

ARLINGTON COUNTY, VIRGINIA
OFFICE OF THE PURCHASING AGENT
2100 CLARENDON BOULEVARD, SUITE 500
ARLINGTON, VIRGINIA 22201

NOTICE OF CONTRACT AWARD

RPC INDUSTRIES, INC.	DATE ISSUED:	<u>02/26/2019</u>
705 INDUSTRY DRIVE	CURRENT REFERENCE NO:	<u>19-207-R</u>
HAMPTON, VIRGINIA 23661	CONTRACT TITLE:	<u>ROOFING & RELATED SVCS</u>

THIS IS A NOTICE OF AWARD OF CONTRACT AND NOT AN ORDER. NO WORK IS AUTHORIZED UNTIL THE VENDOR RECEIVES A VALID COUNTY PURCHASE ORDER ENCUMBERING CONTRACT FUNDS.

The contract documents consist of the terms and conditions of AGREEMENT No. XX-XXX-X including any attachments or amendments thereto.

EFFECTIVE DATE: IMMEDIATELY

EXPIRES: 03/31/2019

RENEWALS: FOUR (4) ONE (1) YEAR RENEWAL OPTIONS FROM 04/1/2019 TO 03/31/2023

COMMODITY CODE(S): 14560

LIVING WAGE: N

ATTACHMENTS:

AGREEMENT No. 19-207-R

EXHIBIT A – NORFOLK PUBLIC SCHOOLS CONTRACT #201700137

EMPLOYEES NOT TO BENEFIT:

NO COUNTY EMPLOYEE SHALL RECEIVE ANY SHARE OR BENEFIT OF THIS CONTRACT NOT AVAILABLE TO THE GENERAL PUBLIC.

<u>VENDOR CONTACT:</u> BRYAN HELDRETH	<u>VENDOR TEL. NO.:</u>	<u>(877) 772-7663</u>
<u>EMAIL ADDRESS:</u> HELDRETH@RPCINDUSTRIES.COM		
<u>COUNTY CONTACT:</u> JEREMY HASSAN (DES-WSS)	<u>COUNTY TEL. NO.:</u>	<u>(703) 228-3647</u>
<u>COUNTY CONTACT EMAIL:</u> JHASSAN@ARLINGTONVA.US		

**ARLINGTON COUNTY, VIRGINIA
OFFICE OF THE PURCHASING AGENT
SUITE 500, 2100 CLARENDON BOULEVARD
ARLINGTON, VA 22201**

RIDER AGREEMENT NO. 19-207-R

THIS AGREEMENT (hereinafter "Agreement") is made, on the date of its execution by the County, between RPC Industries, Inc. ("Contractor"), a Virginia corporation with a place of business at 705 Industry Drive, Hampton, Virginia 23661 authorized to transact business in the Commonwealth of Virginia, and the County Board of Arlington County, Virginia ("County"). The County and the Contractor, for the consideration and quantity(ies) specified herein or specified in a County Purchase Order referencing this Agreement, agree as follows:

1. CONTRACT DOCUMENTS

The Contract Documents consist of this Agreement, Exhibit A, Norfolk Public Schools Contract #2017000137 with any exhibits and amendments issued or applicable thereto (collectively, "Contract Documents" or "Contract"). This Agreement rides a contract awarded to the Contractor by Norfolk Public Schools and extended by the Contractor to the County on the same terms and conditions as the Contractor's agreement with Norfolk Public Schools, and substituting the phrases "County Board of Arlington County" or "Arlington County", as appropriate, for the phrase Norfolk Public Schools wherever those phrases appear in the Contract Documents. Where the terms of this Agreement vary from the terms and conditions of the other Contract Documents, the terms and conditions of this Agreement shall prevail.

The Contract Documents set forth the entire agreement between the County and the Contractor. The County and the Contractor agree that no representative or agent of either of them has made any representation or promise with respect to the parties' agreement which is not contained in the Contract Documents.

2. CONTRACT TERM

The Contractor's provision of goods for the County ("Work") shall commence on the date of execution of this Agreement by the County and shall be completed no later than March 31, 2019 ("Initial Contract Term"), subject to any modifications as provided for in the Contract Documents.

Upon satisfactory performance by the Contractor, if Norfolk Public Schools renews their agreement identified in Exhibit A, the County may elect to renew this Agreement under the same contract unit prices for not more than 4 (four) additional twelve (12) month periods from April 1, 2019 to March 31, 2023 ("Subsequent Contract Term"). However, if Norfolk Public Schools does NOT renew their agreement identified in Exhibit A, this Agreement shall automatically expire on the date of the Norfolk Public Schools contract expiration date.

3. CONTRACT PRICING

The County will pay the Contractor in accordance with the terms of the Payment paragraph below, at the unit prices set forth in Exhibit A for Work provided by the Contractor, as described and required in the Contract Documents, and accepted by the County.



4. PAYMENT

Payment will be made by the County to the Contractor within thirty (30) days after receipt by the County Project Officer of an invoice detailing the Work provided by the Contractor, and accepted by the County. The Project Officer will either approve the invoice or require corrections. The number of the County Purchase Order pursuant to which authority goods or services have been performed or delivered shall appear on all invoices.

