

Re-ROOFING PROJECTS

PREQUALIFICATION - FAIRFAX COUNTY PUBLIC SCHOOLS

The Fairfax County Public Schools (the "Owner") is accepting prequalification applications from contractors to perform re-roofing services. All interested roofers shall submit their PDF Prequalification Application to the Owner by email to Roofingprequalification@fcps.edu.

The email submission should contain the completed Prequalification Application and required documents listed on page three (Attachments A-M) with the email, subject line as follows:

Prequalification Application for Re-Roofing Projects – Contractor Name

Comments and questions concerning the scope of work and the overall project should be addressed to Katy Knoll, senior buyer at 571-423-2279 or via email at kknoll1@fcps.edu.

OWNER: Fairfax County School Board
Fairfax County Public Schools (FCPS)- Office of Design & Construction Services
8115 Gatehouse Road, Suite 3400
Falls Church, VA 22042

DISCLAIMER:

**PREQUALIFICATION FOR FCPS RE-ROOFING SERVICES FOR
CAPITAL IMPROVEMENT PROJECTS**

_____ applicant for Prequalification for Re-Roofing Services - Capital Improvements Projects for Fairfax County Public Schools absolve all rights to appeal determination deemed "not qualified to bid." This waiver is enacted due to failure to submit prequalification application in a timely basis. Applications for Prequalification of Re-Roofing Capital Improvement Projects must be received (60) days prior to the advertised bid opening.

Name of Firm

Address: _____

Signature of Authorized Representative

Date

SEAL

**APPLICATION FOR PREQUALIFICATION
FAIRFAX COUNTY PUBLIC SCHOOLS**

FOR: **Re-Roofing Services
Capital Improvement Projects
Fairfax County Public Schools**

1. All material submitted shall be in PDF. This page shall be the cover page.
2. All required attachments and any additional information requested in this Application must be attached when submitted.

Attachments:

- A. Applicant's Prequalification Statement (Form)
- B. Record of Similar Built-Up Projects with Specifications Section 07510 (Summary and Forms)
- C. Anticipated Projects with Specifications section 07510 (Summary and Forms)
- D. Key Personnel (Form)
- E. Affidavit of Accuracy (Form)
- F. Action Plan (by Applicant)
- G. Management Plan (by Applicant)
- H. Virginia Class A Contractor's License Statement (by Applicant) Virginia State Corporation Identification Number and Fairfax County Business/Professional/Occupation License Number (BPOL #)
- I. Suggested Surety Statement
- J. Safety Violations
- K. Work by Roofing Contractor – to include a letter of proof from the manufacturer
- L. Example of Standard Labor and Material Payment Bond
- M. Roofing Specifications Section 07510

Submitted by:

Applicant Name: _____

Address: _____

City/State/Zip Code: _____

Signed by: _____

Printed name and title: _____

Telephone No/ Fax No: _____

Email Address: _____

GENERAL

Fairfax County Public Schools, (FCPS) is soliciting for Prequalification of Bidders (Applicant) for Re-Roofing Services for Capital Improvement Projects.

Only firms that have been prequalified in accordance with the procedures herein will be allowed to submit bids for the projects. Bids received from roofers who have not been prequalified will not be considered.

The term "Applicant" shall be defined as an individual, partnership, or corporation which submits an application in response to this application. Fairfax County Public Schools, (FCPS) shall be defined as "Owner"

All materials submitted by an applicant shall become the property of the Fairfax County Public Schools and will not be returned.

DESCRIPTION OF WORK

The Work consists of new built-up roofing over new decks or over existing decks where tear-off of existing membrane and insulation shall be performed. Some deck replacement may be required, as well as incidental wood blocking and sheet metal work. Specific drawings for the scope of work and nature of existing conditions are submitted for each project bid. Extent of built-up roofing system work is indicated on drawings and specifications and is defined to include roofing membrane, insulation, flashing and stripping and roofing accessories integrally related to roof installation.

Provide primary products, including each type of roofing sheet (felt), bitumen, insulations, and composition flashings produced by a single manufacturer. Provide secondary products only as recommended by manufacturer of primary products for use with roofing system specified.

A single Installer ("Roofer") shall perform the work and shall be a firm with not less than ten (10) years of successful experience in installation of built-up roofing systems similar to those required for this project. Roofer shall have had Soprema, Firestone "Red Shield", GAF Master Select or Johns Manville approval in this area for at least eight (8) years from manufacturer, and shall perform a minimum of five (5) of these built-up roofing manufacturer guarantees per year, as specified in Section 07510 (Attachment M).

The Roofer must have an office, warehouse with supplies, and permanent roofing crews within a 50-mile radius of the City of Fairfax, Virginia. No "sub-letting" of work to other companies will be allowed under a contract for roofing services.

Roofer shall coordinate work areas, schedules, and sequences with Owner's representatives to minimize disruption of school activities.

The Invitation for Bids for Re-Roofing Capital Improvement Projects for Fairfax County Public Schools shall be issued only to pre-qualified applicants.

PROJECT SOLICITATION PROCESS

PREQUALIFICATION

Applicants shall submit qualification information in accordance with the requirements identified herein. Fairfax County Public Schools or assigned designee may, at their sole discretion, contact one or more applicants during the evaluation process for clarification of any entries in the Application for Prequalification submitted by the applicant and may request additional information. Such additional information must be submitted to FCPS no later than five (5) business days after the request. The decision to prequalify an applicant shall not, however, constitute a determination that the applicant is responsible, and such applicant may be subsequently rejected as non-responsible on the basis of subsequently discovered information.

Fairfax County Public Schools may deny prequalification to any applicant if assigned designee finds any of the following:

1. The applicant fails to provide a signed Surety Statement that indicates that the Surety knows of no reason at this time that the Surety would not be able to provide bid, performance and payment bonds for the applicant in connection with the project.
2. The applicant does not have the appropriate experience to perform this project, as determined by Fairfax County Public Schools.
3. The applicant or any officer, director, or owner thereof has had judgments entered against him/her within the past ten years for the breach of contracts for governmental or nongovernmental projects, including, but not limited to, design-build or construction management.
4. The applicant has been in substantial noncompliance, as determined by FCPS, with the terms and conditions of prior construction contracts with Fairfax County Public Schools without good cause. If FCPS has not contracted with the applicant in any prior construction contracts, Fairfax County Public Schools may deny prequalification if the applicant has been in substantial noncompliance with the terms and conditions of comparable Construction contracts with another public body without good cause.
5. The Applicant or any officer, director, principal, project manager, procurement manager or chief financial official thereof been convicted within the past ten (10) years of a crime related to governmental or non-governmental construction or contracting, including, but not limited to, a violation of (i) Article 6 (§ 2.2-4367 et seq.) of this chapter, (ii) the Virginia Governmental Frauds Act (§ 18.2-498.1 et seq.), (iii) (iii) Chapter 4.2 (§ 59.1-68.6 et seq.) of Title 59.1, or (vi) any substantially similar law of the United States or another state.
6. The applicant or any officer, director or owner thereof is currently debarred pursuant to an established debarment procedure from bidding or contracting by any public body, agency of another state or agency of the federal government.
7. The applicant failed to provide to the School system within the established time frame, any information requested in this solicitation relevant to items 1 through 6 above.
8. The applicant must hold and submit a copy of current Virginia Class A Contractor's License and a State Corporation Commission Corporate Identification Number.
9. The applicant must hold and submit a copy of current Fairfax County BPOL License.

The Owner will determine whether applicant is qualified to bid on Projects. The Owner will notify the applicant whether or not they have been determined to be qualified to bid within sixty (60) days after the receipt of the Prequalification Application, unless extended by the Owner in its sole discretion. In any event, the Owner will notify all applicants of its determination with respect to their prequalification

applications at least thirty (30) days prior to the date established of bids pursuant to this procurement process.

Applications will be evaluated in accordance with the criteria listed within this application. An unsatisfactory rating in any one category may be considered sufficient cause to determine that an applicant is not qualified.

Prior to the issuance of a written determination of "not qualified to bid," the Owner will notify the applicant in writing of the results of the evaluation and disclose the basis thereof. Upon written request, the applicant may inspect public documents, which relate to the determination, if so, requested by the applicant within 5 business days after receipt of the Owner's notice. Within 10 business days after receipt of the Owner's determination concerning the applicant's prequalification within 5 business days after the Owner's receipt of all necessary information.

