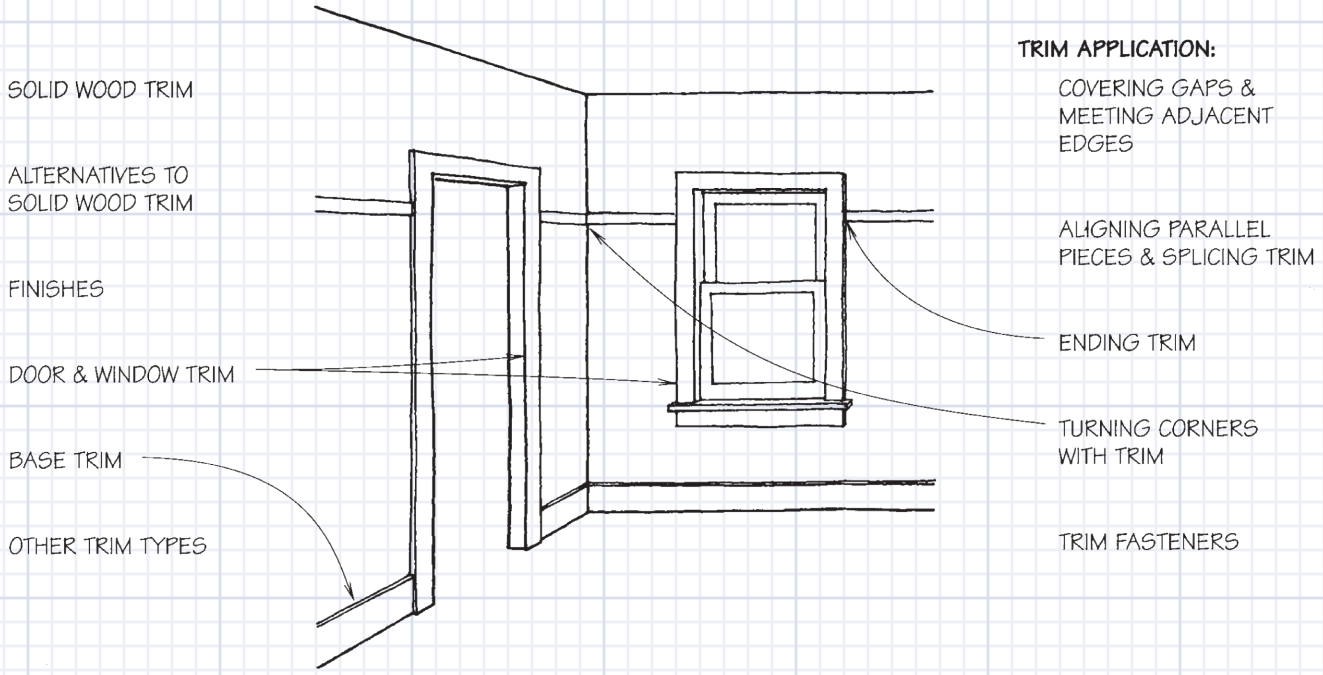
Installation Tips

The following section is taken from Rob Thallons "Graphic Guide to Interior Details," published by Taunton Press.

We have included this in our book because it represents the single best review of trim and moulding in print. We firmly believe that each project should begin with and be guided by these wonderful books and videos.



Trim, one of the very last things to be added to a building under construction, has the primary function of covering gaps between loosely fitting parts, such as between window and wall and between wall and floor.

Trim can also protect the building from abrasion where furniture or people are likely to bump into it. Baseboards, for example, protect walls from shoes, chairs and other things moving at the level of the floor, while door casings keep walls from being damaged as people and objects pass through the doorway.

Trim, called moulding when it is cut into specific shapes, also contributes significantly to the character of an interior space. There is an obvious difference between a door trimmed in the most minimal fashion and one trimmed with a full complement of ornate period mouldings.

Coordinating trim with the scale of a room, with the other surface materials and with the architectural features of a building is an important aspect of interior detailing.

Wood moulding was once made by hand with planes that held uniquely shaped blades. With the development of the moulding machine in the late 19th century, trim started to be mass-produced, and the use of intricately shaped pieces increased significantly. The earliest trim was made of the finest-grained wood available, both for its beauty and to facilitate manufacture and installation. Today, such fine-grained wood is scarce, so alternatives, including composite wood products and nonwood products, have been developed (see 152). Some of these alternatives are virtually indistinguishable from traditional wood molding when painted, but no modern alternative can match its predecessors when treated with a clear, natural finish.

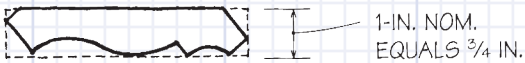
This chapter describes primarily the principles and particular details that apply to solid wood mouldings. Most of these principles and details also apply to alternative mouldings made of MDF, and many apply to plastic mouldings.

SOLID WOOD TRIM

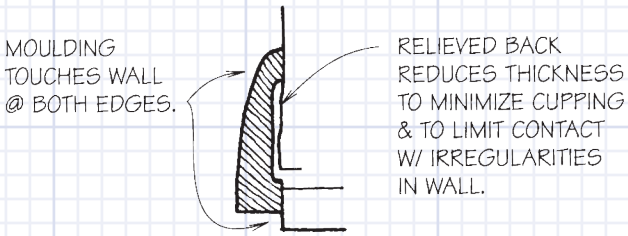
Trim Profiles

The simplest trim is made from unprofiled boards, rectangular in shape and milled to a smooth surface on all four sides. These boards are typically available in 1x2, 1x3, 1x4, 1x5, 1x6, 1x8, 1x10 and 1x12 sizes (nominally), depending on the species.

When boards are milled into more complex shapes with combinations of curved and straight surfaces, they are known as mouldings. Wood mouldings are characterized by their profiles, or cross-sectional shapes. Available profiles vary from region to region, but most can be milled from a 1-in. (nominal) board.



Many of the larger profiles have a relieved back designed to minimize cupping by reducing the thickness of the trim. The relieved back also allows the trim to span over irregularities in the wall and helps the installer fit the edges of the trim tight against the adjacent materials.

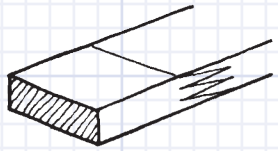


MOULDINGS W/ RELIEVED BACK

Typical Species

Standard, off-the-shelf profiled wood moulding is made primarily of lengths of softwood—namely fir, pine or hemlock—and some hardwood, primarily oak and some white hardwoods such as alder, birch or poplar. Unprofiled boards are generally available in the same species as profiled mouldings.

Finger-jointed moulding made of inexpensive short lengths of clear softwood (usually pine) joined at the ends with interlocking, glued joints is also available in some profiles for trim that is to be painted (see 153B). Finger-jointed pine boards with a clear wood veneer are also available in some species for stain-grade trim.



FINGER-JOINTED TRIM

Moisture Content

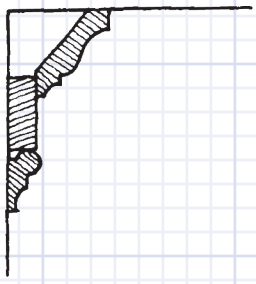
Like all lumber products, wood trim changes dimensions with a change in moisture content (see 156). To minimize the effects of this, trim is dried to 7% to 10% moisture content, depending on the location of manufacture and time of year. As a precaution, however, trim should be stored inside at the (heated) job site for several days before installation.

Custom Milling

Custom milling to achieve a special profile or to use an unusual species of wood is more expensive than using standard mouldings but is not uncommon. Special profiles may be milled from any species of wood, but when the trim is to be painted, species that have consistent grain and are easily machined, such as pine or poplar, are preferred. When the trim is to have a transparent finish, it is not uncommon to custom mill more unusual species such as mahogany, redwood, maple or katsura to showcase their features or to match cabinetry. Most trim carpenters mill some simple special-purpose mouldings on site with a table saw and/or router at little additional cost.

