

STATE OF NEW HAMPSHIRE
BUREAU OF PURCHASE AND PROPERTY
STATE HOUSE ANNEX - ROOM 102
25 CAPITOL ST
CONCORD NH 03301-6398

DATE: 6/30/15
CONTRACT #: 8001814
CONTRACT FOR: STATEWIDE CONTRACT FOR CULVERT LINING MATERIALS (SUPPLY & DELIVER)
NIGP CODE: 659-5150
CONTRACTOR: CONTECH CONSTRUCTION PRODUCTS, INC. VENDOR CODE #: 168030

SUBMITTED FOR ACCEPTANCE BY:



ROBERT LAWSON, PURCHASING AGENT
BUREAU OF PURCHASE AND PROPERTY

DATE 6/30/15

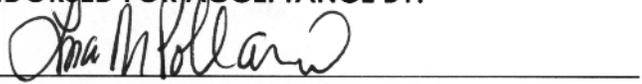
RECOMMENDED FOR ACCEPTANCE BY:



ROBERT STOWELL, ADMINISTRATOR
BUREAU OF PURCHASE AND PROPERTY

DATE 7/2/15

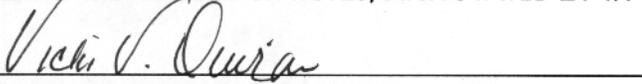
ENDORSED FOR ACCEPTANCE BY:



LISA M. POLLARD, DIRECTOR
DIVISION OF PROCUREMENT & SUPPORT SERVICES

DATE 7-2-15

ACCEPTED FOR THE STATE OF NEW HAMPSHIRE UNDER THE AUTHORITY GRANTED TO ME BY NEW HAMPSHIRE REVISED STATUTES, ANNOTATED 21-I:14, XII.



VICKI QUIRAM, COMMISSIONER
DEPARTMENT OF ADMINISTRATIVE SERVICES

DATE 7/6/15

NOTE: This contract is for culvert lining materials. This vendor is being awarded 4 categories of products out of the 5 categories that were bid. Under the previous contract \$165,000 was spent over a three year term. It is hard to compare the two contracts as the last contract only had 9 items listed on it. This bid had 55 different items in 5 separate categories and is being awarded to two different bidders.

State of New Hampshire
Division of Procurement and Support Services
Bureau of Purchase and Property
25 Capitol Street, State House Annex
Concord, NH 03301-6398

Date: 5/29/15
Bid No.: 1764-15
Date of Bid Opening: 6/15/15
Time of Bid Opening: 11:30 AM

YOU MAY EMAIL YOUR BID TO ROBERT LAWSON AT: EMAIL PRCHWEB@NH.GOV

BID INVITATION FOR CONTRACT: STATEWIDE CONTRACT FOR CULVERT LINING MATERIALS (SUPPLY & DELIVER)

[Insert name of signor] Stephen S Wolf, on behalf of Contech Engineered Solutions LLC [insert name of entity submitting bid (collectively referred to as "Vendor")] hereby submits an offer as contained in the written bid submitted herewith ("Bid") to the State of New Hampshire in response to BID # 1755-15 at the price(s) quoted herein in complete accordance with the bid.

Vendor attests to the fact that:

1. The Vendor has reviewed and agreed to be bound by the Bid.
2. The Vendor has not altered any of the language or other provisions contained in the Bid document.
3. The Bid is effective for a period of 180 days from the Bid Opening date as indicated above.
4. The prices Vendor has quoted in the Bid were established without collusion with other vendors.
5. The Vendor has read and fully understands this Bid.
6. Further, in accordance with RSA 21-I:11-c, the undersigned Vendor certifies that neither the Vendor nor any of its subsidiaries, affiliates or principal officers (principal officers refers to individuals with management responsibility for the entity or association):
 - a. Has, within the past 2 years, been convicted of, or pleaded guilty to, a violation of RSA 356:2, RSA 356:4, or any state or federal law or county or municipal ordinance prohibiting specified bidding practices, or involving antitrust violations, which has not been annulled;
 - b. Has been prohibited, either permanently or temporarily, from participating in any public works project pursuant to RSA 638:20;
 - c. Has previously provided false, deceptive, or fraudulent information on a vendor code number application form, or any other document submitted to the state of New Hampshire, which information was not corrected as of the time of the filing a bid, proposal, or quotation;
 - d. Is currently debarred from performing work on any project of the federal government or the government of any state;
 - e. Has, within the past 2 years, failed to cure a default on any contract with the federal government or the government of any state;
 - f. Is presently subject to any order of the department of labor, the department of employment security, or any other state department, agency, board, or commission, finding that the applicant is not in compliance with the requirements of the laws or rules that the department, agency, board, or commission is charged with implementing;
 - g. Is presently subject to any sanction or penalty finally issued by the department of labor, the department of employment security, or any other state department, agency, board, or commission, which sanction or penalty has not been fully discharged or fulfilled;
 - h. Is currently serving a sentence or is subject to a continuing or unfulfilled penalty for any crime or violation noted in this section;
 - i. Has failed or neglected to advise the division of any conviction, plea of guilty, or finding relative to any crime or violation noted in this section, or of any debarment, within 30 days of such conviction, plea, finding, or debarment; or
 - j. Has been placed on the debarred parties list described in RSA 21-I:11-c within the past year.

This document must be signed by a person who is authorized to legally obligate the responding vendor. A signature on this document indicates that all State of New Hampshire terms and conditions are accepted by the responding vendor and that any and all other terms and conditions submitted by the responding vendor are null and void, even if such terms and conditions have terminology to the contrary. The responding vendor shall also be subject to State of New Hampshire terms and conditions as stated on the reverse of the purchase order.

Authorized Signor's Signature Stephen S Wolf Authorized Signor's Title Northern NE Sales manager

NOTARY PUBLIC/JUSTICE OF THE PEACE

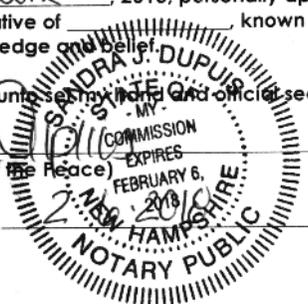
COUNTY: Merrimack STATE: NH ZIP: 03257

On the 15th day of June, 2015, personally appeared before me, the above named Stephen S Wolf, in his/her capacity as authorized representative of _____, known to me or satisfactorily proven, and took oath that the foregoing is true and accurate to the best of his/her knowledge and belief.

In witness thereof, I hereunto set my hand and official seal.

[Signature]
(Notary Public/Justice of the Peace)

My commission expires: _____ (Date)



Unless specifically amended or deleted by the Division of Procurement and Support Services, the following General Terms and Conditions apply to this Bid and any resulting Purchase Order or Contract.

GENERAL CONDITIONS AND INSTRUCTIONS:

NATURE OF, AND ELIGIBILITY TO RESPOND. This bid invitation is submitted in accordance with Chapter 21-1, and rules promulgated thereunder, and constitutes a firm and binding offer. A bid may not be withdrawn unless permission is obtained from the Bureau of Purchase and Property.

Bids may be issued only by the Bureau of Purchase and Property and are not transferable.

SAMPLES AND DEMONSTRATIONS. When samples are required they must be submitted free of costs and will not be returned. Items left for demonstration or evaluation purposes shall be delivered and installed free of charge and shall be removed at no cost to the State. Demonstration units shall not be offered to the State as new equipment.

BIDS. Bids must be received at the Bureau of Purchase and Property before the date and time specified for the opening. Bids must be submitted on this bid form or exact copies and must be typed or clearly printed in ink. Corrections must be initialed. Bids are to be made less Federal Excise Tax and no charge for handling unless required by law.

SPECIFICATIONS. Vendors must submit on items as specified. Proposed changes must be submitted in writing and received at the Bureau of Purchase and Property at least five (5) business days prior to the bid opening. Vendors shall be notified in writing if any changes to the specifications are made.

AWARD. The award will be made to the responsible Vendor submitting a conforming bid meeting specifications at the lowest cost unless other criteria are noted in the bid. Unless otherwise noted, the award may be made by individual items.

If there is a discrepancy between the unit price and the extension, the unit price will prevail.

When identical low bids are received the award will be made in accordance with the Administrative Rules.

Discounts will not be considered in making award but may be offered on the Invoice for earlier payment and will be applicable on the date of completion of delivery or receipt of Invoice, whichever is later. On orders specifying split deliveries, discounts will apply on the basis of each delivery or receipt of Invoice, whichever is later.

PATENT INFRINGEMENT. Any responding vendor who has reason to believe that any other responding vendor will violate a patent should such responding vendor be awarded the contract shall set forth in writing, prior to the date and time of opening, the grounds for his belief and a detailed description of the patent.

ASSIGNMENT PROVISION. The responding vendor hereby agrees to assign all causes of action that it may acquire under the antitrust laws of New Hampshire and the United States as the result of conspiracies, combinations, or contracts in restraint of trade which materially affect the price of goods or services obtained by the state under this contract if so requested by the State of New Hampshire.

FEDERAL FUNDS. This Division of Plant and Property Management, under RSA 21-1:14, VIII shall assure the continuation or granting of federal funds or other assistance not otherwise provided for by law by following the Federal Procurement Standards.

STATE'S OPTIONS: The Bureau of Purchase and Property reserves the right to reject or accept all or any part of any bid, to determine what constitutes a conforming bid, to award the bid solely as it deems to be in the best interest of the State, and to waive irregularities that it considers not material to the bid.

PUBLIC INFORMATION: The responding vendor hereby acknowledges that all information relating to this bid and any resulting order (including but not limited to fees, contracts, agreements and prices) are subject to these laws of the State of New Hampshire regarding public information.

PERSONAL LIABILITY: The responding vendor agrees that in the preparation of this bid or the execution of any resulting contract or order, representatives of the State of New Hampshire shall incur no liability of any kind.

PROOF OF COMPLIANCE. The responding vendor may be required to supply proof of compliance with proposal specifications. When requested, the responding vendor must immediately supply the Bureau of Purchase and Property with certified test results or certificates of compliance. Where none are available, the State may require independent laboratory testing. All costs for such testing certified test results or certificate of compliance shall be the responsibility of the responding vendor.

FORM OF CONTRACT. The terms and conditions set forth in any additional Terms and Conditions by the Bureau of Purchase and Property are part of the bid and will apply to any contract awarded the responding vendor unless specific exceptions are taken and accepted and will prevail over any contrary provisions in Terms and Conditions submitted by the responding vendor.

