

ROOFINGPROJECTS.COM

ROOF REPLACEMENT SPECIFICATION

Dealpoint Merrill LLC – 1919 East Ray Road, Chandler, AZ

Roof Sections: A, B, C, D, E & F

REPAIR AND RECOAT

OF EXISTING SPRAY POLYURETHANE FOAM (SPF) ROOF SYSTEM

PART 1 GENERAL

1.01 SCOPE OF WORK

1. Furnish all materials, equipment, labor and transportation required to remove and dispose of blistered, delaminated or wet SPF roofing, repair and recoat the existing SPF roofs, in accordance with these specifications.
2. Tear off designated wet/damaged insulation areas identified during the course of the work. Contractors are to include an allowance of 2,500 square feet of wet/damaged insulation removal and infill in the base bid price. Remove designated areas of wet/damaged insulation and fill removal areas to match the thickness of the existing roof system. A line item on the bid form will address a unit price for removal and filling of wet or damaged areas if more than the area included in the base bid is encountered during the course of the project. The contract will be adjusted if more or less area than the allowance area is removed based on the cost per square foot unit price provided on the bid form by the contractor. All removal areas are to be documented by the contractor through markup drawing and photos confirming the conditions. Owner's representative and Roofingprojects.com to be notified and made aware of the conditions immediately as they are encountered.
3. Contractor to include in their lump sum pricing a Contingency Allowance of \$10,000. All contingency allowance expenditures must be authorized in writing by Owners representative and roofingprojects.com prior to being performed. Payment will not be made on any unauthorized contingency expenditures. Any allowance value not approved during the course of the project will be credited back to the Owner.
4. New HVAC units will be installed by the owner in conjunction with this project including elimination of some existing rooftop equipment/curbs. Removal of existing units will be by others, removal of the curb and closure of the opening with steel decking and insulation to match existing will be by the roofing

contractor. The installation of the unit curbs will be by others. The roofing contractor must flash in the curbs in a watertight, warrantable manner as part of this contract. The new curbs and the existing items to be removed are noted and detailed in detail drawings d001 through d004 on the project links. This work must be closely coordinated with other trades in order to maintain watertightness of the roofing system.

5. Install manufacturers walk pads at roof access points and at all serviceable sides of roof top units. A lineal foot price is available on the bid form for additional walk pads to be determined later
6. Provide a manufacturer's 10 Year Labor and Material, NO Dollar Limit (NDL) watertightness warranty and a contractor's 2 year warranty. Contractor to provide at Pre-Construction meeting the Warranty Reference Number assigned when the contractor registers the project with the Material Manufacturer providing the Long-term Warranty.
7. All required municipal permits, project fees and taxes are to be included in the contractors base bid price.
8. All contractor payment applications are to be submitted to Roofingprojects.com for approval and certification to Owners Representative for payment on standard AIA forms. Contractors are to include copies of itemized material supplier invoices and release of liens with all payment applications.

1.02 Instruction to Bidders:

1. The Owner's minimum qualifications to bid this project are displayed on the "Project Description" page and the Owner's minimum insurance requirements and service agreement are also available through a separate link at the top of the "Project Description" page.
2. Bids are to be submitted through the online bid form prior to the conclusion of the bid period. Bids can be changed prior to the bid period closing, however, no bid can be submitted after the bid period has closed.
3. The bid period is clearly displayed at the top of each page of the online "Project Package" assigned to this project.
4. In order to access the Bid Form, the Roofing Contractor must first fill out the form found when clicking on the "Tell the Owner about Your Company" link. Accessing the bid form will be allowed by the system once this form has been filled out and submitted and then clicking on the "Bid the Project" link. The Roofing Contractor is encouraged to fill this form out specifically for this project as it relates to experience, crew size for this project, and time to complete the project, etc.
5. Contractors wishing to get clarification to any aspect of this project must submit their question through the "Ask your Question" link. All questions considered legitimate by RoofingProjects.com will be answered and available through the "Answers to Questions" link. All bidding contractors will be able to view the answered questions but not which contractor asked the questions.
6. Additional important project specific information is available through the "Estimator Assistant" and "Project Notes" links.

7. The Roofing Contractor is responsible for reviewing all drawings, specifications and the “Answer to Questions”, “Project Notes”, and “Estimator Assistant” links prior to submitting their final bid price.
8. Site visit opportunities will be displayed on the “Project Notes” link.
9. Bid Period Extensions: The Owner in association with Roofingprojects.com reserves the right to extend the bid period based on circumstances that may arise during the bid period. All bidders will be notified by email with the new bid closing date if applicable.