5. SCOPE OF WORK

The Contractor agrees to perform the goods and/or services described in the Contract Documents (hereinafter "the Work"). The primary purpose of the Work is to provide roofing and related services.

The Contract Documents set forth the minimum Work estimated by the County and the Contractor to be necessary to complete the Work. It shall be the Contractor's responsibility, at the Contractor's sole cost, to provide the specific Work set forth in the Contract Documents sufficient to fulfill the purposes of the Work. Nothing in the Contract Documents shall be construed to limit the Contractor's responsibility to manage the details and execution of the Work.

6. PROJECT OFFICER

The performance of the Contractor is subject to the review and approval of the County Project Officer ("Project Officer") who shall be appointed by the Director of the Arlington County department or agency which seeks to obtain the Work pursuant to this Contract. However, it shall be the responsibility of the Contractor to manage the details of the execution and performance of its Work pursuant to the Contract Documents.

7. COUNTY PURCHASE ORDER REQUIREMENT

County purchases are authorized only if a County Purchase Order is issued in advance of the transaction. A Purchase Order must indicate that the ordering agency has sufficient funds available to pay for the purchase. Such a Purchase Order is to be provided to the Contractor by the ordering agency. The County will not be liable for payment for any purchases made by its employees without appropriate purchase authorization issued by the County Purchasing Agent. If the Contractor provides goods or services without a signed County Purchase Order, it does so at its own risk and expense.

8. NON-APPROPRIATION

All funds for payments by the County to the Contractor pursuant to this Contract are subject to the availability of an annual appropriation for this purpose by the County Board of Arlington County, Virginia. In the event of non-appropriation of funds by the County Board of Arlington County, Virginia for the goods or services provided under this Contract or substitutes for such goods or services which are as advanced or more advanced in their technology, the County will terminate the Contract, without termination charge or other liability to the County, on the last day of the then current fiscal year or when the appropriation made for the then current year for the services covered by this Contract is spent, whichever event occurs first. If funds are not appropriated at any time for the continuation of this Contract, cancellation will be accepted by the Contractor on thirty (30) days prior written notice, but failure to give such notice shall be of no effect and the County shall not be obligated under this Contract beyond the date of termination specified in the County's written notice.

9. PAYMENT OF SUBCONTRACTORS

The Contractor is obligated to take one of the two following actions within seven (7) days after receipt of amounts paid to the Contractor by the County for work performed by any subcontractor under this Contract:

- a) Pay the subcontractor for the proportionate share of the total payment received from the County attributable to the work performed by the subcontractor under this Contract; or
- b) Notify the County and the subcontractor, in writing, of the Contractor's intention to withhold all or a part of the subcontractor's payment with the reason for nonpayment.

The Contractor is obligated to pay interest to the subcontractor on all amounts owed by the Contractor to the subcontractor that remain unpaid after seven (7) days following receipt by the Contractor of payment from the County for work performed by the subcontractor under this Contract, except for amounts withheld as allowed in subsection b., above. Unless otherwise provided under the terms of this Contract, interest shall accrue at the rate of one percent (1%) per month.

The Contractor shall include in each of its subcontracts, if any are permitted, a provision requiring each subcontractor to include or otherwise be subject to the same payment and interest requirements with respect to each lower-tier subcontractor.

The Contractor's obligation to pay an interest charge to a subcontractor pursuant to this section may not be construed to be an obligation of the County. A Contract modification may not be made for the purpose of providing reimbursement for such interest charge. A cost reimbursement claim may not include any amount for reimbursement for such interest charge.

10. EMPLOYMENT DISCRIMINATION BY CONTRACTOR PROHIBITED

During the performance of this Contract, the Contractor agrees as follows:

- A. The Contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, disability or any other basis prohibited by state law related to discrimination in employment except where there is a bona fide occupational qualification reasonably necessary to the normal operation of the Contractor. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.
- B. The Contractor, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, will state that such Contractor is an Equal Opportunity Employer.
- C. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.
- D. The Contractor will comply with the provisions of the Americans with Disabilities Act of 1990 which prohibits discrimination against individuals with disabilities in employment and mandates their full participation in both publicly and privately provided services and activities.
- E. The Contractor will include the provisions of the foregoing paragraphs in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

11. EMPLOYMENT OF UNAUTHORIZED ALIENS PROHIBITED

In accordance with §2.2-4311.1 of the Code of Virginia, 1950, as amended, the Contractor acknowledges that it does not, and shall not during the performance of this Contract for goods and/or services in the Commonwealth, knowingly employ an unauthorized alien as that term is defined in the federal Immigration Reform and Control Act of 1986.

12. DRUG-FREE WORKPLACE TO BE MAINTAINED BY CONTRACTOR

During the performance of this Contract, the Contractor agrees to (i) provide a drug-free workplace for the Contractor's employees; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of the Contractor that the Contractor maintains a drug-free workplace; and (iv) include the provisions of the foregoing clauses in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

For the purposes of this section, "drug-free workplace" means a site for the performance of work done in connection with a specific contract awarded to a contractor by Arlington County in accordance with the Arlington County Purchasing Resolution, the employees of which contractor are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.