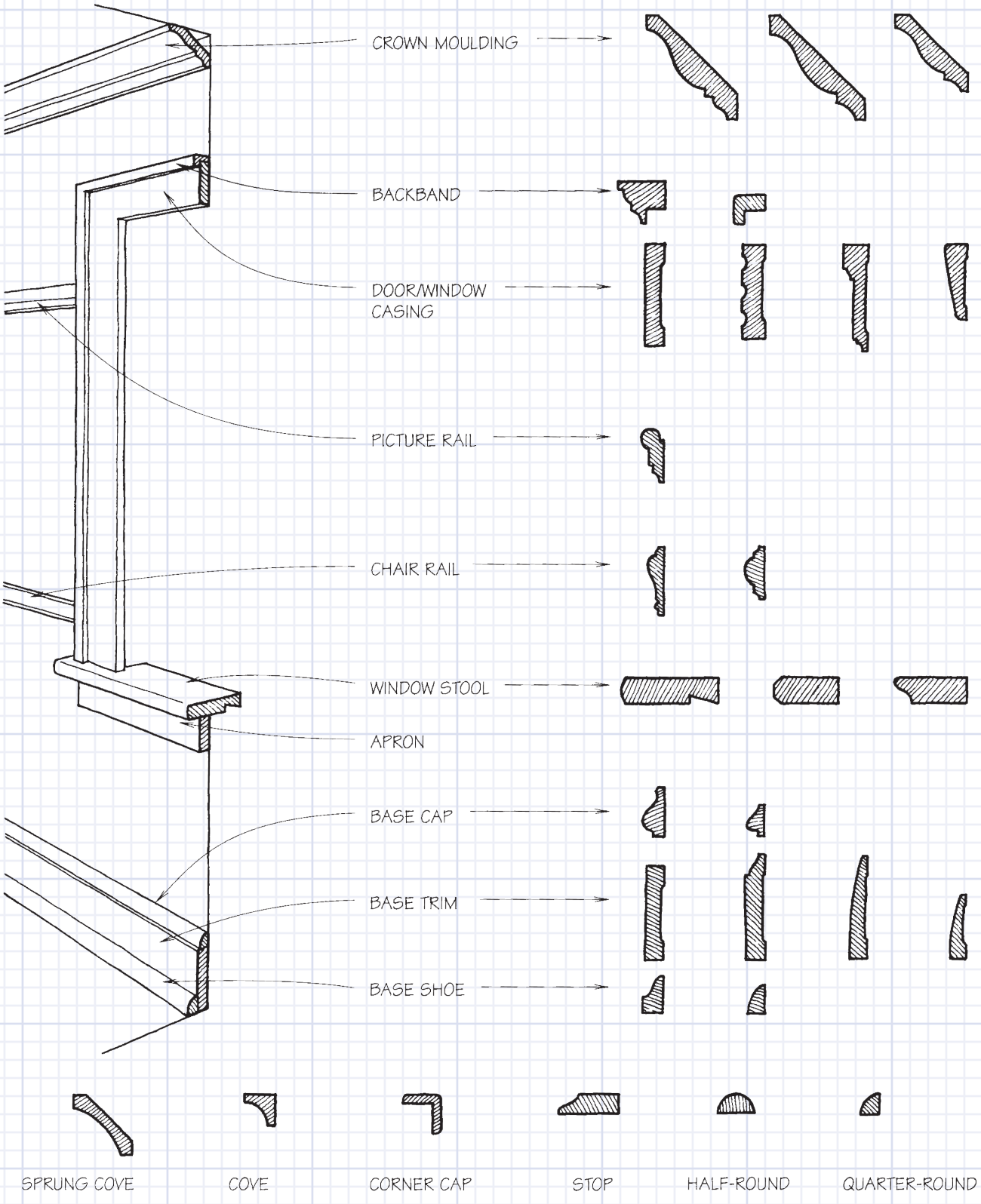
Building Up Trim

Because elaborate trim profiles can be nearly impossible to make from a single piece of wood, complex profiles have traditionally been built up of several smaller pieces of standard trim. The smaller pieces are also more flexible so that they will conform to irregularities in the adjacent surfaces more readily than a single large piece. Since standard trim profiles are milled from less expensive small-dimension stock, building up trim is generally less expensive than custom milling a larger intricate moulding from a single piece.



BUILT-UP TRIM

MOULDING PROFILES



ALTERNATIVES TO SOLID WOOD TRIM

There are several alternatives to solid wood trim that are appropriate if the work is to be painted. The choice of profiles tends to be somewhat more limited for these alternatives than for standard wood trim, but most material types have a sufficient selection of trim for all standard conditions.

Medium-Density Fiberboard (MDF)
MDF is a dense, recombined wood product that is relatively inexpensive and is easily cut, sanded, shaped and attached to the building with normal woodworking tools (see Appendix B). For use as trim, MDF is available in sheets that can be custom cut and/or shaped at the site, precut rectangular sections (boards) and a limited number of shaped profiles similar to the common wood trim profiles.

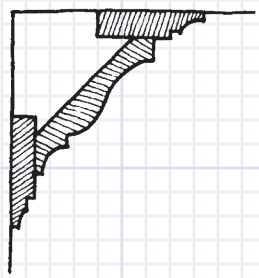
Because of its appearance as a raw material, MDF trim is typically painted, and many premanufactured profiles are available primed. MDF used as trim has the drawback that changes in moisture content will affect the length of the pieces more than the same change would affect solid wood. Therefore, using it in buildings without air conditioning and in regions with significant seasonal humidity swings may not be appropriate. Given its low cost relative to other trim, its availability and its similarities to solid wood, however, MDF seems the most likely of the current alternatives to displace solid wood as the principal material for the painted trim market.

Plastic Mouldings
Made of petroleum products, plastic trim has a density similar to pine. It can be cut, sanded, shaped and attached to the building with normal woodworking tools. However, plastic molding is more consistent than wood since it does not have the irregularities of grain. Plastic moulding also does not absorb moisture so is not subject to dimensional changes.

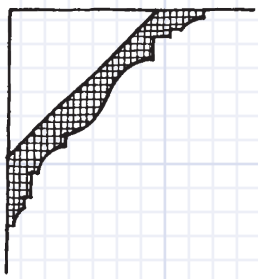
Plastic moulding is less expensive than hardwood moulding but more expensive than finger-jointed pine. Plastic is also not generally available in the same shapes as board, so built-up trims (see 150) must usually be combined with MDF or wood.

The most common plastic mouldings are made of fiber-reinforced polyester or extruded polystyrene. Both are available in standard profiles for typical trim tasks such as base, casing, chair rail and crown mould. They are typically manufactured with a primed coating or prefinished with an ersatz wood grain pattern. Plastic corner blocks are available for virtually all conditions and thus allow the inexperienced homeowner to apply the moulding without having to make anything but square cuts.

A slightly more dense plastic moulding is made of polyurethane. Many profiles made of this material are modeled after traditional wood profiles. In addition, there are elaborate ornamental molded profiles with sculptural repeating forms that would originally have been made of cast plaster or of several built-up pieces of wood. Because the plastic material is dimensionally stable, these complex shapes can be and are often quite wide. Some patterns are also made in a flexible moulding that is able to conform to inside or outside curves with a radius as small as 2 ft., depending on the pattern.



BUILT-UP WOOD CROWN MOULDING



SINGLE-PIECE PLASTIC CROWN MOULDING

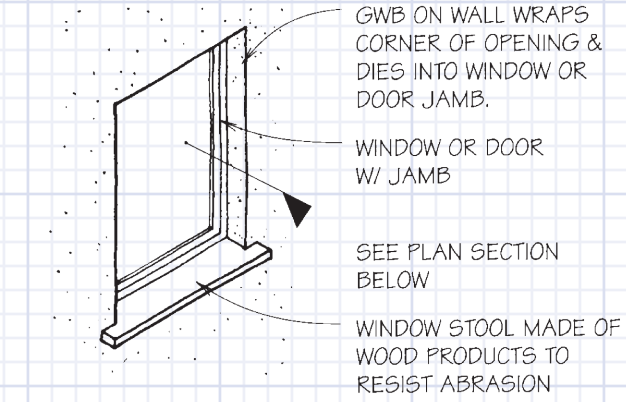
Plaster Mouldings
Fiber-reinforced gypsum-plaster mouldings that are either extruded (drawn) or cast are available. Many of these mouldings are modeled after historic plaster castings that were used to make elaborate ceilings. Because they are relatively soft and brittle, the use of modern plaster mouldings is generally limited to ceilings and other areas of a building that do not receive abuse.

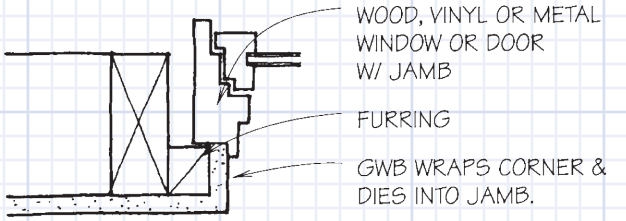
Vinyl and Rubber Moulding
Vinyl and rubber moulding are thin (approximately ⅛ in. thick) and are manufactured in long rolls. The materials are supple and durable and are available in a variety of colors. Vinyl and rubber moulding are attached to the wall with adhesives rather than fasteners. Used extensively in commercial work, these materials are available only as base moulding.

THE NO-TRIM ALTERNATIVE

@ WINDOWS & DOORS

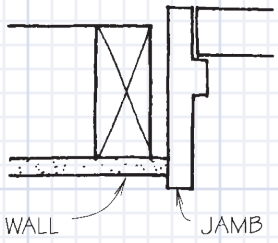
One of the most common alternatives to using wood trim is to eliminate the trim altogether by using gypsum wallboard (GWB). With the aid of metal or plastic edge trim (see 9A), GWB makes a clean edge against the window or door. This economical approach is most commonly employed at windows or exterior doors where the GWB wraps the corner of the opening and dies into, or butts into, the window or door jamb, eliminating both jamb extender and wood trim.



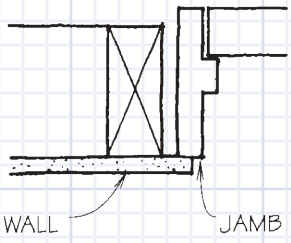


PLAN SECTION

When a wood jamb (or jamb extender) extends the full thickness of the wall, such as for an interior wood door, GWB may still be used in place of trim and may butt or lap the jamb.