1.03 SUBMITTALS

- A. Submittals after Award of Contract: After award of project, submit the following submittals to Owners Representative with an electronic copy transmitted to Roofingprojects.com. Submittals shall be available at all times to the Owners Representative.
 1. Copy of contractor's current roofing license
 2. Proof of contractor's current \$5,000,000.00 liability insurance
 3. Product Data Supporting Compliance with Part 2 PRODUCTS
 - a. Cleaner
 - b. Primer
 - c. Caulking (For Repairs)
 - d. Fabric (For Repairs)
 - e. Foam (For Repairs)
 - f. High Tensile Acrylic Coating
 4. Certificate of Approval from the coating manufacturer authorizing roofing contractor to complete the repair and recoat at specific project location, in accordance with these specifications. Manufacturer will issue a 10-year warranty against roof leaks due to faulty material or improper installation of new roofing materials.
 5. Sample Copy of Coating Manufacturer’s 10 Year Warranty.
- B. Required Before Start of Work
 1. Material Safety Data Sheets

1.04 QUALITY ASSURANCE

- A. Qualifications:
 1. Foam/Coating Contractor Qualifications:
 - a. 10 years of prior experience in handling and spraying polyurethane foam and protective coating of the type specified and possessing a thorough knowledge in the use of the required spray equipment.

- b. Approved by the protective coating manufacturer for the 10 Year Warranty specified for this project before the bid date.
3. Applicator Qualifications:
- a. Trained by the polyurethane foam manufacturer with minimum of 10 years' experience in spray application of SPF insulation and protective coatings. Applicator shall have taken and passed CPI Health & Safety Program. Applicator shall provide proof of SPFA Master Installer status.
 - b. Individual mechanics shall be workers experienced and regularly engaged in the spray application of polyurethane foam in roofing systems.
- B. Regulatory Requirements:
- 1. Roof Coating shall be FM Class I rated for Severe Hail Impact over SPF insulation and shall conform to ASTM Test Standards and UBC requirements.
 - 2. SPF insulation shall have Class II flame spread of less than 75 in accordance with ASTM E84.
 - 3. Polyurethane foam A and B components material containers shall be UL labeled in accordance with the system UL follow-up service agreement.
 - 4. Coating drums shall contain labeled proof of UL and FM Approval.
 - 5. Code Compliance: Bids must be in compliance with all applicable local and state codes. Contractor will be required to secure any and all permits required by local and state jurisdictions in order to conduct this project as specified. All costs for required permits must be included in contractor's base bid price.
- C. Pre-Installation Conference:
- 1. Prior to commencing with the repair and recoat of the foam roofing, the roofing contractor must schedule a pre-installation conference between the roofing contractor, appropriate owner's representative, Roofingprojects.com representative and coating manufacturer's representative to discuss the scheduling, execution and details of this project. This meeting must take place before work may begin.
 - 2. RoofingProjects.com shall record discussions of conference and decisions and agreements (or disagreements) reached, and furnish copy of record to each party attending. Review foreseeable methods and procedures related to roofing work, including the following:
 - a. Tour, inspect and discuss condition of substrate, roof drains, curbs, penetrations and other preparatory work.
 - b. Review required submittals.
 - c. Review and finalize construction schedule related to roofing work and verify availability of materials, installer's personnel,

equipment, and facilities needed to make progress and avoid delays.

- d. Review required inspections, testing, certifying, and material usage accounting procedures.
 - e. Review weather and forecasted weather conditions, and procedures for coping with unfavorable conditions, including possibility of temporary roofing (if not a mandatory requirement).
3. Notify the owner's representative at least 48 hours prior to starting work.

1.05 DELIVERY, STORAGE AND HANDLING

- A. Packing and Shipping: Deliver materials to site in manufacturer's original unopened packaging with labels intact. Protect finished surfaces with removable wrapping or coating, which will not bond when exposed to sunlight.
- B. Storage: In accordance with manufacturer's instructions and to protect against damage while stored at the site.
- C. Handling: Comply with manufacturer's instructions.

1.06 PROJECT/SITE CONDITIONS

- A. Environmental Requirements
 1. Air and surface temperatures shall be within the material manufacturer's written application guidelines.
 2. All surfaces must be dry, clean and tight before proceeding with installation.
 3. Wind velocity shall be within the material manufacturer's written application instructions.
- B. SAFETY
 1. Contractor shall follow all current OSHA and roofing industry requirements and standards for procedures followed during the roof replacement project.
 2. Daily clean-up of work, staging and personnel areas is required.
 3. Barricades: Barricades must be put in place prior to the start of the work that requires them. Proper barricades must be in place to encompass the entire swing radius of the crane to ensure and prevent the possibility of the public or employees being harmed by the crane or its operations.
 4. Fire extinguishers must be present on the job site at all times – number of fire extinguishers should be sufficient so that any point is within 100 feet of a fire extinguisher.

