

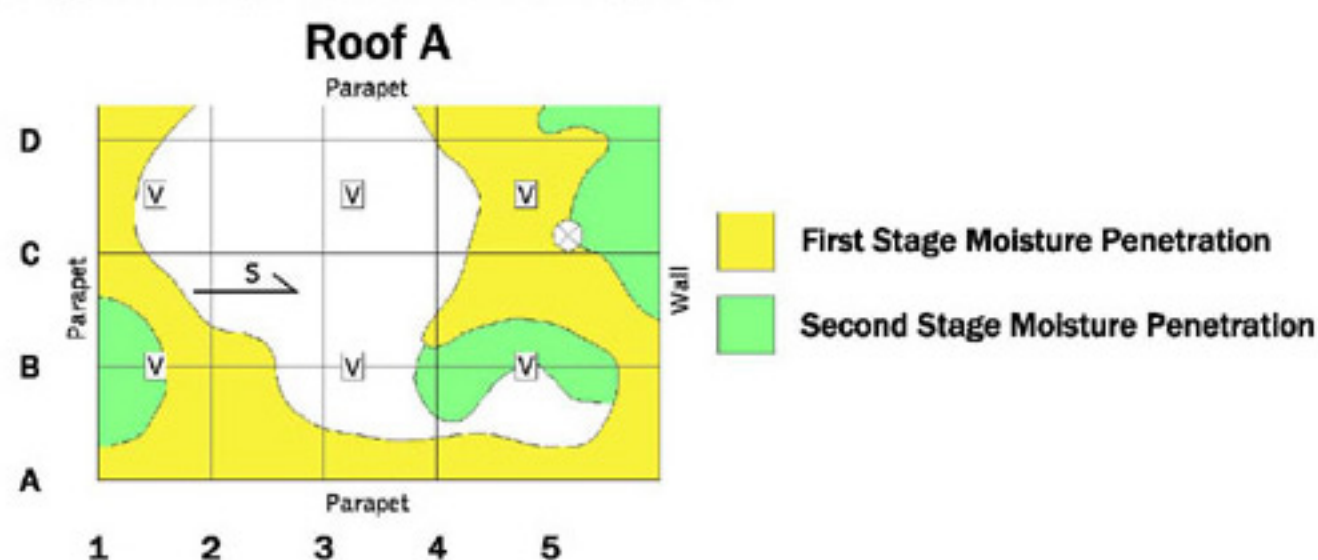
IN-DEPTH ELECTRONIC ROOF MOISTURE STUDY

A. TESTING: (*Raw Data Collection*)

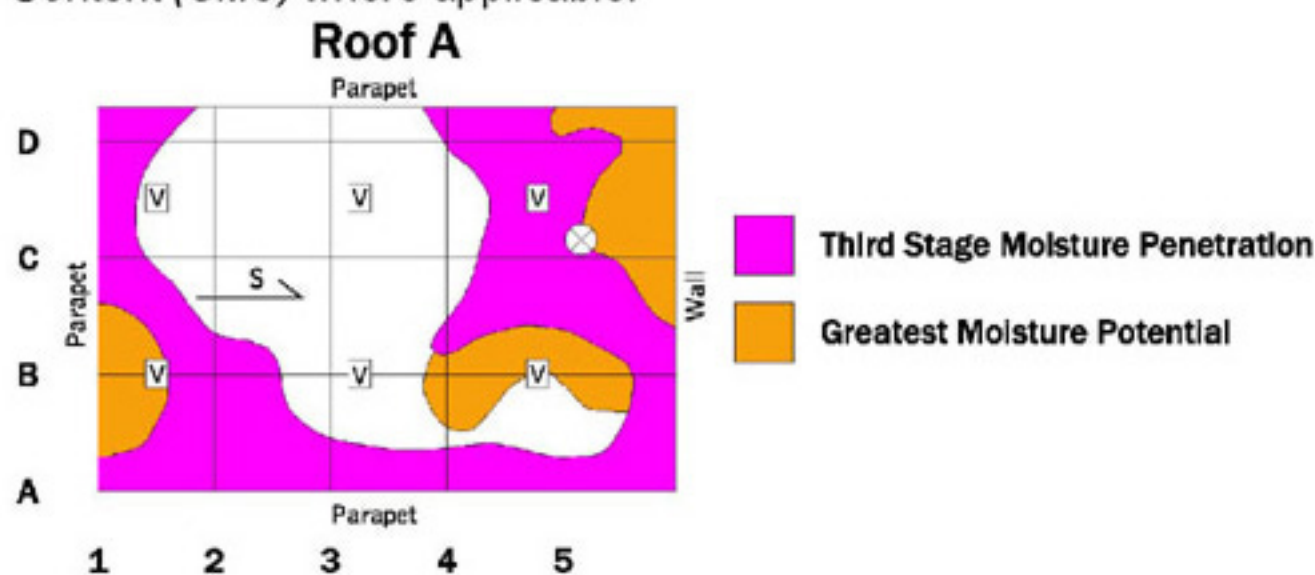
1. Mark roof with grid coordinate system at 5' interval to facilitate repair planning and location of problem area to RMS technical data.
2. Measure roof and construct scale drawing of roof @ $\frac{1}{2}" = 5'$.
3. Test internal dielectric and/or hydrogen properties of roof non-destructively utilizing capacitance and/or nuclear roof scanner to obtain moisture profile information.
4. Visually inspect roof for surface defects and damage, and note same on drawings.
5. Run qualitative tests to determine type of bitumen.
6. Obtain core samples to determine structural information concerning:
 - a. Number of plies / Roof system / etc.
 - b. Insulation type and thickness (*if applicable*)
 - c. Deck Type
7. Obtain supplementary moisture probe readings for percent moisture correlation with raw data.
8. Visually inspect building interior.

B. CUSTOMER DATA PACKAGE:

1. Composite drawing of total building roof area.
2. Moisture Contour Map for each roof, scale $\frac{1}{2}" = 5'$.
3. Maps contain:
 - a. Internal roof damage information.
 - (1) Moisture contours indicating moisture penetration of the membrane, beginning (*First Stage*) and more severe (*Second Stage*) where applicable. These are early warning stages of internal damage and are used in information of the predictive maintenance program and problem source analysis.



- (2) Moisture contours indicating wet insulation (*Third Stage*) and areas of Greatest Moisture Content (*GMC*) where applicable.



- b. Location of visual surface damage, equipment and roof penetrations.
