

Building Materials

In investigations which involve breaking and entering, building materials such as paint, glass, wood, plaster, metal, etc., may adhere to the perpetrator's clothing or tools. These fragments may later be identified as originating from the scene. Building materials from different sources – which appear by visual examination to be similar – may be differentiated by their physical and chemical properties.

Procedure

A. Crime scene:

1. At the point of entry, or at any point of damage, collect samples of each type of building material involved (see Figure 15-3). Do not cut through tool marks. If one type of material has been damaged in several places, obtain known samples from each site since the composition may vary.
2. Any tool or instrument impressions found on building materials should be properly preserved and submitted to the Laboratory. Recover known sample of building materials from point of entry (see Figure 15-3). Foreign paint in the impression may be linked to paint on a suspect tool. Use caution to preserve foreign matter.
3. When glass has been broken, collect all glass found at the scene. If more than one window has been broken, glass from each pane should be packaged and submitted **separately**. This also applies to thermo- or double pane windows and laminated windows.

If the direction of force used to break a window is in question, collect all glass from the window frame and from the ground inside and out. If the glass is removed from the frame, be sure to mark one surface to indicate whether it was “inside” or “outside” when in the frame. Package each sample separately or submit the window frame with the glass in place (see Chapter 16, Glass).

4. Care should be taken in choosing a container to avoid loss or contamination of the evidence. **Do not use plastic Petri dishes or mailing envelopes.**
5. Container should be marked with the following information, sealed, then submitted to the Laboratory:
 - a. Description of contents
 - b. Exact source of contents
 - c. Date and time recovered
 - d. Case and item number
 - e. Name of officer recovering the material
6. Recover all tools remaining at the scene for possible fingerprints and/or DNA.

B. Suspects:

1. Collect all clothing worn by the suspect at the time of crime, including shoes (see Chapter 20, Clothing and Fabrics).
2. Examine head and all bare skin areas (hands, arms, legs, feet) for fresh cuts that might contain building materials, especially glass. Building materials trapped in hair can be recovered by combing over a clean piece of paper or cloth sheet. Collect all trace evidence and combings.
3. Collect all suspect tools.
4. Examine interior and trunk of suspect's car for debris and traces of building materials.
5. If the suspect claims a source for materials found, obtain a known sample from the claimed source.
6. Package all of these samples separately as described above. Avoid cross-contaminating samples taken from the suspect with those taken from the scene.

Fig. 15-1

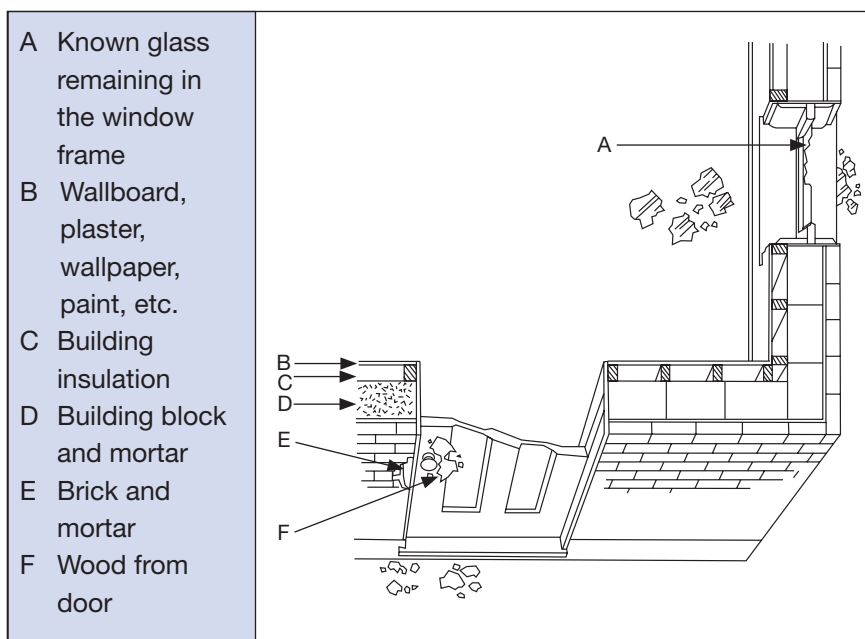
Trace transfer of materials may be found adhering to pry bars.





Fig. 15-2
Glass chips recovered from the suspect's clothes which are consistent with glass broken at the scene.

This cross section of a burglary scene (see Figure 15-3) shows the various materials that should be recovered. In this case, an unsuccessful attempt was made to gain entry by forcing the door frame and adjoining wall. Entry was finally gained through the window. Known samples should be taken of all damaged materials:



- A Known glass remaining in the window frame
- B Wallboard, plaster, wallpaper, paint, etc.
- C Building insulation
- D Building block and mortar
- E Brick and mortar
- F Wood from door

Fig. 15-3
Cross section of a burglary scene.

Note: Recover and package separately building materials from ground outside point of entry (i.e., door) as well as glass fragments found inside and outside the building.