If determined not qualified to bid, the applicant may, within 10 days after notification of such determination, notify the Owner, in writing and appeal to the Circuit Court of Fairfax County, Virginia, in accordance with the pertinent provisions of the Virginia Public Procurement Act, Va. Code 2.2-4300. The Owner's determination of not qualified to bid may be reversed by the Circuit Court only if the applicant establishes that the determination was arbitrary or capricious or not in accordance with the Constitution of Virginia, statutes or regulations. Failure to notify the Owner and to file an appeal with the Circuit Court within the specified time will result in a waiver of all rights to appeal. In the event that the Owner's determination is reversed by the Circuit Court, the sole relief will be the declaration of the applicant as qualified to bid. Other than an appeal in accordance with this Section, a determination that an applicant is not qualified to bid shall not be the basis for any claim against the Owner, its officers, members or employees.

EVALUATION OF APPLICATIONS

In evaluating each Application for Prequalification, Fairfax County Public Schools will include, by way of illustration and not limitation, the following criteria:

Minimum Experience:

1. The roofer shall be a firm with not less than ten (10) years of successful experience in installation of built-up roofing systems specific in FCPS specification, Section 07510, Attachment M. If the roofer or its principals operated under another name or entity within the past five years a complete descriptive statement and audited financial statements for at least the past two years will be required.
2. The roofer shall have completed at least three (3) built-up roofing projects of \$500,000 or more on Schools or similarly built-up complex structures within the last year. Copies of these projects must be available for FCPS review.
3. The roofer shall be a certified installer for the approved roofing system. Fairfax County Public Schools shall be the sole judge as to determine-whether similar structures are equivalent to the roofing projects covered by this solicitation.
4. Performance on past and current projects within the past five (5) years. List all roofing projects completed in the last five (5) years, particularly on projects of a similar size and installation of built-up roofing systems per Section 07510, including the ability to meet scheduled completion dates.
5. Show history of contract completion dates, which must include the original and final completion dates, and the compliance with that time schedule.
6. Ability based on evidence of prior work to meet budget constraints. Show history of original contract amounts and final contract amounts.
7. Experience of key personnel proposed for this project. The designated project manager and site superintendent must have a minimum of 10 years' experience in similar size and similar type of

built-up roofing systems of projects, per FCPS specification, Section 07510. Show the percentage of time that the Project Manager will dedicate to the project.

8. Commitment to objectives relating to minimizing costs related to changes and disruptions of work.
9. Ability to obtain Performance and Payment Bonds.
10. Possession of a valid Class A Virginia Contractor's license prior to bid submission.
11. Virginia State Commission Corporation Identification Number.
12. Fairfax County Business/Professional/Occupation License Number (BPOL #).

APPLICATION REQUIREMENTS

Application forms and supplemental information must be submitted with application as a PDF. Information presented therein shall be clear, complete, and concise. The following forms and attachments comprise the Application for Prequalification:

- A. **Applicant's Prequalification Statement:** The applicant shall provide the information required. The form in Attachment A shall be used.
- B. **Similar Built-Up Roofing Projects:** A list of all similar built-up roofing projects currently being performed or performed during the past five years (showing project name, project owner, address, completion date, and value) and details on three (3) of those projects which are most similar in size and scope to FCPS specification 07510, completed in the last year on Attachment B – Project #1, #2 and #3.
- C. **Anticipated Projects:** A list of all anticipated projects currently a possibility of contract execution within the time period of this application, which are similar in size and scope to FCPS specification 07510. Project name, project owner, address, start date, completion date, and value. The form in Attachment C shall be used.
- D. **Key Personnel:** Information about the experience of the key personnel that the applicant plans to assign to projects. The form in Attachment D shall be used.
- E. **Affidavit of Accuracy:** Certification that the information contained in the Application for Prequalification is true and accurate. The form in Attachment E shall be used.
- F. **Action Plan:** The applicant shall identify proposed actions to minimize costs to Fairfax County Public Schools attributable to work disruptions related to unforeseeable conditions and changes in the Work. The form in Attachment F shall be used.
- G. **Management Plan:** The applicant shall describe the general plan for meeting the management requirements of the total project as described herein. The form in Attachment G shall be used.
- H. **Contractor's Licenses:**
 - a. **Contractor's License:** A statement of applicant's ability to acquire a Virginia Class A Contractor's License, if currently unlicensed, prior to bidding; and a commitment to require that all affected subcontractors carry a Virginia Contractor's license, Class A, B, or C, as applicable. The form in Attachment H shall be used
 - b. **State Corporation Commission Corporation Identification Number:** A copy of the state Corporation Commission Identification Number must also be submitted. The form in Attachment H shall be used.

- c. **Fairfax County Business/Professional/Occupation license Number (BPOL #):** <https://www.fairfaxcounty.gov/taxes/business/understanding-bpol-tax> The form in Attachment H shall be used.
- I. **Surety Statement:** Applicant's ability to acquire bid, performance, and payment bonds for projects. The form in Attachment I shall be used.
- J. **Safety Violations:** Applicant's response to the Fairfax County Construction Safety Resolution, <https://www.fairfaxcounty.gov/publicworks/sites/publicworks/files/assets/documents/pdf/constrsafety.pdf>
- K. **Roofing Certifications:** Applicant shall list certifications from various manufacturers that meet the required specifications per FCPS specifications 07510, attachment M.

PROJECT EXPERIENCE:

The qualification submittal shall demonstrate the experience of the applicant in providing roofing services for school buildings. The applicant shall describe its experience, specifically identifying and describing the following:

1. Satisfactory experience in roofing projects of school buildings within the last five (5) years. The current status of projects, both those complete and those in progress, must be provided, including a project schedule noting the start and completion dates, or anticipated completion date, of each project. Explanations shall be given for any project that finished behind schedule or is currently behind schedule.
2. Name, address and telephone number of individual(s) representing each listed roofing project a customer representative who is familiar with the services provided by the applicant. Fairfax County Public Schools will contact the individual to verify the experience and satisfactory performance of services by the applicant.

REQUIRED EXPERIENCE:

At a minimum, the applicant shall:

1. Be a firm with not less than ten (10) years of successful experience in installation of roofing systems per specifications, Section 07510 in Attachment M.
2. Be a certified installer for the "specific built-up" approved roofing system per specifications, section 07150, Attachment M. The roofer must have installed a completed warranty system of which all work was approved by the owner and the manufacturer within the past 5 years.
3. Have an office, warehouse with supplies, and permanent roofing crews within a 50-mile radius of the City of Fairfax, Virginia.

KEY PERSONNEL:

The applicant must specifically identify the applicant's key personnel (down to project field superintendent) intended to be assigned to the project in the event award is made to the applicant's firm.

Such personnel shall be, insofar as practicable, assigned to the project for the duration of such project. The applicant must provide a detailed resume for each individual. This individual supervisor must be available on the job to discuss and review project coordination, details and problems that may arise at all times.

The applicant shall describe in the application the individuals' responsibilities on previous projects and their proposed responsibility on the projects listed. The application must demonstrate that the applicant has the capability, in terms of built-up roofing systems, quantities of personnel, facilities and equipment required to accomplish the contract goals on schedule, of the projects listed, as specified in FCPS specification 07510.

ACTION PLAN:

Due to the potential unforeseeable conditions and field changes, which are inherent in such a project, it is probable that there will be disruptions to portions of the work to accommodate said conditions and changes. It is the Fairfax County Public Schools intention to prequalify only applicants who are prepared to adjust their working schedule, manpower and equipment to accommodate such conditions, disruptions, and changes; and to mitigate any and all costs and delays to the Fairfax County Public Schools associated therewith.

To demonstrate its commitment to this requirement and to elaborate on its planned construction method, each applicant shall submit an action plan, outlining the specific steps it would take to mitigate costs, and time, associated with disruptions to any part of the work due to unforeseeable conditions and changes in the work, satisfactory to Fairfax County Public Schools. This action plan shall include, but not be limited to:

1. Applicant's plan to accommodate changes, additions, and disruptions to the extent practicable within the contract time.
2. Applicant's technical resources to solve field problems.
3. Applicant's plan to protect portions of finished work during work disruptions.
4. Statement that the applicant certifies that all steps necessary and possible to minimize additional costs to Fairfax County Public Schools which may result from disruptions in the work due to changes and unforeseen conditions will be taken.
5. Plan to address any and all long lead-time for materials. List of equipment and or materials currently requiring long lead time.

In response to Fairfax County Construction Safety Resolution, each pre-qualified Bidder will be required to submit, with its bid, an affidavit (Certificate of Contract Compliance) certifying its intention to comply with this objective and with the approved action plan. This Certificate of Contractor Compliance will become part of the contract for construction of the project.

MANAGEMENT PLAN:

The Roofer shall be responsible for all components of the work until acceptance by Fairfax County Public Schools. No "sub-letting" of work to other companies shall be allowed for projects. The several major work tasks necessary to complete projects are shown below:

Major Work Tasks as indicated in FCPS Specification, Section 07510:

1. Removal of all existing roofing and replacing with the specified roofing system and related flashings.
2. Metal coping, flashing and counter flashing
3. Roof drains, gutters, facials, scuppers, and downspouts
4. Removal and replacement of HVAC units as required.
5. Ladders
6. Expansion joints and pitch pockets.
7. Vents
8. Painting of metals.

