

## ESSENTIAL KNOWLEDGE

Trim is used to conceal construction, to provide a finished appearance at gaps and joints between materials, and to accommodate slight variations between surfaces. Casing covers the gap between the window or door unit and the rough opening, and has traditionally been made of the same material as the frame, wood, and assembled on site. With the advent of new fenestration frame materials such as aluminum and vinyl, the difficulty of joining materials requires manufacturers to supply some form of casing as an integral part of the unit. The availability and economy of installing a new window or door unit with integral casing has made the use of exterior trim primarily decorative.

A window or door installation traditionally required several trim components (Fig. 1, 2). Sills and drip caps direct water away from the opening. Head casing, side casing, or aprons cover construction gaps. Components that extend the width of the frame are referred to as stools or jamb extensions. Standardized components have allowed manufacturers to provide units with either integral components or available options such as pre-assembled casing and jamb extensions. A double-hung window was traditionally trimmed different than a casement. With today's stock units exterior casing is not required and

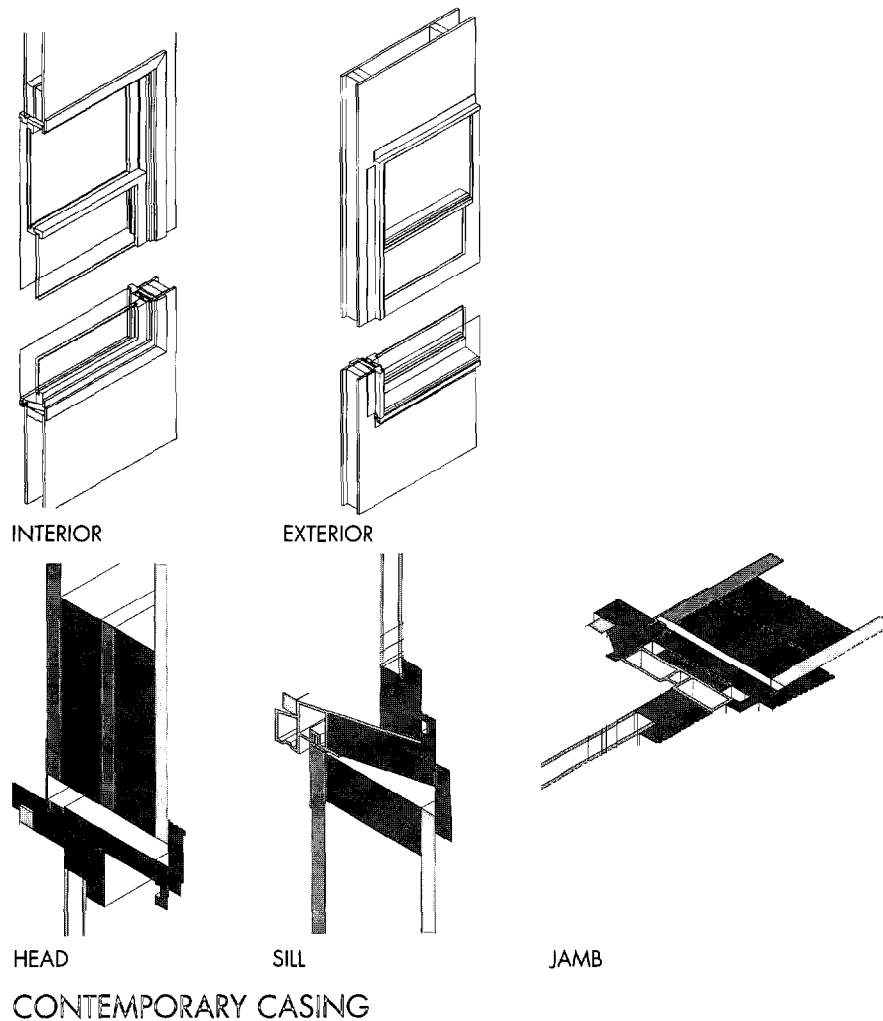
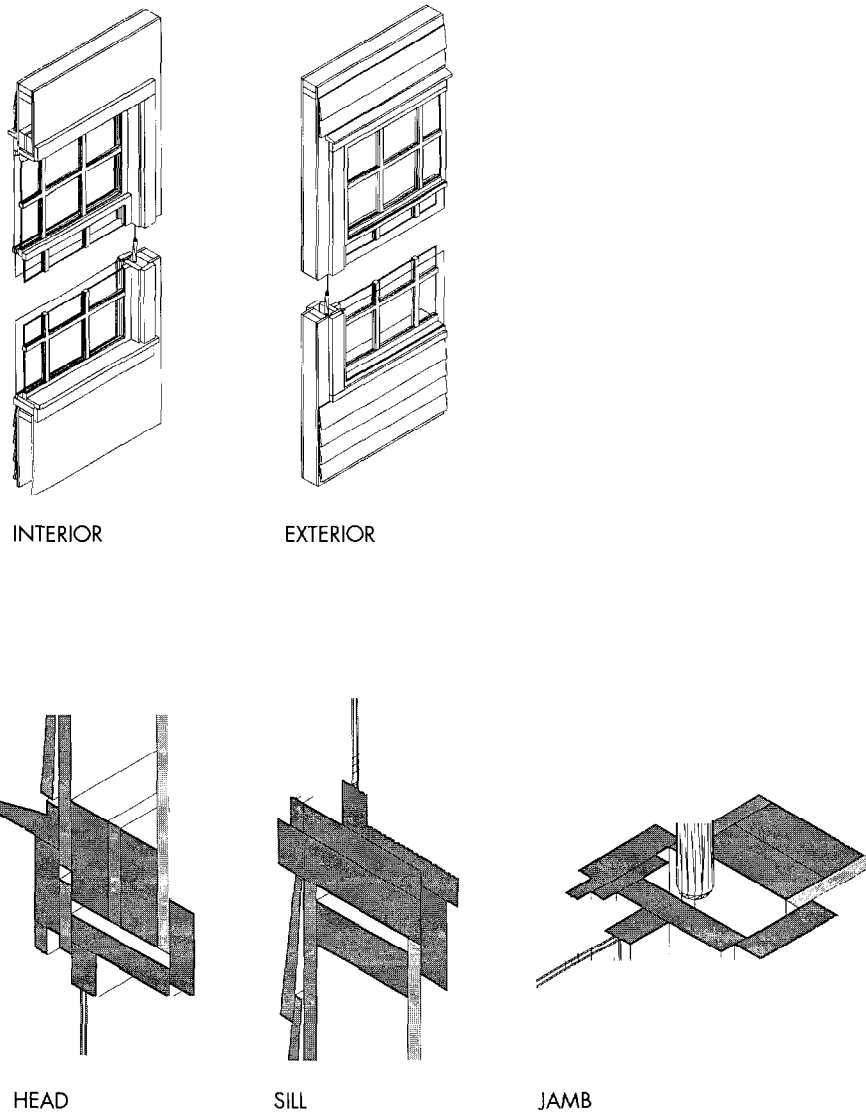