GWB BUTTS JAMB



GWB LAPS JAMB

FINISHES

PAINT VS. STAIN

The decision of whether trim is to be painted with an opaque finish or to have a transparent natural finish such as a stain should be made before trim materials are selected. Each choice has cost implications and will make a significant impact on the appearance of the interior. Painted trim is generally more easily matched with other components of an interior space such as doors, windows and cabinets. However, stained wood can take abuse better than painted wood because a scratched or chipped surface does not show as much and dents tend to blend with and may even complement the exposed natural grain. Stained trim can also be changed to painted while the reverse is not true.

For painted work, the options for materials are considerably greater than for stained work since the trim will be coated with an opaque film. This means that low-cost mouldings made of finger-joined pine, MDF or plastic may be used. The cost of labor to install painted trim is also less than for stained work, since the painting (and caulking) cover a lack of refinement in the trim and its installation. Substantial gaps can be filled with a quality caulk that is applied with a caulk gun and smoothed with a wet finger. Fasteners used to attach the trim are also easily concealed when the work is painted. In fact, modern caulking and filling compounds that accept paint well are an important component of quality painted trim.

The savings realized in the cost of material and the installation of painted trim will likely be eroded somewhat by the application of the paint itself. A high-quality paint job generally requires three coats—a primer and two finish coats (with caulk applied between the primer and first finish coat). A stain job can normally be completed in two coats. Finishing painted trim is likely to cost about 50% more than finishing stained trim.

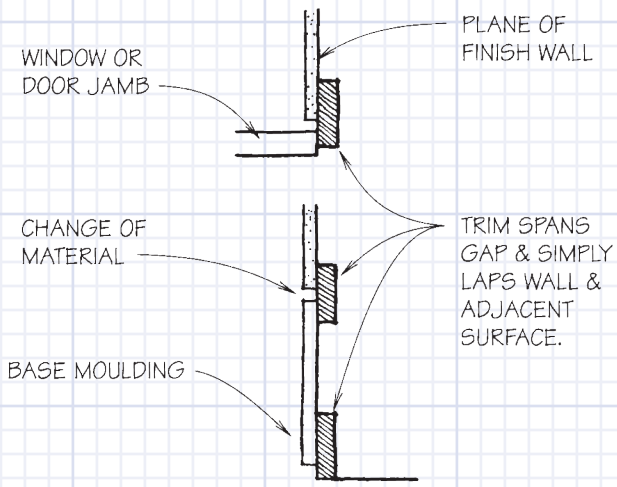
Trim that is finished with a stain or other transparent coating must be fastened to the finish wall more carefully than paint-grade trim. There are fewer choices for materials, and the material specified is usually an expensive clear grade of wood. In addition, the installation cost is greater since the cracks and gaps that can be easily filled with caulk in painted work are not acceptable for work intended for a clear finish. Even nail or staple holes (see 158), easily filled and concealed in paint-grade work, must in stain-grade trim be either strategically located or filled with material that is carefully color-matched to the wood.

COVERING GAPS & MEETING ADJACENT SURFACES

Understanding the general principles of how trim is applied and how it performs under various conditions will help the designer select moldings and design details so that the entire assembly of trim in a room or building can be logical, durable and beautiful.

Covering Gaps

Given that the primary objective of trim is to conceal gaps between the edges of adjacent materials, a simple overlapping of the trim onto the material is the most direct way to accomplish this task.

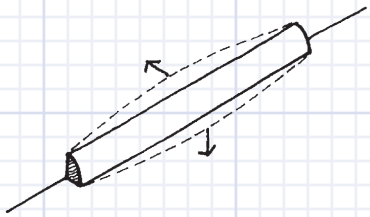


Most trim will be applied to the finished surface of an interior wall, so it is sensible to use this plane as a reference point.

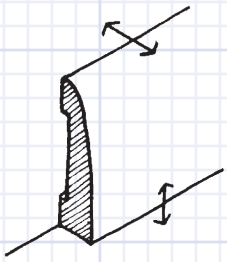
Meeting Adjacent Surfaces

The gaps between materials that must be covered by trim are, for the most part, quite long and are adjacent to materials that have less than perfectly regular surfaces. The use of a reasonably thin trim piece that will bend to conform to the irregularities of the adjacent surface is often required to make a tight joint.

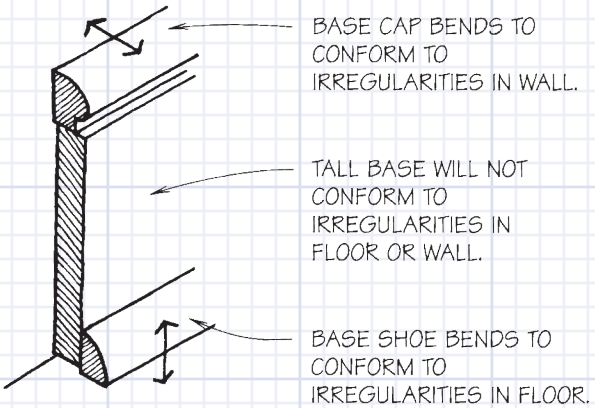
When a single piece of trim is expected to bend in both directions to conform to irregularities, a moulding such as quarter-round that is thin in both directions works best.



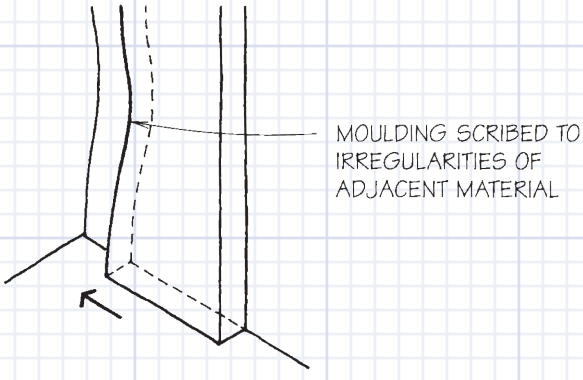
Sanitary moulding, a thin, inexpensive moulding with one curved corner, and other mouldings of similar size are usually sufficiently supple in both directions to achieve the desired fit.



When a wider moulding, such as a tall baseboard, is specified, it must often be accompanied by a smaller piece such as a base shoe or base cap that will bend to conform to the irregularities of the floor.



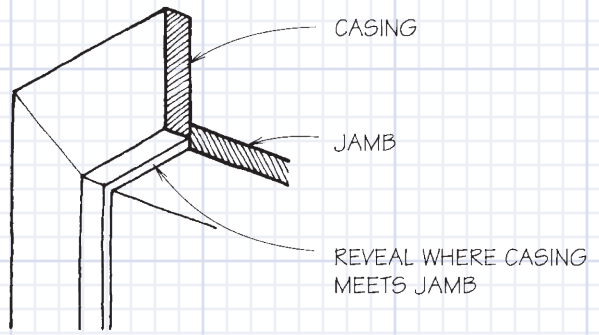
If wide mouldings are desired without having to build up with thin pieces that bend, a single-piece wide moulding can be scribed to the material it trims. Scribing involves planing the edge of the moulding so that it conforms to the contours of the material adjacent to it. The labor of scribing can sometimes be more expensive than the addition of a thin trim piece such as that discussed above.



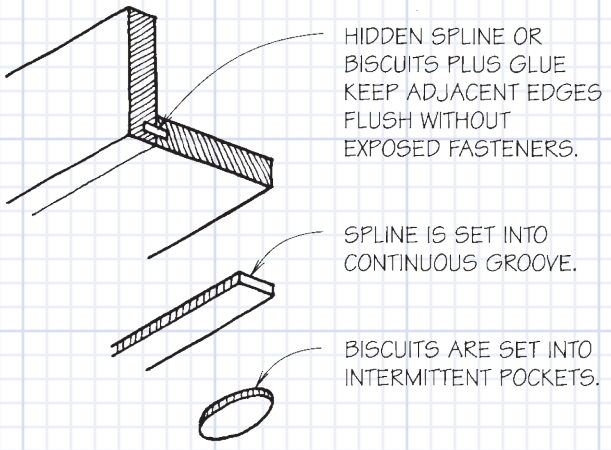
ALIGNING PARALLEL PIECES

Aligning Parallel Pieces
The perfect alignment of trim edges to the edges of window or door jambs or to other moulding is very difficult. This is because the existing window and door edges are rarely perfect, and the internal strength of the trim pieces makes them difficult to bend.

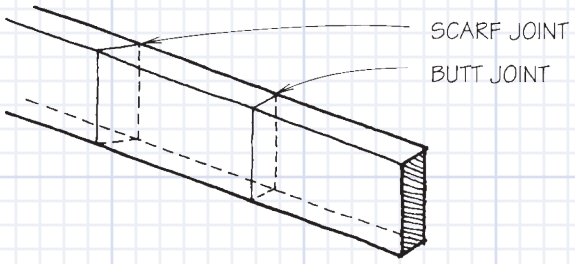
It is most common and practical to offset the two edges to create a reveal. The reveal makes a shadow line that for all practical purposes aligns the two edges without having to make the alignment perfect. Slight variations in alignment will not be perceptible because of the offset between the two edges. The reveal is used extensively in trim detailing.