13. INDEMNIFICATION

The Contractor covenants for itself, its employees, and subcontractors to save, defend, hold harmless and indemnify the County, and all of its elected and appointed officials, officers, current and former employees, agents, departments, agencies, boards, and commissions (collectively the "County" for purposes of this section) from and against any and all claims made by third parties or by the County for any and all losses, damages, injuries, fines, penalties, costs (including court costs and attorney's fees), charges, liability, demands or exposure, however caused, resulting from, arising out of, or in any way connected with the Contractor's acts or omissions, including the acts or omissions of its employees and/or subcontractors, in performance or nonperformance of the work called for by the Contract Documents. This duty to save, defend, hold harmless and indemnify shall survive the termination of this Contract. If, after notice by the County, the Contractor fails or refuses to fulfill its obligations contained in this section, the Contractor shall be liable for and reimburse the County for any and all expenses, including, but not limited to, reasonable attorneys' fees incurred and any settlements or payments made. The Contractor shall pay such expenses upon demand by the County, and failure to do so may result in such amounts being withheld from any amounts due to Contractor under this Contract.

14. RELATION TO COUNTY

The Contractor is an independent contractor and neither the Contractor nor its employees or subcontractors will, under any circumstances, be considered employees, servants or agents of the County. The County will not be legally responsible for any negligence or other wrongdoing by the Contractor, its employees, servants or agents. The County will not withhold payments to the Contractor for any federal or state unemployment taxes, federal or state income taxes, Social Security tax, or any other amounts for benefits to the Contractor. Furthermore, the County will not provide to the Contractor any insurance coverage or other benefits, including workers' compensation, normally provided by the County for its employees.

15. DISPUTE RESOLUTION

All disputes arising under this Contract, or its interpretation, whether involving law or fact, or extra work, or extra compensation or time, and all claims for breach of contract shall be submitted to the Project Officer for decision at the time of the occurrence or beginning of the work upon which the claim is based, whichever occurs first. Any such claim shall state the facts surrounding it in sufficient detail to identify it, together with its character and scope. In accordance with the Arlington County Purchasing Resolution, claims denied by the Project Officer may be submitted to the County Manager in writing no later than sixty (60) days after final payment. The time limit for final written decision by the County Manager in the event of a contractual dispute, as that term is defined in the Arlington County Purchasing Resolution, is fifteen (15) days. Procedures for considering contractual claims, disputes, administrative appeals, and protests are contained in the Arlington County Purchasing Resolution, which is incorporated herein by this reference. A copy of the Arlington County Purchasing Resolution is available upon request from the Office of the Purchasing Agent. The Contractor shall not cause a delay in the Work pending any decision of the Project Officer, County Manager, County Board, or a court of law.

16. APPLICABLE LAW, FORUM, VENUE AND JURISDICTION

This Contract and the work performed hereunder shall be governed in all respects by the laws of the Commonwealth of Virginia, and the jurisdiction, forum, and venue for any litigation with respect thereto shall be in the Circuit Court for Arlington County, Virginia, and in no other court. In performing its Work pursuant to this Contract, the Contractor shall comply with applicable federal, state, and local laws, ordinances and regulations.

17. FORCE MAJEURE

The Contractor shall not be held responsible for failure to perform the duties and responsibilities imposed by this Contract if such failure is due to fires, riots, rebellions, natural disasters, wars, acts of terrorism, or an act of God beyond control of the Contractor, and outside and beyond the scope of the Contractor's then current, by industry standards, disaster plan, that make performance impossible or illegal, unless otherwise specified in the Contract.

The County shall not be held responsible for failure to perform its duties and responsibilities imposed by the Contract if such failure is due to fires, riots, rebellions, natural disasters, wars, acts of terrorism, or an act of God beyond control of the County that make performance impossible or illegal, unless otherwise specified in the Contract.

18. NOTICES

Unless otherwise provided herein, all notices and other communications required by this Contract shall be deemed to have been given when made in writing and either (a) delivered in person, (b) delivered by an agent, such as an overnight or similar delivery service, or (c) deposited in the United States mail,

postage prepaid, certified or registered, addressed as follows:

Contact Information for the Contractor:

Bryan Heldreth
RPC Industries, Inc.
705 Industry Drive
Hampton, Virginia 23661

Contact Information for the Department (DES-WSS)

Jeremy Hassan, Project Officer
Arlington County Government
4200 28th Street S.
Arlington, Virginia 22206

Contact Information for Arlington County (Legal Authorization):

Office of the Purchasing Agent
2100 Clarendon Boulevard, Suite 500
Arlington, VA 22201
Attn: Lucas Alexander
Email: lalexander@arlingtonva.us

19. ARLINGTON COUNTY BUSINESS LICENSES

The Contractor must comply with the provisions of Chapter 11 ("Licenses") of the Arlington County Code, if applicable. For information on the provisions of that Chapter and its applicability to this Contract, the Contractor must contact the Arlington County Business License Division, Office of the Commissioner of the Revenue, 2100 Clarendon Blvd., Suite 200, Arlington, Virginia, 22201, telephone number (703) 228-3060.

20. INSURANCE REQUIREMENTS

The Contractor shall provide to the County Purchasing Agent a Certificate of Insurance indicating that the Contractor has in force the coverage types and minimum amounts below prior to the start of any Work under this Contract and upon any contract extension.