5. Cranes and Hoists: Contractor must know and work within the load capacity, limitations and specifications provided by the equipment manufacturer.
6. Public Access: Unauthorized persons are not allowed to enter the roof at any time.
7. Fumes: Notify Property Management when there is the possibility that fumes and/or dust can be drawn into the building through air intake ducts so that steps can be taken to cover or shut down the unit.

1.07 WARRANTY

- A. Provide the building owner with a Coating Manufacturer's 10 Year (NDL) Warranty against leaks from faulty coating or installation labor and a 2 Year Contractor Warranty.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Surface Cleaner: Cleaning solution shall be a water-based biodegradable solution that complies with EPA and local jurisdictions. United Coatings' UCC Cleaner or prior approved equal.
- B. Surface Primer: Primer shall be a water-based epoxy primer/sealer specifically formulated to solidify chalky surfaces or areas of exposed foam. United Coatings Uniseal Primer or prior approved equal is acceptable.
- C. Protective Coating: Protective coating shall be United Coatings Diathon HT or prior approved equal meeting the following ASTM D 6083 physical performance properties: Tensile Strength 414 psi per ASTM D2370; Elongation 414% per ASTM D2370; Tear Resistance 111 lbs/in per ASTM D624.
- D. Repair Materials
 1. Spray-Applied Polyurethane Foam Insulation
Foam shall be a two-component HFC 245fa blown system that is fire rated by Underwriters Laboratories as a Class II product with a flame spread of less than 75 and a Compressive Strength of 55 psi. Foam shall be BASF 81305 or prior approved equal. Foam packs are not acceptable for repairs on this project.
 2. Butter Grade Sealant

Sealant shall be a water-based high solids elastomeric sealant. Sealant shall be specifically manufactured for use at flashing, protrusions or repair areas. United Coatings Roof Mate Butter Grade or prior approved equal is acceptable.

3. Reinforcing Fabric

Fabric shall be a stitch bonded 100% polyester material made specifically for use with elastomeric coatings in roof membrane construction. United Coatings Roof Mate Reinforcing Fabric or prior approved equal is acceptable.

2.02 EQUIPMENT

- A. Foam and coating equipment shall be approved by the material manufacturer for properly installing the specified materials.

PART 3 EXECUTION

3.01 SITE EXAMINATION

- A. Verification of Existing Conditions: It is the responsibility of the roofing contractor and the material manufacturer to verify the current condition of the existing foam roofs prior to the start of work. Roofingprojects.com shall have an infrared moisture survey conducted to determine the areas of wet SPF insulation. The areas of wet insulation shall be marked on the roof surface so the contractor can remove the wet insulation in these areas and infill with insulation to match the thickness. Install new primer and SPF insulation to grade with existing SPF roof.
- B. Commencement of Work will be construed as acceptance of sub-surfaces.
- C. Coordination: Coordinate work schedule in advance with owner's designated personnel.
- D. NOTE: Roofing Contractor is to verify that all drain lines are free from debris and are free flowing prior to beginning this project. Any drains that are discovered to be blocked or suspect as free flowing shall be brought to the attention of the Owners Representative prior to beginning work. Any drains discovered to be blocked or non-free flowing after the start of the project will be the contractors' responsibility to correct at their cost.