When it is necessary to align a piece of trim flush with another material, the trim may first be glued and nailed to hold it in place. The joint can then be planed and sanded smooth to make the edges perfectly flush. The nail or screw holes can be filled and the surface painted. For stained or clear finish trim, the exposed fasteners may be eliminated with a spline or biscuit joint that locks the pieces together internally like a tongue-and-groove detail.



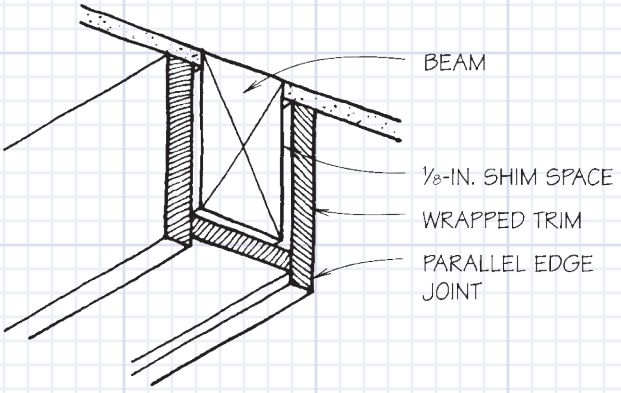
SPLICING TRIM



Trim must be spliced if a single piece cannot be found to extend the full length of a long wall. The scarf joint, which joins the ends of trim with a sloping lap-joint, has traditionally been considered the best detail for this situation, especially for stain-grade trim.

Any slight change in the length of the trim will slide the lapped pieces across one another but will not cause a crack in the joint. The scarf joint is not used as much today because it is slow and troublesome compared to the simple butt joint. The butt joint may be considered as good a joint as the scarf joint, especially for painted work, which will show a crack in the paint if the trim moves, whatever the joint used.

WRAPPING COLUMNS & BEAMS



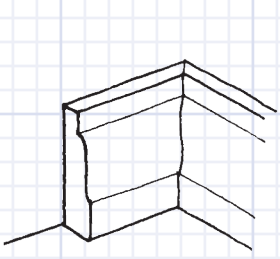
Structural members such as columns and beams are frequently wrapped (or boxed) with finish material to improve their appearance. Wrapping can be accomplished with virtually any material, but it is most frequently done with gypsum wallboard or wood trim, as shown above.

A ⅛-in. shim space is required between structure and finish because the structural member can be expected to be irregular, and this space will usually be sufficient to span the irregularities of the member.

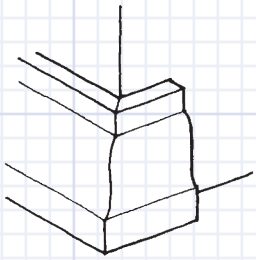
TURNING CORNERS WITH TRIM

It is very common for trim to turn a corner. The corner can be an inside corner, an outside corner or a flat corner. Following are the basic joints that can be employed to make these corners:

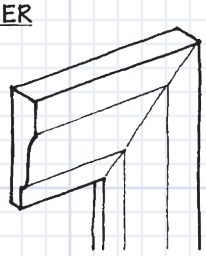
Miter joint—The miter joint is common because of its versatility. The two pieces of trim that make a corner are cut at 45°, which allows moldings of any profile to make corners of any type.



INSIDE MITERED CORNER



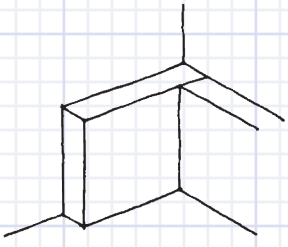
OUTSIDE MITERED CORNER



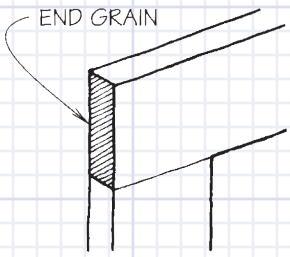
FLAT MITERED CORNER

The only disadvantage of the miter joint is that dimensional changes across the width of the trim caused by variations in moisture content can create a gap at the miter. This phenomenon is especially likely to occur with wider or thicker moulding pieces but is often disregarded when choosing them.

Butt joint—The simplest of corner joints, the butt joint is useful only for simple trim pieces of rectangular section. Common for inside or flat corners, the butt joint at the flat corner has the disadvantage of showing end grain, which does not paint or stain well.

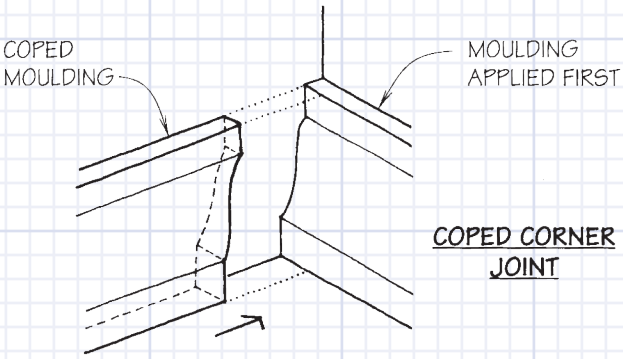


INSIDE BUTT CORNER



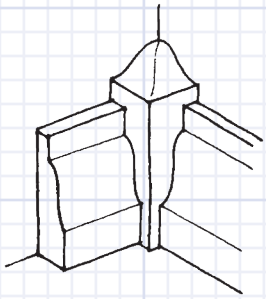
FLAT BUTT CORNER

Coped joint—The coped joint is superior to the mitered joint for profiled moulding at inside corners. This joint is made by cutting (coping) the end of the second moulding piece to match the profile of the piece applied first. The coped cut incorporates a backcut so that only the exposed edge of the coped piece touches the first piece of moulding. When the second piece is pushed up against the first, a tight joint that is unlikely to open with changes in the wood's moisture content is made. If a gap does appear, it will be consistent at all points.

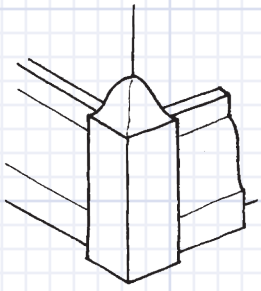


COPED CORNER JOINT

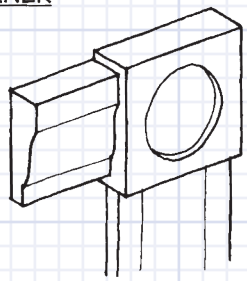
Block joint—The block joint is a simple, versatile joint that, like the miter joint, allows trim of any profile to make corners of any type. The pieces of trim butt against a thick block (called a plinth block when at the base of door trim—see 163A) to create a reveal. The disadvantage of the joint is that the block requires its own means of attachment.



INSIDE BLOCK CORNER



OUTSIDE BLOCK CORNER



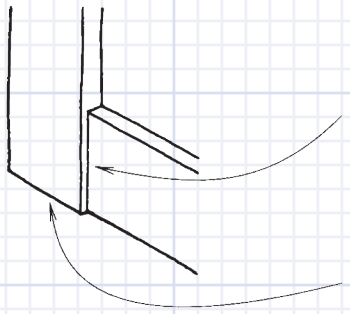
FLAT BLOCK CORNER

ENDING TRIM

Each piece of trim must end somehow. If it does not turn a corner, it can either die into another material, such as a floor or another piece of trim, or it can simply stop. Knowing a few principles about conditions at the end of a piece of trim is useful in designing an overall trim package.

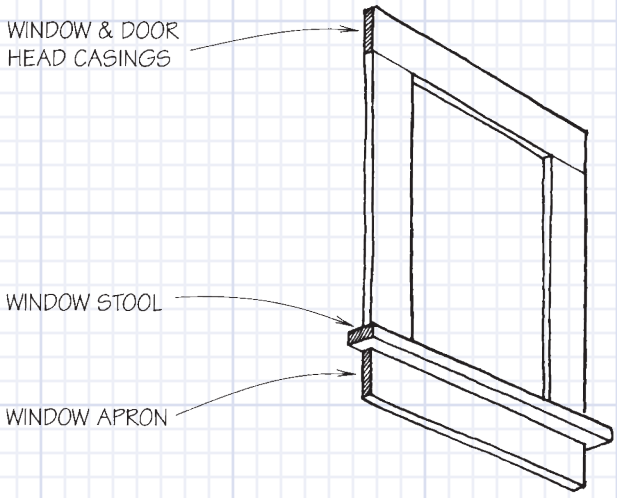
Trim Dies into Another Material

One of the simplest ways for a piece of trim to end is for it to die (butt) into the surface of another material that is perpendicular to its length. This condition has the effect of capping the end of the trim piece with the surface into which it dies. Nothing further need be added to the assembly to make it appear finished.



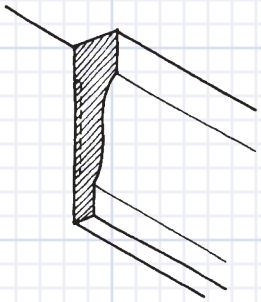
Trim Terminates

Occasionally, it is desirable or necessary to end a piece of trim without butting against another material or turning a corner. This condition frequently occurs at window and door trim.