Arlington County, and its officers, elected and appointed officials, employees, and agents shall be named as additional insureds on all policies, except Workers Compensation, Auto, and Professional Liability. A copy of the Additional Insured endorsement, or an "Acord" certificate with the additional insured endorsement box checked for all policies that include an additional insured endorsement, must be provided by the Contractor to the County Purchasing Agent prior to the execution of this Contract and any Contract extension. Failure to provide such documentation shall result in cancellation of the award or of the Contract.

The Contractor agrees to maintain such insurance until the completion of this Contract or as otherwise stated in the Contract Documents. All required insurance coverages must be acquired from insurers authorized to do business in the Commonwealth of Virginia, with a rating of "A-" or better and a financial size of "Class VII" or better in the latest edition of the A.M. Best Co. Insurance Guides, and acceptable to the County.

21. COUNTERPARTS

This Agreement may be executed in one or more counterparts and all of such counterparts shall together constitute one and the same instrument. Original signatures transmitted and received via facsimile or other electronic transmission, (e.g., PDF or similar format) are true and valid signatures for all purposes hereunder and shall be effective as delivery of a manually executed original counterpart.

WITNESS these signatures:

THE COUNTY BOARD OF ARLINGTON
COUNTY, VIRGINIA

RPC INDUSTRIES, INC.

AUTHORIZED
SIGNATURE: Lucas Alexander

AUTHORIZED
SIGNATURE: Bryan T. Heldreth

NAME: LUCAS ALEXANDER
TITLE: PROCUREMENT OFFICER

NAME AND
TITLE: Bryan T. Heldreth, President

DATE: 02/26/2019

DATE: 2/22/19

EXHIBIT A



ROOFING AND RELATED SERVICES
Contract #2017000137

This contract entered into this 8th day of May 2017, by RPC Industries, Inc. hereinafter called "Contractor" and The School Board of the City Norfolk, DBA Norfolk Public Schools, herein after called "NPS".

WITNESSETH that the Contractor and NPS, in consideration of the mutual covenants, promises and agreements herein contained, agree as follows:

SCOPE OF CONTRACT: Contractor shall provide the services to NPS as set forth in the Contract Documents.

PERIOD OF PERFORMANCE: From May 8, 2017 through March 31, 2019. At the option of NPS, the Contract may be extended an additional four successive one-year terms.

The contract documents shall consist of:

- (1) This signed form;
- (2) The following portions of the RFP-17009FL dated 12/30/2016:
 - (a) Proposal Instructions,
 - (b) The Statement of Work/Specifications,
 - (c) The General Provisions,
 - (d) The Special Provisions together with any negotiated modifications of those Special Provisions,
 - (e) Any Addenda released for this RFP;
- (3) The Best and Final document dated April 21, 2017;
- (4) The Contractor's Offer that was received by 01/31/17, all of which documents are incorporated herein;

Debarment Status: By submitting their proposals, Contractor certifies that they are not currently debarred or otherwise declared ineligible by any public agency from submitting bids or proposals on contracts for the type of goods and/or services covered by this solicitation. In addition, Contractor further certifies that no principal, officer, or director of the applicant firm has been employed by or associated with any firm which is currently debarred or otherwise declared ineligible by any public agency from bidding/offering on contracts for the type of goods and/or services covered by this solicitation.

IN WITNESS WHEREOF, the parties have caused this Contract to be duly executed intending to be bound thereby.

RPC Industries, Inc.

The School Board of the City of Norfolk:
(DBA Norfolk Public Schools)

By: Bryan T. Heldreth
Bryan Heldreth
Vice President

By: Carol Robinson
Carol Robinson
Senior Director, Purchases & Supply

Date: 5/8/2017

Date: 5-10-17

**SPRAYED POLYURETHANE FOAM CONCRETE LIFTING & LEVELING
and OTHER RELEVANT SERVICES**

SCOPE OF WORK / PROJECT OVERVIEW: The Contractor shall fully execute the Work to include providing polyurethane foam injections to lift and level settled concrete slabs as well as other uses in and around Norfolk Public Schools. In the event polyurethane foam injections are not applicable in the correction of a settled concrete slab, the Contractor shall be able to offer alternative remedies such as grinding to remedy the issue.

TECHNICAL SPECIFICATIONS:

Section 1- General

1.1 Description

- 1.1 This project involves the leveling of sunken slabs and densification of base soil by utilizing polyurethane foam injection. For areas in which polyurethane lifting is not applicable, grinding will be utilized to smooth down the slab adjacent to the settling concrete slab. Additionally, the Contractor will joint fill cracks or patch missing sections of concrete with appropriate materials when needed.
- 1.2 Work will be scheduled promptly, but on a as needed basis, at the city's discretion throughout the allotted contract term.
- 1.3 Labor, materials, equipment and supervision will be provided by the contractor to complete the project in agreement with these conditions.
- 1.4 Contractor shall include and provide traffic maintenance on all residential roads or projects in which the Contractor can mobilize on city property without a material traffic disruption. The Contractor may charge for traffic control on other roadways when required and approved in advance based on case-by-case quotations.
- 1.5 The Contractor is required to have the capacity to be on-site to a non-emergency request within 24 hours, and the capacity to be on-site for an emergency work request within 2 hours of notice.