CONTRACT TERMS AND CONDITIONS

1. The State of New Hampshire, acting through the Division of Plant and Property Management, engages the firm or individual ("the Vendor") to perform the services and/or sale of goods, described in the attached State documents, if any, and the Vendor's bid or quotation, both of which are incorporated herein by reference.
- 2. COMPLIANCE BY VENDOR WITH LAWS AND REGULATIONS.** In connection with the performance of this agreement, the Vendor shall comply with all statutes, laws, regulations, and orders of federal, state, county or municipal authorities which shall impose any obligation or duty upon the Vendor, including, but not limited to civil rights and equal opportunity laws.
- 3. TERM.** The contract, and all obligations of the parties thereunder shall become effective on a specified date and shall be completed in their entirety prior to a specified date. Any work undertaken by the Vendor prior to the effective date shall be at his sole risk and, in the event that the contract shall not become effective, the State shall be under no obligation to reimburse the Vendor for any such work.
- 4. CONTRACT PRICE.** The contract price, a payment schedule and a maximum limitation of price shall be as specified by the bid invitation and the Vendor's bid. All payments shall be conditioned upon receipt, and approval by the State, of appropriate vouchers and upon satisfactory performance by the Vendor, as determined by the State. The payment by the State of the Contract Price shall constitute complete reimbursement to the Vendor for all expenses of any nature incurred by the Vendor in the performance by the Vendor and complete payment for the Services. The State shall have no other liability to the Vendor.
- 5. DELIVERY.** If the vendor fails to furnish items and/or services in accordance with all requirements, including delivery, the state may re-purchase similar items from any other source without competitive bidding, and the original vendor may be liable to the state for any excess costs. If a vendor is unable to complete delivery by the date specified, he must contact the using agency. However, the agency is not required to accept a delay to the original delivery date. All deliveries are subject to inspection and receiving procedure rules as established by the State of New Hampshire. Deliveries are not considered accepted until compliance with these rules has been established. State personnel signatures on shipping documents shall signify only the receipt of shipments. All deliveries shall be FOB Destination.
- 6. INVOICING.** All invoices must be in triplicate showing Order Number, Unit and Extension Prices and discounts allowed. A separate invoice shall be submitted for each order. Unless otherwise noted on the invitation to bid or purchase order, payment will not be due until thirty (30) days after all services have been completed, or all items have been delivered, inspected and accepted or the invoice has been received at the agency business office, whichever is later.
- 7. PERSONNEL.**
- 7.1.** The Vendor shall disclose in writing the names of all owners (5% or more), directors, officers, employees, agents or subcontractors who are also officials or employees of the State of New Hampshire. Any change in this information shall be reported in writing within fifteen (15) days of their occurrence.
- 7.2.** The person signing this agreement on behalf of the State, or his or her delegee ("Contracting Officer") shall be the State's representative for purposes of this agreement. In the event of any dispute concerning the interpretation of this agreement, the Contracting Officer's decision shall be final.
- 8. EVENT OF DEFAULT; REMEDIES.**
- 8.1.** Any one or more of the following acts or omissions of the Vendor shall constitute an event of default hereunder ("Events of Default"):
- 8.1.1.** failure to deliver the goods or services satisfactorily or on schedule; or
- 8.1.2.** failure to submit any report required hereunder; or
- 8.1.3.** failure to perform any of the other covenants and conditions of this agreement.
- 8.2.** Upon the occurrence of any Event of Default, the State may take any one, or more, or all, of the following actions:
- 8.2.1.** give the Vendor a written notice specifying the Event of Default and requiring it to be remedied within, in the absence of a greater or lesser specification of time, thirty (30) days from the date of the notice; and if the Event of Default is not timely remedied, terminate this agreement, effective two (2) days after giving the Vendor notice of termination; and
- 8.2.2.** give the Vendor a written notice specifying the Event of Default and suspending all payments to be made under this agreement and ordering that the portion of the Contract Price, which would otherwise accrue to the Vendor during the period from the date of such notice until such time as the State determines that the Vendor has cured the Event of Default, shall never be paid to the Vendor; and
- 8.2.3.** set off against any other obligation the State may owe to the Vendor any damages the State suffers by reason of any Event of Default; and
- 8.2.4.** treat the agreement as breached and pursue any of its remedies at law or in equity, or both.
- 9. WAIVER OF BREACH.** No failure by the State to enforce any provisions hereof after any Event of Default shall be deemed a waiver of its rights with regard to that Event, or any subsequent Event. No express failure of any Event of Default shall be deemed a waiver of any

provision hereof. No such failure or waiver shall be deemed a waiver of the right of the State to enforce each and all of the provisions hereof upon any further or other default on the part of the Vendor.

10. VENDOR'S RELATION TO THE STATE. In the performance of this agreement the Vendor is in all respects an independent contractor, and is neither an agent nor an employee of the State. Neither the Vendor nor any of its officers, employees, agents or members shall have authority to bind the State nor are they entitled to any of the benefits, workmen's compensation or emoluments provided by the State to its employees.

11. ASSIGNMENT AND SUBCONTRACTS. The Vendor shall not assign, or otherwise transfer any interest in this agreement without the prior written consent of the State. No work required by this contract shall be subcontracted without the prior written consent of the State.

12. INDEMNIFICATION. The contractor shall defend, indemnify and hold harmless the State, its officers and employees, from and against any and all losses suffered by the State, its officers and employees, and any and all claims, liabilities or penalties asserted against the State, its officers and employees, by or on behalf of any person, on account of, based on, resulting from, arising out of (or which may be claimed to arise out of) the acts or omissions of the Vendor. Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the sovereign immunity of the State, which immunity is hereby reserved to the State. This covenant shall survive the termination of this agreement.

12.1 PATENT PROTECTION. The seller agrees to indemnify and defend the State of New Hampshire from all claims and losses resulting from alleged and actual patent infringements and further agrees to hold the State of New Hampshire harmless from any liability arising under RSA 382-A:2-312(3). (Uniform Commercial Code).

13. TOXIC SUBSTANCES. In compliance with RSA 277-A known as the Workers Right to Know Act, the vendor shall provide Material Safety Data Sheets with the delivery of any and all products covered by said law.

14. NOTICE. Any notice by a party hereto to the other party shall be deemed to have been duly delivered or given at the time of mailing by certified mail, postage prepaid, in a United States Post Office addressed to the parties at the addresses given below.

15. AMENDMENT. This agreement may be amended, waived or discharged only by an instrument in writing signed by the parties hereto.

16. CONSTRUCTION OF AGREEMENT AND TERMS. This agreement shall be construed in accordance with the laws of the State of New Hampshire, and is binding upon and inures to the benefit of the parties and their respective successors and assigns.

17. ADDITIONAL PROVISIONS. The additional provisions (if any) have been set forth as Exhibit "A" hereto.

18. ENTIRE AGREEMENT. This agreement, which may be executed in a number of counterparts, each of which shall be deemed an original, constitutes the entire agreement and understanding between the parties, and supersedes all prior agreements and understandings relating hereto.

**BID INVITATION FOR:
A CONTRACT FOR: CULVERT LINING MATERIALS (SUPPLY & DELIVER)**

INSTRUCTIONS TO VENDOR:

Read the entire bid invitation prior to filling it out. Complete the pricing information in the "Offer" section (the unit price is the price for the unit of purchase required by this bid invitation (i.e. each, case, box, etc.) and all other required information on your offer. The extension is the unit price multiplied by the quantity required by this bid invitation. Also complete the "Vendor Contact Information" section. Finally, fill out, sign, and notarize page one of the bid invitation.

BID SUBMITTAL

All bids must be submitted on this form or an exact copy, must be typed or clearly printed in ink and must be received on or before the date and time specified on page 1 of this bid. Interested parties may submit a bid to the State of New Hampshire Bureau of Purchase and Property, 25 Capitol Street, Room 102, Concord NH 03301 by **email to PRCHWEB@NH.GOV**. All bids must be clearly marked with bid number, date due and purchasing agent's name.

IF YOU ARE EXPERIENCING DIFFICULTIES EMAILING YOUR BID OR YOU WISH TO VERIFY THAT YOUR BID RESPONSE HAS BEEN RECEIVED, PLEASE CALL (603) 271-2201 AND ASK A PURCHASING ASSISTANT FOR ASSISTANCE OR TO CHECK ON THE STATUS OF YOUR BID RESPONSE.

GOVERNING TERMS AND CONDITIONS:

A responding bid that has been completed and signed by your representative will constitute your company's acceptance of all State of New Hampshire terms and conditions and will legally obligate your company to these terms and conditions.

A signed response further signifies that any terms and/or conditions that may be or have been submitted by the Vendor are specifically null and void and are not a part of this bid invitation or any awarded purchase order, even if said terms and/or conditions contain language to the contrary.

PUBLIC DISCLOSURE OF BID SUBMISSIONS:

Generally, all bids and proposals (including all materials submitted in connection with them, such as attachments, exhibits and addenda) become public information upon the effective date of a resulting contract or purchase order. However, to the extent consistent with applicable state and federal laws and regulations, as determined by the State, including, but not limited to, RSA Chapter 91-A (the "Right-to-Know" Law), the State will attempt to maintain the confidentiality of portions of a bid that are clearly and properly marked by a Vendor as confidential. Any and all information contained in or connected to a bid or proposal that a Vendor considers confidential must be clearly designated in a manner that draws attention to the designation. The State shall have no obligation to maintain the confidentiality of any portion of a bid, proposal or related material, which is not so marked. Marking an entire bid, proposal, attachment or sections thereof confidential without taking into consideration the public's right to know will neither be accepted nor honored by the State. Notwithstanding any provision of this RFP/RFB to the contrary, pricing will be subject to public disclosure upon the effective date of all resulting contracts or purchase orders, regardless of whether or not marked as confidential. If a bid or proposal results in a purchase order or contract, whether or not subject to approval by the Governor and Executive Council, all material contained in, made part of, or submitted with the contract or purchase order shall be subject to public disclosure.

If a request is made to the State by any person or entity to view or receive copies of any portion of a bid or proposal, and if disclosure is not prohibited under RSA 21-I: 13-a, Vendors acknowledge and agree that the State may disclose any and all portions of the bid, proposal or related materials which is not marked as confidential. In the case of bids, proposals or related materials that contain portions marked confidential, the State will assess what information it believes is subject to release; notify the Vendor that the request has been made; indicate what, if any, portions of the bid, proposal or related material will not be released; and notify the Vendor of the date it plans to release the materials. The State is not obligated to comply with a Vendor's designation regarding confidentiality.

By submitting a bid or proposal, the Vendor agrees that unless it obtains and provides to the State, prior to the date specified in the notice described in the paragraph above, a court order valid and enforceable in the State of New Hampshire, at its sole expense, enjoining the release of the requested information, the State may release the information on the date specified in the notice without any liability to the Vendor.

PURPOSE:

The purpose of this bid invitation is to establish a contract(s) for supplying the State of New Hampshire agencies with the item(s) indicated in the "Offer" section of this bid invitation to be ordered as needed during the term of the contract, in accordance with the requirements of this bid invitation and any resulting contract(s). Items ordered under any resulting contract(s) must be delivered FOB destination to the location(s) indicated in the "Delivery Locations" section of this bid invitation.

