WINDOWS AND DOORS

Windows and doors are necessary features of all residential structures and should be planned carefully to insure maximum contribution to the overall design and function of a structure.

Windows and doors perform several functions in a residential structure, such as: shield an opening from the elements, add decoration, emphasize the overall design, provide light and ventilation, and expand visibility.

DOORS
Each door identified on the foundation plan and floor plan should appear on a **door schedule**. Specifications vary amongst manufacturer, so it is important to have exact information for the schedule.

Interior Doors
Interior door types include; flush, panel, bi-fold, sliding, pocket, double-action, accordion, Dutch, and French.

Flush Doors
- Smooth on both sides, usually made of wood and are hollow on the inside with a wood frame around the perimeter
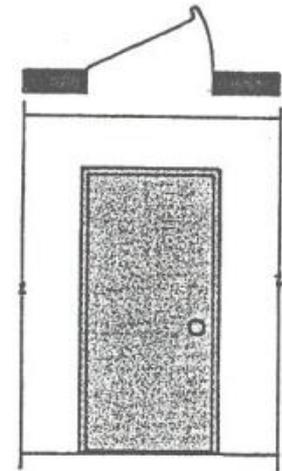- Standard size is 1-3/8" thick, 6'8" high and range from 2' – 3' wide

Fig. 13-1. Flush door with plan view symbol.

Panel Doors

- Panel doors have a heavy frame around the outside and generally have cross members that form small panels
- The vertical members are called stiles
- The horizontal pieces are called rails

Bi-Fold Doors

- A bi-fold door is made of two parts that together form the door
- Popular as closet doors and are seldom used for other applications
- Installed in pairs with each door being the same width, which ranges from 1' – 2'
- Standard height 6'8" – 8'
- Thickness of 1-1/8" for wood doors and 1" for metal

Sliding Doors

- Sliding or bi-pass doors are popular where there are large openin
- Frequently used as closet doors
- Any number of doors may be used
- Width is not critical because doors are hung from a track
- Glides are installed on the floor to prevent swinging
- May be flush, paneled or louvered
- Usually constructed from wood

Pocket Doors

- Usually a flush door and is a variation of a sliding door
- Usually, only one door
- It is hung from a track mount, and rests in a wall pocket
- Frequently used between rooms such as the kitchen and dining room
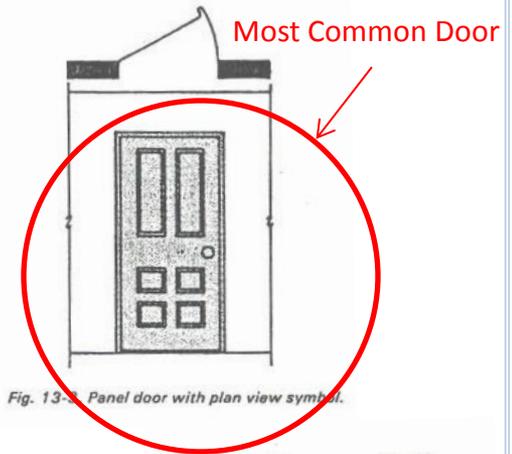
Most Common Door

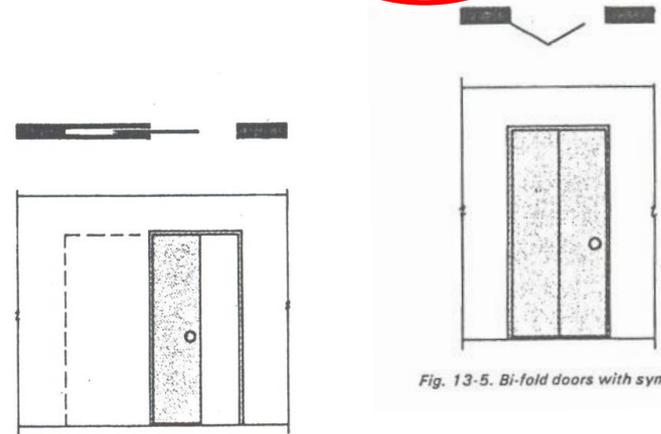Fig. 13-4. Panel door with plan view symbol.

Fig. 13-5. Bi-fold doors with symbol.
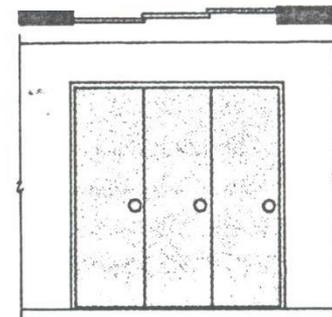
Fig. 13-7. Pocket door.

Fig. 13-6. Sliding doors and symbol.