1.2 Mandatory Pre-Bid Conference

- 2.1 Not Applicable

1.3 Quality Assurance

- 3.1 Contractor must have 10 years of experience in polyurethane foam application.
- 3.2 The Contractor must have successfully installed projects of a similar scope and nature, within the City limits.
- 3.3 Contractor must provide their Approved Applicator Certificate from the manufacturer of the polyurethane formulation.
- 3.4 Contractor must provide a reference list of 10 previous clients, including contact name and phone numbers, for which the contractor has successfully performed soil compaction, concrete lifting, or under sealing of similar size and scope to this project.
- 3.5 The Contractor will have a minimum of 3 production unit/ "Rigs". Each unit will contain at least 2 injection guns and 1 proportioning unit.
- 3.6 Contractor's Site Supervisor must have a minimum of 175,000 sq. ft. experience with lifting concrete slabs utilizing polyurethane foam.
- 3.7 Contractor's Site Supervisor must possess a Master Installer Certification or Project Manager Certification from the Spray Polyurethane Foam Alliance (SPFA) or an equivalent ISO 9000 qualified program.
- 3.8 The Contractor's Site Supervisor must present documentation that he/she has successfully completed the SPF Chemical Health & Safety Training Program as provided by The American Chemistry Council.

1.4 Measurement and Payment

- 4.1 The City will request an inspection and estimate for a specific area of concern based on the contract rates.
- 4.2 Contractor shall provide a price estimate based on the measurement and analysis of the sunken concrete slabs at the proposed work site including the anticipated material usage. If approved, the contractor will proceed within the allotted response time and complete the work and record the quantity of actual material used.
- 4.3 Payment for all work done shall be calculated by the quantity of material actually used multiplied by the contract unit price.

Section 2- Concrete Slab Lifting and Base Soil Stabilization

2.1 Description

- 1.1 This work is to include the lifting, leveling, and stabilizing of compromised concrete slabs utilizing a hydrophobic polyurethane foam injection. Compromised slabs shall be raised level with the immediately adjacent slabs, or otherwise as directed by the project engineer depending on the scope of the particular application.
- 1.2 Uses for concrete slab lifting and base soil stabilization include, but are not limited to:
 - Sidewalk Tripping Hazard
 - Roadway Slab
 - Rear Easement Backyard Residential Swales
 - Roadway Curb & Gutter
 - Storm Water Drop Inlet
 - Void Filling
 - Driveway and/or Apron
 - Interior Slab
 - Stoop & Stairs
 - Handicap Entrance Ramp
 - Pool Deck
 - Picnic Pavilion

2.2 Polyurethane Material

- 2.1 The polyurethane foam used shall be JACKCRETE 660-H or approved equal.
- 2.2 The reacted polyurethane will have a minimal free rise density of 4 lbs./ft³ and a minimum compressive strength of 100 psi.
- 2.3 The product will be unaffected by water in its component reaction. Therefore, the injected product is not significantly disturbed by soil wetness or free water beneath the concrete, with greater than 80% closed cells.
- 2.4 Within 15 minutes from the time of injection, the polyurethane foam will have reached 90% of full compressive strength.

<u>Property</u>	<u>Value</u>	<u>Test Method</u>
Density, in place, pcf., min.	6	ASTMD-1622
Compressive strength, psi, min.	100	ASTMD-1621
Closed-cell content, percent, min.	>90%	ASTMD-2856
Tensile Strength, psi, min.	140	ASTMD-1623
Shear Strength, psi, min.	60	ASTMC-273
Water Absorption, lbs./ sq. ft.	<.05	ASTMD-2842

2.3 Materials, Delivery, and Storage

- 3.1 Deliver materials to the site in their original, tightly sealed containers, all clearly labeled with manufacturer's name, product identification and lot number.
- 3.2 Safely store materials in their original containers out of the weather and where the temperatures are within the limits specified by the manufacturer.
- 3.3 All materials shall be stored in compliance with applicable fire and safety requirements.
- 3.4 Protect materials from damage during transit, handling, storage and installation. Applicator shall provide secure storage for all materials.

2.4 Equipment

- 4.1 The contractor will have a minimum of 3 production units. The following equipment is to be provided by the Contractor on each unit:
 - A. Proportioning equipment capable of injecting polyurethane foam underneath concrete slabs at specified and measurable volumes to control the rate and magnitude of concrete lifting.
 - B. All production units/ "rigs" shall properly control the temperature, pressure, and proportionate mixing of the polyurethane component materials. This includes all proportioning units, guns, electric generators,

heaters, hoses, valves, compressors, gauges, and containers necessary in the control and completion of the specified work. All devices should be capable of maintaining self-sustaining operations without additional supplied utilities. No utilities to be provided by the city.

- C. Electric drills capable of drilling 5/8" diameter holes in concrete slabs for polyurethane injection, along with all necessary safety equipment. These drills should be capable of drilling so much as 5 feet deep.
- D. Suitable elevation measurement devices to insure concrete is raised to the correct grade as required for the completion of work. Elevation measurement devices should be capable of 1/1000" accuracy. These devices will also be utilized in the determination of incorrectly graded concrete slabs.
- E. All personal protective equipment (PPE) necessary to maintain a safe work environment during the course of work.