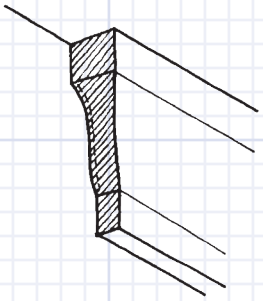


There are three basic approaches that can be taken to terminate trim:

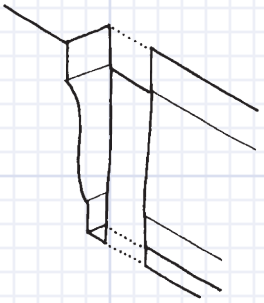
Square-cut—The trim can simply be square-cut to length and left with the end grain exposed. This works fine in many cases, especially if the trim has a simple profile or is a simple board. The square-cut detail has the disadvantages that the end grain does not paint or stain well and that trim profiles with relieved backs will show the gap at the back of the piece.



Coped—Mouldings with shaped profiles can be coped so that the end of the moulding matches the cross-sectional profile. This detail has the same disadvantages as the square-cut detail described above.



Mitered & returned—Trim can be mitered and returned to the wall (or other surface) with a small piece of the same trim glued in place. This approach, although somewhat more involved, has the advantages of eliminating the end grain while also ending the moulding with the same profile as its cross section.



TRIM FASTENERS

Pneumatic Nailers
Until the advent of the pneumatic nailers (air guns) in the 1970s, virtually all trim was fastened by hand with finish nails. Finish nails, which have very small heads, are driven to the surface of the wood trim with a finish hammer and then below the surface with a few hammer blows to a nail set. This method is still used, but trim applied by professionals is now almost always fastened with pneumatic equipment.

The advantages of the pneumatic nailer are so numerous and compelling that it is almost impossible for finish carpenters to compete for work without one. Primary among these advantages is the speed with which the fastener is set to its finished position. This operation takes only a fraction of the time taken to drive and set a finish nail by hand. The operation also takes only one hand, freeing the other hand to hold the trim accurately in place. Finally, the single blow with which the air gun sets the nail below the surface also applies force to the trim piece, which tends to make the trim fit tighter to the wall than it would with the multiple blows of a hammer. This single pneumatic blow is sharp and crisp and allows some pieces to be joined that could not be easily joined with a hammer.

An air gun can also be used with staples. If both the nail and the staple are sized to have sufficient holding power for the materials on which they are used, the main difference between the two is the shape of the hole that they leave on the surface of the trim.


FINISH NAIL HOLE


FINISH STAPLE HOLE

For painted work, the shape of the holes to be filled makes little difference because a good painter can make them disappear even to the critical eye. For clear-finished work, however, the fastener holes can be seen through the transparent finish and can detract from the overall appearance. Staple holes have the advantage of being long and thin so that, if oriented in the direction of the grain, can blend better with the natural surface of stained woods.

Screws
In addition to nails and staples, screws are sometimes used to attach trim. Trim-head screws are used to attach trim to steel studs. They are also advantageous for locations that require more holding power than a nail or staple can deliver. Trim-head screws have heads only slightly larger than the heads on pneumatically driven finish nails and are installed with a square driver. The screws are self-tapping, and some will create their own pilot holes in light steel framing as they are being installed. This type of fastener tends to split solid wood trim, especially hardwood, so predrilling of moulding may be recommended.

Adhesives
Adhesives are used, usually in conjunction with other fasteners, to increase the bond between trim and the material to which it is fastened. Adhesives are especially useful where two pieces of trim must remain flush (see 155). Adhesives are also sometimes used by themselves for very small pieces of trim that would probably be split by a nail or staple.

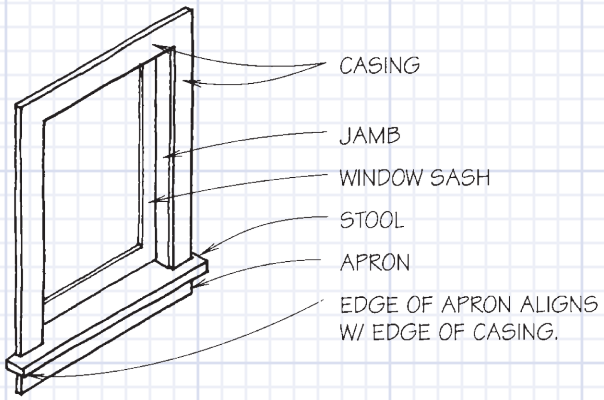
Filling Fastener Holes
Filling holes in trim that is to be painted is reasonably straightforward. There are many fillers available that can be matched to the materials, applied, sanded and covered with paint. For stained trim, however, the job of filling holes is much more critical because the filled hole will remain visible after the trim is finished. Matching the color of the wood is the most difficult part of filling stained work. The darker the stain, the less critical this task becomes, whereas for very light stains or clear finishes, the color of the wood must be matched almost exactly for the fastener holes to disappear into the finished work. Over time, clear finished wood usually changes color, so that even though the filler color matches the wood at the time of installation, it probably will not match the finished trim in a year or two.

Premixed fillers with colors supposedly matched to specific species are available, but they rarely match exactly because of the variety within each species and, in some cases, within a single piece of trim. These premixed fillers are often adequate for dark stained work, however. The best way to match trim color with filler is to custom-mix the filler at the site with the aid of a palette of colors. This is done for the best clear finish work, often after the trim has been finished and has had a year or more to change color.

DOOR & WINDOW TRIM

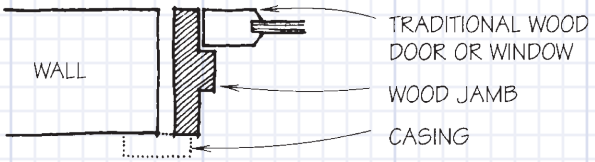
JAMBS, STOOLS & APRONS

Doors and windows have basic functional components, as shown below (door components are like windows except that a door replaces the window sash and doesn't have a stool or apron).



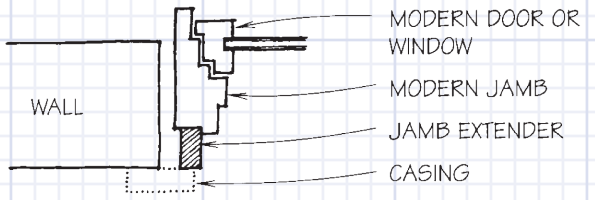
Jambs

Key among door and window components is the jamb. The side jambs and the head jamb (often simply called the head) of a window or door hold the operational elements—the door or the window sash—in place. The edge of the jamb is lapped by trim, called casing (see 160–61), which spans the gap between jamb and finish wall. Windows today are provided with a range of trim packages from which to choose. It is also possible to select trim casings, stools and aprons separately.



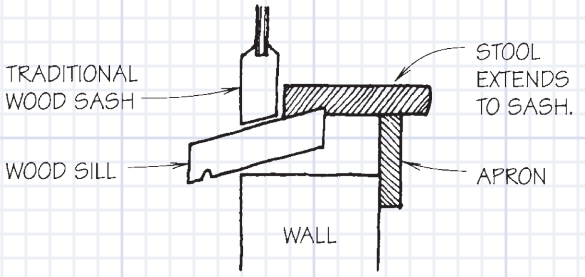
Some jambs are made the same way today as they have been for centuries. For example, interior door jambs are usually made of a single piece of wood that extends the full thickness of the wall and has trim on both sides of the wall lapping the jamb.

Jamb extenders—Most modern wood windows and exterior doors have jambs that do not extend through walls that are framed with materials thicker than 2x4s. To trim these windows and doors with wood, extenders must be added to the jamb. Modern metal and vinyl windows require wood jamb extenders if wood casing is to the used.

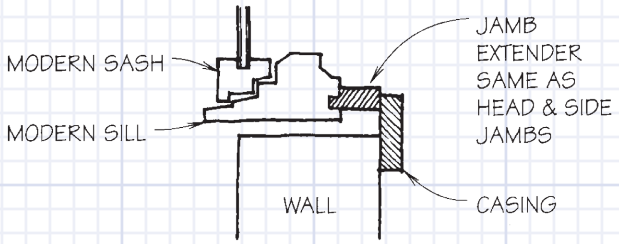


Stools & Aprons

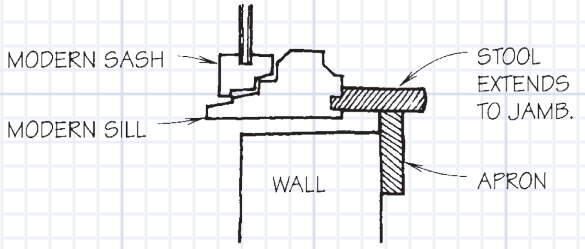
Wood windows traditionally have been trimmed inside with a wood stool and apron as a complement to the exterior sloped sill. The stool protects against water penetration at its outer edge and provides a wide level surface inside. A trim piece called an apron covers the gap between stool and finish wall surface. The simplest apron can be an unprofiled board. Elaborate aprons may be built up of several pieces.



The sill of a modern window is not sloped but is usually the same as the side and head jambs. And instead of a stool, these windows are often trimmed at the bottom with a jamb extender and casing that are identical to the jamb extenders and casing on the rest of the window, thus making picture-frame casing.

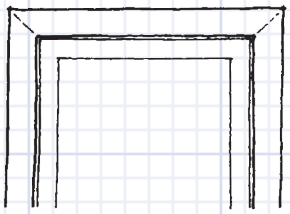


Alternatively, a shallow stool with an apron may trim the modern window base. This detail provides a wider surface and allows a variety of casing types to be used (see 160-61). A stool and apron can also be used when there is no head or side casing and gypsum wallboard wraps the corner and butts the jamb.