 - (1) Symbols indication physical damage, such as blisters, splits, flashing problems, etc.
 - (2) Symbols indication roof penetrations and roof equipment.
4. Written report containing:
 - a. Detailed explanation of the meaning of moisture contours.
 - b. Discussion giving interpretation of the test results.
 - c. Table giving roof composition and structure.
 - d. Total roof surface area calculation.
 - e. Tables presenting calculation of percent of roof areas in each specific moisture penetration category, (*i.e. First, Second, Third Stage and Greatest Moisture Content*).
 - f. Tables presenting calculation of square footage of roof surface area in each specific moisture penetration category, (*i.e. First, Second, Third Stage and Greatest Moisture Content*).
 - g. Total wet area in square footage and percentage.
 - h. Maintenance suggestions as may be applicable (*generic*).
 - i. Photo's of roof and various problems/conditions etc (*for reference purposes*).
 5. "HOW TO USE CONTOUR MAPS" review, which provides detailed information of the use of contour maps including suggestions for repairs, discussion of roofing materials and selection of roofing contractor.

C. SUMMARY - - UNBIASED TECHNICALLY BASED INFORMATION:

A-TECH/NORTHWEST, INC. is established to provide information concerning the distribution of moisture within a roof assembly. This information, when properly utilized, is extremely useful in making repair and maintenance decisions.

This technical study is not a repair specification for the roofing contractor to perform his corrections nor do we recommend specific brands or techniques within the scope of this study.

A-TECH/NORTHWEST, INC. has no affiliation with roofing material suppliers or roofing contractors.