9. Removal and replacement of determined decking and woodwork.
10. Walkways and paths.
11. Built-up roofing removal and replacement.

The Management Plan shall describe the general plan for meeting the management requirements of the total project. It shall include a description of the proposed methods for planning, organizing, scheduling, controlling, and coordinating the total construction effort.

As part of the Management Plan, the applicant shall identify the senior level staff members who will have management responsibility for the work.

FAIRFAX COUNTY CONSTRUCTION SAFETY RESOLUTION

The Contractor shall comply with the resolution adopted by the Fairfax County Board of Supervisors on December 8, 2003, as amended:

- A. It shall be required that each bid submitted for a contract for construction, alteration, and/or repairs, including painting or decoration of a building, highway, street, bridge, sidewalk, culvert sewer, excavation, grading or any other construction, include a list of all the following actions which have become final in the three years prior to the bid submission:
 - 1) Willful violations, violations for failure to abate, or repeated violations, for which the bidder was cited by (a) the United States Occupational Safety and Health Administration; (b) the Virginia Occupational Safety and Health Administration; or (c) the occupational safety and health plan for any other public jurisdiction; or
 - 2) Three (3) or more serious construction safety violations for which the bidder was cited by the (a) United States Occupational Safety and Health Administration; or (b) the Virginia Occupational Safety and Health Administration; or (c) the occupational safety and health plan from any other public jurisdiction.
 - 3) Termination of a contract between the contractor and any public entity by their Chief Operating Officer or his designee for safety violations.
- B. If the Bidder has not received or been the subject of any such violations referenced in paragraph A in the three (3) years prior to the bid submission, then the bidder shall so indicate by certification of Safety Violations. The bidder will also indicate on this form each state in which work was performed in the three (3) years prior to the bid submission.
- C. No construction contract, as discussed above, may be bid on by any bidder or contractor who has been the subject of any citations for the type and number of violations listed in paragraph A, above, which have become final within three (3) years prior to bid submission.
 - 1) Notwithstanding the language of Paragraph C, above, any bidder or contractor who has been the subject of a violation, as described in paragraph A.1, which has become final in the three (3) years prior to bid submission, may bid, if the bidder or contractor meets the eligibility criteria set forth in paragraph E, below.
 - 2) Notwithstanding the language of Paragraph C, above, any bidder or contractor who has been the subject of the type and number of violations as described in paragraph A.2, which have become final within three (3) years prior to bid submission, may bid, if the bidder or contractor meets the eligibility criteria in paragraph E, below.

- 3) Notwithstanding the language of Paragraph C, above, any bidder or contractor who has previously been terminated from a public contract, as described in paragraph A.3, within three (3) years prior to the bid submission, may bid, if the bidder or contractor meets the eligibility criteria in paragraph E, below.
- D. Prior to bidding on a project under the provisions of paragraph C above, a contractor may request that a determination be made regarding its eligibility to submit a bid on a contract under the terms of this resolution. However, this request for determination and any subsequent adjudication process must be completed prior to submitting a bid on any project and the request for determination must be received no later than twenty-one (21) days before bids are due, unless otherwise stated in the Advertisement for Bid. A notice of the bidder's request for determination of eligibility will be posted publicly for comments by an interested party. The bidder's request for determination of eligibility and all supporting documentation provided by the bidder shall be open to the inspection of any interested person, firm or corporation in accordance to the requirements of Fairfax County purchasing Resolution and Virginia Freedom of Information Act.
- E. At the request of the Purchasing Agent or designee, the County Risk Manager shall evaluate a contractor's eligibility. Contractors may be subject to a special audit of their safety records as required. The criteria used by the Risk Manager in evaluation contractor's eligibility shall include but not be limited to the following:
- 1) Corrective action taken by a bidder or contractor to prevent the recurrence of safety violation.
 - 2) Days Away from Work Incident Rate for the past three.
 - 3) Summary of Work-Related Injuries and Illnesses/Incident Rate for the past three (3) years.
 - 4) Worker's Compensation Experience Modification Rating for the past three (3) year.
 - 5) Fatality record for the past five (5) years.
 - 6) Detailed information regarding the firm's safety program including but not limited to a Safety and Health Plan and qualification of the safety personnel.
 - 7) Verification that management staff directly in charge of projects that experienced safety violation listed in aforementioned paragraph A will not be involved County project.
 - 8) Incorporation of safety and health related issues into their new employee orientation programs.
 - 9) Incorporation of work safety as a part of employee's performance evaluation.
 - 10) Support of safety related matters by senior/corporate management. Does the firm have a safety policy statement signed by a member of senior/corporate management?
 - 11) Designation of a full time Safety Manager. Does this person report to a high level, authoritative position within the Company?
 - 12) Frequency and type of safety Inspections conducted at work sites.
 - 13) The number and type of safety training programs conducted for employees.
 - 14) Frequency for safety "tailgate meeting" conducted by the firm.
 - 15) Designation of an active safety committee, frequency of their meetings and list of members of the committee.
 - 16) Active membership in a recognized construction safety organization in the Washington Metropolitan area, or the state of contractor's domicile.
- F. The determination of eligibility rendered by the Purchasing Agent or his designee shall be final unless it is appealed in accordance with the provisions of the solicitation or the Fairfax County Purchasing Resolution.

- G. It Shall be a condition of each County construction contract, as discussed above, that no contractor or subcontractor contracting for any part of the contract work shall require any laborer, mechanic, or other person employed in the performance of the contract to work in surrounding or under working condition which are hazardous or dangerous to his safety, as determined under construction safety standards promulgated by the U.S. Department of Labor or the Virginia Department of Labor and Industry.
- H. The contractor awarded a County construction contract shall certify in writing that they will not knowingly, willfully, or recklessly employ or contract with any person, company, corporation, or any other entity for services pursuant to that contract if such person, company, corporation, or other entity could not have been awarded such contract due to the restrictions in paragraph C, above.
- I. The contractor shall also certify in writing that all safety related information provided in accordance with the safety Resolution and contract requirements are completed, accurate and truthful.
- J. The failure to provide information requested pursuant to this Resolution or the failure to conform to the certification requirements of the Resolution shall be grounds for disqualifying a prospective bidder.
- K. The County may impose the following sanctions upon a contractor who willfully submits any false or misleading certification or information regarding material facts in connection with submissions pursuant to this Resolution, or willfully omits any certification or information regarding material facts in connection with submissions pursuant to this Resolution. The term willful shall include intentional or reckless acts or omissions.
 - 1. Disqualify the prospective bidder from bidding a contract.
 - 2. Debar the contractor from bidding future contracts for a period not to exceed three (3) years.
 - 3. Terminate the contract awarded to the bidder after providing notice and opportunity to be heard.

END OF SECTION

APPLICANT'S PREQUALIFICATION STATEMENT

Project Name: _____

Submitted By: _____

Applicant Name and Address:

Applicant telephone No.: (____) _____ Fax No.: (____) _____

Applicant's Virginia Contractor's License Number: _____ Class: ____

Tax ID No. (Soc. Sec. No. If Sole Proprietor) _____

State Corporation Commission Corporation Identification Number: _____

Fairfax County Business/Professional/Occupation license Number (BPOL #): _____

Person who can respond authoritatively to any questions about this statement:

Name: _____ Title: _____ Tel.: _____

Indicate if: Corporation Sole Proprietor Partnership
 Joint Venture Other (Indicate) _____

The Applicant may attach additional information deemed appropriate to respond. Do not attach additional information irrelevant to the response.

1. Organization

A. How many years has your organization been in business as a roofing contractor? _____

B. How many years has your organization been in business under its present business name? _____

C. Under what other or former names has your organization operated?

D. If your organization is a corporation, please indicate:

Date of incorporation: _____

State of incorporation: _____

President's name: _____

Vice President's name(s) _____

Secretary's name: _____

Treasurer's name: _____

E. If your organization is a partnership, please indicate:

Date of organization: _____

Type of partnership
(if applicable): _____

Name(s) of general partners: _____

F. If your organization is a sole proprietorship, please indicate:

Date of organization: _____

Name of owner: _____

G. If the form of your organization is other than those listed above, describe it, and name the principals:

H. Submit a copy of the applicant's current organization chart showing numbers of employees by discipline and project and the names and titles down through Project Field Superintendent.

I. Provide proposed organizational chart for the project with names of key personnel.

J. Is the applicant related to another firm as a parent, subsidiary, or affiliate?
Yes ___ No ___

If yes, give names and addresses of all affiliated parent and/or subsidiary companies. Indicate which companies are subsidiaries.

K. Submit documentation to support 10 years (or more) of successful experience in installation of built-up roofing systems.