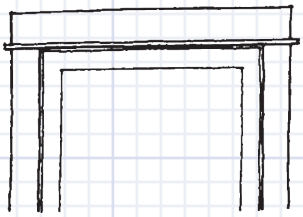


DOOR & WINDOW CASING

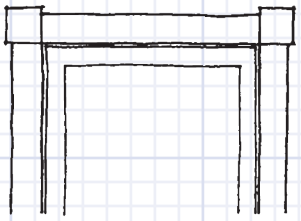
JOINT TYPES



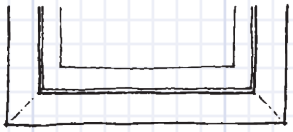
MITERED JOINT



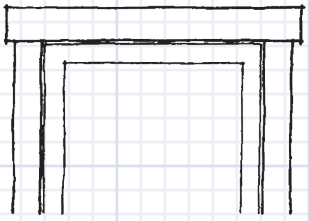
BEAD JOINT



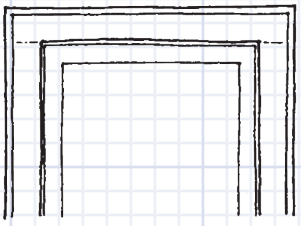
CORNER BLOCKS



A MITERED JOINT IS OFTEN USED @ BASE OF WINDOW WITHOUT STOOL. THIS IS CALLED PICTURE-FRAME CASING.



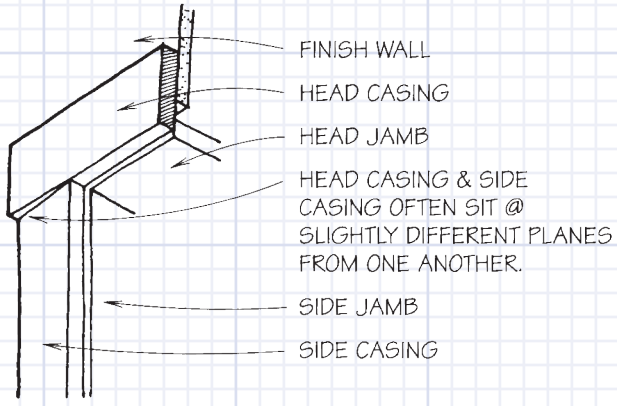
REVEAL JOINT



BUTT JOINT

DOOR & WINDOW CASING

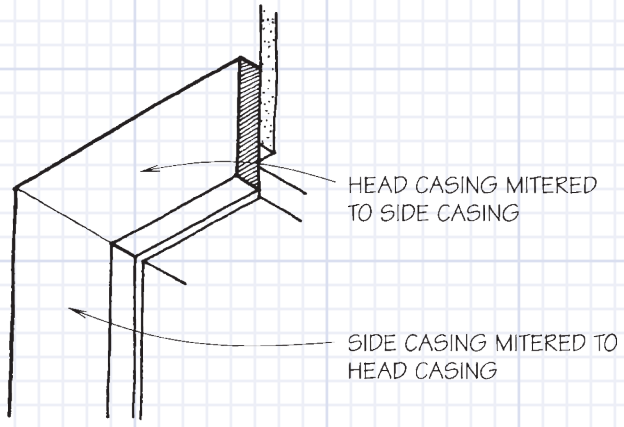
DESIGN STRATEGIES



The gap between the jamb or jamb extender and the wall is covered with trim that is called casing. There are several types of window and door casing, and they are differentiated primarily by the way the head and side casing meet. Because casings straddle the gap between the jamb and the often irregular surfaces of the wall, the head casing and side casing often sit at slightly different planes from each other. Most of the corner joints have therefore been developed to provide a reveal, allowing the unavoidable slight misalignment to go unperceived.

MITERED JOINT

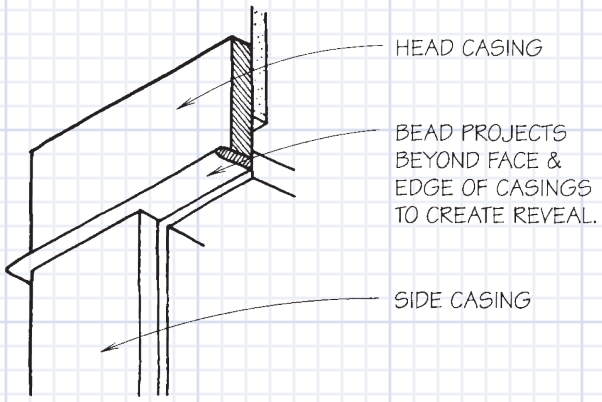
@ DOOR & WINDOW CASING



One of the most common corner joints, the mitered joint has the advantage of simplicity, but it does not make a reveal, so misaligned casings will be perceptible. In addition, the joint is useful only for narrow (3 in. or less) casings; dimensional changes across wider mouldings will open the joint. When a jamb extender is used in place of a stool, the miter joint is usually used at the bottom corners to allow the casing to wrap around the base of the window. This trim arrangement is commonly called picture-frame casing.

BEAD JOINT

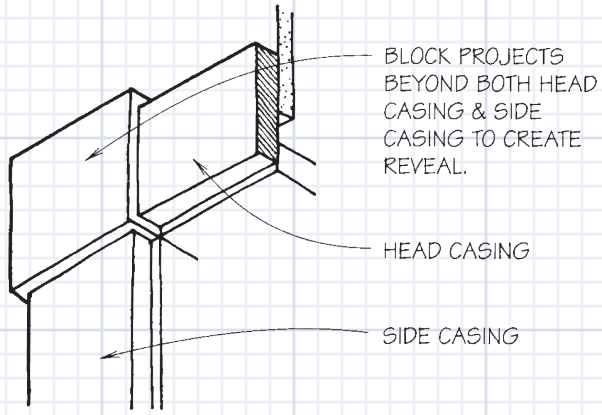
@ DOOR & WINDOW CASING



The insertion of a thin but extra-deep trim piece—a bead—below the head casing creates a reveal that allows a slight misalignment between side and head casings. Another advantage of this treatment is that if the head jamb is recessed from the wall plane the bead can be trimmed at its ends so that the central portion of the bead can rest firmly against the head jamb. The joint was popularized in Victorian buildings.

CORNER-BLOCK JOINT

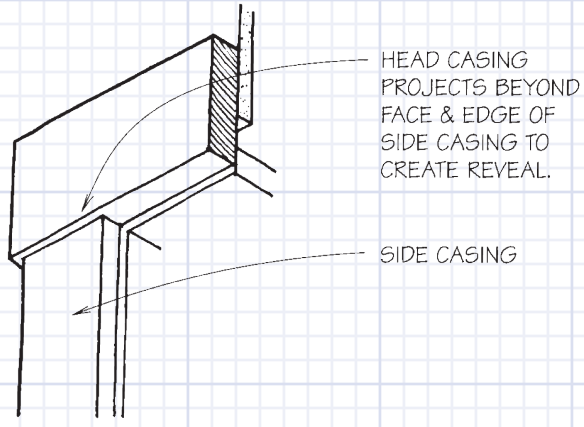
@ DOOR & WINDOW CASING



Inserting at the corners blocks that are thicker than the casings creates a reveal that allows both side and head casings to assume a slightly different plane from that of the wall. Popular in Victorian buildings, the joint was also used at the base of door casing where the casing meets the base trim.

REVEAL JOINT

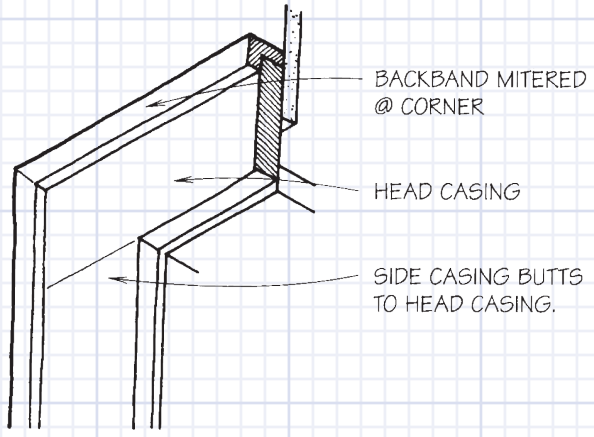
@ DOOR & WINDOW CASING



Similar to the bead joint, the reveal joint allows the side casings to be slightly misaligned from the plane of the wall. The reveal itself is created by using a head casing thicker than the side casings. A disadvantage of this system compared to the bead joint is that a jamb behind the plane of the wall cannot be so easily accommodated. The reveal joint came into common usage during the Craftsman period in the early 1900s.

BUTT JOINT

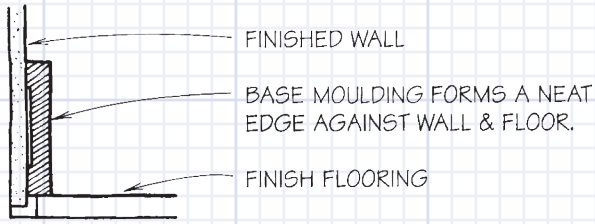
@ DOOR & WINDOW CASING



Simplest of all casing joints, the butt joint works only for square-edged casings of identical thickness and does not allow misaligned casings. The butt joint is often used in conjunction with a backband that covers the end grain of the head casing. The backband also adds visual complexity to the casing and can provide a reveal for base or other mouldings that may die into the casing.