ELIGIBLE PARTICIPANTS:

Political sub-divisions (counties, cities, towns, school districts, special district or precinct, or any other governmental organization), or any nonprofit agency under the provisions of section 501c of the federal internal revenue code, are eligible to participate under this contract whenever said sub-division or nonprofit agency so desires. These entities are autonomous and may participate at their sole discretion. In doing so, they are entitled to the prices established under the contract. However, they are solely responsible for their association with the successful Vendor. The State of New Hampshire assumes no liability between the successful Vendor and any of these entities.

CONTRACT TERM:

The term of the contract(s) shall be from the date of award through 7/31/18, a period of approximately three years. The contract(s) may be extended for an additional two (2) years thereafter under the same terms, conditions and pricing structure upon the mutual agreement between the successful Vendor and the Bureau of Purchase and Property with the approval of the Commissioner of the Department of Administrative Services. The maximum term of the contract(s) (including all extensions) cannot exceed five (5) years.

TERMINATION:

The State of New Hampshire shall have the right to terminate the purchase contract(s) at any time by giving the successful Vendor a thirty (30) day written notice.

VENDOR CERTIFICATIONS:

ALL Vendors **SHALL** be duly registered as a Vendor authorized to conduct business in the State of New Hampshire. Vendors shall comply with the certifications below at the time of submission and through the term of any contract(s) which results from said bid. Failure to comply shall be grounds for disqualification of bid and/or the termination of any resultant contract(s):

- **STATE OF NEW HAMPSHIRE VENDOR APPLICATION:** Vendor **SHALL** have a completed Vendor Application and Alternate W-9 Form which **SHALL** be on file with the NH Bureau of Purchase and Property. See the following website for information on obtaining and filing the required forms (no fee): <http://admin.state.nh.us/purchasing/Contractor.asp>
- **NEW HAMPSHIRE SECRETARY OF STATE REGISTRATION:** A bid award, in the form of a contract(s), will **ONLY** be awarded to a Vendor who is registered to do business **AND** in good standing with the State of New Hampshire. Please visit the following website to find out more about the requirements for registration with the NH Secretary of State: <http://dos.nh.gov/Purchasing>.
- **CONFIDENTIALITY & CRIMINAL RECORD:** If Applicable, by the using agency, the Vendor will have signed by each of employees or its approved sub-contractor(s), if any, working in the office or externally with the State of New Hampshire records a Confidentiality form and Criminal Record Authorization Form. These forms shall be returned to the individual using agency prior to the start of any work.

REQUEST FOR CHANGES AND/OR CLARIFICATION:

Any Questions must be submitted by an individual authorized to commit their organization to the Terms and Conditions of this bid. Submissions must clearly identify the bid Number, the Vendor's name and address and the name of the person submitting the question. Any requested changes to this bid invitation by the Vendor must be received in writing at the Bureau of Purchase and Property no later than 4:30 PM on the (5th) fifth business day **prior** to the date of the bid opening.

Questions must be submitted by E-mail to Robert Lawson at the following address: Robert.lawson@NH.GOV.

ADDENDUM:

In the event it becomes necessary to add to or revise any part of this bid prior to the scheduled submittal date, the NH Bureau of Purchase and Property will post on our web site any Addenda. Before your submission, **check the site for any addenda** or other materials that may have been issued affecting the bid. The web site address is <http://das.nh.gov/Purchasing/vendorresources.asp>.

WARRANTY REQUIREMENTS:

Successful Vendor shall be required to warranty all of the equipment awarded to Vendor for a period of not less than one year, from the date the items are received, inspected and accepted by the State of New Hampshire. The warranty shall cover 100% of all parts, shipping, labor, travel, lodging and expenses.

BID PRICES:

Bid prices must be in US dollars and must include delivery and all other costs required by this bid invitation. Special charges, surcharges, or fuel charges of any kind (by whatever name) may not be added on at any time. Any and all charges **must be built into your bid price** at the time of the bid.

PRICE ADJUSTMENTS:

The successful vendor will be allowed to request a price adjustment on an annual basis for the period beginning July 31, 2016. Increases shall be based solely on manufacturing pricing and must be no greater than the percentage of the manufacturer's increase to the vendor. Requests must be received in writing at least 20 days prior to the proposed effective date and must include a letter from the manufacturer which shows the amount or percentage of the increase. The State of New Hampshire shall reserve the right to reject any increase and to re-bid any part, or the entire contract, if deemed to be in its best interest of the State.

BID RESULTS:

Bid results may be viewed when available, once the award has been made, on our web site only at: http://www.admin.state.nh.us/purchasing/bids_posteddate.asp.

For Vendors wishing to attend the bid Opening: **Only the names of the Vendors submitting responses will be made public.**

ABILITY TO PROVIDE:

Successful Vendor must be capable of providing each State of New Hampshire agencies and eligible participants with their entire requirements of the items required in this bid invitation and any resulting contract(s) without any delay or substitution.

ORDERING PROCEDURE:

State agencies will place their orders by electronic order entry, by e-mail, by FAX, or they may establish a standard delivery order. Eligible participants will utilize their own individually established ordering procedures.

AUDITS AND ACCOUNTING:

The successful Vendor shall allow representatives of the State of New Hampshire to have complete access to all records for the purpose of determining compliance with the terms and conditions of this bid invitation and in determining the award and for monitoring any resulting contract(s).

At intervals during the contract term, and prior to the termination of the contract, the successful Vendor may be required to provide a complete and accurate accounting of all products and quantities ordered by each agency and institution and by political sub-divisions and authorized non-profit organizations.

USAGE REPORTING:

The successful Vendor shall be required to submit a quarterly and annual usage report for analysis to determine contract compliance. At a minimum, the Report shall include:

- Contract Number
- Utilizing Agency and Eligible Participant
- All Products Purchased (showing the manufacturer, item, part number, list price and the final cost after discount.)
- Total Cost of all Products Purchased

DELIVERY TIME:

The successful Vendor will be required to accomplish delivery of any item ordered under the contract within three (3) business days from the placement of the order.

The use of a private carrier to make delivery **does not** relieve the successful Vendor from the responsibility of meeting the delivery requirement.

ESTABLISHMENT OF ACCOUNTS:

Each State of New Hampshire agency must have its own individual customer account number. There will be instances where sub-sections of an agency will need their own individual customer account number. Should any State of New Hampshire agency place an order under the contract, the successful Vendor agrees to establish an account within three business days from the date the order is placed. However, there must be no delay in any shipment; the agency must receive the items ordered in accordance with the delivery time required under the "Delivery Time" section of this bid invitation, as if an account already exists for them.

RETURNED GOODS:

The successful Vendor must resolve all order and invoice discrepancies within five business days from notification. Products returned due to quality issues, duplicate shipments, over-shipments, etc. must be picked up by the successful Vendor within ten business days of notification with no restocking or freight charges, and must be replaced with specified products or the agency will be refunded/credited for the full purchase price. Unauthorized substitutions for any products are not allowed.

Standard stock products ordered in error by the State of New Hampshire must be returned for full credit within fifteen business days of receipt. Products must be in re-saleable condition (original container, unused) and there will be no restocking fee charged for these products. The using agency will be responsible for any freight charges to return these items to the successful Vendor.

INVOICING:

Invoicing shall be done to the Agency Remit Account on the basis of each order completed. Invoices shall clearly indicate the quantity, description, packaging, date delivered, and contract price. Invoicing for eligible participants will be in accordance with their individual requirements.

PAYMENT:

Payments shall be made via ACH. Use the following link to enroll with the State Treasury:

<http://www.nh.gov/treasury/Divisions/DocsForms/Tforms.htm?inc=P>

CONTRACT AWARD:

The award shall be made to the responsible Vendor(s) meeting the criteria established in this RFB and providing the lowest cost in total by section. Four Tables have been included for pricing for PVC Liners, Aluminum Liners and HDPE Liners. A contract will be awarded to the lowest bidder for each Table. The State reserves the right to reject any or all bids or any part thereof. If an award is made it shall be, in the form of a State of New Hampshire Contract (s).

Successful Vendor will not be allowed to require any other type of order, nor will the successful Vendor be allowed to require the filling out or signing of any other document by State of New Hampshire personnel.

VENDOR'S BALANCE OF PRODUCT LINE ITEMS

The items in each Table include the items most commonly purchased by State of New Hampshire agencies, and will be used for award purposes. During the term of contract, the state may purchase other items in relation to Culvert Lining Materials from the successful Vendor's Balance of Product Line. These shall include only the purchase of other culverts, bands with gaskets, threaded grout couplers, rails, and other related items. Please indicate the product names and percent off the manufacturer list that will be offered for "Balance of Product Line" items.

All items ordered will include all shipping/charges as specified above in "Bid Prices".

<u>PRODUCT NAME/CATEGORY</u>	<u>% OFF MANUFACTURER LIST</u>
N/A	%
	%
	%
	%
	%

SPECIFICATION COMPLIANCE:

Vendor's offer must meet or exceed the required specifications as written. The State of New Hampshire shall be the sole determining factor of what meets or exceeds the required specifications.

Unless otherwise specified by the Bureau of Purchase and Property in this bid invitation document, all equipment offered by the Vendor must be new; shall not be used, rebuilt, refurbished; shall not have been used as demonstration equipment, and shall not have been placed anywhere for evaluation purposes.

All materials must conform to the NH Department of Transportation's "Standard Specifications for Road and Bridge Construction" dated 2010. Special provision 602 is included with this bid document.

OFFER:

Bidder hereby offers to furnish culvert lining materials to State of New Hampshire agencies and institutions and to any political sub-division and authorized non-profit organization wishing to participate, in accordance with all of the requirements of this bid invitation at the following prices for the entire contract term and any extension.