2. Judgments

A. Has the applicant or any officer, director or owner thereof had any judgments entered against him within the past ten years for breach of contracts for governmental or non-governmental construction, including, but not limited to, design-build or construction management?

If yes, provide details on any such judgment.

3. Contract Compliance

A. Has your firm been found to be in substantial noncompliance with the terms and conditions of prior construction contracts with Fairfax County Public Schools without good cause?

If yes, provide details on any such instance.

B. Only answer the following question if you have not contracted with Fairfax County Public Schools in the past five (5) years.

Has your firm been found to be in substantial noncompliance with the terms and conditions of prior roofing contracts with another public body without good cause?

If yes, provide details on any such instance.

4. Convictions

Has the applicant or any officer, director or owner thereof been convicted within the past ten (10) years of a crime related to governmental or non-governmental construction or contracting, including, but not limited to, a violation of (i) Ethics in Public Contracting (Article 4 - § 11-72 et seq.), (ii) the Virginia Governmental Government (Chapter 4.2 - § 59.1 - 68.6 et seq.) of Title 59.1), or (iv) any substantially similar law of the United States or another state?

If yes, provide details on any such conviction.

5. **Debarment**

Is the applicant or any officer, director or owner thereof currently debarred pursuant to an established debarment procedure from bidding or contracting by any public body, agency of another state or agency of the federal government?

If yes, provide details.

6. **References**

Provide at least five (5) references and include for each reference name, address, telephone number, and name of contact person.

7. **Workers Compensation Experience**

List your Experience Modification Rate for workers compensation for the past three years:

20-- - ; 20-- - ; 20-- - .

8. **Confidential and Proprietary Information**

Initial here if the applicant requests that all information submitted as part of this prequalification process be considered a trade secret or as proprietary information subject to the provisions of subsection D of § 11-52, Code of Virginia.

9. **State Corporation Commission Corporate (SCC) Identification number.** Contractor is required to provide FCPS an SCC number to transact business in the state of Virginia. To obtain a State Corporation Commission Corporate Identification number, contact the state commission at 804-371-9967 or 1-800-552-7945, or <https://www.scc.virginia.gov/pages/Contact-Us>, email: sccinfo@scc.virginia.gov or The State Corporation Commission, Post Office Box 1197,

Richmond, Virginia 23218, Physical Address: Tyler Building, 1300 E. Main St., Richmond, Virginia 23219

Virginia Contractor's License Number: To obtain a Virginia Contractor licenses, contact Department of Professional and Occupational Regulations at (804) 367-8511 or by email at contractors@dpor.virginia.gov or visit their site <http://www.dpor.virginia.gov/Boards/Contractors/>

Fairfax County Business/Professional/Occupation license Number (BPOL): All firms doing business in Fairfax County, shall obtain and provide a license as required by Chapter 4, Article 7, of The Cod of the County of Fairfax, Virginia. To obtain a Fairfax County Business License contact 703-222-8234 or by email at DTAPPDBusiness@fairfaxcounty.gov or visit their site at <https://www.fairfaxcounty.gov/taxes/business>

SIMILAR BUILT-UP ROOFING PROJECTS

1. On a separate sheet(s), list all roofing projects your organization has in progress, giving the name of project, owner, design engineer/architect, contract amount, percent complete and scheduled completion date.

2. On a separate sheet(s), list all Roofing Contracting of phased-occupied renovation of school buildings your organization has completed in the past five (5) years, giving the name of project, owner, design engineer/architect, contract amount, and date of completion.

3. Provide on the following pages the details of three (3) projects listed above, which are most similar in size and scope per FCPS specifications, section 07510. Projects must have been performed under Applicant's current name and involved current principals. If fewer than two projects have been performed, so state.

**SIMILAR BUILT-UP ROOFING PROJECTS
PROJECT 1**

ATTACHMENT B

DETAILS OF PROJECTS

1. Applicant Name: _____
Project Manager Name: _____
Superintendent Name: _____

2. Name of Project: _____

3. Owner Name: _____
Address: _____

Contact Person: _____
Telephone Number: (____) _____

4. Engineer/Architect:
Address: _____

Contact Person: _____
Telephone Number: (____) _____

5. Contract Dates - Attach additional information if project was not on schedule.
Start Date: _____
Substantial Contractual Completion: _____
Final Contractual Completion: _____

6. Briefly describe the project.

7. Original Contract Value \$ _____
Final Contract Value \$ _____
Value of: Change Orders to Date \$ _____
Outstanding Claims to Date \$ _____

8. Name of Bonding Company _____
Address: _____
Contact Person: _____
Telephone Number (____) _____

9. Major Subcontractor:
Name: _____
Address: _____
Contact Person: _____
Telephone Number (____) _____
Role In Project: _____
Telephone Number: (____) _____

DETAILS OF PROJECTS

1. Applicant Name: _____
Project Manager Name: _____
Superintendent Name: _____

2. Name of Project: _____

3. Owner Name: _____
Address: _____

Contact Person: _____
Telephone Number: (____) _____

4. Engineer/Architect: _____
Address: _____

Contact Person: _____
Telephone Number: (____) _____

5. Contract Dates - Attach additional information if project was not on schedule.
Start Date: _____
Substantial Contractual Completion: _____
Final Contractual Completion: _____

6. Briefly describe the project.

7. Original Contract Value \$ _____
Final Contract Value \$ _____
Value of: Change Orders to Date \$ _____
Outstanding Claims to Date \$ _____

8. Name of Bonding Company _____
Address: _____
Contact Person: _____
Telephone Number: (____) _____

9. Major Subcontractor:
Name: _____
Address: _____
Contact Person: _____
Telephone Number: (____) _____
Role In Project: _____

Telephone Number: (____) _____

DETAILS OF PROJECTS

1. Applicant Name: _____
Project Manager Name: _____
Superintendent Name: _____

2. Name of Project: _____

3. Owner Name: _____
Address: _____

Contact Person: _____
Telephone Number: (____) _____

4. Engineer/Architect: _____
Address: _____

Contact Person: _____
Telephone Number: (____) _____

5. Contract Dates – Attach additional information if project was not on schedule.
Start Date: _____
Substantial Contractual Completion: _____
Final Contractual Completion: _____

6. Briefly describe the project.

7. Original Contract Value \$ _____
Final Contract Value \$ _____
Value of: Change Orders to Date \$ _____
Outstanding Claims to Date \$ _____

8. Name of Bonding Company _____
Address: _____
Contact Person: _____
Telephone Number: (____) _____

9. Major Subcontractor:
Name: _____
Address: _____
Contact Person: _____
Telephone Number: (____) _____
Role In Project: _____
Telephone Number: (____) _____

ATTACHMENT C

ANTICIPATED PROJECTS

1. On a separate sheet(s), list all anticipated roofing projects your organization intends to pursue, giving the name of project, owner, design engineer/architect, contract amount, and scheduled completion date of the anticipated project.

KEY PERSONNEL

Provide information about the experience of key personnel of the applicant. The information shall include name, title of intended assignment, years of roofing experience, last employer, last position, and experience on similar projects, as specified in FCPS specifications, section 07510.

Applicant must also show the percentage of time key personnel will dedicate to the project.

ATTACHMENT E

AFFIDAVIT OF ACCURACY

The undersigned swears or affirms under the penalty of perjury and upon personal knowledge that the contents of the Application for Prequalification are true and correct.

The undersigned swears or affirms under the penalty of perjury that the contractor, its agents, servants and/or employees, to the best of his/her knowledge and belief, have not in any way colluded with anyone for and on behalf of the contractor an unfair advantage over others, nor have they colluded with anyone for and on behalf of the contractor, or themselves, to gain any favoritism in the award of any contract resulting from this bid.

NAME OF APPLICANT

REPRESENTATIVE/TITLE
(SIGNATURE)

ADDRESS

TELEPHONE NUMBER

DATE:

NOTARY SEAL:

ACTION PLAN

- A. Plan to accommodate changes, additions, and disruptions to the extent practicable within the contract time:
- B. Applicant's technical resources to solve field problems:
- C. Plan to protect portions of finished work during work disruptions:
- D. Guarantee that all necessary steps will be taken to minimize additional costs and time to Fairfax County Public Schools resulting from changes, unforeseen conditions, asbestos abatement procedures.
- E. Indoor Air Quality Plan
- F. Plan to address any and all long lead-time materials.
- G. Safety Plan

MANAGEMENT PLAN

Describe the general plan for meeting the management requirements of the total project.

VIRGINIA CLASS A CONTRACTOR'S LICENSE

Attach a copy of a Virginia Class A Contractor's License, and a commitment to require that all affected subcontractors carry a Virginia Contractor's license, Class A, B, or C, as applicable.