FIGURE 1

CONTEMPORARY CASING



INTERIOR

EXTERIOR

HEAD

SILL

JAMB

TRADITIONAL CASING

FIGURE 2

interior casing is typically uniform on all sides. Pre-hung doors are available with interior and exterior trim, including thresholds.

Wood trim may be repaired by means similar to those used for window and door frames (see Section 4 for further discussion). Diminishing natural resources and the escalating cost of wood, in combination with the lower cost of prefabricated products and the desire for low maintenance, have resulted in a wide variety of new replacement trim products for interior and exterior. Traditional fabrication of trim by small local millwork shops has evolved into standardized pre-fabricated, pre-finished products that utilize a variety of new materials—either recycled, engineered, or new plastic materials—with the appearance of wood but at lower cost and reduced maintenance, uniform qualities (dimensional stability), and ease of installation. The dimensional consistency of these new products allows less skilled workers to achieve the appearance of fine craftsmanship in areas such as miters and coping. New engineered wood exterior trim materials include finger jointed stock, laminated veneer lumber, hardboard, and fiber cement. All of these are modified wood products that are more durable, dimensionally stable, more flexible, and lower cost than premium solid wood species that are increasingly scarce.

Finger jointed stock is assembled from smaller, less desirable pieces of premium solid woods.

Laminated veneer lumber is composed of multiple layers similar to plywood products. Hardboard is made of sawdust pressed into uniform materials, some of which have properties similar to disease-resistant species such as cedar and redwood. Fiber cement, composed of a small percentage of wood fiber, is fire resistant and impervious to water and insects. All of these products are available in lengths up to 24', with uniform characteristics. These products are as little as a third of the cost of equivalent clear solid wood species. Trim for historic building styles, which is cost prohibitive to reproduce in wood, is now available from window manufacturers in new materials that easily accommodate a wide variety of shapes. Ornate carved patterns are now achieved with new molded wood formulations or new sophisticated tooling machinery that replicates original carvings. Wood veneered trim has become a cost-effective solution. Manufacturers of these new trim materials may also provide matching jambs, sashes, and frames to assure consistency of appearance.