PRICING TABLE 1 - PVC LINER

LINE ITEM	UNIT OF MEASURE	OD SIZE (INCHES)	DESCRIPTION	MINIMUM EFFECTIVE DIAMETER	PRICE PER LINEAR FOOT
1	Linear Feet	15	PVC Culvert Liner Per ASTM F-949	12	
2	Linear Feet	30	PVC Culvert Liner Per ASTM F-949	21	
3	Linear Feet	48	PVC Culvert Liner Per ASTM F-949	36	
4	Linear Feet	18	PVC Culvert Liner per ASTM F-949	12	
5	Linear Feet	18	PVC Culvert Liner per ASTM F-949	15	
6	Linear Feet	21	PVC Culvert Liner per ASTM F-949	15	
7	Linear Feet	21	PVC Culvert Liner per ASTM F-949	18	
8	Linear Feet	24	PVC Culvert Liner per ASTM F-949	18	
9	Linear Feet	24	PVC Culvert Liner per ASTM F-949	21	
10	Linear Feet	27	PVC Culvert Liner per ASTM F-949	21	
11	Linear Feet	27	PVC Culvert Liner per ASTM F-949	24	
12	Linear Feet	30	PVC Culvert Liner per ASTM F-949	24	
13	Linear Feet	33	PVC Culvert Liner per ASTM F-949	24	
14	Linear Feet	33	PVC Culvert Liner per ASTM F-949	27	
15	Linear Feet	36	PVC Culvert Liner per ASTM F-949	27	
16	Linear Feet	36	PVC Culvert Liner per ASTM F-949	30	
17	Linear Feet	42	PVC Culvert Liner per ASTM F-949	30	
18	Linear Feet	42	PVC Culvert Liner per ASTM F-949	36	
				TOTAL	

VOID
See Addendum 1

PRICING TABLE 2 - ALUMINUM LINER

LINE ITEM	UNIT OF MEASURE	OD SIZE (INCHES)	DESCRIPTION	MINIMUM EFFECTIVE DIAMETER	PRICE PER LINEAR FOOT
1	Linear Feet	48	Aluminum Steel Type 2 Spiral Rib	42	
2	Linear Feet	60	Aluminum Steel Type 2 Spiral Rib	54	
3	Linear Feet	72	Aluminum Steel Type 2 Spiral Rib	60	
4	Linear Feet	48	Aluminum Spiral Rib	42	
5	Linear Feet	60	Aluminum Spiral Rib	54	
6	Linear Feet	72	Aluminum Spiral Rib	60	
7	Linear Feet	54	Alum Steel Type 2 Spiral Rib	42	
8	Linear Feet	54	Alum Steel Type 2 Spiral Rib	48	
9	Linear Feet	60	Alum Steel Type 2 Spiral Rib	48	
10	Linear Feet	66	Alum Steel Type 2 Spiral Rib	54	
11	Linear Feet	66	Alum Steel Type 2 Spiral Rib	60	
12	Linear Feet	72	Alum Steel Type 2 Spiral Rib	66	
13	Linear Feet	78	Alum Steel Type 2 Spiral Rib	66	
14	Linear Feet	78	Alum Steel Type 2 Spiral Rib	72	
15	Linear Feet	84	Alum Steel Type 2 Spiral Rib	72	
16	Linear Feet	90	Alum Steel Type 2 Spiral Rib	78	
17	Linear Feet	96	Alum Steel Type 2 Spiral Rib	84	
18	Linear Feet	102	Alum Steel Type 2 Spiral Rib	90	
19	Linear Feet	108	Alum Steel Type 2 Spiral Rib	96	
20	Linear Feet	114	Alum Steel Type 2 Spiral Rib	102	
21	Linear Feet	120	Alum Steel Type 2 Spiral Rib	108	
22	Linear Feet	54	Alum Spiral Rib	42	
23	Linear Feet	54	Alum Spiral Rib	48	
24	Linear Feet	60	Alum Spiral Rib	48	
25	Linear Feet	66	Alum Spiral Rib	54	
26	Linear Feet	66	Alum Spiral Rib	60	
27	Linear Feet	78	Alum Spiral Rib	66	
28	Linear Feet	78	Alum Spiral Rib	72	
29	Linear Feet	84	Alum Spiral Rib	72	
				TOTAL	

VOID

See Addendum 1

VOID See Addendum 1

PRICING TABLE 3 - HDPE LINER

LINE ITEM	UNIT OF MEASURE	OD SIZE (INCHES)	DESCRIPTION	MINIMUM EFFECTIVE DIAMETER	PRICE PER LINEAR FOOT
1	Linear Feet	18	HDPE Culvert Liner Per AASHTO M326	15	
2	Linear Feet	24	HDPE Culvert Liner Per AASHTO M326	21	
3	Linear Feet	30	HDPE Culvert Liner Per AASHTO M326	24	
4	Linear Feet	36	HDPE Culvert Liner Per AASHTO M326	30	
5	Linear Feet	42	HDPE Culvert Liner Per AASHTO M326	36	
6	Linear Feet	48	HDPE Culvert Liner Per AASHTO M326	42	
7	Linear Feet	54	HDPE Culvert Liner Per AASHTO M326	48	
8	Linear Feet	63	HDPE Culvert Liner Per AASHTO M326	57	
				TOTAL	

PRICING TABLE 4 - CORRUGATED HDPE LINER

LINE ITEM	UNIT OF MEASURE	OD SIZE (INCHES)	DESCRIPTION	MINIMUM EFFECTIVE DIAMETER	PRICE PER LINEAR FOOT
1	Linear Feet	18	Corrugated HDPE Culvert Liner Per AASHTO M294	15	
2	Linear Feet	24	Corrugated HDPE Culvert Liner Per AASHTO M294	21	
3	Linear Feet	30	Corrugated HDPE Culvert Liner Per AASHTO M294	24	
4	Linear Feet	36	Corrugated HDPE Culvert Liner Per AASHTO M294	30	
5	Linear Feet	42	Corrugated HDPE Culvert Liner Per AASHTO M294	36	
6	Linear Feet	48	Corrugated HDPE Culvert Liner Per AASHTO M294	42	
7	Linear Feet	54	Corrugated HDPE Culvert Liner Per AASHTO M294	48	
8	Linear Feet	63	Corrugated HDPE Culvert Liner Per AASHTO M294	57	
				TOTAL	

MINIMUM ORDERS:

There will be no minimum order whether in item quantity or dollar value associated with any contract(s) resulting from this bid.

DELIVERY LOCATIONS:

The following are the current State of New Hampshire agency/institution locations which, if you are awarded a contract, you are expected to service. The State of New Hampshire reserves the right to add locations to this list at the contract prices or to delete locations, as needed. This listing does not include any eligible participants.

All Department of Transportation Districts

VENDOR CONTACT INFORMATION:

The following information is for this office to be able to contact a person knowledgeable of your bid response, and who can answer questions regarding it:

Stephen S Wolf 802-233-9110 N/A
Contact Person Local Telephone Number Toll Free Telephone Number

513 SWOLF@conteches.com www.conteches.com
Fax Number E-mail Address Company Website

Contech Engineered Solutions LLC _____
Vendor Company Name DUNS #

PO Box 1975 New London NH 03257
Vendor Address

Note: To be considered, bid must be signed and notarized on front cover sheet in the space provided.

SPECIAL PROVISION

DIVISION 600 – INCIDENTAL CONSTRUCTION

SECTION 602 – PIPE LINING

Description

1.1 This work shall consist of various repair methods for providing structural strength for deteriorated drainage pipe and pipe renewal processes as specified in the plans. The work shall include cleaning and inspecting the existing pipe, structural recommendation, and preparation and repair of the existing pipe. This specification covers slip lining, close-fit lining, spirally wound lining, and spray-on lining, as defined below.

1.1.1. Slip lining involves inserting a segmented or continuous pipe of smaller diameter directly into a deteriorated culvert. Upon completion or partial completion of the slip lining process, fill material will be required to be placed in the annular void between the insertion pipe and the host pipe.

1.1.2. Spirally wound lining uses interlocking profile strips, made from PVC or HDPE, to line a deteriorated culvert. The continuous, machine wound profile liner renewal system shall be capable of being installed with little or no surface excavation and some pipeline flow.

1.1.3. Close-fit lining, sometimes referred to as modified slip lining, involves the insertion of a thermoplastic pipe with an outside diameter the same or slightly larger than the inside diameter of the host culvert.

1.1.4. Spray-on lining techniques include, but are not limited to, reinforced sprayed mortars applied with a centrifugal lining machine and spray applied resin linings. This provision may be used for relining existing conduit that is 36-inch diameter or greater in size.

Materials

2.1 **Slip Lining.** Plastic and metal pipes shall be in accordance with applicable provisions in Section 603.2 and the following.

2.1.1 Polyethylene Pipe Liner.

2.1.1.1 Solid Wall Polyethylene Pipe with Integral Joint

- AASHTO M 326, Polyethylene (PE) Liner Pipe, 12- to 63-in Diameter, Based on Controlled Outside Diameter, Standard Dimension Ratio (SDR) Classification - 32.5

2.1.1.2 Profile Wall Polyethylene Pipe with Integral Joint

- AASHTO M 294, Corrugated Polyethylene Pipe, 12- to 60-in diameter (inside), Type S, or Type C as specified on the plans.
- ASTM F 894, Polyethylene (PE) Large Diameter Profile Wall Sewer and Drain Pipe, 66- to 120-in diameter (inside), Ring Stiffness Constant (RSC) – 160 minimum

2.1.1.3 Profile Wall Steel-Reinforced Polyethylene Pipe

OK
Inner
Flow

OK
Duro-Maxy

OK

- AASHTO MP 20, Steel-Reinforced Polyethylene (PE) Ribbed Pipe, 12- to 60-in diameter (inside), Classification Type S

Duro Maxx

- ASTM F 2562, Steel Reinforced Thermoplastic Ribbed Pipe and Fittings for Non-Pressure Drainage and Sewerage, 66- to 120-in diameter (inside), Class 2

2.1.2 Polyvinyl Chloride Liner. **Handling and installation restrictions may apply during low temperatures. **

2.1.2.1 Solid Wall Polyvinyl Chloride Pipe with Integral Joint

- AASHTO M 278, Class PS46 Poly(vinyl Chloride)(PVC) Pipe, 4- to 15-in diameter, Classification Type S or M
- ASTM F 679, Poly(vinyl Chloride)(PVC) Large-Diameter Plastic Gravity Sewer Pipe and Fittings, 18- to 48-in diameter

OK

2.1.2.2 Profile Wall Polyvinyl Chloride Pipe with Integral Joint

- AASHTO M 304, Poly(Vinyl Chloride) (PVC) Profile Wall Drain Pipe and Fittings Based on Controlled Inside Diameter, 4- to 48-in diameter, Bell Joint

A2 Liner

2.1.3 Polypropylene Liner. **Handling and installation restrictions may apply during low temperatures. **

2.1.3.1 Profile Wall Polypropylene Pipe

- AASHTO M330, Polypropylene Pipe, 12- to 60-in diameter, Classification Type C, S, or D

OK

2.1.4 Metal Pipe Liner

2.1.4.1 Profile Wall Polymer-Pre-coated Corrugated Aluminized Steel Pipe

- ASTM F 1545, Plastic-Lined Ferrous Metal Pipe, Fittings, and Flanges

2.1.4.2 Profile Wall Polymer-Pre-coated Corrugated Galvanized Steel Pipe

- AASHTO M 245, Corrugated Steel Pipe, Polymer-Pre-coated, for Sewers and Drains, Type I, polymer protective coating per M 246

A2 + Alum Spiral Rib

2.1.5 Fill Material for Annular Space. Fill material for the annular space between the existing and new liner pipe shall be designed and meet the material requirements of the pipe Manufacturer's instructions.