BASE TRIM

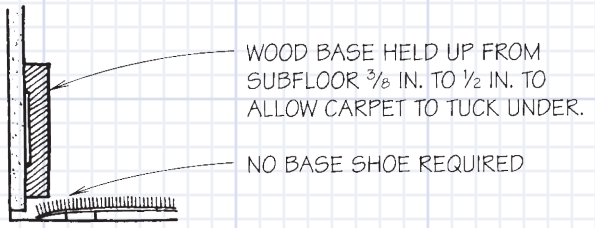
The transition between wall and floor is usually trimmed with a base moulding designed to form a neat edge against both surfaces.



Base trim not only covers the gap between wall and floor but can also protect the wall from marks caused by shoes and furniture. Residences usually have a wood base moulding, while commercial buildings often employ a vinyl or rubber base trim.

Base trim in wood and other materials is available in many profiles. Base trims tend to have a slender or sloped top edge to ease the task of installing them against an uneven wall and to minimize places for dust to accumulate.

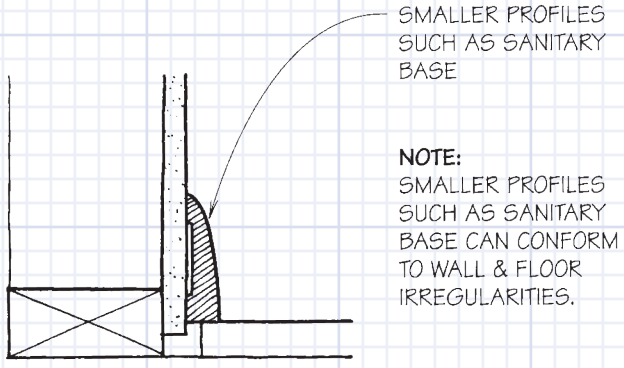
The finish materials of the walls and the floor are important to consider when selecting base mouldings. Carpet, for example, has different requirements for meeting a base trim than does wood flooring.



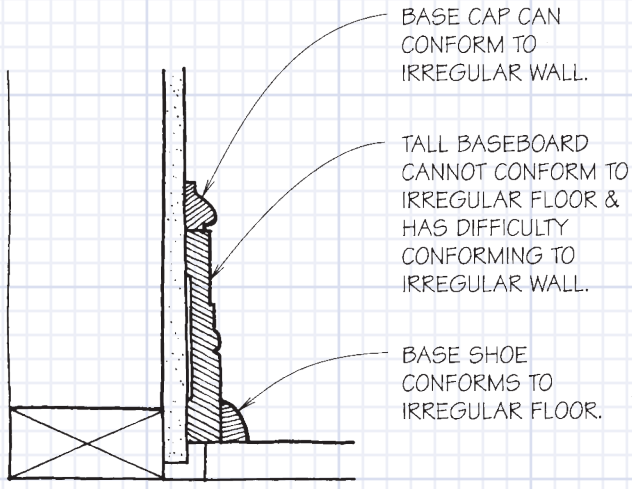
Wood Base Trim

Wood base is available not only in a number of profiles but also in many different sizes. Smaller profiles such as sanitary base or quarter round are common because they are narrow enough to conform to irregularities in both wall and floor (see 154) and therefore can be applied as a single piece (drawing top right). Taller bases may be built up of several pieces and usually require a base shoe to conform to flooring contours (drawing middle right). An independent base cap may also be required to conform to irregularities in the wall.

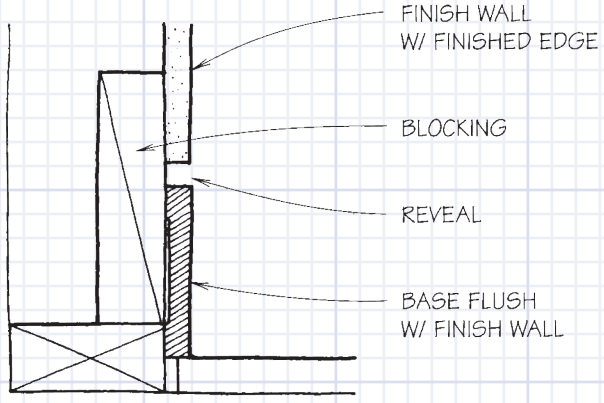
One variation of the standard wood base is the flush base moulding, which looks simple but which can be expensive to install because of the required blocking and edge detailing of wall material (drawing bottom right).



SMALL BASE



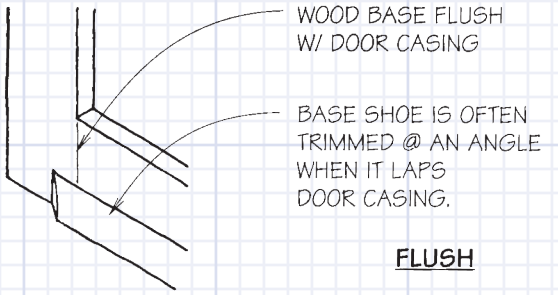
TALL BASE W/ BASE SHOE



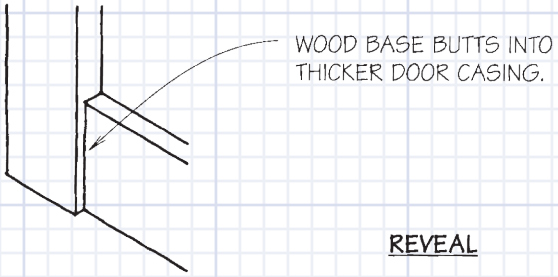
FLUSH BASE

BASE TRIM @ DOOR CASING

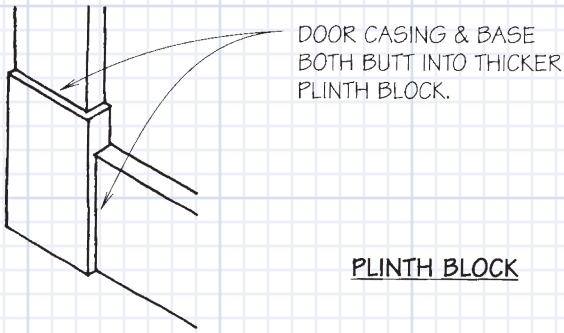
Base moulding is typically applied to the surface of the finish wall, and it butts into the edge of the door casing. Coordination of base moulding with door casing should ensure that the face of the base moulding does not project beyond the door casing. Although the base and door trims shown below have rectangular profiles, mouldings of other profiles may be used.



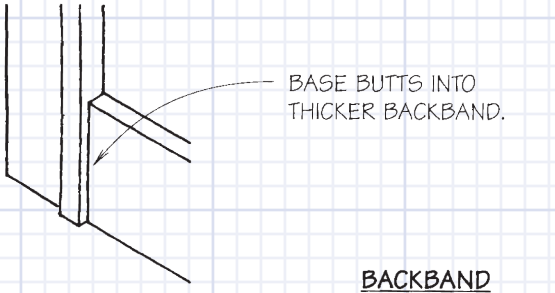
FLUSH



REVEAL

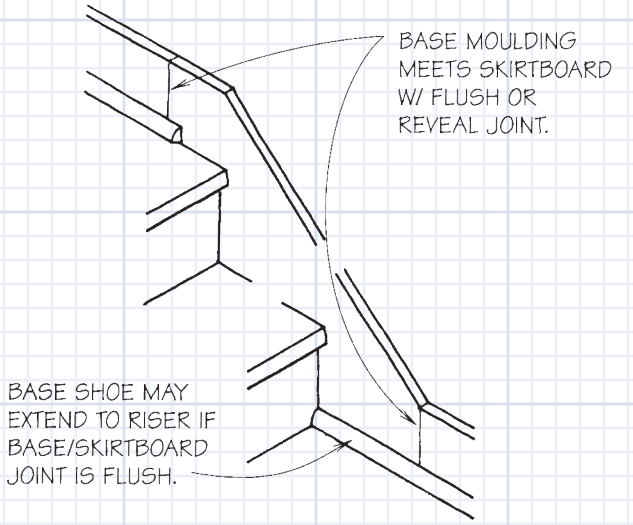


PLINTH BLOCK



BACKBAND

VINYL OR RUBBER BASE MOULDING

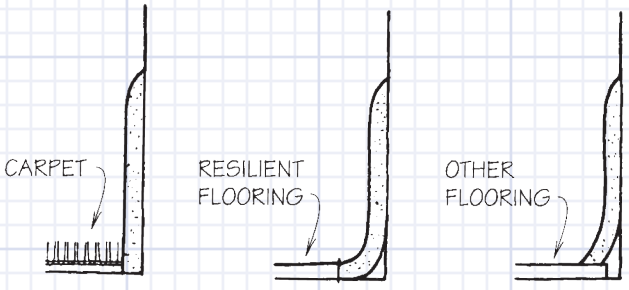


To make a neat connection between base trim and a stair skirtboard, the base trim should match the thickness of the skirtboard. The base shoe will then continue over the flush joint to the first riser. If the skirtboard is thicker than the baseboard, the baseboard can meet the skirtboard with a reveal joint but a base shoe (if any) will not continue to the stair riser.