Factory-finished products assure a durable, consistent finish achievable only under controlled conditions, and reduce on-site labor. Off-site finishing also removes flammable materials from the construction site. The traditional application of wood trim with finish nails has also changed. New materials utilize adhesives to weld plastic together on site or use interlocking screws to hide fasteners. Corner trim is now available preassembled and butt jointed. New application methods do not necessarily reduce cost, but may provide for greater consistency of workmanship and reduced installation time.

## **TECHNIQUES, MATERIALS, TOOLS**

### **1. REPAIR EXISTING WOOD TRIM.**

Existing trim should be assessed to determine the merit of repair versus replacement premised on the existing condition, availability of matching trim, and potential for contamination from lead-based paints. Before any work proceeds repair of existing causes of deterioration should be corrected. Almost any trim may be either repaired or replicated with the new epoxy and consolidant products but this is a labor intensive effort that may only be justified if the building is either historic or the amount of damage is limited.

**ADVANTAGES:** Repair of limited areas of damage may prove to be the most cost effective and least disruptive method while preserving the original appearance of the building. New wood repair products typically are more resistant to decay than wood.

**DISADVANTAGES:** Requires careful application of product and removal of existing damaged portions. Improper application may cause the filler to come loose over time if not properly bonded with sound material.

### **2. INSTALL SOLID/ENGINEERED WOOD TRIM.**

Traditional solid wood trim and new engineered products are popular forms of trim because they lend themselves easily to modification during installation. Trim that is to be stained or otherwise left visible typically still requires solid virgin material, but recent innovations such as veneer applied trim provide for more uniform dimensional properties. Both commonly represent the most expensive option for trim material. Wood trim is also available pre-finished on all four sides, which frequently represents significant labor savings. Trim to be painted provides the opportunity to select from numerous new engineered wood materials, which are less costly. These new materials, in addition to being dimensionally more uniform, are available in longer lengths than traditional trimboards and are free of imperfections.

**ADVANTAGES:** May be readily modified at the time of installation and typically provide some form of labor savings attributable to more consistent quality of factory finish.

**DISADVANTAGES:** Engineered products may be more costly to achieve the same appearance, dependent upon value of labor savings. Prefinished materials may prove difficult to match at the time of installation. Some new materials do not have long performance track record.

### **3. INSTALL FIBER CEMENT/PLASTIC/POLYMER TRIM.**

These materials are often only limited in length by transportation means. Longer lengths require fewer joints and associated labor, and the consistent profiles allow for ease of assembly. These materials are typ-

ically impervious to moisture and will not warp, twist, or degrade over time as readily as solid wood. The materials are often backed by exceptionally long warranties of up to 50 years. Some of these materials are formed into complex shapes and profiles and/or are flexible to accommodate irregular shapes and surfaces. Polymer trim, which has a lower density than the other materials, can be used to replicate existing ornate trim. These materials are affordable and are popular choices for replicating historical elements. Products such as Perma-Trim are designed with thin profiles specifically to encase or clad existing trim materials.

**ADVANTAGES:** Will reduce installation labor and maintenance costs. Materials are moisture and insect resistant and may be painted. Some products are manufactured with either waste or recycled content.

**DISADVANTAGES:** These materials are typically more costly than traditional materials and the selection of sizes and shapes is limited. They are generally not able to be modified.

#### 4. INSTALL MODULAR/PREASSEMBLED TRIM.

The most difficult element of trim is its installation. Several new products have been developed to simplify the means of joining lengths of trim with a simple butt joint, yet preserving the appearance of either a mitered or coped corner. These new products have prefabricated corners or built-up elements that snap together or are adhered in place, hiding the means of attachment. Modular units allow for low skilled labor to replicate the appearance of craftsmanship from another era.

**ADVANTAGES:** Higher skill levels are not required for assembly. Typically require no finishing and are complete after installation.

**DISADVANTAGES:** The variety of products is limited and their cost is significantly higher than ordinary trim materials. Do not accommodate irregular conditions, such as out-of-square openings, and there is no means to modify the product for such conditions.