2.2 Spiral Wound Pipe Liner.

2.2.1 Polyethylene.

- ASTM WK 24075, High-Density Polyethylene (HDPE) Profile Strip for Machine spiral Wound Liner Pipe Rehabilitation of Existing Sewers and Conduits

2.2.2 Polyvinyl Chloride.

- ASTM F 1697, Poly(Vinyl Chloride) (PVC) Profile Strip for Machine Spiral-Wound Liner Pipe Rehabilitation of Existing Sewers and Conduit, 6- to 180-in diameter

(b) PVC material shall be resistant to UV radiation where the installation is exposed to sunlight

2.3 Close-Fit Lining.

2.3.1 Folded/Folded and Formed Methods.

- (a) ASTM F 1504, Folded Poly(Vinyl Chloride) (PVC) Pipe for Existing Sewer and conduit Rehabilitation, 4- to 15-in diameter
- (b) ASTM F 1871, Folded/Formed Poly (Vinyl Chloride) Pipe Type A for Existing Sewer and Conduit Rehabilitation, 4- to 18-in diameter

2.3.2 Deformed/Reformed Method.

- (a) ASTM F-1533, Deformed Polyethylene (PE) Liner, 3- to 18-in diameter

2.3.3 Tight Fit Spiral Wound.

- (a) ASTM F 1697, Poly(Vinyl Chloride) (PVC) Profile Strip for Machine Spiral-Wound Liner Pipe Rehabilitation of Existing Sewers and Conduit, 6- to 180-in diameter

2.3.4 Cured-in-Place.

- (a) ASTM D 5813, Cured-In-Place Thermosetting Resin Sewer Piping Systems, 4- to 132-in diameter

2.4 Spray-on Lining.

2.4.1 Cementitious.

2.4.1.1 Reinforced Mortar. This engineered mortar consists of mixing reinforcing fibers and other additives to provide the mortar with structural properties and an adherence capability to bond the interior culvert surface.

Minimum Physical Properties		
Property	Property	Value
Compressive Strength	ASTM C 39/C 39M-09a/C 109	
	1 day	2,500 psi
	28 days	8,000 psi
Flexural Strength	ASTM C 293 (C 78 results)	
	7 day	600 psi
	28 days	800 psi
Tensile Strength	ASTM C 496	
	28 days	670 psi
Modulus of Elasticity	ASTM C469 - 02	
	1 day	3.00 X 10 ⁶ psi
	28 days	6.84 X 10 ⁶ psi
Bond Strength	ASTM C882/C 882M-05	
	1 day	1,300 psi
	28 days	1,600 psi

2.4.2 Polymeric.

2.4.2.1 Epoxy. ASTM C 881/881M, Epoxy-Resin-Base Bonding System for Concrete.

2.4.2.2 Polyurethane. Material is polyurethane coatings that provides both structural enhancement and chemical resistance and are utilized in applications that require a tough, high build lining.

Minimum Physical Properties		
Property	Test Method ASTM	Value
Tensile strength	ASTM D 638	7,450 psi
Compressive Strength	ASTM D 695	18,000 psi
Flexural modulus	ASTM D 790	735,000 psi

2.4.2.3 Polyurea. Material is a polyurea compound that provides a short gel time and hardens very quickly.

Minimum Physical Properties		
Property	Test Method ASTM	Value
Tensile strength	ASTM D 638	2,800 psi
Flexural Strength	ASTM D 790	1,500 psi
Flexural modulus	ASTM D 790	33,000 psi

Construction Requirements

3.1 General Installation Guidelines. A general list of installation guidelines applicable to all pipe rehabilitation processes is provided below:

3.1.1 Submit engineering design calculations and shop drawings for the pipe rehabilitation for documentation in accordance with Section 105.02 of the Standard Specifications. These calculations and drawings shall address the profile designation (geometry), and fill material strength and thickness (if any) that may be required. The calculations shall be based on an evaluation of the condition of the existing pipe, the long-term design loads on the rehabilitated pipe, and the required chemical resistance and flow capacity of the rehabilitated pipe. These calculations shall be prepared and stamped by a Professional Engineer, registered in the State of New Hampshire.

3.1.2 Prior to installing any type of pipe lining, the Contractor shall submit a detailed plan to the Engineer, for each liner installation for documentation. Dependent on rehabilitation type, the plan shall include all associated information such as: the proposed mix design, strength, and nominal thickness for all fill material, including test results, to be used in filling the annular space between the existing pipe and pipe liner and for repairing the existing pipe; the proposed material for the bulkheads; the proposed bulkhead construction; the proposed procedure and equipment needed for the fill material installation; the locations of filling ports; the details of the bracing system, and provisions for air release. The plan shall address liner flotation, liner length, elevation change, liner loading, liner joint connection, any dewatering that may be needed, and elimination of water flow in and around the existing pipe.

3.1.3 Installation shall be compliant with all environmental regulations.

3.1.4 Prior to installing the pipe liner, the existing culvert shall be flushed and/or cleaned out with hydraulically powered (high velocity jet) equipment to ensure the liner can be inserted without obstruction.

3.1.5 The Contractor shall be responsible for the handling, hauling, and disposal of all debris, silt, and accumulated solids removed when pipe initially cleaned. All debris, silt, and solids removed by the Contractor shall be disposed of at a facility licensed for the handling and disposal of such materials.

3.1.6 The Contractor shall be aware of the areas of pipe failure (rot) to avoid creating additional voids with the hydraulically powered equipment.

3.1.7 After cleaning, and prior to any type of pipe rehabilitation method, the Contractor shall inspect the existing pipe to ensure there are no excessive variations in the existing pipe profile and no obstructions not known or shown in the plans that would hinder the process. The Contractor shall also verify that the sizing of the pipe profile will be suitable for the existing pipe geometry.

3.1.8 Set up water diversion (if required), unless flow can be shut off during installation.

3.1.9 Any voids in the existing fill material adjacent to the existing pipe shall be filled with the fill material to assure that water does not flow along the outside of the existing pipe.

3.1.10 Prior to pipe rehabilitation, all existing pull-apart or other breaches in the existing pipe shall be repaired to a watertight condition by use of polyurethane or other type of fill material, in accordance with the manufacturer's recommendation or as directed.

3.1.11 If leakage or other testing is required, perform testing to specifications and prior to the reopening of lateral and service connections.

3.1.12 Reconnect lateral and service connections with a television camera and a remote control cutting device. After reopening the lateral and service connections, reconnect the termination points of the liner to the existing culvert. If specially requested, seal the termination points to the existing culvert with a watertight seal.

3.1.13 Finally, restore flow and initiate site cleanup.

3.1.14 The Contractor shall perform a pre-installation video inspection of the existing host pipe and a post-installation video inspection of the lined pipe. Provide a copy of each video to the Engineer. Video inspection equipment must meet the requirements set forth in Section 603.3.7.1.1

3.2 Slip Lining.

3.2.1 ASTM F 585, Insertion of Flexible Polyethylene Pipe into Existing Sewers

3.2.2 Before ordering pipe liner material, the Contractor shall verify the size to be ordered and condition of the existing culvert to ensure that a proper fit can be achieved. If the size specified on the plans does not fit, the liner shall be deformed to match the shape of the existing culvert. If the required deformation is greater than the manufacturer's recommended maximum deformation, the Engineer shall be notified immediately.

3.2.3 The pipe liner shall be pushed/pulled into place, and joined in accordance with the manufacturer's recommendations.

3.2.4 The liner pipe shall be capable of being joined into continuous lengths by an approved method. The joints shall not create an increase in the outside diameter of the liner pipe such that the installation is inhibited. The joining system shall be a restrained system by either snapping or screwing together, including a gasket, unless otherwise approved. Joints shall not allow leakage of the fill material. Butt fusion welding and/or extrusion welding in accordance with the manufacturer's recommendations, may be allowed, in special cases, with prior approval from the Engineer.

3.2.5 The annular space between the existing culvert and the liner shall be filled with fill material in accordance with the pipe liner manufacturer's recommendations. Provide the Engineer with written details of how the work is to be progressed. Include pipe manufacturer's instructions, dewatering, assembly drawings, necessary insertion and bracing methods, and proposed void filling methods.

3.2.6 The holes for filling shall be sealed in accordance with the manufacturer's recommendations.

3.2.7 Protect the polymer coated liner pipes from damage during all phases of construction. Use padded slings and other devices to handle and install polymer coated pipes. Repair damaged polymer coating with a coating similar to and compatible with the original coating or with a tar based material or asphaltic mastic conforming to AASHTO M 243.

3.3 Close-Fit Lining.

3.3.1 For all processes requiring steam or water, water and/or condensation shall be disposed of in accordance with applicable environmental regulations.

3.3.2 Clear line obstructions discovered during inspection prior to inserting the liner. Typically, changes in pipe size and bends in excess of 30° cannot be accommodated and local excavation is necessary. If obstructions cannot be cleared, point repair excavation should be used to remove and repair the obstruction.

3.3.3 Deformed/Reformed Method for Close-fit Lining

3.3.3.1 ASTM F 1606, Rehabilitation of Existing Sewers and Conduits with Deformed Polyethylene (PE) Liner

3.3.3.2 Insert the deformed liner with a power winch. Pulling forces should be limited to not exceed the axial strain limits of the liner.

3.3.3.3 Once inserted, relieve winch tension and cut the insertion and termination ends to install the processing manifolds used to control heat and pressure within the liner. Attach temperature and pressure measuring instruments at both ends of the liner to ensure proper temperatures and pressures are reached during the reformation process.

3.3.3.4 Apply steam and air pressure through the inlet to conform the deformed liner to the existing culvert wall. Keeping the termination point open, pressurize the liner up to a maximum of 99.9 kPa (14.5 psig), with a steam temperature in excess of 112.8°C (235°F) and less than 126.7°C (260°F). If required, increase pressure in increments up to a maximum of 179.1 kPa (26 psig).

3.3.3.5 Cool the reformed liner to a temperature of 37.8°C (100°F). Then increase the pressure slowly to a maximum of 227.4 kPa (33 psig), while applying air or water for continued cooling.

3.3.3.6 After the cool down process, trim the terminating ends to a minimum of 7.6 centimeters (3 inches) beyond the existing culvert to account for possible shrinkage effects during cooling of the liner to ambient temperature.

3.3.4 Fold and Form Method for Close-fit Lining.

3.3.4.1 ASTM F 1867, Installation of Folded/Formed Poly (Vinyl Chloride) (PVC) Pipe Type A for Existing Sewer and Conduit Rehabilitation, 4- to 18-in diameter.

3.3.4.2 ASTM F 1947, Installation of Folded Poly (Vinyl Chloride) (PVC) Pipe for Existing Sewer and Conduit, 4- to 15-in diameter.

3.3.4.3 Inspect the existing culvert to determine the location of any conditions that may hinder proper insertion of the fold and form liner, such as protrusions, collapsed sections, deflected joints, etc.