3.02 SURFACE PREPARATION AND REPAIRS

- A. From the pre-bid inspection, determine items that need to be corrected.
 - a. Replace or repair existing foam roofing that is deemed unacceptable by the coating manufacturer's field representative.
- B. Remove and replace blistered polyurethane foam, using the following guidelines:
 - 1. Take test cuts (core or slit samples) in area of blistered foam to determine the cause and extent of the problem. It may be necessary to remove foam beyond the actual area of an individual blister in order to prevent reoccurrence. The surface area adjacent to the cut should be prepared, cleaned and the outside perimeter of the area removed shall be cut to form a 45-degree angle back towards the area of roofing material removed.
 - 2. If a number of blisters are found clustered in one area, it is required that the entire area with blisters be removed.
 - 3. It is not acceptable to fill a blister with coating or caulking.
 - 4. All blisters shall be repaired with foam specified in Section 2.01. D.1. in accordance with the manufacturers application instructions.
 - 5. Foam at required areas shall be ground smooth and shall receive an additional two applications of coating or as is required to achieve 20 dry mils of coating in addition to the coating thickness specified for the recoat.
- C. Repair all minor cracks, gaps or breaks in the foam and coating with butter grade sealant and reinforcing fabric.
- D. Surfaces that have loose coating or exposed foam shall be scarified to expose clean, dry polyurethane foam. These areas shall be primed and receive two additional applications of coating to achieve a minimum of 20 dry mil thickness of coating in addition to the coating thickness specified for the recoat. The area shall then receive a three course of coating polyester fabric and coating extending over the repaired area and a minimum of 4" beyond the outside circumference of the area repaired.
- E. All surfaces shall be cleaned with United Coatings UCC Cleaning Concentrate or prior approved equal. Pressure wash to completely rinse the cleaning concentrate from the roof substrate.
- F. All existing foam roof surfaces shall be primed as needed with United Coatings Uniseal Primer or prior approved equal at the rate of one gallon per 300 square feet.

3.03 COATING INSTALLATION

- A. Install United Coatings Diathon HT protective coating or prior approved equal in accordance with manufacturer's application instructions, limitations and precautions.
- B. Coating shall be applied in a minimum of 3 separate coats. The first coat shall be light tan and the final two coats shall be white. Each coat shall be applied in a direction perpendicular to the previous coat. The Diathon HT White final two coats shall be a minimum of 20 dry mil thickness. The minimum average dry mil thickness of all three coats shall be 30.
- C. All repair areas possessing ground foam shall receive an additional 20 dry mils of coating for a total of 50 dry mils of coating.

3.04 FIELD QUALITY CONTROL MONITORING

- A. Inspections by Roofing Manufacturer's Representative:
 - 1. An authorized field representative of the coating manufacturer shall conduct progress inspections to ensure the scope of work required by owner and the coating manufacturer is being followed. The field representative of the coating manufacturer shall perform a Final Inspection with the owner's designated personnel and the Roofing Contractor.
 - 2. The owner may employ an independent 3rd party inspection firm to monitor progress and be present for the Final Inspection.
- B. Slit Sampling:
 - 1. Coating manufacturer will take slit samples to determine if the elastomeric coating meets the minimum dry mil thickness requirements as specified and is properly bonded to the substrate. A minimum of one slit sample shall be taken per every 5,000 square feet or portion thereof, with a minimum of one slit sample per deck. If the slit sample is short of dry mil thickness, additional slit samples will be taken in four directions 10 feet from the short slit sample. This is done and repeated to define the roof area that is short of coating and requires additional coating be installed. The Owner reserves the right to request an additional slit test if they deem it necessary at no additional cost to the Owner.
 - 2. Location of slit samples shall be as directed by the coating manufacturer.
 - 3. Slit samples shall be cut by the Contractor and repaired by the Contractor.
 - 4. Costs associated with the cutting of slit samples, and repairs of cut-out sections shall be covered by the Contractor.

3.05 CLEAN-UP

- A. During the course of the Work and on completion of the Work, remove and dispose of excess materials, equipment and debris away from premises. Leave Work in clean condition.

3.06 PROJECT CLOSE OUT

A. Project Completion

1. When the project is considered completed by the Roofing Contractor, the contractor will do the following:
 - a. Notify Owners Property Representative and Roofing Projects.com in writing that the Project is considered completed and that it has been inspected by the Material Manufacturer for warranty purposes. Letter shall list any punch list items generated by the Manufacturer's Inspection and that these items have been corrected to the Manufacturer's satisfaction.
 - b. Provide RoofingProjects.com with all inspection reports to include the Material Manufacturer's final inspection report.
 - c. Assure surfaces of new work and surrounding ground areas are clean and free of excess construction material and all debris.

B. Final Completion Inspection

1. When the Roofing Contractor, and Material Manufacturer have indicated that the project is complete when a final inspection with RoofingProjects.com, Owners Property Representative and the Roofing Contractor will take place.
2. All defects noted and non-compliances with the Specifications or the unfulfilled recommendations of the Material Manufacturer shall be itemized in a punch list. These items must be corrected immediately by the Applicator to the satisfaction of the Owners Property Representative and RoofingProjects.com. and the Material Manufacturer prior to demobilization.

C. Final Payment

1. All Warranties referenced in this Specification shall be submitted to Owners Representative with an electronic copy transmitted to

Roofingprojects and be accepted by both Owners Representative and Roofingprojects before final payment is made.

END OF SECTION