competent in reading the injection diagrams, having the grid pattern marked properly, drilled properly in the correct locations, and having the tubes inserted to the required elevations.

The personnel are competent at drilling (we use hand held electric and pneumatic drills), placing tubes, and injecting our polymer.

REX KLENTZMAN, P.E.

DIRECTOR OF ENGINEERING, URETEK USA | URETEK ICR
13900 Humble Dr. Tomball, TX 77375 (281)351-7800
Rex@URETEKICR.COM
Texas Board of Professional Engineers Registration #108690

Experience

URETEK USA, Director of Engineering *Tomball TX (*September 2017 – Present)
- Consult on Polyurethane Grouting Ground Improvement Projects relating to transportation infrastructure
- Coordinate and execute testing regimens with the goal of ground improvement verification
- Present Engineering solutions to potential clients in a concise and direct manner
- Educate sales staffDesign innovative and cost effective solutions for land development projects
- Review geotechnical reports and recommend pavement remediation designs

URETEK ICR, Engineering Support Manager *Tomball TX* (September 2014 - Present)
- Consult on Polyurethane Grouting Ground Improvement Projects relating to underground infrastructure, structural foundations, dewatering and shoreline stabilization
- Review geotechnical reports and recommend structural foundation remediation programs
- Develop training and educational materials for internal and public distribution
- Review geotechnical reports and recommend structural foundation remediation programs

Bleyl & Associates, Engineer *Austin & Conroe TX* (October 2008 - Present)
- Prepare construction documents; developed grading plans, cost estimates, utility plans, engineering reports and contract documents
- Provide construction oversight; conduct site visits, respond to requests for information and approve pay requests
- Design innovative and cost effective solutions for land development projects
- Review geotechnical reports and recommend pavement designs
- Develop and Maintain excellent relationships; stay in contact with all clients, respond promptly to inquiries, develop relationships with potential clients

Doucet & Associates, Engineer *Austin TX* (January 2006 – October 2008)
- Facilitate site permitting and platting with utility companies and the City of Austin and surrounding areas
- Manage project deadlines and give instructions to drafters
- Conduct hydraulic and hydrologic drainage studies, design storm water infrastructure
- Coordinate commercial and residential site and subdivision design with clients and design team

Uretek ICR Central Texas, Technician/Sales *Austin TX* (August 2004 – October 2004, Summer 2001)
- Apply the Uretek Method to resolve problem areas in sunken concrete
- Prepare project bids and make sales visits to potential clients

Uretek USA, Technician *Houston TX* (Summer & Fall 1998, Summer 1999)
- Apply the Uretek Method to resolve problem areas in sunken concrete

Education

Texas A&M University *College Station, TX* (1999-2003)
- Bachelor of Science, Civil Engineering, GPA 3.2

