INTRODUCTION

Graphic communications among members of the production staff utilize standard drafting views applied to the specific needs of the performing arts. These drawings fall within four categories: ground plans that show the horizontal layout of objects comprising a space, orthographic projections that show each surface of an object individually for the purpose of construction or painting, pictorial drawings that show several planes of an object simultaneously, and sections that reveal the internal structure of objects. All these drawings serve a common purpose: to explain the materials and processes of construction which will result in the finished product desired.

GROUND PLANS

Ground plans (or floor plans; the terms are used interchangeably) are drawings that show the horizontal shape, position, size, and relationship of the objects comprising a setting. Whether they are developed as the initial step in the design process or evolve during that process, these drawings are used by all members of the production staff to determine such things as actor movement, lighting design, or the construction and handling of scenery. Ground plans are one of the primary sources of information for most additional construction drawings.

A _ground plan_ is a view of the setting from above, with a portion of the top of the scenery removed to reveal the most characteristic view of the way the parts are arranged. The line that cuts across the set to reveal the plan is placed at an average height of four feet above the floor but may be staggered up or down in a pattern providing the greatest amount of information with the least number of hidden lines (Figure 3-1).

The resulting drawing shows the shape, size, and position of each element that comprises the setting. Because they are frequently repeated, some scenic elements such as doors and windows are represented in plans by symbols. The symbols are drawn true-to-size but do not
require labels, due to a common understanding of their meaning. The symbols used in ground plans for the theatre are shown in Figure 3–2. These symbols have been adopted in the United States by the professional organization of designers and technicians, the United States Institute for Theatre Technology (USITT). Any scenic unit or set dressing not represented by a symbol is drawn to the outline of its actual shape and size and is then labeled. All visible objects are drawn with thick, solid lines. Anything occurring above the line cutting across the set—for example, a ceiling or chandelier—is drawn with an alternate position line; any important objects that lie beneath the visible surface are drawn with hidden lines.

In addition to showing the set and its contents, the ground plan must include lines that will provide spatial references similar in purpose to the longitude and latitude lines on a globe. For a proscenium theatre, the ground plan includes a centerline on an axis that runs up- and downstage at the middle of the proscenium opening. The proper line-type and centerline label are always included. One of two lines may be used as a transverse axis—either the plaster line or the set line. The plaster line crosses the stage from right to left at the upstage side of the proscenium arch; its label reads “Plaster Line.” The set line also crosses the stage from right to left but is located at the furthest downstage position of the setting, such as the tortolets; its label reads “Set Line.” Either line is drawn as a thin, consistent, long dash. The centerline and the set or plaster line provide fixed axes from which all measurements to locate the proscenium setting may be made. Thrust, arena, and

**FIGURE 3–1**
The ground plan is determined by a line that cuts across the set at an approximate height of 4'-0" but staggers up or down to reveal the most characteristic view of the setting from above. a) Shows the line cutting across this set to reveal the plan shown in b).
FIGURE 3-2
Standard symbols for ground plans. (From “Graphic Standards Board Recommendations for Standard Graphic Language in Scenic Design and Technical Production,” reprinted by permission of the United States Institute for Theatre Technology Graphic Standards Board, Education Commission, and Board of Directors.)

other nonproscenium settings also require a pair of transverse axes from which locating measurements can be made. Normally a centerline represented by the standard symbol and label is used in one direction, and another line placed in an arbitrary location perpendicular to the centerline is drawn as a transverse axis. Since its position is arbitrary, dimensions must be given to locate the secondary axis, usually as measurements from fixed architectural features such as the walls of the room (Figure 3-3).

Most ground plans are drawn in the scale of $\frac{1}{2}'' = 1'\cdot0''$. Plans of excessively large spaces or plans requiring only limited detail may be drawn in reduced scale, usually $\frac{1}{4}'' = 1'\cdot0''$. Drawings in smaller scales increase the possibility of error during construction; however, smaller-scale plans are satisfactory for drawings that are primarily informational in purpose.