Fairfax County Business/Professional/Occupation license Number (BPOL)

Attach a copy of the BPOL license.

STATE CORPORATION COMMISSION CORPORATE IDENTIFICATION NUMBER

Attach a copy of the State Corporation Commission Corporate Identification Number must be provided.

SUGGESTED SURETY STATEMENT

(Name of Applicant) has been a client of (name of Surety Company) for over (_____) years. During that time, we have supported this firm in their pursuit of projects in the \$_____ range and total programs in excess of \$_____.

We are prepared to provide Bid, Performance, and Payment Bonds on the aforementioned project, provided (name of Applicant) accepts an award of the contract and makes application to us on or about the time the work is to commence, and we are satisfied with the prevailing underwriting conditions, including but not limited to, acceptable contract terms and job specifications, acceptable bond forms, and confirmation of full financing.

We also possess certificates of authority as an acceptable surety authorized to do business in the Commonwealth of Virginia as published annually in the Federal Register, Department of Treasurer, Fiscal Service, Department Circular 570.

Sincerely,

**Attorney-In-Fact
(Name of Surety Company)**

Name of Surety

Signature

Typed Signature

Date

Address

Telephone

SAFETY VIOLATIONS RESPONSE IN ACCORDANCE WITH THE FAIRFAX COUNTY SAFETY RESOLUTION.

WORK BY CONTRACTOR

The undersigned affirms that, if selected as a bidder as a result of this prequalification, the undersigned contemplates to perform by its own forces includes (check off applicable entries below):

FOR THE PURPOSES OF THIS SOLICITATION AND ANY SUBSEQUENT BID FOR THE WORK, "OWN FORCES" SHALL MEAN THE "A" WORK FORCE OF THE CONTRACTOR OR "B" WORK FORCE OF A WHOLLY OWNED SUBSIDIARY:

WORK BY

ITEM "A" "B" NATURE OF WORK

- | | | | |
|-----|-------|-------|---|
| 1. | _____ | _____ | SITework |
| 2. | _____ | _____ | CONCRETE |
| 3. | _____ | _____ | MASONRY |
| 4. | _____ | _____ | METALS |
| 5. | _____ | _____ | WOOD/PLASTICS |
| 6. | _____ | _____ | ROOFING - THERMAL & MOSITURE PROTECTION |
| 7. | _____ | _____ | DOORS & WINDOWS |
| 8. | _____ | _____ | FINISHES |
| 9. | _____ | _____ | SPECIALTIES |
| 10. | _____ | _____ | CASEWORK, EQUIPMENT, AND FIXTURES |
| 11. | _____ | _____ | ELECTRICAL |
| 12. | _____ | _____ | PLUMBING |
| 13. | _____ | _____ | MECHANICAL |
| 14. | _____ | _____ | AUTOMATIC TEMPERATURE CONTROLS |
| 15. | _____ | _____ | COMMUNICATION AND SPECIAL SYSTEMS |

**INSTRUCTIONS FOR EDITING
AND COORDINATION
SECTION 07510**

4-PLY BUILT-UP ROOFING WITH GRAVEL BALLAST AND INSULATION

1. Page 07510-1, paragraph 1.03: Edit description of work to correlate with project scope; depending upon whether the work includes new construction, re-roofing of existing deck (tear-off complete or partial) project, or both. Note: Where a roof tear-off is required, verify the extent of tear-off and if the scope of tear-off requires both the removal of an existing recover membrane as well as the original 20-year roof membrane. Coordinate with Design and Construction to ascertain the roofing history of the school. Where applicable, visual inspection of the roof edge may indicate if both an original roof and a roof recover are present (if both exist, the original gravel stop/fascia will be overlaid with a recover gravel stop/fascia). In some cases, coring of the existing roof may be required to identify the membrane composition.
 - A. Ensure that roof demolition plans clearly indicate that all or partial existing roofing membranes, roof insulation, and related flashings and accessories shall be removed in the area of re-roofing.
2. Page 07510-10, paragraph 3.03: Delete reference to vapor barrier installation unless project scope involves roofing over acoustical deck (gymnasium).
3. Page 07510-6, paragraph 2.06: Edit as required:
 - A. Delete entire section if the scope is a new construction, re-roofing of existing deck (tear-off) project or both.
 - B. Leave section and edit accordingly if the scope is for re-roofing jobs only.

SECTION 07510

4-PLY BUILT-UP ROOFING WITH GRAVEL BALLAST AND INSULATION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of contract, including General Conditions and other Division 1 Specification Sections, apply to the Work of this Section.

1.02 RELATED WORK

- A. See Roof Plans and Details
- B. Section 07600-Flashing and Sheet Metal

1.03 DESCRIPTION OF WORK

- A. Extent of built-up roofing system work is indicated on drawings and by provisions of this section and is defined to include roofing membrane, insulation flashing and stripping and roofing accessories integrally related to roof installation.
- B. The work consists of new built-up roofing over new decks or over existing decks where tear-off of all or partial existing layers of membrane, insulation and flashings shall be performed. Refer to drawings for scope of work and field verify all existing conditions. Any repairs or replacement to existing decking, wood blocking or other parts of the building structure will be done as directed by a Fairfax County Public Schools (FCPS) inspector on a time and material basis.

1.04 QUALITY ASSURANCE

- A. Single Source Manufacturer: Provide primary products, including each type of roofing sheet (felt), bitumen, insulations, composition flashings, produced by a single manufacturer. Provide secondary products only as recommended by manufacturer of primary products for use with roofing system specified.
- B. Installer Qualifications: A single Installer ("Roofer") shall perform the work of this section; and shall be a firm with not less than ten (10) years of successful experience in installation of built-up roofing systems similar to those required for this project. The roofer shall be a certified installer for the approved roofing system. The Roofer must have an office, warehouse with supplies, and permanent roofing crews within a 50-mile radius of the City of Fairfax, Virginia. Roofer shall have had Soprema, Firestone "Red Shield", GAF Master Select or Johns Manville approval in this area for at least eight (8) years from manufacturer, and shall perform a minimum of five (5) of these built-up roofing manufacturer guarantees per year.
- C. Pre-Roofing Conference: As soon as possible after award of built-up roofing work, contractor shall schedule and attend a meeting with Roofer, Manufacturer's Representative, installers of substrate construction (decks) and other work

4-PLY BUILT-UP ROOFING WITH GRAVEL BALLAST AND INSULATION SECTION 07510

adjoining roof system, including penetrating work and roof-top units; Architect, Owner, and representatives of other entities directly concerned with performance of roofing system. Review requirements of Contract Documents, submittals, status of coordinating work, availability of materials and installation facilities and proposed installation schedule, requirements for inspections, testing, certifications, forecasted weather conditions, governing regulations, insurance requirements, and proposed installation procedures.

- D. Insurance Certification: Assist Owner in preparation and submittal of roof installation acceptance certification as may be necessary in connection with fire and extended coverage insurance on roofing and associated work.
- E. UL Listing:
 - 1. Provide built-up roofing system and component materials which have been tested for application and slopes indicated on Drawings and are listed by Underwriters Laboratories, Inc. (UL) for Class A external fire exposure.
 - 2. Provide roof covering materials bearing Classification Marking (UL) on bundle, package or container indicating that materials have been produced under UL's Classification and Follow-up Service.
- F. Product and Application Guides: Soprema or Firestone manufacturer's "Roofing Manual for Commercial/Industrial Roofing Solutions."

1.05 SUBMITTALS

- A. Product Data: Submit manufacturer's technical product data, installation instructions and recommendations for each type of roofing product required. Include data substantiating that materials comply with requirements.
 - 1. For asphalt bitumen: provide label on each container or certification with each load of bulk bitumen, indicating flash point (FP), finished blowing temperature (FBT), softening point (SP) and equiviscous temperature (EVT).
 - 2. Expansion Joints: Follow FCPS specified details.
- B. Shop Drawings: Submit shop drawings showing plan layouts of all roofing assembly types, materials, roof top equipment, tapered insulation, crickets and drains. For additional information and requirements see section 01340.
- C. Samples, Built-Up Roofing System: Submit 2-pound samples of aggregate surfacing material.

1.06 JOB CONDITIONS

- A. Weather Condition Limitations: Proceed with roofing work only when existing and forecasted weather conditions will permit work to be performed in accordance with manufacturers' recommendations and warranty requirements.