3.3.4.4 If recommended by the manufacturer, heat the coil or reel containing the folded liner prior to insertion. Use a heating chamber to heat the liner for a minimum of one (1) hour at the temperature recommended by the manufacturer (usually around 43°C (110°F)).

3.3.4.5 If required by the manufacturer's specifications, pull a containment tube through the existing culvert and inflate with air at low pressure and heat for liner installation.

3.3.4.6 Insert the deformed liner with a power winch. Pulling forces should be limited to not exceed the axial strain limits of the liner.

3.3.4.7 Once inserted, relieve the winch tension and cut the insertion and termination ends to install the processing manifolds used to control heat and pressure within the liner. Attach temperature and pressure measuring instruments at both ends of the liner to ensure proper temperatures and pressures are reached during the reformation process.

3.3.4.8 Expand the folded liner using heat and pressure, or using heat, pressure, and a rounding device

3.3.4.9 Apply the recommended temperatures and pressures provided by the manufacturer to overcome the extrusion memory of the liner. If a rounding device is needed, propel the flexible device at a controlled rate (not to exceed 1.2 to 1.8 meters (4 to 6 feet) per minute) within the liner, to expand and conform the liner to the existing culvert in a sequential manner.

3.3.4.10 Maintain the expansion pressure for a minimum period of five (5) minutes within the liner after the rounding device has reached the termination point.

3.3.4.11 Cool the liner to a temperature of 37.8°C (100°F) before relieving the pressure required to expand the liner.

3.3.4.12 After cool down, the terminating ends are trimmed to a minimum of 7.6 centimeters (3 inches) beyond the existing culvert for possible shrinkage effects during the cooling to ambient temperature.

3.3.5 Cured-in-Place Pipe Lining.

3.3.5.1 Inversion Installation.

- (a) ASTM F 1216, Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube, 4- to 108-in diameter
- (b) Vacuum-impregnate the insertion tube with the specified resin under controlled conditions. Apply a resin volume sufficient to fill all voids in the tube material. Add 5% to 10% excess resin to the estimated volume to account for the change in resin volume due to polymerization and migration of resin into cracks and joints in the deteriorated culvert. Lubricate the tube before installation. This can be achieved by applying lubricant to the fluid in the standpipe or by applying lubricant directly to the tube.
- (c) If inverting the resin-impregnated tube with hydrostatic head, insert the tube into the vertical inversion standpipe. Insert the tube with the impermeable plastic membrane side out, while at the lower end of the standpipe, turn the tube inside out and attach it to the standpipe so that a watertight seal is created. Fill the standpipe with water, creating a sufficient head to cause the tube to invert throughout the pipe and bond to the existing culvert.
- (d) If inverting the resin-impregnated tube with air/steam pressure, insert the tube into the guide chute with the impermeable plastic membranes side out. Attach the tube to the upper end of the chute so that a seal is created. Obtain the minimum air/steam pressure needed to hold the tube tight against the existing culvert and the maximum allowable pressure from the manufacturer. Apply the appropriate air/steam pressure to cause the tube to invert throughout the pipe and bond to the existing culvert.
- (e) After inversion is completed, circulate steam throughout the liner with approved equipment. Equipment should be suited with temperature gages and be capable of circulating the steam

uniformly throughout the liner. The initial cure will occur during the heat-up process. After initial cure, raise the temperature to the resin manufacturer's recommended post-cure temperature. Hold this temperature for the recommended period of time by recirculating the steam throughout the liner and heating apparatus. Maintain the recommended pressures throughout the curing process.

- (f) If air/steam was used to cure the resin, drain the air/steam through a small hole made in the downstream end and replace with the introduction of cool water into the guide chute. Cool the liner to a temperature below 45°C (113°F) before relieving the pressure within the section. Contain and properly dispose of, off site, all water used in this process to prevent contamination of surrounding soils and water.
- (g) If the pipe to be lined contains a bituminous coating, the use of a pre-liner or integral exterior plastic film is required.
- (h) Cut and seal the termination ends with a resin mixture compatible with the installed liner if the liner does not fit tightly against the original pipe.

3.3.5.2 Pulled-in-Place Installation.

- (a) ASTM F 1743, Rehabilitation of Existing Pipelines and Conduits by Pulled-in-Place Installation of Cured-in-Place Thermosetting Resin Pipe (CIPP), 4- to 96-in diameter
- (b) Completely impregnate the fabric tube with resin and run through a set of rollers separated by a space to properly distribute the resin. Apply a resin volume sufficient to fill all voids in the tube material and fully saturate all resin absorbing materials. Add 3% to 15% excess resin to the estimated volume to account for changes in resin volume due to polymerization and migration of resin into cracks and joints in the deteriorated culvert. Lubricate the calibration hose prior to installation. This can be achieved by applying lubricant to the fluid in the standpipe or by applying lubricant directly to the calibration hose.
- (c) If the resin-impregnated tube is to be inverted utilizing air/steam pressure, perforate the impermeable plastic coating of the resin-impregnated fabric. Perforating will allow resin to be forced against the inner wall of the calibration hose, permanently becoming part of the fabric tube.
- (d) Utilizing a power winch, pull the resin-impregnated tube through the deteriorated culvert.
- (e) If inverting the resin-impregnated tube with hydrostatic head, insert the calibration hose with the impermeable plastic membrane side out into the center of the resin-impregnated tube. At the lower end of the standpipe, turn the calibration hose inside out and attach both the calibration hose and the resin-impregnated tube to the standpipe, or other apparatus so that a watertight seal is created. Fill the standpipe with water, creating a sufficient head to cause the calibration hose to invert throughout the pipe, forcing the resin-impregnated tube to bond to the existing culvert.
- (f) If inverting the resin-impregnated tube with air/steam pressure, insert the calibration hose through the guide chute with the impermeable plastic membranes side out into the center of the resin-impregnated tube. Attach the calibration hose and resin-impregnated tube to the upper end of the chute so that a leak-proof seal is created. Obtain the minimum air/steam pressure needed to hold the tube tight against the existing culvert and the maximum allowable pressure from the manufacturer. Apply the appropriate air/steam pressure to cause the calibration hose to invert throughout the pipe, forcing the resin-impregnated tube to bond to the existing culvert.
- (g) After inversion is completed, circulate hot water or steam throughout the liner with approved equipment. Equipment should be suited with temperature gages and be capable of circulating the hot water or steam uniformly throughout the liner. The initial cure will occur during the heat-up process is completed when exposed portions of the liner appear to be hard and sound. After initial cure,

raise the temperature to the resin manufacturer's recommended post-cure temperature. Hold this temperature for the recommended period of time by recirculating the water or steam throughout the liner and heating apparatus. Maintain the recommended pressures throughout the curing process.

- (h) If heated water was used to cure the resin, drain the heated water from a small hole made in the downstream end and replace with the introduction of cool water into the inversion standpipe. Cool the liner to a temperature below 37.7°C (100°F) before relieving the static head in the inversion standpipe. Contain and properly dispose of, off site, all water used in this process to prevent contamination of surrounding soils and water.
- (i) If air/steam was used to cure the resin, drain the air/steam through a small hole made in the downstream end and replace with the introduction of cool water in the guide chute. Cool the liner to a temperature below 43.3°C (110°F) before relieving the pressure within the section. Contain and properly dispose of, off site, all water used in this process to prevent contamination of surrounding soils and water.
- (j) Cut and seal the termination ends with a resin mixture compatible with the installed liner if the liner does not fit tightly against the original pipe.

3.4 Spiral Wound Lining.

3.4.1 ASTM F 1698, Installation of Poly (Vinyl Chloride) (PVC) Profile Strip Liner and Cementitious Grout for Rehabilitation of Existing Man-entry Sewers and Conduits

3.4.2 Work for the pipe lining shall be performed by a Contractor approved and qualified by the manufacturer, with a proven record of performance for similar installations. Contractor shall submit resumes for superintendents, foremen, and other applicable lead personnel for field installation crews demonstrating competency and experience to perform the work scope as defined in this specification and all other applicable contract documents.

3.4.3 The plan shall detail the spiral winding process including specifics of all materials and equipment to be used during the winding process.

3.4.4 The extruded spiral profile strips shall be shipped on appropriately sized reels for ease of handling and product protection. The product shall be inspected for defects at the time of manufacture by the manufacturer and then in the field by the Contractor prior to installation. Defects to the profiles include, but are not limited to, gouges, abrasion, flattening, cuts, punctures, and ultra-violet (UV) degradation. Defective product shall not be installed and shall be removed from the jobsite. Handling and storage of the profile reels shall be in accordance with the manufacturer's instructions.

3.4.5 The ends of the spiral wound conduit shall be securely grouted in position. The conduit shall be sealed to the existing pipe with material capable of achieving a watertight seal.

3.5 Spray-on Lining.

3.5.1 The Contractor shall furnish a design that specifies the liner thickness to provide the structural strength to support the anticipated total load at the site of rehabilitation. The design shall be reviewed and approved by a Professional Engineer registered in the State of New Hampshire.

3.5.1.1 After placement, the lining must be a minimum of 1.5 inches thick.

3.5.1.2 For structural plate culvert connections, the cover over projecting bolts shall be a minimum of ½ - inch. This thickness is to be measured from the I.D. of the pipe, or top of the inward corrugation's crest.

3.5.1.3 For corrugated metal pipe, the thickness must be measured over the top of the corrugation crests.

3.5.2 Inspect the existing culvert to determine the location of bends, in-line valves, changes in diameter, and other discontinuities.

3.5.3 Clean and inspect the culvert for leaks. Degree of dryness prior to lining shall be according to manufacturer's recommendation.

3.5.4 Check equipment used to mix and pump the material. Prior to inserting delivery hoses into the culvert, pump and recirculate the material until the temperature specified by the manufacturer is reached.

3.5.5 Insert the lining machine into the deteriorated culvert and connect supply hoses. Before the initiation of lining, visually test the material by test spraying onto a test card.

3.5.6 If the deteriorated culvert is not sufficient to allow man-entry, use a remote- or winch-powered lining machine. If deteriorated culvert is large enough to permit man entry, use a remote- or man-operated machine. For pipe thirty-six (36) inches in diameter and larger, temporarily cover or plug all openings in the existing culvert, such as manholes, lateral connections, and service connections, before lining. Supply material through high-pressure hoses or by other mechanical means if the machine is man operated. Uniformly apply the material by ensuring the machine travels through the system at a constant rate.

3.5.7 Troweling of the newly applied cement-mortar should be done mechanically with either rotating trowels or a conical drag trowel attached to the lining machine. Hand place cement-mortar and trowel in places where machine lining is impractical (such as sharp bends and areas closely adjacent to valves).

3.5.8 Curing of liner to be done per manufacturer's recommendation.

3.5.9 If the newly lined pipe has laterals and service connections, determine they are clear before the final set occurs.

3.5.10 The lined pipe shall be thoroughly rinsed with clean water. Temporary erosion control measure shall remain in place until the pipe has cured and is reinstated.

