Brad Hays

Both Sides of the Storm

Silver Bullet Checklists™

SBC Roof Series: BUR Roofing Inspection

An inspection checklist for a built-up roof (BUR) can include the following items:

1. **Safety Precautions**: Ensure that all safety protocols and equipment, such as personal protective gear and fall protection, are in place before starting the inspection.
2. **Roof Surface**: Inspect the overall condition of the roof surface for signs of wear, punctures, blistering, or cracking in the surfacing material.
3. **Flashing**: Check all flashing details, including base flashing, counter flashing, and edge flashing, for proper installation and any signs of damage or deterioration.
4. **Seams and Joints**: Inspect the seams and joints in the roofing membrane for signs of separation or cracking.
5. **Penetrations**: Examine areas around roof penetrations such as vents, pipes, and HVAC units to ensure that flashing is intact and watertight.
6. **Drainage**: Verify that the roof's drainage system, including gutters, scuppers, and drains, is free of debris and functioning properly.
7. **Surfacing**: Assess the condition of the surfacing material, whether it's gravel, mineral cap sheet, or a reflective coating, for signs of erosion, wear, or UV damage.
8. **Insulation**: Check the insulation for any signs of moisture intrusion, compression, or damage that could compromise its performance.
9. **Waterproofing**: Verify the roof's waterproofing integrity by looking for any evidence of water leaks or moisture intrusion within the building.
10. **General Structural Integrity**: Assess the overall structural integrity of the roof, looking for signs of sagging, cracking, or other structural issues.
11. **Previous Repairs and Maintenance**: Review any previous repair or maintenance records and inspect previously repaired areas for signs of recurring issues.
12. **Drainage Testing**: Perform a visual check of the roof during or immediately after a rainfall to ensure that water is effectively draining from the roof surface.

Regular inspection and maintenance are essential to identify and address potential issues early, helping to extend the lifespan of the BUR system and prevent costly damage.

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CORE SAMPLES

A core sample for a built-up roof (BUR) is a method of evaluating the condition and composition of the different layers within the roofing system. It involves taking a cylindrical sample, typically several inches in diameter, from the roof surface down through the various layers, including the membrane, insulation, and substrate.

A core sample is typically several inches in diameter and can vary in depth based on the specific requirements of the evaluation or assessment being conducted.

The typical dimensions for a core sample would range from approximately 2 inches to 4 inches in diameter. As for the depth, it's common for core samples to extend through all the layers of the roofing system, reaching from the surface membrane down to the roof deck. The depth may vary depending on the specific layers being evaluated, but a standard core sample would often extend from the surface through the insulation, vapor barrier, and other relevant layers, providing a comprehensive view of the roof's construction and condition.

The process of taking a core sample involves the following steps:

1. **Locating the Sampling Area**: The area for the core sample is selected based on the need to assess the overall condition of the roof. It may be chosen to represent a typical section of the roof or a specific area of concern.
2. **Preparing the Equipment**: Core sampling equipment, including a coring drill or cutter, is prepared to ensure that it is in good condition and appropriate for the specific roofing materials being sampled.
3. **Cutting the Core**: Using the coring equipment, a cylindrical sample is cut and extracted from the roof surface, typically through all layers down to the roof deck.
4. **Extraction and Analysis**: The core sample is carefully extracted, labeled, and then analyzed to assess the condition of the roofing materials, such as the thickness of each layer, the presence of moisture, signs of degradation, or the adherence of the layers.
5. **Documentation**: The findings from the core sample analysis are documented, and the information can be used to assess the overall condition of the roof and to guide decisions regarding repair, maintenance, or replacement of the BUR system.

Core samples provide valuable insights into the condition and composition of a BUR system, allowing for informed decisions and proactive maintenance to ensure the performance and longevity of the roof.

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Repairing a core sample typically involves filling the void left by the removed core with appropriate replacement materials. Here's a general process for repairing a core sample from a BUR roof:

1. **Preparing the Core Hole**: The area where the core sample was taken should be cleaned and any loose debris should be removed. The edges of the core hole should be inspected for any damage or imperfections.
2. **Replacement Materials**: Depending on the original construction of the roof, the replacement materials may include layers of insulation, asphalt or bitumen, felts or fabrics, and surfacing materials such as gravel or mineral cap sheets.
3. **Layering and Adhesion**: The replacement materials should be layered in a manner that replicates the original construction of the roof. This may involve the use of hot asphalt or cold adhesive to adhere the materials together and provide a cohesive seal.
4. **Compaction and Finishing**: After the replacement materials are in place, they should be compacted to ensure a proper seal and to match the level of the surrounding roof surface. The area can then be finished with surfacing material if applicable.
5. **Seam and Joint Inspection**: Any seams or joints in the repaired area should be carefully inspected to ensure that they are securely bonded and watertight.
6. **Final Inspection and Documentation**: Once the repair is complete, a final inspection should be performed to verify that the repaired area meets the expected standards. The repair should be properly documented for future reference.

It's important to follow manufacturer's guidelines and industry best practices when making repairs to a BUR roof. Additionally, local building codes and regulations should be adhered to throughout the repair process.

* Check with a licensed roofing contractor for additional information.