1.07 DELIVERY, STORAGE AND PRODUCT HANDLING

- A. Deliver specified materials and accessories in unopened rolls, containers and packaging with manufacturer's original labels intact bearing name, source of product and delivery, storage date of manufacture. Cover all materials with waterproof tarps or two layers of plastic. Original material covering is not accepted as a single covering.
- B. Store and handle roofing felts in a manner that will ensure that there is no possibility of significant moisture pick-up.
- C. Store in a dry, well ventilated, weather-tight place. Unless protected from weather or other moisture sources, do not leave unused felts on the roof overnight or when roofing work is not in progress. Store rolls of felt and other sheet materials on end, on pallets or other raised surface. Handle and store materials or equipment in a manner to avoid significant or permanent deflection of deck. Materials that are found to have been exposed to moisture-related weather will be marked or designated as deficient and must be removed and not used on any FCPS project.
- D. Stockpiles of aggregate on roof surface shall only be set on areas which have been coated with asphalt, in order to protect the underlying membrane.
- E. Roof Loading: Do not store materials on roof decks or position installation equipment on roof decks in concentrations or locations exceeding design live loading for structural roof system.
- F. All roofing materials shall be covered with weatherproof tarps or two layers of plastic.

1.08 WARRANTIES

- A. Manufacturer's Guarantee (Project): Submit three (3) executed copies of full 20 year "NDL" (no dollar limit) "Manufacturer's Roofing Guarantee" on form approved by Owner, covering work of this section to include roofing membrane, composition flashing, roof insulation, and roofing accessories.

PART 2 - PRODUCTS

2.01 MATERIALS, GENERAL

- A. Insurance and Code Requirements: Provide materials complying with governing regulations and which can be installed to comply with the following:

1. Underwriters Laboratories "Fire Classified" and "Class 90" wind uplift resistance.

2.02 ROOF INSULATION

A. TYPE 1 New Construction and Complete Tear Off Of All Existing Roofing:

1. Polyisocyanurate Insulation (Bottom Layer): 2 layers of 2.5" both layers staggered in all directions," Rigid, closed cell polyisocyanurate foam, faced with a fiberglass, reinforced mat. Meets requirements of ASTM C1289-02, Type II, Class 1, Grade 2. R value: 6.0/inch over the expected life of the insulation. Thickness: Total thickness: 5" R-value of 28.8 (LTTR).
2. ½ " Fiberboard or Perlite (Top Layer), with R-value of 1.32, and shall comply with ASTM C728.

B. TYPE 2 Partial Tear Off Of Existing Roof Where Existing Insulation is to remain:

1. Polyisocyanurate Insulation – 1 layer of 2.8" (R-Value 16.2) (staggering all joints over the existing insulation) to be mechanically attached to the existing layers of insulation, Rigid, closed cell polyisocyanurate foam, faced with a fiberglass, reinforced mat. Meets requirements of ASTM C 1289-02, Type II, Class 1, Grade 2. R-Value: 6.0/inch over the expected life of the insulation. Thickness: Total to meet minimum R value of 28.72 (LTTR).
2. ½ " Fiberboard or Perlite (Top Layer), with R value of 1.32, and shall comply with ASTM C728.

C. TYPE 3 Partial Tear Off Of Existing Roof Where Existing Insulation is to remain:

1. 1 layer of ½" Fiberboard or ½" Perlite (staggering at joints over the existing insulation) to be mechanically attached through the existing insulation to the deck.
2. 1 layer of ½" Fiberboard or ½" Perlite (staggering at joints over the previous layer of ½" fireboard) set in a full mopping of Type III asphalt.

D. TYPE 4 Partial Tear Off Of Existing Roof Where Existing Insulation and Cap Sheet is to remain:

1. Polyisocyanurate Insulation- 1 layer of 2.8" (R-Value 16.2) (staggered at joints over the prime coated existing insulation) set in a full mopping of hot asphalt, rigid, closed cell polyisocyanurate foam, faced with a fiberglass, reinforced mat. Meets requirements of ASTM C 1289-02, Type II, Class 1, Grade 2. R Value: 6.0 /inch over the expected life of the insulation. Thickness: Total to meet minimum R value of 28.72 (LTTR).
2. ½" Fiberboard or Perlite (Top Layer) with R value of 1.32, and shall comply with ASTM C 728.

- E. Tapered polyisocyanurate or tapered perlite panels roof insulation for slopes, tapered edge strips, and crickets.

2.03 BUILT-UP ROOF MEMBRANE SYSTEM

- A. Insulated-Deck Asphalt/Glass-Fiber/Aggregate Roofing: Provide built-up aggregate-surfaced roof system with asphalt bitumen and 4 plies of glass fiber felts for lay-up as indicated.

1. Primer: Asphalt cutback primer complying with ASTM D41.
2. Ply Felts: 4 plies of asphalt-impregnated glass-fiber felts, Type 4 of Firestone, Soprema, GAF or Johns Manville ASTM D2178.
3. Bitumen: Roofing asphalt, complying with ASTM D312, Type III."Low Odor"/"Low Fume Only"
4. Paint all base flashing seams: Firestone – 1 coat base and 1 coat top
 - a. Firestone – 1 coat base and 1 coat top
 - b. Soprema – Alsan Finish
 - c. GAF-1 coat Unibase Primer and 1 coat Roof Mate top coat.
 - d. JohnsManville – 1 coast base and 1 coat top.
5. Broom all felts

- B. Comply with NRCA Roofing and Waterproofing Manual, 5th edition, Specification Plate #BU-4-I-A-A or latest edition, Diagram B; except 4 plies.

- C. Products: Subject to compliance with requirements, provide the following BUR System: NO SUBSTITUTIONS ALLOWED!

1. Soprema
2. Firestone
3. GAF
4. Johns Manville

- D. Base Flashings

1. Firestone- 1 ply SBS Premium base mopped only and 1 ply Ultra White Granual SBS FR torched or mopped.
2. Soprema- 1 ply Sopralene Sandes PS mopped only and 1 ply Sopra Star Flame torched or mopped.
3. GAF- 1 ply rubberoid mop smooth 1.5 and 1 ply Siplast Pavator 30 BW.
4. Johns Manville- 1 ply Dyna Base PR and 1 ply Dyna Glas FR CR G.

- E. Strippling Piles: For gravel stops, vent pipe flashings, pitch pockets, and "B" vent type flashing install 2 plies type 4 felt set in hot asphalt. At gravel stop/drip edge

4-PLY BUILT-UP ROOFING WITH GRAVEL BALLAST AND INSULATION SECTION 07510

flashing install 1 ply SBS Ultra White gravels. For Firestone, 1 ply Sopra Star white for Soprema and Johns Manville Dyna Glas FR CR G.

2.04 BUR EDGE/PENETRATION MATERIALS (As recommended by manufacturer)

- A. Roofing Cement: Asphaltic cement; comply with ASTM D4586, (non-asbestos containing).
- B. Glass Fiber Fabric: 1.5-pound minimum sheet of woven glass fiber, impregnated with asphalt (ASTM D 1668).
- C. Lead Flashing: 4-pound sheet of common desilverized pig lead. All sides primed that come in contact with built-up roofing.
- D. Preformed Edge Strips: Rigid insulation units matching roof insulation, or asphalt-impregnated organic fiber insulation units, molded to form 3-1/2" x 3-1/2" x 45 deg cant strips and 1-5/8" x 18" tapered edge strips, as shown to receive roofing ply-sheet courses and lift edges above main roofing surfaces. (Set in asphalt.)
- E. Cant strips: Fiber or perlite (Set in asphalt.)

2.05 SHEET METAL ACCESSORY MATERIALS

- A. Stainless Steel: ASTM A 167, AISI 302/304, No. 2D finish, temper as required for forming and performance; 0.015" thick (28 gage), except as otherwise indicated.
- B. Copper: ASTM B 370, cold-rolled unless soft temper required for forming and performance; 16-ounce (0.0216" thick), except as otherwise indicated.
- C. Aluminum: ASTM B 209, alloy 3003, temper H 14 unless harder temper required for forming and performance, with "Kynar" fluorocarbon enamel finish; 0.032" thick (20 gauge), except as otherwise indicated. Color as selected by Architect.
- D. Solder for Sheet Metal: Except as otherwise indicated or recommended by metal manufacturer, provide 50/50 tin/lead type (ASTM B32) for tinning and soldering joints; use rosin flux. All joints shall be soldered.
 - 1. Solder stainless steel joints with 60/40 tin/lead type solder; use acid-chloride flux, except use rosin flux on tinned surfaces.

2.06 ROOF DRAINS (THIS SECTION TO BE REMOVED BY EDIT FOR OTHER THAN ROOFING ONLY JOBS)

- A. Josam, J.R. Smith, Wade, Watts or Zurn Equipment matching existing pipe size to be approved by FCPS (as indicated on drawings).
 - 1. All roof drains assemblies shall be removed and replaced with new Josam, J.R. Smith, Wade, Watts or Zurn. Replacement drains shall be large bowls with new drain deck pans.

2. Provide new 1" hard wrap insulation at drain bowls sealed to decking. Replace any pipe insulation that has been removed for drain replacement.

