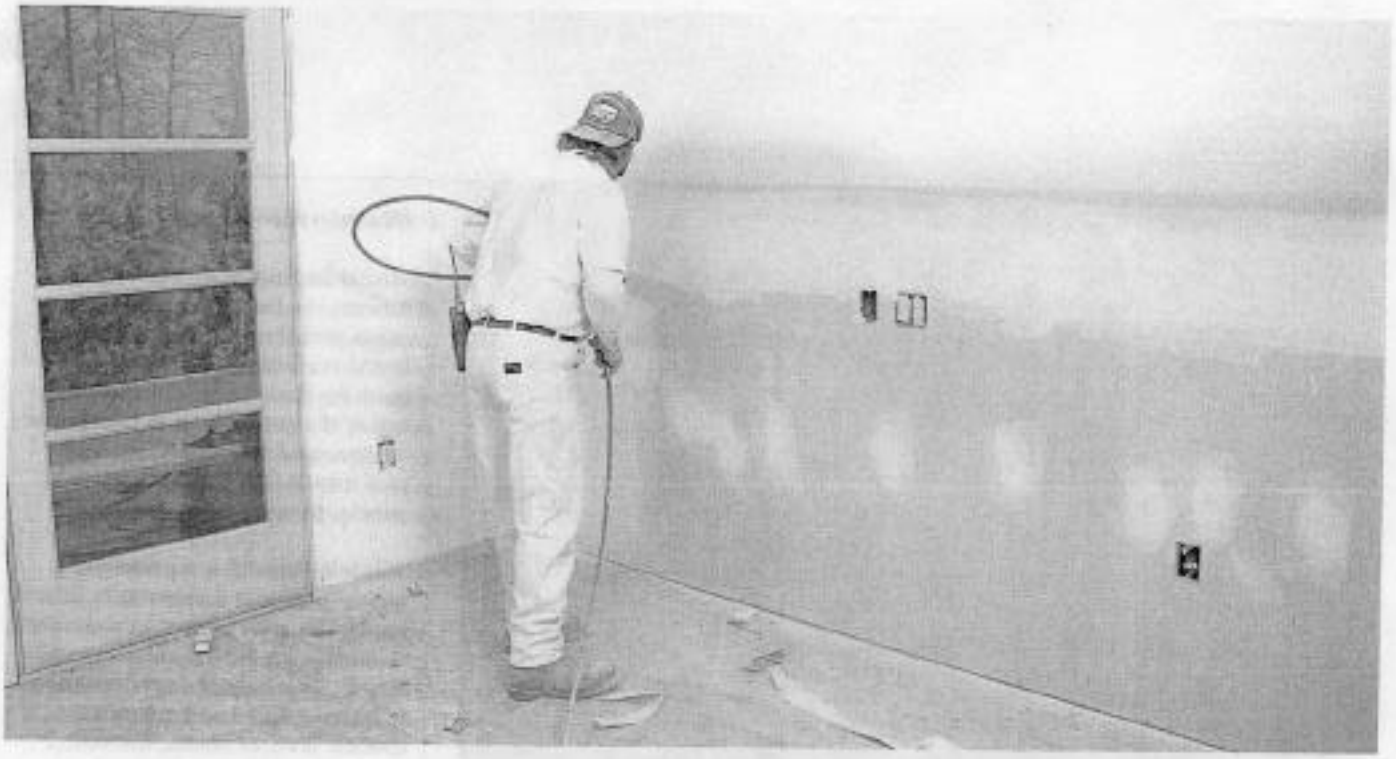

Spray application *without* backrolling will magnify texture variations that have been caused by improper or sloppy sanding techniques (clogged sandpaper, sanding that is too aggressive, or use of a coarse sandpaper) or due to sanding on the drywall face paper that causes fiber raising on the face paper. This texture variation problem is especially noticeable when the painting contractor follows the drywall workers with an application of egg-shell or semi-gloss paints.

which occurs when a continuous dried film of solid color paint has the appearance of being partially transparent. This accentuates the underlying color contrast between the treated joints and the field area of the gypsum panels.

Foreign material deposits and migratory stains can also cause color variation. Deposits from biological growths (such as mildew and mold) can appear gray, red, green, or black in color. These are generally confined to areas that have been exposed to moisture.

Deposits from chemical reactions can appear pink, gray, or black in color. These deposits are the result of a chemical reaction between the painted surface and airborne chemical gases.

The most common of this relatively uncommon phenomenon is called hydrogen sulfide staining. Sulfides can originate from many common sources, including automobile exhaust fumes and high sulfur coal burning power plants.

"Pink" sulfide staining occurs when moderate levels of sulfide acid fumes in the air react with calcium carbonate (a raw material used in the formulation of most paint coatings) to produce calcium sulfide (which has a pink-red color).

"Black" sulfide staining occurs when sulfides react with heavy metals such as lead or mercury. This type of staining used to be commonly associated with the old lead-based paints or paints that used a mercury complex fungicide.

To minimize most color variations, apply a preparatory first coat over the composite substrate prior to applying the decorative finish.

The general guideline for the total paint system (prime and finish) build should be a minimum of 5 mils DFT (dry film thickness) or approximately 10-15 mils WFT (wet film thickness).

Although it is difficult to specify the thickness build of a protective coating by the number of coats, at least two coats (prime and finish) should be applied to achieve a minimum paint system build of 5 mils DFT.

Most, if not all, paint manufacturers recommend a prime coat and two finish coats of paint.

Deformation

There are several types of deformation that can prevent a wall surface from being flat – in effect ending your quest for uniformity before it begins.

One is *paper swelling*. When the paper facing of the gypsum panels gets wet, it swells and will not always shrink back to its original size. The result is surface undulation in the finished wall.

Another common cause of deformation is *inadequate or improper joint finishing*. A skilled drywall finisher will apply enough joint compound to do the job and no more.

The over-zealous application of joint compound can result in raised areas on your finished walls that can create shadows.

Not enough compound and you have depressed areas that can be visible as very subtle divots in the finished wall.

To minimize substrate deformation, the use of quality framing and cladding materials and proper practices should be employed.

Correct any framing irregularities prior to installing the cladding, and remember that all cladding should be fitted and installed using the correct attachment system recommended by the manufacturer.

In lieu of manufacturers instructions, you can refer to "Levels of Gypsum Board Finishing" (Publication GA-214-90), available through the Gypsum Association.

Prevention is best "cure"

Whether non-uniformity is caused by texture variation, porosity variation, color variation or deformation — or by a combination — the best "cure" is prevention.

Prevention, in this case, essentially means proper wall and surface preparation.

As noted previously, most drywall decorating problems are not directly