BASE TRIM @ STAIR

Common in commercial work, vinyl or rubber base moulding is inexpensive, available in a number of colors and easily applied with adhesive. It easily conforms to wall and floor irregularities. Standard heights are 2½ in., 4 in. and 6 in. Three typical profiles (shown below) can be matched with specific flooring types.

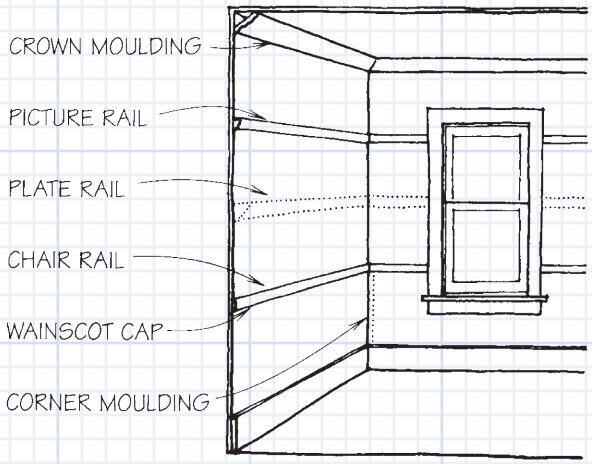
Manufactured outside corners are commonly used, but inside corners are usually coped. Vinyl and rubber base mouldings are narrow enough to die into door casings.



CARPET BASE COVE BASE TOPSET BASE

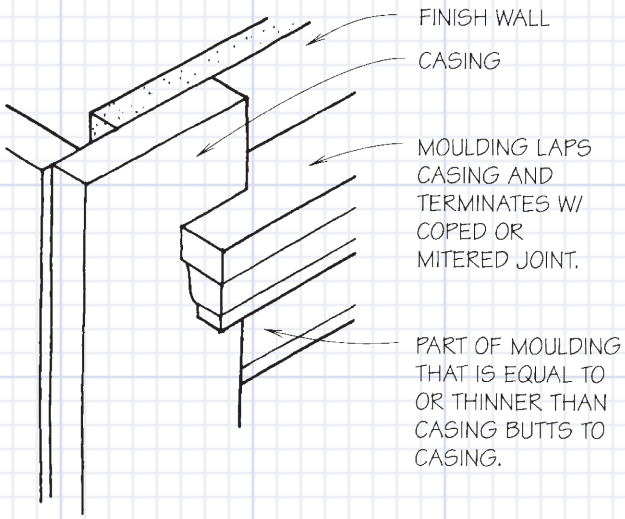
SPECIALIZED MOULDINGS

INTRODUCTION



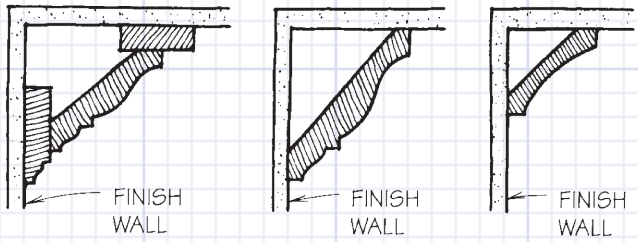
There are several specialized types of traditional mouldings that can be used functionally and decoratively. Many of these mouldings are applied continuously around a room and often require backing or blocking, so it is important to plan for such mouldings before wall finishes are in place.

Some of these mouldings (especially plate rails, chair rails and wainscot caps) commonly terminate at door or window casings. If the moulding is thinner than the casing, it can simply butt into the casing, leaving a reveal (see 163A) If the moulding is thicker than the casing, however, it must be terminated independently of the edge of the casing. This is commonly done with a coped or mitered end (see below and 157). An alternative is to add a backband to the casing and butt the moulding to the backband.



CROWN MOULDING

Located at the intersection of a wall and ceiling, the crown (or sprung cove) moulding makes a transition between these two planes. Crown moulding typically circumscribes a room and is fastened to both wall and ceiling, so some blocking in the ceiling is usually required. Crown moulding can be built up of several pieces to be quite elaborate. Crown moulding can also be made with plaster.



BUILT-UP CROWN MOULDING | CROWN MOULDING | SPRUNG COVE

PICTURE RAIL

Historically, the picture rail has been used as a continuous strip around a room from which to hang pictures. Although the picture rail is not always used for hanging pictures today, its use has persisted because it provides a trim high on the wall that acts as an accent strip or a logical place to change paint colors. The picture rail is usually set either just below the heads of doors and windows where it dies into the side casings or just below the ceiling plane where it can flow around the room without interfering with other trim.

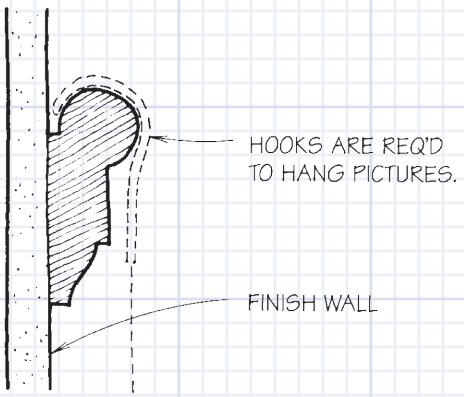
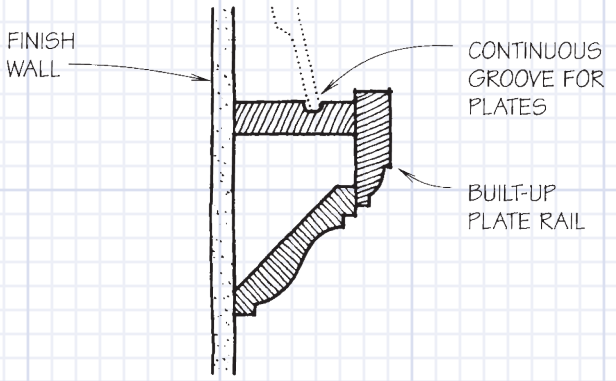


PLATE RAIL

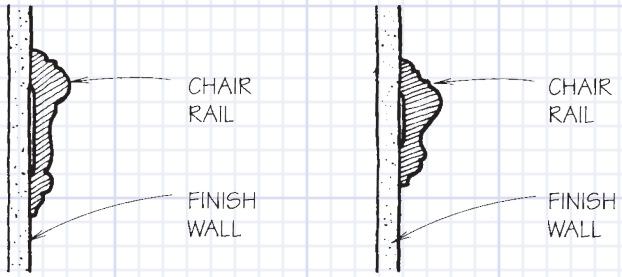
The plate rail was developed to display plates and other objects approximately at eye level. It is usually built up of several pieces of moulding and was used frequently in Craftsman-style houses. The plate rail is not common today.



NOTE:
AN ALTERNATIVE IS TO SUPPORT A CONTINUOUS SHELF WITH INDIVIDUAL BRACKETS.

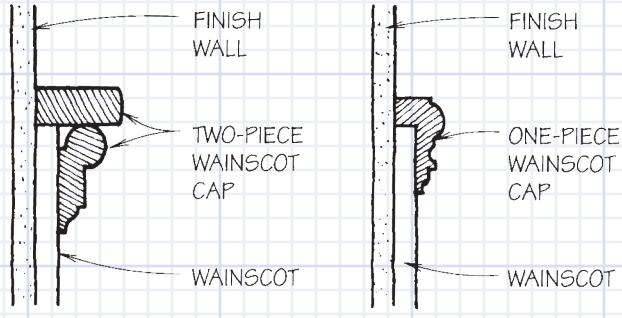
CHAIR RAIL

A horizontal moulding set about 3 ft. above the floor, a chair rail has historically performed two functions. First, it protected the relatively soft plaster surface of the wall from abrasion by chairs placed against it. Second, some types of chair rail were fitted with pegs on which chairs were hung while the floor was swept. The modern chair rail rarely has pegs, but rather acts as a visual divider of the height of the wall. The wall surface below the chair rail is often finished differently from the wall above, making the chair rail effectively into an inexpensive wainscot cap.



WAINSCOT CAP

The wainscot cap covers the gap between the top of the wainscot (see 40-41) and the wall above. If the wainscot is flush with the wall, the wainscot cap can be very simple and, indeed, identical to a chair rail (see 165B). If the wainscot is applied to the surface of the wall, the cap must accommodate the difference between the planes of the wainscot and the wall above. In this case, the wainscot cap frequently builds out beyond the door (or window) casing and is detailed to lap the casing.



CORNER MOULDINGS

Several mouldings are available primarily to trim corners.

Corner cap—The corner cap is designed to trim outside corners with a single piece of moulding. It is generally used in a vertical application, such as where the board paneling on two walls meet. The thin profile of the corner cap allows it to butt to other mouldings leaving a reveal.

Cove—Cove moulding is commonly used to trim inside corners and in combination with other mouldings to make built-up profiles.

Quarter-round—Like cove moulding, quarter-round moulding is used to trim inside corners. Quarter-round is also often used in place of a base shoe.