2.07 MISCELLANEOUS MATERIALS

- A. Surfacing Aggregate: Crushed stone, free of sharp edges and complying with ASTM D 1863. Color: White. Texas #7- NO SUBSTITUTIONS
- B. Wood Members: Provide wood pressure treated with water-borne preservatives for above-ground use, complying with AWPB LP-2 as indicated on drawings.
- C. Provide High Temperature "Ice and Water Guard" at all metal roof and wall panel areas including covering all fascia and perimeter edge wood. Provide one of the following: Carlisle "WIP 300" or Soprema "Lasto Bond Shield HT".
- D. Mastic Sealant: Polysobutylene (plain or bituminous modified), non-hardening, nonmigrating, nonskinning and nondrying.
- E. Asphaltic Primer: Comply with ASTM D 41.
- F. Mechanical Fasteners: To comply with FM approval Guide 1-28 for I-90 classification; provide industry-standard types of mechanical fasteners for BUR system work, tested by manufacturer for required pull-out strength where applicable and compatible with deck type and roofing products used. Provide either 1" diameter nail heads or 1-3/8" diameter x 30-gage sheet metal caps for nails used to secure felts or insulation boards of roofing system.
 1. Metal Decks: Soprema Fastening System, Firestone, or GAF approved equal. Note: Where acoustical deck is used, fasteners shall not protrude below the bottom of the rib profile. Should this occur, the protruding portion of the fastener shall be cut.
 2. Gypsum Concrete Decks: Soprema, Firestone, GAF, or Johns Manville Specialty Systems.
- G. Vapor Retarders: (Acoustical Deck): Provide self adhering "Blueskin PE 200 HT" vapor retarding, high temperature roof underlayment by Henry Company, 800-486-1278. Vapor retarding underlayment shall be 40 mils thick, SBS rubberized asphalt compound laminated to a non-slip coated, polyethylene film top layer and a silconizes kraft paper bottom layer.
- H. Expansion Joints: Install new expansion joints and replace existing expansion joints at locations shown on the drawings in details as indicated.

2.08 FABRICATION OF SHEET METAL ACCESSORIES

- A. SMACNA and NRCA Details: Work shall conform with details shown, and with applicable fabrication requirements of "Architectural Sheet Metal Manual" by SMACNA. Comply with installation details of "Roofing and Waterproofing Manual" by NRCA.
- B. Provide 4" wide flanges for all accessories for setting on BUR membrane with concealment by composition stripping.
- C. Fabricate work with flat-lock soldered joints and seams; except where joint movement is necessary provide 1" deep interlocking hooked flanges, filled with mastic sealant.
- D. Fabricate penetration sleeves with minimum 8" high stack of diameter 1" larger than penetrating element. Counter flashing is specified as work of Section 07600, Flashing and Sheet Metal.
- E. All metal copings shall have standing seam joints (per manufacturer's recommendation).
- F. All masonry associated counterflashing will use existing through wall assembly or provide new through wall assembly per the plans and specifications.

PART 3 - EXECUTION

3.01 INSPECTION OF SUBSTRATE

- A. Examine substrate surfaces to receive roofing system and associated work and conditions under which roofing will be installed. For re-roofing projects, examine existing conditions (such as deck substrate, edge construction, curb openings and other roof penetrations) and verify that such conditions will allow proper installation of the roof membrane assembly. Do not proceed with roofing until unsatisfactory conditions have been corrected in a manner acceptable to Installer and complying with manufacturer's standards. Existing decking will be cleaned completely of all debris including deck flutes.
- B. Final determination of existing conditions will be that of FCPS Design and Construction. Any repair or replacement of existing structure will be directed by FCPS inspector on a time and material basis.
 - 1. Verify that flatness and fastening of metal roof decks comply with the following:
 - a. Top Flanges: No concavity or convexity in excess of 1/16" across any 3 adjacent flanges.
 - b. Side Laps: Minimum 2" laps located over and fastened to supports.

- c. Deck secured to each supporting member in every other rib (maximum spacing of 12" o. c.) with puddle welds or approved mechanical fasteners.

2. Deck infiller replacement shall follow FCPS specification details.

3.02 GENERAL INSTALLATION REQUIREMENTS

- A. Comply with manufacturer's published specifications for ply lapping, asphalt application, fastener recommendations, roof edge details and base flashing details. NOTE: FCPS specifications may supersede the minimum manufacturer requirement.
- B. Cooperate with inspection and test agencies engaged or required to perform services in connection with BUR system installation.
- C. Protect other work from spillage of BUR materials and prevent liquid materials from entering or clogging drains and conductors. Replace and restore other work damaged by installation of BUR system work.
- D. Insurance/Code Compliance: Install BUR system for (and test where required to show) compliance with governing regulations and with the insurance requirements of this Section.
- E. Coordinate the installation of insulation, roofing felts flashings, stripping, coatings and surfacings, so that insulation and felts are not exposed to precipitation nor exposed overnight. Provide cut-offs at end of each day's work, to cover exposed felts and insulation with a course of coated felt with joints and edges sealed with roofing cement. Remove cut-offs immediately before resuming work. No phasing of roofing will be accepted unless approved by FCPS.
- F. Asphalt Bitumen Heating: Heat and apply bitumen in accordance with Equiviscous Temperature Method ("EVT Method") as recommended by NRCA. Do not raise temperature above minimum normal fluid-holding temperature necessary to attain EVT ("25 degrees F or 14 degrees C, at point of application) more than one hour prior to time of application. Discard bitumen that has been held at temperature exceeding Finished Blowing Temperature (FBT) for a period exceeding 3 hours. Determine flash point, FBT and EVT of bitumen, either by information from bitumen producer or by suitable tests, and determine maximum fire-safe handling temperature and do not exceed temperature in heating bitumen. In no case shall bitumen be heated to a temperature higher than 25 degrees F (14 degrees C) below flash point. For aggregate-surfaced pour coats of bitumen, limit application temperature to minimum required for proper embedment of aggregate, and maximum which will permit retention of a coating of weight required, depending upon slope of surface. Tankers only will be used on all FCPS roof projects.
- G. Bitumen Mopping Weights: For interply mopping and for other moppings except as otherwise indicated, apply bitumen at the following rate:

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Asphalt: 25-lbs. of asphalt (25% on a total-job average basis) per roof square (100 square feet) between plies, but not less than 23 pounds per square per ply, applied within the EVT range.

- H. Substrate Joint Penetrations: Do not allow bitumen to penetrate substrate joints and enter building or damage insulation, vapor barrier (retarders) or other construction. Where steep asphalt is applied directly to a substrate, hold mopping back 2" from both sides of each joint.
- I. Cut-Offs: At end of each day's roofing installation, protect exposed edge of incomplete work, including ply sheets and insulation. Provide temporary covering of 2 plies of No. 15 roofing felt set in full moppings of hot bitumen; remove at beginning of next day's work. Do not glaze coat ply sheets in the interim before surfacing.
- J. Cold Weather Application: Fully comply with manufacturer's written guidelines for cold weather roof installation when work shall be performed in temperatures below 45°F.
- K. Newly installed roofing that is left unsurfaced for a period of time that will exceed that of what is recommended by the manufacturer will be coated with asphalt at a rate that is recommended by that manufacturer.
- L. At all times provide an odor eliminator additive – use “desent” by Arrmaz Custom Chemicals or approved equal.
- M. For roof replacement remove loose gravel by power vacuuming only.

3.03 VAPOR BARRIER APPLICATION/ACOUSTICAL DECK INSTALLATIONS (GYMNASIUM)

- A. Install preformed sound absorbing glass fiber insulation strips supplied under Section 05230, in acoustical wide rib deck flutes. Install in accordance with deck manufacturer's instructions.
- B. Prior to commencing installation, ambient and deck surface temperature shall be not less than 40 degrees and rising.
- C. Install self adhering single layer vapor retarding underlayment in shingle fashion parallel to metal deck flutes in accordance with manufacturers written instructions. All edges (sides and end laps) shall be lapped not less than 2 ½” and sealed with manufacturers recommended sealing compound.
- D. Extend vapor retarder under cant strips and blocking. Lap flexible flashing over vapor retarder or wall construction to provide continuity of vapor barrier envelope.
- E. Vapor retarding underlayment shall be fully covered by roofing system within six weeks of installation. Exposed underlayment shall be protected from foot and equipment traffic as recommended by manufacturer.

