

Scope of Work: Coleman Library Low Slope and Remaining Shingles

Housekeeping and Safety

1. Materials must be stored in a secured rigid barrier area that does not impede the standard daily operation of the building.
2. All permits must be applied for and received prior to the commencement of work.
3. Inspections are required and must be called in 24 hours of advanced notice
4. 30-60-90 day schedule must be submitted with bid package.
5. Once materials arrive on site a revised schedule will be required prior to commencement of work.
6. A written safety plan must be submitted by the awarded contractor prior to the commencement of work.
7. Rigid overhead fall protection must be provided for pedestrian egress points in the area of work.
8. Rigid barriers are required for egress points that must be closed to conduct work in a safe manner for pedestrian traffic
 - a. **FLAGS nor RIBBON will be acceptable**
9. Staged materials must be stored in a rigid fence system with pedestal feet.
 - a. Post penetrating the ground will not be accepted without locate survey provided by contractor
10. Crane days, if utilized, that require disruption of paid parking (parking locations with numeric sign markers) will require 72 hour advanced notice prior to arrival.
 - a. Impact of the parking space must be approved in writing by campus police prior to scheduling

Bidding Process

1. Roof system must carry a 20 year Edge Manufacturer Warranty
2. Roof system must have a zero VOC compliant
3. Roof system manufacturer must submit wind load calculations and FBC assembly approvals
4. Manufacturer representative must provide 3 site inspections per 5 working days
 - a. Representative must be a full time employee of the manufacturer
 - b. Representative must be employed with the manufacturer a minimum of 5 years
 - c. Representative must submit weekly progress reports to FAMU project management
5. Manufacturer must provide thermal scan testing of the low slope area prior to commencement of work

Shingle Replacement

1. All points of egress must remain open to allow student access throughout construction
 - a. Rigid canopy surface is required
 - b. NRCA/OHSA guidelines

2. Gutters and downspouts are to remain
 - a. Any damaged gutter must be replaced to close-out the project
3. Existing Peel and Stick that is not damaged may remain, if deck below is compromised area must be removed and replaced
 - a. Dispose of the materials in an appropriate manner
4. Replace any decking that is no longer structurally sound with like materials (both type and thickness)
 - a. Each replaced sheet must be numerically marked and photo documented
 - b. *512 square feet of deck replacement will be included in the base bid*
5. Install R-Mer Seal underlayment
 - a. Ensure no wrinkles are left in the sheet while installing
 - b. Start at the drip edge and work up to the ridge
 - c. Maximum run is 18'
 - d. Side laps must not be less than 3"
 - e. End laps must not be less than 6"
 - f. Stagger lapse minimum 24"
 - g. Roll lapse with hand or weighted roller
 - h. Underlayment must be covered within 7 days
6. Valleys start at the low point and move to the high point
 - a. 18" on each side of the valley
 - b. Lap seams minimum 6"
7. Hips should have lap of 18" on each side
8. Transitions of slope 18" on each side
9. Exhaust hood extend 18" minimum away from the penetration
 - a. And run vertically minimum of 4"
10. Install rake and drip edge over the underlayment and mechanically attach to the roof deck
 - a. Rake and Eave drip should meet NRCA requirements
11. Lead pipe flashing should be formed around all vent pipes
 - a. Fasten and seal flanges to the roof deck
12. Install shingle per manufacturers guidelines
 - a. Fasten based on manufacturers recommendation but no less than 4 fasteners per shingle
13. Shingles must be submitted and approved by owner prior to project commencement
 - a. Shingles must match existing shingles located on the West wing of the building

Single-Ply Fluid Applied Restoration

Repair

1. All necessary field and flashing repairs must be done according to good construction practices, including the removal of all wet insulation and defective materials as identified through a moisture detection survey such as an infrared scan and replacement with like materials.

2. All single-ply seams must be checked and any loose seams must be resealed, or if necessary, replaced with new single-ply material.
3. Significantly wrinkled single-ply membrane areas must be cut out and replaced to ensure a smooth substrate.
4. Repair any single-ply membrane that has shrunk and is tenting at walls.
5. Remove any walkway pads and make necessary repair with new single-ply membrane.
5. All roof areas must promote positive drainage.

Preparation

1. Confirm local water run-off ordinances and restrictions prior to cleaning roof.
2. Carefully power wash all roof surfaces with greater than 2,000 psi pressure to remove debris, rust, scale, dirt, dust, chalking, peeling or flaking coatings, etc. Do not force water into the roof system or damage roof surfaces.
3. Wearing personal protective clothing and equipment, remove algae, mildew or fungus with Simple Green[®] Oxy Solve and scrubbing with a push broom scrub brush. Rinse at least twice to be sure all cleaning agents or contaminants are completely removed to prevent adhesion issues.
4. If the roof surface becomes contaminated with dirt, dust or other particles at any time during the application of the LiquiTec system, cleaning measures must be taken to restore the surface to a suitable condition.
5. Ensure roof is dry prior to application

LiquiTec Preparation

1. Open LiquiTec container.
2. Remove Part B jug and its plastic holding compartment out of the pail.
3. Mix Part A liquid for one minute using an electric heavy-duty power drill and Jiffy mixer blade (ES model). Cordless drills are not permitted as they will not properly mix the materials.
4. While mixing, slowly pour contents of Part B jug into the Part A pail.
5. Mix the two components together for two minutes, moving the Jiffy blade from top to bottom and along the sides to ensure the product is thoroughly mixed.

Always mix entire kit contents together as packaged. Do not break down into smaller quantities.

Note: Mixed product pot life is 25-35 minutes depending on ambient temperature. Rising temperatures may reduce pot life and lower the product's viscosity at a faster rate than desired. Lower product viscosity will increase flow rate making it more difficult to apply the coating at the specified coverage rate and fully saturate any fabric reinforcement.

LiquiTec Installation

1. Start with drains and flashings, including walls and curbs before proceeding to field installation. Apply a base coating of LiquiTec Base or LiquiTec coating at 3.0 gal./100 sq. ft. (1.22 l/m²) over single-ply roof surface. Use a 1/4" notched squeegee, where applicable, to spread coating and roller apply for uniform minimum coverage.
2. Immediately embed 40" wide Grip Polyester Soft reinforcement into wet coating by rolling over the fabric surface to fully saturate and encapsulate, ensuring no wrinkles, voids or vertical fibers.
3. Lap rolls of reinforcement 3 in. (75 mm) on end and side laps. Roller must be fully saturated with coating when backrolling over the reinforcement surface to wet it out completely. Allow to cure thoroughly, but no more than 72 hours.
4. Apply a top coating of LiquiTec Base or LiquiTec Coating over the base coat at 2.0 gal./100 sq. ft. (0.82 l/m²).

Gutters

1. Clean gutters free of dust dirt and debris that would impact adhesion of the fluid applied membrane.
2. Areas that are already lined with a single ply probe all seams to ensure heat weld is still intact
 - a. Welds that are not fully welded apply Unibond ST 6" over the seam with the seam in the middle prior to installing the fluid applied system
3. Install Liquitech Base at 4.0 gallons per 100 square foot
4. Apply Grip Poly Soft lapping side laps at 3"
 - a. Using a roller ensure all fabric is fully embedded without any fishmouths or wrinkles
5. Install Liquitech Top at 2.0 gallons per 100 sf
 - a. Top coat must be installed within 72 hours of Base Coat