Double Action Doors

- Are hinged in such a way that they may swing through an arc of 180 degrees
- A special double-action, spring-loaded hinge is used
- Generally used between rooms that experience a great deal of traffic and require the door be shut most of the time
- May be single or double doors
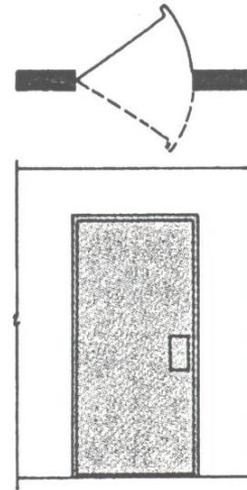- May be flush, panel or louvered

Accordion Doors

- Frequently used to close large openings where bi-fold or sliding doors would not be acceptable
- Require little space
- Made of a variety of materials: wood, plastic, fabric
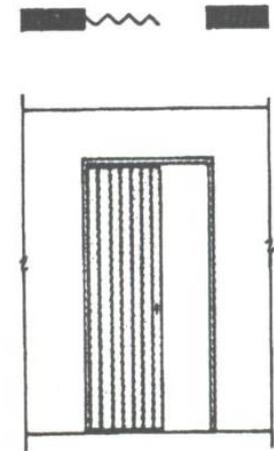- Mounted on an above track

Dutch Doors

- Made of two parts, an upper and a lower
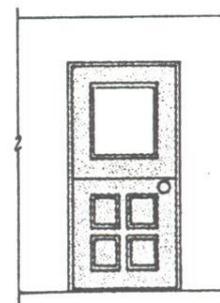
French Doors

- Panel doors with the panels made of glass
- Most popular where the door leads to a patio or terrace but also used between rooms

Fig. 13-8. Double-action door.
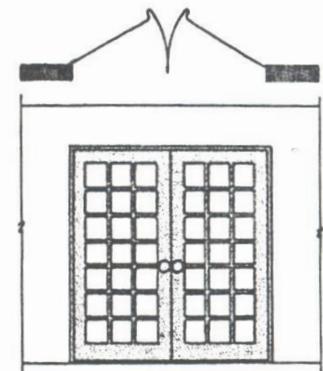
Fig. 13-10. Accordion door.

Fig. 13-11. Dutch door.

Fig. 13-13. French doors.

Exterior Doors

Exterior residential doors are similar to some of the interior doors, but have decided differences. They are usually not hollow core, thicker than interior doors and may have one or more panels to provide visibility.

Flush Doors

Usually 1-3/4" thick, 6'8" high and 3' wide

One of the most popular

Produced from wood and metal

Panel Doors
- Available in a variety of styles
- Constructed from wood
- Produced in the same sizes as flush doors

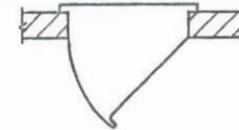### Sliding and Swinging Glass Doors
- Sliding doors are usually made of wood
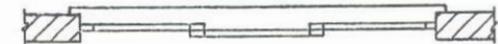- Follow typical sliding glass door sizes

Garage Doors
- Two types account for most of the doors used: Overhead sectional and one-piece overhead
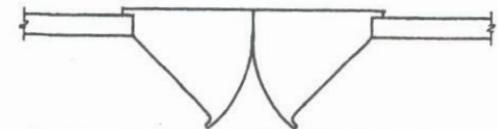- Available in wood, metal and plastics
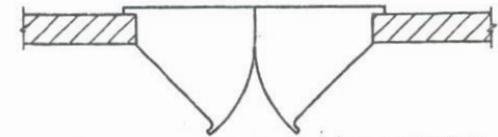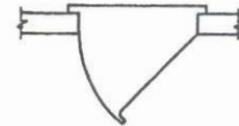

DOUBLE FLUSH OR PANEL DOORS IN MASONRY WALL

SINGLE FLUSH OR PANEL DOOR IN MASONRY WALL

SLIDING DOOR UNIT IN MASONRY WALL

DOUBLE FLUSH OR PANEL DOORS IN FRAME WALL

SINGLE FLUSH OR PANEL DOOR IN FRAME WALL

SLIDING DOOR UNIT IN FRAME WALL

WINDOWS

When selecting windows, it is important to remember their function. They admit light, provide fresh air, ventilation, and add detail, balance and design.

A **window schedule** provides pertinent information about the windows and must be precise. It can be placed on the same sheet as the floor plan or elevation plan.