Method of Measurement

4.1 Pipe rehabilitation will be measured by the linear foot to the nearest 0.5 of a linear foot complete in place.

4.2 Fill material for annular space and bulk heads will be measured by the cubic yard to the nearest 0.1 of a cubic yard.

4.3 Water diversion for culverts and drainage pipes will be paid under separate items in the contract.

4.4 No separate measurement will be made for pre-installation or post-installation video inspection.

Basis of Payment

5.1. The accepted quantities of pipe rehabilitation will be paid for at the contract unit price per linear foot of the kind, type, and size specified complete in place, including documented engineering plan, site inspection, cleaning of existing pipe; disposal of debris and sediment; bulkhead set-up and installation; and any materials and labor necessary for complete installation not paid for separately under other bid items.

5.2. Water diversion will be paid for under Item 503.101 at the Contract unit price per unit complete.

5.3. The accepted quantities of fill material for annular space and bulk heads will be paid for at the contract unit price per cubic yard complete in place.

5.4. No separate payment will be made for pre-installation and post-installation video inspection. Cost shall be included in the linear foot cost of the pipe rehabilitation.

5.5. Existing Pipe damage requiring repairs as determined by the Engineer when necessary and directed by the Engineer will be paid for under Item 1008.38 - Alterations & Additions as needed – Pipe Repair. If the item is not included in the contract and the Engineer deems it necessary, pipe repair work will be in accordance with 109.04.

Pay Item and Unit:

602.011 Fill Material for Annular Space Cubic Yard

602 .A B C DE Item Number
 .A Category
 B Type of Material
 C Profile/Coating/Method
 DE Existing Diameter*

A – Category

.1 Slip Line Pipe (Solid Wall) Linear Foot

B - Material

- 0 (Reserved)
- 1 Polyethylene (PE)
- 2 Polyvinyl Chloride (PVC)
- 9 Contractor's Option

C -- Reserved

DE -- Existing Pipe Diameter*

.2 Slip Line Pipe (Profile Wall) Linear Foot

B - Material

- 0 (Reserved)
- 1 Polyethylene (PE)
- 2 Polyvinyl Chloride (PVC)
- 3 Polypropylene (PP)
- 4 Metal
- 9 Contractor's Option

C – Modifier/Coating

- 0 Unspecified
- 1 Steel Reinforced
- 2 Reserved
- 3 Reserved
- 4 Aluminized/Polymer
- 5 Galvanized/Polymer

DE – Existing Pipe Diameter*

.5 Spiral Wound Liner Linear Foot

B - Material

- 0 (Reserved)
- 1 Polyethylene (PE)
- 2 Polyvinyl Chloride (PVC)
- 9 Contractor's Option

C – Reserved

DE -- Existing Pipe Diameter*

.6 Close-Fit Lining Linear Foot

B - Material

- 0 Unspecified
- 1 Polyethylene (PE)
- 2 Polyvinyl Chloride (PVC)
- 3 (Reserved)
- 4 (Reserved)
- 5 Resin

C – Method

- 1 Folded
- 2 Folded and Formed
- 3 Deformed/Reformed
- 4 Spring/Tight Fit Spiral Wound
- 5 Cured-In-Place
- 9 Contractor's Option

DE – Existing Pipe Diameter*

.7 Spray-On Liner

Linear Foot

B - Material

- 0 Unspecified
- 1 Cementitious
- 2 Polymeric

C Modifier

- 0 Unspecified
- 1 Reinforced Mortar
- 2 Reserved
- 3 Reserved
- 4 Reserved
- 5 Epoxy
- 6 Polyurethane
- 7 Polyurea
- 9 Contractor's Option

DE – Existing Pipe Diameter*

.9 Contractor's Option

Linear Foot

B - Reserved

C – Reserved

DE – Existing Pipe Diameter*

*Existing "Pipe" Diameter 01 – Arch Pipe
 02 – Box Culvert

Examples:

602.11024	PE Solid Wall Liner for 24" Pipe	LF
602.12024	PVC Solid Wall Liner for 24" Pipe	LF
602.19024	Solid Wall Liner for 24" Pipe (Contractor's Option)	LF
602.21024	PE Profile Wall Pipe Liner for 24" Pipe	LF
602.21124	Steel-Reinforced PE Profile Wall Liner for 24" Pipe	LF
602.22024	PVC Profile Wall Liner for 24" Pipe	LF
602.23024	PP Profile Wall Liner for 24" Pipe	LF
602.24424	Polymer Coated Corr. Alum. Steel Liner for 24" Pipe	LF

STATE OF NEW HAMPSHIRE

BUREAU OF PURCHASE AND PROPERTY
STATE HOUSE ANNEX
25 CAPITOL STREET
CONCORD, NEW HAMPSHIRE 03301-6398

*Contech
Engineered Solutions, LLC*

ADDENDUM # 1

TO RFB INVITATION # 1764-15

DATE OF BID OPENING: 6/15/15

TIME OF BID OPENING: 11:30 AM

FOR: STATEWIDE CONTRACT FOR CULVERT LINING MATERIALS – (SUPPLY & DELIVER)

CHANGE:

Delete the CONTRACT AWARD section and replace with the following:

CONTRACT AWARD:

The award shall be made to the responsible Vendor(s) meeting the criteria established in this RFB and providing the lowest cost in total by section. Five Tables have been included for pricing for PVC Liners, Aluminum Liners, HDPE Liners and Polyethylene Liners. A contract will be awarded to the lowest bidder for each Table. The State reserves the right to reject any or all bids or any part thereof. If an award is made it shall be, in the form of a State of New Hampshire Contract (s).

Successful Vendor will not be allowed to require any other type of order, nor will the successful Vendor be allowed to require the filling out or signing of any other document by State of New Hampshire personnel.

Delete Pricing Tables 1-4 and replace with the following:

Bidders shall provide pricing for the largest diameter product that will fit inside the pipe sizes indicated in the following Tables. The balance of product line provision will be utilized to obtain pipe sizes not specifically included in these bid Tables.

PRICING TABLE 1 - PVC LINER

LINE ITEM	UNIT OF MEASURE	PIPE SIZE TO BE LINED (INCHES)	DESCRIPTION	PRICE PER LINEAR FOOT
1	Linear Feet	15	PVC Culvert Liner Per ASTM F-949	\$15.45
2	Linear Feet	18	PVC Culvert Liner Per ASTM F-949	23.96
3	Linear Feet	24	PVC Culvert Liner Per ASTM F-949	32.98
4	Linear Feet	30	PVC Culvert Liner per ASTM F-949	54.79
5	Linear Feet	36	PVC Culvert Liner per ASTM F-949	82.56
6	Linear Feet	42	PVC Culvert Liner per ASTM F-949	126.16
7	Linear Feet	48	PVC Culvert Liner per ASTM F-949	126.16
			TOTAL	462.06

PRICING TABLE 2 - ALUMINUM LINER

LINE ITEM	UNIT OF MEASURE	PIPE SIZE TO BE LINED (INCHES)	DESCRIPTION	PRICE PER LINEAR FOOT
1	Linear Feet	48	AlumSteel Type 2 Spiral Rib	\$39.03
2	Linear Feet	54	Alum Steel Type 2 Spiral Rib	48.65
3	Linear Feet	60	Alum Steel Type 2 Spiral Rib	56.00
4	Linear Feet	66	Alum Steel Type 2 Spiral Rib	67.90
5	Linear Feet	72	Alum Steel Type 2 Spiral Rib	86.80
6	Linear Feet	78	Alum Steel Type 2 Spiral Rib	93.10
7	Linear Feet	84	Alum Steel Type 2 Spiral Rib	99.40
8	Linear Feet	90	Alum Steel Type 2 Spiral Rib	139.30
9	Linear Feet	96	Alum Steel Type 2 Spiral Rib	147.70
10	Linear Feet	102	Alum Steel Type 2 Spiral Rib	156.10
11	Linear Feet	108	Alum Steel Type 2 Spiral Rib	165.55
12	Linear Feet	114	Alum Steel Type 2 Spiral Rib	201.25

13	Linear Feet	120	Alum Steel Type 2 Spiral Rib	\$223.30
14	Linear Feet	48	Alum Spiral Rib	\$49.38
15	Linear Feet	54	Alum Spiral Rib	80.75
16	Linear Feet	60	Alum Spiral Rib	89.75
17	Linear Feet	66	Alum Spiral Rib	107.50
18	Linear Feet	72	Alum Spiral Rib	116.50
19	Linear Feet	78	Alum Spiral Rib	164.50
20	Linear Feet	84	Alum Spiral Rib	173.50
			TOTAL	\$2305.96

PRICING TABLE 3 - HDPE LINER

LINE ITEM	UNIT OF MEASURE	PIPE SIZE TO BE LINED (INCHES)	DESCRIPTION	PRICE PER LINEAR FOOT
1	Linear Feet	18	HDPE Culvert Liner Per AASHTO M326	\$18.86
2	Linear Feet	24	HDPE Culvert Liner Per AASHTO M326	38.13
3	Linear Feet	30	HDPE Culvert Liner Per AASHTO M326	45.17
4	Linear Feet	36	HDPE Culvert Liner Per AASHTO M326	64.36
5	Linear Feet	42	HDPE Culvert Liner Per AASHTO M326	100.41
6	Linear Feet	48	HDPE Culvert Liner Per AASHTO M326	131.68
7	Linear Feet	54	HDPE Culvert Liner Per AASHTO M326	152.96
8	Linear Feet	64	HDPE Culvert Liner Per AASHTO M326	221.16
			TOTAL	\$772.73

PRICING TABLE 4 – CORRUGATED HDPE LINER

LINE ITEM	UNIT OF MEASURE	PIPE SIZE TO BE LINED (INCHES)	DESCRIPTION	PRICE PER LINEAR FOOT	
1	Linear Feet	18	Corrugated HDPE Culvert Liner Per AASHTO M294	No	
2	Linear Feet	24	Corrugated HDPE Culvert Liner Per AASHTO M294	Bid	
3	Linear Feet	30	Corrugated HDPE Culvert Liner Per AASHTO M294	↓	
4	Linear Feet	36	Corrugated HDPE Culvert Liner Per AASHTO M294		
5	Linear Feet	42	Corrugated HDPE Culvert Liner Per AASHTO M294		
6	Linear Feet	48	Corrugated HDPE Culvert Liner Per AASHTO M294		
7	Linear Feet	54	Corrugated HDPE Culvert Liner Per AASHTO M294		
8	Linear Feet	64	Corrugated HDPE Culvert Liner Per AASHTO M294		
			TOTAL		