YEAR	PROJECT #	PRIME CONTRACTOR	DOT	CONTRACT # / PO #	CONTACT NAME	PHONE #	EMAIL	CONTRACT AMOUNT
2019	19PA81020	URETEK USA	Pennsylvania	48061100702534	Kevin Matthews	6108714163	kevmatthews@pa.gov	$ 9,990.00
2019	19AZ67002	URETEK USA	Arizona	CTR41785	Stacy Wiesner	602-712-6939	swiesner@azdot.com	Annual Maintence Contract
2019	19ID49001	URETEK USA	Idaho	F000159	Steve Gertonson	208-239-3309	steve.gertonson@itd.idaho.gov	Annual Maintence Contract
2018	18UT49005	URETEK USA	Utah	199703	Thad Pinkerton	801-717-7739	tpinkerton@udot.gov	Annual Maintence Contract
2018	18TN13019	URETEK USA	Tennesse	60401	Ken Hampton	615-741-3458	ken.hampton@tn.gov	Annual Maintence Contract
2018	18NY70002	URETEK USA	New York	180240F	John McDowell	607-535-4992	john.macdowell@dot.ny.gov	$ 48,906.20
2017	17KS48017	URETEK USA	Kansas	517116191	Clint Prose	620-481-4682	clinton.prose@ks.gov	$ 765,000.00
2017	17WA39007	URETEK USA	Washington	MA5900 A12539	Rick Rodda	425-673-9370	roddaft@wsdot.wa.gov	$ 119,875.00
2017	17NM46002	URETEK USA	New Mexico	80500-0000259754	Thomas Kratochvil	505-798-6637	tom.kratochvil@state.nm.gov	$ 785,000.00
2016	16AL13009	URETEK USA	Alabama	Staars 16*450 on EP10	Davey Lyon	334-875-4455	lyond@dot.state.al.us	$ 831,000.00
2016	16GA13018	URETEK USA	Georgia	48400-120-0000000015	Stacy Aultman	229-386-3280	saultman@dot.ga.gov	$ 2,000,000.00
2016	16MS13014	URETEK USA	Mississippi	direct voucher	Matt Dunn	662-842-1122	mdunn@mdot.state.ms.us	$ 500,000.00
2015	15KY31002	Westate Construction Inc	Kentucky	121GR15DO27 - NHPP IM	Paul Looney	502-782-4897	paul.looney@ky.gov	$ 3,600,000.00
2015	15TX38005	URETEK USA	Texas	direct voucher	Jorge Oregel	915-356-0304	jorge.oregel@txdot.gov	$ 1,000,000.00
2015	15OR39010	URETEK USA	Oregon	92266	Richard Stinson	541-936-0221	richard.t.stinson@odot.state.or.us	$ 50,000.00
2014	14MO46004	Krupp Construction	Missouri	140124-F05	Tim Schroeder	314-453-5049	timothy.schroeder@modot.mo.gov	$ 471,000.00
2014	14MI31002	URETEK USA	Michigan	25031 120315	Andy Bennett	517-322-5664	bennetta@michigan.gov	$ 531,000.00
2014	14NM38002	URETEK USA	New Mexico	80500-0000187412	Frank Martinez	575-637-7236	frank.l.martinez@state.nm.us	$ 304,000.00
2014	14TX01011	URETEK USA	Texas	7006100	Dennis Baldwin	972-973-6205	dbaldwin@dwfairport.com	$ 9,548,500.00

TEK
USA

SA, INC.
1929
, TEXAS
1929

ATION AND
ESERVATION

cusa.com

The bid documents must arrive at the address below by 2:30PM Wednesday, Nov. 13.

The envelope should contain the information listed below on the face of the envelope or the bid may be rejected by the Agency –

SEALED BID: ROADWAY SETTLEMENT STABILIZATION/052C0158
BUYER: TINA LEWIS
SOLICITATION NO.: ARFQ DOT2000000015
BID OPENING DATE: 11/13/2019
BID OPENING TIME: 2:30PM
FAX NUMBER: N/A

ORIGIN ID:MIFA (281) 351-7800
THERESA UHLMANN
URETEK USA, INC.
13900 HUMBLE ROAD

TOMBALL, TX 77377
UNITED STATES US

SHIP DATE: 08NOV19
ACTWGT: 0.50 LB
CAD: 7435708/INET4160

BILL SENDER

TO DIVISION OF HIGHWAYS
FINANCE & ADMINISTRATION
BLDG 5, RM A-220
1900 KANAWHA BLVD. E
CHARLESTON WV 25302
(304) 414-6859
INV:
PO: REF: BID-ARFQ DOT2000000015
DEPT:

567J1/F330/05A2

FedEx Express

E

J192118091901uv

TRK# 0201 7769 4207 1306

MON - 11 NOV 10:30A
PRIORITY OVERNIGHT

DSR
25302
WV-US HTS

XH CRWA

Extremely Urgent

11/8/2019

FedEx Ship Manager - Print Your Label(s)

Insert shipping document here.

556 1 B
10:30
1306
11.11

FedEx Express ®