3.04 INSTALLATION OF INSULATION

- A. General: Comply with insulation manufacturer's instructions and recommendations for the handling, installation and bonding or anchorage of insulation to substrate.
- B. Secure insulation: to deck using mechanical fasteners specifically designed and sized for attachment of specified board type insulation to deck type shown. Fasten all layers of insulation over entire area of roofing at spacing as required by manufacturer.
- C. Three-Layer Installation: Install required thickness in three layers with joints of second layer staggered from joints of first layer a minimum of 12" each direction.
- D. Mecanically attach the first two layers together. Install third layer staggered from the second layer in full mopping of hot Type III asphalt, applied within temperature range of EVT " 25°F (14°C) and at average rate of 25 pounds. ("25% on total-job basis) per 100 square foot.
- E. Tapered insulation will be installed at all roof drains, crickets, tapered areas and on the high sides of all units as per the drawings and specifications.
- F. Tapered Insulation: Installation shall be as recommended by manufacturer.
- G. Install one-ply of #15 lb. felt laid in dry at all walls, roof edges and penetrations prior to installing roofing plies. #15 felt should be set under 1st layer of new insulation.
- H. Insulation required inside roof curbs shall match the R-value and thickness of the surrounding roof area.

3.05 ROOF MEMBRANE INSTALLATION

- A. Shingling of Plies: Except as otherwise indicated, install membrane with ply sheets shingled uniformly to achieve required number of thickness of membranes throughout. Shingle in proper direction to shed water on each large area of roofing. Drainage flow shall be over or parallel to, but not against the lap. Lightly broom felts as directed on all roofing plies. **GLAZE COAT PLIES IF SURFACE IS NOT INSTALLED WITHIN 60 DAYS.**
- B. Cant Strips/Tapered Edge Strips: Except as otherwise shown, install preformed 45° insulation cant strips at junctures of BUR membrane with vertical surface. Provide preformed tapered edge strips at perimeter edges of roof that do not terminate at vertical surfaces. Set all edge strips and cant strips in hot asphalt.
- C. Inter-Ply Felts: Provide the number and type(s) of felts indicated, lapped (shingled) as required to form a continuous, uniform membrane with bitumen moppings between sheets so that ply sheet does not touch ply sheet. Except as otherwise

indicated, glaze-coat top of ply-sheet membrane with 10-pound mopping of same bitumen, integrally with operation of laying up membrane.

1. Mop base directly to substrate.
 2. Extend BUR membrane to 2" (nominal) above top edge of cant strip, solidly adhered, without bridging or buckling.
 3. Provide a folded-back envelope at edges and penetrations of BUR membrane where it is not turned up on a tapered strip, so as to provide positive protection against flow of bitumen into building or off the edge. Extend base sheet to form envelope or, where no base sheet is provided, install one ply or coated felt set in steep asphalt with joints sealed. Seal corners and other interruptions of envelope with large beads of roofing cement to provide positive protection against flow of bitumen.
 4. Nail edges of roofing membrane to wood blocking at perimeter edges of roof prior to installing metal gravel stops/fascias. Space recommended fasteners at minimum 6" o. c. with staggered rows through one-inch (1") diameter metal discs, unless otherwise noted.
- D. Set-on Accessories: Where small roof accessories are set on BUR membrane, set metal flanges in a bed of roofing cement, and seal penetration of membrane with bead of roofing cement to prevent flow of bitumen from membrane.
- E. Roof Drains: All roof drains shall have a tapered insulation sump area consisting of a minimum 12' x 12' total area. The sump shall be a minimum of 6' in each direction from the center of the roof drain. Sump area may need to be larger depending on the thickness of new insulation. Insulation should have a gradual slope to drain not to exceed $\frac{3}{4}$ " per foot or approved by FCPS. Fill clamping ring base with a heavy coat of roofing cement. Set lead flashing sheet in a bed of roofing cement over completed ply sheet course. Lead sheet shall be primed with asphalt primer, clamped in roof drain ring, and extended a minimum of 24" onto the roof. Cover lead sheet with two plies of Type 4 felt. Finish by covering the entire sump area with SBS White Modified Bitumen sheet specified under the base flashing section, extending a minimum of 6" out onto the roofing field.
1. Lead flashing sheet: Minimum 30" x 30" in size.
- F. Allow for Expansion: of running metal flashing and edge trim that adjoins roofing. Do not seal or bond BUR membrane or composition flashing and stripping to metal flanges over 3'-0" in length.
- G. Flashings: Two-ply flashings shall not be applied until the roof membrane (excluding surfacing) has been installed. Provide a temporary seal at ply terminations until flashing can be installed.
1. Prime masonry surfaces and wood cant and expansion joint with recommended asphalt primer at the rate of one (1) gallon per 100 square feet.

2. Apply asphaltic primer to all sheet metal that shall come into contact with bituminous materials (top and bottom).
 3. Embed flashings into a solid mopping of steep asphalt extending at least eight inches (8") up the curb or wall, and extending at least four inches (4") beyond the cant strip onto the roof.
 4. Seal all nail heads, inside and outside corners with roof cement. Provide a three- (3) course seal using glass fabric embedded into and covered with roofing cement under all surface-mounted counter flashing.
 5. Cover all wood blocking/plywood not covered by the B/U/R with ice/wwater shield.
- H. Counter Flashings: Counter flashings, cap flashings, expansion joints, through wall receiver metal are "all" stainless steel and "all" similar metal work to be coordinated and will become part of the BUR work.
- I. Roof Accessories: Miscellaneous sheet metal accessory items, including, and major items of accessories to be coordinated with BUR work, are specified in other sections of these specifications.
1. Sheet metal flashing flanges and through wall shall have all seams (base and up seams) soldered. Prime coat all parts that come into contact with roofing membrane. Set in bed of roofing cement prior to concealment by composition stripping.
- J. Aggregate Surfacing: Promptly after completion of BUR membrane, edge treatment and set-on accessories in each substantial area of roofing, flood-coat surface as indicated and while each small area is hot and fluid, cast the following approximate weight of aggregate in a uniform course. NOTE: ALL AREAS THAT SHALL RECEIVE AGGREGATE SHALL BE INSPECTED BY OWNER'S REPRESENTATIVE AND ROOFING MANUFACTURER'S REPRESENTATIVE PRIOR TO INSTALLING AGGREGATE.
1. Flood Coat: 60 pounds per square into hot steep asphalt.
 2. Aggregate: Texas #7 White Stone ONLY! No Substitutions
- Roof surface shall be clean, free of dirt, dust, and moisture prior to applying aggregate. Install aggregate so that at least 50% of the aggregate is solidly adhered in the asphalt.
- K. Do not install flood coating of bitumen and aggregate surface source at edges of roofing until composition flashing and stripping work has been completed. Glaze-coat ply sheet courses where surfacing cannot be installed on the same day. Delay aggregate surfacing only as long as necessary to substantially complete edge work and tests where required.

- L. Allow 5% of extra asphalt and stone for ponded water areas.

3.06 CORRECTION OF DEFECTIVE OR DAMAGED WORK

- A. Owner reserves the right to direct that roof cuts (samples) be taken in any area of the work whenever defective work is suspected. Owner's Representative will notify Contractor and Roofing Manufacturer's Representative, when such action is deemed necessary in the opinion of the Owner.
- B. "Fishmouths" (non-adhered arched ply edges). Cut out plies which are not properly embedded in bitumen; replace the cut area with the minimum number of plies specified for the roofing system, plus one (1) additional ply using the "feather out" method recommended by the Manufacturer for cut-out repair. Embed each ply in a solid, uniform 23 to 35 pounds per square mopping of hot bitumen. No dry laps shall be permitted. Feather felts 2" over preceding layers.
- C. Physical damage resulting from construction activity: Cut out damaged plies and insulation. Install new insulation and repair the cutout in accordance with the procedures outlined in paragraph A above.
- D. Non-adhered laps: Secure laps by embedding each ply in a solid, uniform 23 to 35 pounds per square mopping of hot bitumen.
- E. Other defective or non complying work discovered as a result of Manufacturer's audit for guaranty requirements shall be corrected in accordance with manufacturer's recommended procedures for each type of defect encountered.

3.07 CLEANING

- A. Remove excess materials, equipment, trash and debris associated with the roofing activities from the project area and dispose of legally.
- B. Repair damage to adjacent work of other trades which has resulted from roofing activities; remove stains and drippage resulting from bitumen application.

3.08 PROTECTION OF ROOFING

- A. Upon completion of roofing work, including associated work, Roofer shall advise Contractor of recommended procedures for surveillance and protection of roofing during remainder of construction period. At end of Construction period, or at Contractor's option, at a time when remaining construction work will in no way affect or endanger roofing, Roofer shall make a final inspection of roofing and prepare a written report, directed to Contractor with copy to Owner describing nature and extent of deterioration of damage found in the work.
- B. Roofer shall repair or replace deteriorated or defective work found at time of final inspection. Roofer shall be engaged by Contractor to repair damages to roofing that occurred subsequent to roofing installation and prior to final inspection. Repair

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or replace the roofing and associated work to a condition free of damage and deterioration at time of substantial completion.

- C. Repair all damaged side walks, grounds and all other damaged surfaces to match existing.

END OF SECTION