2.5 Process

- 5.1 The Contractor is to furnish all labor, materials, equipment, and supervision for the entire scope of work less any engineering oversight or traffic control for specific project conditions or objectives.
- 5.2 The Contractor shall inspect each work location and profile the concrete as determined from the elevation measurement devices used to determine beginning slab characteristics.
- 5.3 The Contractor shall submit concrete profile measurements into modeling software, or other approved means, to determine anticipated material usage to achieve the desired concrete movement. This material usage will be utilized to estimate price for city approval prior to proceeding.
- 5.4 The concrete slab is to be strategically drilled while taking precautions to not damage the area surrounding the hole with correct hole location placement being critical.
- 5.5 The proportioning unit injection gun is to be fixed to an injection port secured to the drilled hole. Polyurethane foam is to be injected into the base soil until all known or encountered voids are adequately filled and/or the concrete lifting is achieved. At time of injection, the Contractor's Site Supervisor is to record the amount of material injected.
- 5.6 When working on roadways or other specialized projects requiring multiple injection sites in numerous slabs of varying sizes, a series of 5/8" holes shall be drilled through the relevant slabs corresponding to the Contractor's project set-up schematic. Precautions shall be taken to avoid damage to the area around the holes.
- 5.7 While the polyurethane foam is being injected through the injection port, the surface shall be monitored with an elevation measurement device to ensure accurate grading.
- 5.8 All raised concrete sections shall match the grade of the adjacent slabs. Corrections to the grade of adjacent slabs shall be made in areas affected by multiple settling slabs. Final work is considered successful if affected slabs are corrected to within a nominal 1/4" (+/-) variance.
- 5.9 The Contractor's injection ports are to be removed and disposed of following injection completion. Drilled holes shall be filled thoroughly with shrink-resistant, color-matching grout.
- 5.10 The work area shall be thoroughly swept following daily work completion.

2.6 Submittals

- 6.1 Any alternate products shall be submitted to the owner and/or owner's representative with their bid to allow for product review. Alternate product submittals shall include: all appropriate technical data sheets, manufacturer's references, warranty, follow-up inspection policy and outline, material safety data sheets, and a typical, physical sample (3" x 3" x 3") to be used as a standard of quality.
- 6.2 Applicator shall submit to owner's representative at time of bid:
 - A. Reference projects, with contacts, substantiating years of experience and completion of minimum prior work submitted by contractor. See the attached Reference Worksheet.
 - B. Provide specimen copy of warranty document.
- 6.3 The Contractor shall issue a 2 Year, Full-System Warranty to the Norfolk Public Schools stipulating that if the repaired areas drop more than 1/4 inches from their repaired height during the warranty period, Contractor will make repairs at no cost to the City. Contractor warrants the goods/services furnished to be of the highest quality and be free from defects for the warranty period which will be effective the date of installation. If installed, the warranty shall include all materials, labor and supervision costs. Replacements and repairs shall be made by the Contractor at no cost and to the satisfaction of the City. Any supplied materials shall carry the manufacturer's standard material warranty.

Section 3- Concrete Slab Grinding

3.1 Description

- 1.1 This work is to include the grinding of concrete slabs for areas in which polyurethane lifting is not applicable. Industrial strength diamond-toothed concrete grinding machines will be used to grade unlevel sections of concrete slabs to render the edges even with adjacent slab(s).

3.2 Quality Assurance

- 2.1 Contractor must provide a reference list of 3 previous clients, including contact name and phone numbers, for which the contractor has successfully performed concrete slab grinding of similar size and scope to this project.
- 2.2 Contractor must have at least 3 years of experience in concrete slab grinding.

3.3 Process

- 3.1 The Contractor is to furnish all labor, materials, equipment, and supervision for the entire scope of work less any engineering oversight or traffic control for specific project conditions or objectives.
- 3.2 The following equipment is to be provided by the Contractor:
 - A. Both handheld and walk-behind concrete grinding apparatus including all blades capable of removing small layers of concrete from the top of a concrete slab.
 - B. All personal protective equipment (PPE) necessary to maintain a safe work environment during work.
 - C. Suitable elevation measurement devices to ensure that the grade created through grinding is within the allowable variance for completed work.
- 3.3 A profile of the concrete determined from the elevation measurement devices shall be used to determine the amount of grinding necessary. The grinding tool to be used shall be determined by the Contractor based on visual factors and experience.
- 3.4 The designated slab(s) are to be strategically ground so that the edge of the designated slab is even with the adjacent slab(s) within an acceptable variance.
- 3.5 Contractor shall follow OSHA recommendations on limiting silica dust exposure to crew members and the public (see *Controlling Silica Exposures in Exposures in Construction*, OSHA.gov)
- 3.6 Following grinding completion, the Contractor shall thoroughly clean the work area.

Section 4- Joint Sealing/Concrete Patching

4.1 Description

- 1.1 This work is to include filling cracks or missing sections of concrete with appropriate materials.

4.2 Quality Assurance

- 2.1 Contractor must provide a reference list of 3 previous clients, including contact name and phone numbers, for which the contractor has successfully performed joint sealing of similar size and scope to this project.
- 2.2 Contractor must have at least 3 years of experience in joint sealing.

4.3 Materials

- 3.1 Sikaflex®-1a elastomeric sealant or approved equal must be used for joint sealing. When exposed, the caulk shall closely match the color of the concrete.
- 3.2 Sika Pro Select Backer Rod or approved equal must be used when necessary for joint sealing.
- 3.3 SikaGrout 212 or approved equal must be used for concrete patching.