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### FURTHER READING

"Alternatives to Solid Wood Exterior Trim," Paul Fiset, Building Materials and Wood Technology Program, University of Massachusetts at Amherst; [www.umass.edu/bmatwt/index.html](http://www.umass.edu/bmatwt/index.html).

*The Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings*, Washington: U.S. Dept. of the Interior, National Park Service Preservation Assistance Division, 1990.

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### PRODUCT INFORMATION

#### WOOD RESTORATION

Abatron, Inc., 5501 95<sup>th</sup> Avenue, Kenosha, WI 53144; 800-445-1754.

Conservation Services, 8 Lakeside Trail, Kinnelon, NJ 07045; 201-838-6412.

Gougeon Bros. Inc., P.O. Box 908, Bay City, MI 48707; 517-684-7286.

Repair Care Systems USA, 300 Oak Street #155, Pembroke, MA 02359; 617-829-4555.

#### ENGINEERED WOOD TRIM

Durawood PE, The Eaglebrook Companies, 2600 W. Roosevelt Rd., Chicago, IL; 312-491-2500.

FrameSaver™, BMS, P.O. Box 631247, 1124 Bennet Clark Road, Nacogdoches, TX 75963; 409-569-8211.

Forestrim™, Forestex, P.O. Box 68, Forest Grove, OR 97116; 503-357-2131.

Prime Trim™, Georgia Pacific Corp., 133 Peachtree St., NE, Atlanta, GA 30303; 404-652-4000.

Protrim™, ABT Co., 10115 Kencei Ave., Suite 150, Halesville, NC 28078; 800-927-3146; [www.altco.com/trim.htm](http://www.altco.com/trim.htm).

SmartStart™, Louisiana-Pacific Corp., 1 East First St., Duluth, MN 55802; 800-643-6893; [www.lpcorp.com](http://www.lpcorp.com).

South Coast Lumber Co., 815 Railroad Ave., P.O. Box 670, Brookings, OR 97415; 541-469-4177.

#### FIBER CEMENT TRIM

Cem-Trim™, FLP Inc., Excelsior Industrial Park, P.O. Box 99, Blandon, PA 19510-0099; 888-327-0723; [www.flpinc.com](http://www.flpinc.com).

Harditrim™, James Hardie Building Products, 26300 Los Alameda, Suite 250, Mission Viejo, CA 92691; 888-J-HARDIE; [www.jameshardie.com](http://www.jameshardie.com).

Maxitrim™, Maxilite, Inc., 17141 S. Kingview Avenue, Lason, CA 90746; 310-217-0316; [www.maxitile.com](http://www.maxitile.com).

Temple Inland Forest Products, P.O. Box N, Biboll, TX 75941; 800-231-6060; [www.temple.com](http://www.temple.com).

#### POLYMER TRIM

The Crowning Touch Inc., 8902 Rosehill Rd., Lenexa, KS 66215; 800-444-0462.

Flex Trim Industries Inc., P.O. Box 4227, Rancho Cucamonga, CA 91730; 800-356-9060.

Focal Point Architectural Products, P.O. Box 93327, Atlanta, GA 30377-0327; 800-662-5550.

Fypon Molded Millwork, 22 West Pennsylvania Ave., Stewartstown, PA 17363; 800-537-5349.

Ornamental Mouldings, 1907 Nuggett Road, P.O. Box 4257, High Point, NC 27263; 800-779-1135.

Zago Manufacturing Co., Inc., 240 M.L. King Blvd., Newark, NJ 07102; 973-643-6700.

#### PLASTIC TRIM

ABTCO, Abitibi Building Products, 3250 West Big Beaver Road, Troy, MI 48084.

Duraflex, Resinart Corp., 1625 Placentia Ave., Costa Mesa, CA 92627; 714-642-3665 (flexible trim products).

Easy Sills, P.O. Box 1454, Orem, UT 84059-1454; 801-785-4060 (retrofit vinyl window sills).

The James Wood Company, Box 3547, 2916 Reach Rd., Williamsport, PA 17701; 717-326-3662.

Outwater Plastic Industries, 52 Passaic Street, P.O. Box 347, Wood Ridge, NJ 07075; 800-835-4400; [www.outwater.com](http://www.outwater.com).

Perma-Trim, Benjamin Obdyke Inc., 65 Steamboat Drive, Warminster, PA 18974; 800-346-7655; [www.obdyke.com](http://www.obdyke.com) (vinyl trim cladding material).