But see Attached Table

Add the following Pricing Table 5

PRICING TABLE 5 – PROFILE WALL STEEL-REINFORCED POLYETHYLENE PIPE LINER

LINE ITEM	UNIT OF MEASURE	PIPE SIZE TO BE LINED (INCHES)	DESCRIPTION	PRICE PER LINEAR FOOT
1	Linear Feet	30	Profile Wall Steel-Reinforced Polyethylene Pipe Liner	N/A
2	Linear Feet	36	Profile Wall Steel-Reinforced Polyethylene Pipe Liner	\$51.20
3	Linear Feet	42	Profile Wall Steel-Reinforced Polyethylene Pipe Liner	51.20
4	Linear Feet	48	Profile Wall Steel-Reinforced Polyethylene Pipe Liner	73.84
5	Linear Feet	54	Profile Wall Steel-Reinforced Polyethylene Pipe Liner	85.13

6	Linear Feet	60	Profile Wall Steel-Reinforced Polyethylene Pipe Liner	#91.86
7	Linear Feet	66	Profile Wall Steel-Reinforced Polyethylene Pipe Liner	123.42
8	Linear Feet	72	Profile Wall Steel-Reinforced Polyethylene Pipe Liner	142.17
9	Linear Feet	84	Profile Wall Steel-Reinforced Polyethylene Pipe Liner	269.00
10	Linear Feet	96	Profile Wall Steel-Reinforced Polyethylene Pipe Liner	287.00
11	Linear Feet	108	Profile Wall Steel-Reinforced Polyethylene Pipe Liner	440.00
12	Linear Feet	120	Profile Wall Steel-Reinforced Polyethylene Pipe Liner	609.00
			TOTAL	#2,223.82

PURCHASING AGENT: **ROBERT LAWSON**
 TEL. NO.: **603/271-3147**

NOTE: IN THE EVENT THAT YOUR BID INVITATION HAS BEEN SENT TO THIS OFFICE PRIOR TO RECEIVING THIS ADDENDUM, RETURN ADDENDUM WITHIN THE SPECIFIED TIME WITH ANY CHANGES YOU MAY WISH TO MAKE AND MARK ON THE REMITTANCE ENVELOPE BID INVITATION NUMBER AND OPENING DATE. RETURNED ADDENDA WILL SUPERSEDE PREVIOUSLY SUBMITTED BID.

BIDDER Contech ES., LLC ADDRESS PO Box 1975
 BY Stephen S Wolf New London NH 03257
(this document must be signed)
Stephen S. Wolf TEL. NO. 802-233-9110 (cell) Steve
(please type or print name)

NH State Liner Bid Due June 15, 2015 Supplemental Information for inclusion in analysis and award
 Submitted by Steve Wolf, P.E. Contech Engineered Solutions LLC

PVC Liner A2 Liner by Contech - Table 1 Supplement								
Pipe Size to be Lined (Inches)	Nominal Size A2 PVC Liner (inches)	Outside Diameter (Inches)	Inside Diameter (Inches)	Bell OD (if applicable)	length (feet)	Price in US \$'s /ft	sticks/truck	LF/truck
15	12	12.8	11.7	12.8	20	\$15.45	96	1920
18	15	15.7	14.3	15.7	20	\$ 23.96	64	1280
24	18	19.2	17.6	19.2	20	\$ 32.98	40	800
	21	22.6	20.7	22.6	20	\$ 45.00	32	640
30	24	25.6	23.5	25.6	20	\$ 54.79	18	360
	27	28.9	26.4	28.9	14	\$ 70.00	27	378
36	30	32.2	29.5	32.2	20	\$ 82.56	18	360
42	36	38.7	35.5	38.7	20	\$ 126.16	8	160
48	36	38.7	35.5	38.7	20	\$ 126.16	8	160

A2 PVC Liner pipe is a profile wall PVC with high end cell class made specifically for lining culverts storm
Pricing based upon 20' lay lengths, watertight joints, Bell OD = Pipe OD
Shorter lengths available down to 2.5' long for insertion into Manholes or inlets at added cost.
 Prices based upon Full Truckload quantities delivered to NH. Sizes can be mixed to create a truckload.

NH State Liner Bid Due June 15, 2015 Supplemental Information for inclusion in analysis and award
 Submitted by Steve Wolf, P.E. Contech Engineered Solutions LLC

Aluminized Steel and Aluminum Liners - Supplement to Table

Pipe Size to be Lined (Inches)	Nominal Size Spiral Rib CMP (inches)	Pipe Gauge	Outside Diameter (Inches)	Inside Diameter (Inches)	Bell OD (if applicable)	length (feet)	Price in US \$'s /ft	sticks/truck
48	42	16	43.6	42	n/a	20	\$39.03	8
54	48	16	49.6	48	n/a	20	\$48.65	4
60	54	16	54.6	54	n/a	20	\$56.00	4
66	60	14	61.6	60	n/a	20	\$67.90	2
72	66	14	67.6	66	n/a	20	\$86.80	2
78	72	14	73.6	72	n/a	20	\$93.10	2
84	78	14	79.6	78	n/a	20	\$99.40	2
90	84	12	97.6	84	n/a	20	\$139.30	2
96	90	12	91.6	90	n/a	20	\$147.70	2
102	96	12	97.6	96	n/a	20	\$156.10	2
108	102	12	103.6	102	n/a	20	\$165.55	2
114	108	10	109.6	108	n/a	20	\$201.25	2
120	114	10	121.6	114	n/a	20	\$223.30	2
48	42	14	43.6	42	n/a	20	\$49.38	8
54	48	12	49.6	48	n/a	20	\$80.75	4
60	54	12	55.6	54	n/a	20	\$89.75	4
66	60	12	61.6	60	n/a	20	\$107.50	2
72	66	12	67.6	66	n/a	20	\$116.50	2
78	72	10	73.6	72	n/a	20	\$164.50	2
84	78	10	79.6	78	n/a	20	\$173.50	2

Prices based upon Full Truckload quantities delivered to NH. Sizes can be mixed to create a truckload.

does not include grout ports or plugs, alignment rods, skid rails or internal or external bands those are extra as follows

2" threaded Grout Ports and Plugs - \$50/each welded on with threaded PVC cap

alignment rods with nuts welded - \$35/each

skid rails \$5/lf

external or internal connecting bands - 2.0 x the pipe price per lf

In this type of pipe, any length and any diameter can be made, please inquire with Contech.

le 2

LF/truck

160 ALT2 Steel begins here

80

80

40

40

40

40

40

40

40

40

40

40

160 Aluminum begins here

80

80

40

40

40

40

NH State Liner Bid Due June 15, 2015 Supplemental Information for inclusion in analysis and award
 Submitted by Steve Wolf, P.E. Contech Engineered Solutions LLC

Solid Wall HDPE (InnerFlow) pricing - Table 3 Supplement						
Pipe Size to be Lined (Inches)	Outside Diameter (Inches)	Inside Diameter (Inches)	length (ft)	Price in US \$'s /ft	sticks/truck	LF/truck
	10.75	10	22	\$ 14.01 14.50	83w 144	3168
	12.75	11.97	22	\$ 14.35	18.00 112	2464
18	14	13.13	24	\$ 18.86	33w 84	2016
	16	15.02	24	\$ 20.70 25.50	23w 60	1440
	18	16.89	24	\$ 22.21 29.50	50 33w	1200
24	20	18.77	24	\$ 38.13	40	960
	22	20.65	24	\$ 34.62 43.20	32 33w	768
30	24	22.53	24	\$ 45.17	24	576
	28	26.28	24	\$ 53.78 63.50	18 33w	432
36	30	28.04	24	\$ 64.36	18	432
	32	30.03	24	\$ 62.16 76.20	18 33w	432
42	36	33.78	24	\$ 100.41	8	192
48	42	39.42	24	\$ 131.68	8	192
	48	44.34	24	\$ 133.96 165.20	8 33w	192
64	54	50.68	24	\$ 221.16	4	96
	63	59.02	23	\$ 320.17 396.80	2 33w	46

Prices based upon Full Truckload quantities delivered to NH. Sizes can be mixed to create a truckload.
 Shorter lengths available at additional charge
 Inner Flow solid Wall PE Bell is same outside diameter as the pipe.
 Other Inner Flow sizes available and offered at prices in this table

See odd size modifications

Above

<u>OD</u>	<u>Price</u>
10.75"	14.50
12.75"	18.00
16"	25.50
18"	29.50
22"	43.20
28"	53.78 63.50
32"	76.20
48"	165.20
63"	396.80

NH State Liner Bid Due June 15, 2015 Supplemental Information for inclusion in analysis and award
 Submitted by Steve Wolf, P.E. Contech Engineered Solutions LLC

Corrugated HDPE Liner per M-294 - Table 4 supplement

Pipe Size to be Lined (Inches)	Nominal Size HDPE M-294 (inches)	Outside Diameter (Inches)
18	12	14.5
24	18	22
30	24	28
36	21	n/a
42	30	36
48	36	42
54	42	48
64	54	61

We are not offering a price on M-294 pipe but it is a very in-efficient pipe to use for segmental sliplining coupled with its very unstable wall and large OD's, it greatly cuts hydraulic capacity

NH State Liner Bid Due June 15, 2015 Supplemental Information for inclusion in analysis and award
 Submitted by Steve Wolf, P.E. Contech Engineered Solutions LLC

Steel-Reinforced Polyethelene pipe liner - Table 5 Supplement							
Pipe Size to be Lined (Inches)	Nominal Size DuroMaxx (inches)	Outside Diameter (Inches)	Inside Diameter (Inches)	Bell OD (if applicable)	length (feet)	Price in US \$'s /ft	sticks/truck
30	n/a					n/a	
36	30	30.9	29.5	34	14	\$ 51.20	27
42	30	30.9	29.5	34	14	\$ 51.20	27
48	36	37.1	35.4	39.9	14	\$ 73.84	12
54	42	43.2	41.3	45.8	14	\$ 85.13	12
60	48	49.5	47.2	52.3	14	\$ 91.86	12
66	54	55.5	53.2	58.2	14	\$ 123.42	6
72	60	61.4	59.1	64.1	14	\$ 142.17	5
84	66	67.8	65	71.7	14	\$ 269.00	4
96	72	74.1	70.9	77.6	14	\$ 287.00	4
	84	85.9	82.7	n/a	14	\$ 402.00	4
108	96	97.8	94.5	n/a	14	\$ 440.00	4
120	108	109.75	106.26	n/a	20	\$ 609.00	2
	120	121.9	118.1	n/a	20	\$ 715.00	2

Prices based upon Full Truckload quantities delivered to NH. Sizes can be mixed to create a truckload.
 Shorter lengths available at additional charge, longer lengths also available up to 40' at no additional charge
 Pipe can be made with bell and spigot or plain ended. Does not include grout ports or skid rails.
If Grout ports or skid rails are required, those ar available at \$89/each and \$4.50/lf respectively
 other DuroMaxx sizes available and offered at prices in this table

t
LF/truck
378
378
168
168
168
84
70
56
56
56
56
40
40