4.4 Process

- 4.1 To prevent contamination and ensure proper bonding, all dirt, debris, moisture and other foreign materials must be removed from the joint/hole and from the surrounding area. Joints shall be fully dry before sealing.
- 4.2 The backer rod shall be placed in the joint to stop three-sided bonding of the sealant (see manufacturer's instructions) when necessary.
- 4.3 The sealant shall be inserted into the existing joint and filled from the backer rod up to 3/8" below pavement surface (see manufacturer's guidelines).
 - A. Concrete patching materials shall be properly mixed to uniform consistency and installed within 15 minutes (per manufacturers recommendations).
- 4.4 Contractor shall properly cordon off and/or warn the public of wet materials to avoid disruption during the dry times required. Contractors barriers/signage shall be promptly removed by the contractor upon the product curing.
- 4.5 The Contractor shall clean up and properly discard all trash.

**SCHEDULE OF UNIT PRICES OWNER: NORFOLK PUBLIC SCHOOLS, VIRGINIA
 SPRAYED POLYURETHANE FOAM CONCRETE LIFTING & LEVELING
 and OTHER RELEVANT SERVICES**

The unit prices have been computed in accordance with the specifications and conditions provided. Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Bid items will be based on actual quantities provided, determined as provided in the Contract Documents. The prices quoted shall include, without exception, all materials, labor, equipment, clean-up, building permits or fees, and the Contractor's labor, overhead, profit, mobilization, demobilization and other mark-ups, and in full accordance with the Specifications. Include allowance for waste where appropriate. The unit prices shall be maintained throughout the contract period. Unit prices shall be used in determining additions or deductions from the total contract award amount in the event of changes in the work.

ITEM	DESCRIPTION	PRICE PER UNIT
1	Small Group of Work Orders: Concrete Lifting & Leveling utilizing Polyurethane Foam Injections for a group of work orders with a total material usage <100 lbs.	<u>\$14.75</u> per LB
2	Medium Group of Work Orders: Concrete Lifting & Leveling utilizing Polyurethane Foam Injections A group of work orders with a total material usage between 101-499 lbs.	<u>\$ 12.25</u> per LB
3	Large Group of Work Orders: Concrete Lifting & Leveling utilizing Polyurethane Foam Injections A group of work orders with a total material usage >500 lbs.	<u>\$11.00</u> per LB
4	Concrete Grinding	<u>\$25.00</u> * Per L/F
5	Joint Caulking	<u>\$ 5.00</u> * Per L/F
6	Concrete Patching	<u>\$25.00</u> * Per S/F

THIS IS TO CERTIFY THAT

**IS AN APPROVED APPLICATOR OF
JACKCRETE, LLC
FOR**

**POLYURETHANE CONCRETE LIFTING SYSTEMS
FOR THE PERIOD**

Bryan T. Heldreth

PRESIDENT, JACKCRETE LLC

DATE





Date: January 1, 2017

Subject: JACKCRETE Approved Applicator Confirmation

To whom it may concern:

This letter is to confirm that the following applicator has been reviewed and accepted into the JACKCRETE Applicator Program for the 2017 calendar year.

RPC Industries, Inc.
705 Industry Drive
Hampton, VA 23661

RPC Industries, Inc. has successfully demonstrated to our applicator committee that they meet the requirements of the program such as verified 150,000 s.f. experience in installing concrete lifting materials, completion of JACKCRETE training, and completion of industry training such as the SPFA-PCP and ACC CPI safety program. They have shown their commitment to safety, product stewardship, employee training, and quality.

They will participate in purchasing and installing JACKCRETE, LLC concrete lifting materials under our approved applicator program for the 2017 calendar year.

If there are any questions, please contact JACKCRETE, LLC at (757)827-7822.

Sincerely,

A handwritten signature in black ink that reads "Bryan T. Heldreth".

Bryan T. Heldreth

President



660-H Series

Concrete Lifting System

Core Density

6.0-6.2_{pcf}

Compressive Strength

100_{psi}

Tensile Strength

140_{psi}

Shear Strength

60_{psi}

Closed Cell Content

>90%

JACKCRETE 660-H is a technically advanced Polyurethane Foam system intended to provide a cost-efficient solution for reliable and lasting concrete lifting and leveling. 660-H is a hydrophobic medium-density polyurethane foam system designed for heavy-duty soil stabilization, roadway repair, concrete lifting, and void filling projects.

Why 660-H?

- Largely unaffected by soil saturation or standing water due to its hydrophobic properties.
- Dispensed using a 1:1 ratio professional polyurethane foam proportioner.
- Available in slow and regular speeds.
- Has been tested successfully in many different heavy-duty commercial and municipal applications.

Why JACKCRETE?

- Our development team has been testing and improving polyurethane foam systems for specialty applications since 1979.
- Our dedicated research team is constantly testing our systems to ensure that they consistently deliver the industry-leading results that the JACKCRETE brand is known for.
- JACKCRETE products are only available to approved applicators that have a proven record of excellence in polyurethane system applications.