Sliding Windows

- The most common types are double-hung (most common) and horizontal sliding
- Have two sashes, which slide up and down in grooves

Swinging Windows

- The most common type are casement, awning, hopper and jalousie windows

Casement
- Hinged at the side which swing outward

Awning
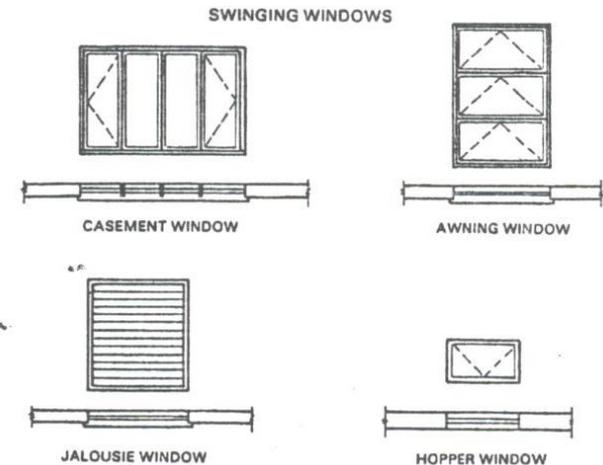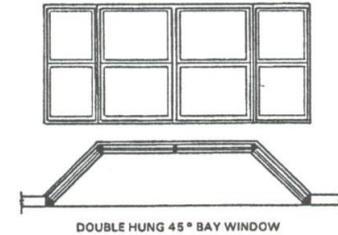- Hinged at the top and swings out at an angle like an awning

Hopper
- Usually an in-swinging window
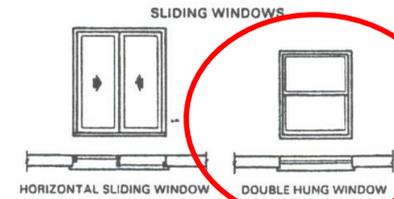- Is hinged at the bottom
- Popular for basements

Jalousie
- Has a series of narrow horizontal glass slats

Most Common Window

SLIDING WINDOWS

HORIZONTAL SLIDING WINDOW   DOUBLE HUNG WINDOW

COMBINATION WINDOWS

PICTURE WINDOW WITH A DOUBLE HUNG WINDOW ON EACH SIDE

DOUBLE HUNG 45° BAY WINDOW

SWINGING WINDOWS

CASEMENT WINDOW   AWNING WINDOW

JALOUSIE WINDOW   HOPPER WINDOW

Fixed

- Purpose is to provide a view and or admit light, but not ventilation
- Examples include: picture windows, circle top windows, glass block and random shaped

Picture

- Fixed-glass units and usually large
- Come in fixed sizes or custom sizes

Circle Top

- Can be installed by themselves or in conjunction with other windows
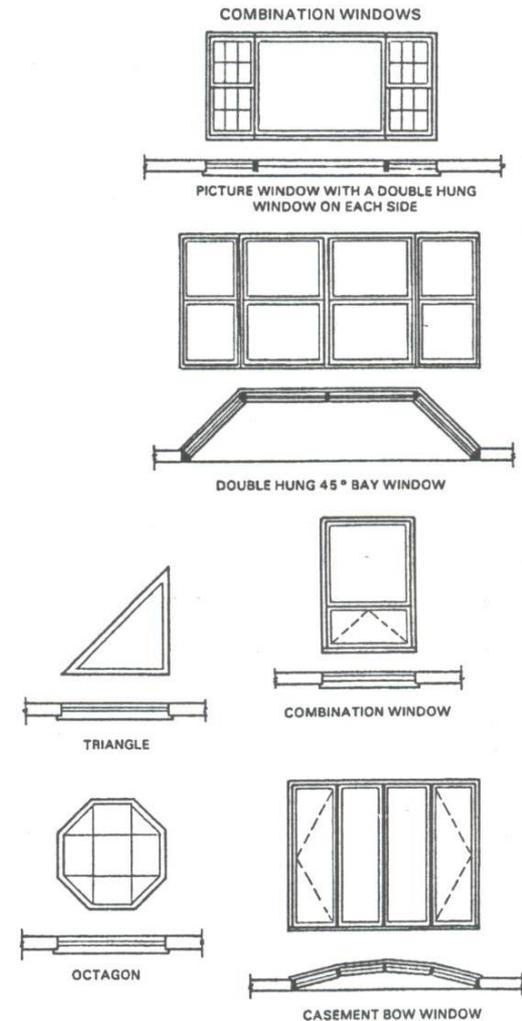
Skylight and Clerestory Windows

- Used to admit light and ventilation into areas that receive little or no natural light

Skylights

- Located on the roof
- Come in a variety of shapes, but the most common is rectangular

Clerestory

- Placed high on a wall

COMBINATION WINDOWS

PICTURE WINDOW WITH A DOUBLE HUNG WINDOW ON EACH SIDE

DOUBLE HUNG 45° BAY WINDOW

TRIANGLE

COMBINATION WINDOW

OCTAGON

CASEMENT BOW WINDOW

Works Cited

Kicklighter, Clois E., Ronald J. Baird, and Joan C. Kicklighter. *Architecture: Residential Drawing and Design*. South Holland, IL: Goodheart-Willcox, 1995. Print.