Your local contractor:



www.JACKCRETE.com
info@JACKCRETE.com

JACKCRETE 660-H Series

CONCRETE LIFTING SYSTEM

PRODUCT DESCRIPTION:

JACKCRETE 660-H is a HYDROPHOBIC nominal 4.0 pcf free-rise density, plural-component, synthetically-blown, all PMDI based medium-density spray polyurethane foam system designed for heavy duty soil stabilization, roadway repair, concrete lifting, and void filling. JACKCRETE 660-H is dispensed using 1/1 by volume ratio equipment. This system is available in slow and regular speeds.

TYPICAL PROPERTIES**:

<u>As Supplied</u>	<u>B-side</u>	<u>A-side</u>
Appearance	Amber, transparent liquid	Brown, transparent liquid
Specific Gravity @ 70°F	1.21	1.23
Viscosity @ 70°F (cps)	500 - 800	200

<u>As Cured</u>	<u>Value</u>	<u>Test Method</u>
Mix Ratio (volume : volume)	1:1	
Density, in-place (pcf)	6.0 - 6.2	ASTM D 1622
Compressive Strength (psi)	100	ASTM D 1621
Tensile Strength (psi)	340	ASTM D 1623
Shear Strength (psi)	60	ASTM C 273
Closed Cell Content (%)	>90	ASTM D 6226
Water Absorption (lbs./ft ²)	<0.05	ASTM D 2842

** These physical property values are typical for this material as applied at our development facility under controlled conditions or statistical measurement. SPF performance and actual physical properties will vary with differences in application (i.e. ambient conditions, process equipment and settings, material throughput, etc). As a result, these published properties should be used as guidelines solely for the purpose of evaluation. Physical property specifications should be determined from actual production material.

The above data was collected from samples prepared using the following equipment configuration:

- Graco E-30 proportioner set at 1:1 volume ratio with 250 ft of heated delivery hose
- GX-7 spray-gun configured with a #22 mix module and JACKCRETE PCD Body with 3-1/2" injection port
- Process temperature settings: Isocyanate 130°F; Resin 130°F; Hose 130°F
- Process pressure: 1000 psig minimum during dispensation

Every job site and set of ambient /substrate conditions are different; therefore, one set of process settings may not work for every situation. It is the responsibility of the applicator to evaluate the on-site conditions then choose the appropriate SPF reactivity and process settings.

GENERAL INFORMATION:

JACKCRETE 660-H is a technically advanced SPF system intended for use by qualified contractors trained in the processing and application of SPF lifting systems as well as the plural-component polyurethane dispensing equipment required to do so. Contractors and applicators must comply with all applicable and appropriate storage, handling, processing and safety guidelines. JACKCRETE, LLC technical service personnel should be consulted in all cases where application conditions are questionable.

FORMULATION SPEED:

The JACKCRETE 660-H SPF lifting system is available in several reactivity "grades": S (Slow) has a suggested ambient temperature range of 40-80 degrees Fahrenheit, R (Regular) has a suggested ambient temperature range of 70-100 degrees Fahrenheit. These temperatures are meant as general suggestions only. Ultimately, the experience of the applicator should determine which reactivity grade is best suited for any specific project and ambient conditions. Please contact your JACKCRETE, LLC representative with any questions or for more specific assistance.



RECOMMENDATIONS:

JACKCRETE 660-H is designed for an application rate up to 4 inches maximum. Once installed material has cooled it is possible to add additional applications in order to increase the overall installed thickness of SPF.

In addition to reading and understanding the MSDS, all contractors and applicators must use appropriate respiratory, skin and eye Personal Protective Equipment (PPE) when handling and processing polyurethane chemical systems. Personnel should review the relevant technical documents published by Spray Polyurethane Foam Alliance (SPFA) and Center for the Polyurethanes Industry (CPI).

CAUTIONS:

JACKCRETE 660-H is NOT designed for use as an INTERIOR insulation system.

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

As with all Polyurethane foam systems, improper application techniques such as: excessive thickness of SPF, injecting into or under rising SPF, and off-ratio material can significantly degrade the physical properties. Potential results of improperly installed SPF include: dangerously high reaction temperatures that may result in fire and offensive odors that may or may not dissipate. Improperly installed SPF must be removed and replaced with properly installed materials.

LARGE MASSES of excess SPF should be removed to an outside safe area cut into smaller pieces and allowed to cool before discarding into any trash receptacle.

SPF is combustible. High-intensity heat sources such as welding or cutting torches must not be used in contact with or in close proximity to JACKCRETE 660-H or any polyurethane foam.

SHELF LIFE AND STORAGE CONDITIONS:

JACKCRETE 660-H has a shelf life of approximately three months from the date of manufacture when stored in original, unopened containers at 65-75°F. As with all industrial chemicals, this material should be stored in a covered, secure location and never in direct sunlight. Storage temperatures above the recommended range will shorten shelf life. Storage temperatures above the recommended range may also result in elevated headspace pressure within packages.

LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY:

The information herein is to assist customers in determining whether our products are suitable for their applications. Our products are only intended for sale to industrial and commercial customers. Customer assumes full responsibility for quality control, testing and determination of suitability of products for its intended application or use. We warrant that our products will meet our written liquid component specifications. We make no other warranty of any kind, either express or implied, by fact or law, including any warranty of merchantability of fitness for a particular purpose. Our total liability and customers' exclusive remedy for all proven claims is replacement of nonconforming product and in no event shall we be liable for any other damages, including without limitation special, incidental, punitive, or consequential damages.