## The Shape of Things to Come: ROOFTOP REGULATIONS

Terry Jill Lasser

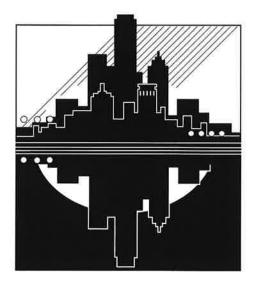
Terry Jill Lasser is research counsel at Urban Land Institute. This column is drawn from a chapter on zoning and building appearances in a forthcoming ULI book titled Downtown Zoning.

ince their inception, development regulations have shaped the physical appearance of the city, either intentionally or unintentionally. Architect François Mansart's gambrel roof, for example, was said to have gained popularity in 17th century Paris as a means of circumventing a law that taxed building owners according to the structure's number of stories. The double-pitched roof, with its lower slope much steeper than its top portion, neatly disguised two floors, and owners were taxed for only one story.

Although cities have long been in the business of controlling the use of roofs—for example, the emplacement of mechanical equipment, or, more recently, antennas and satellite dishes—regulating the shapes of building towers is a relatively new idea.

Fed up with the legions of flattopped edifices that dominate their skylines, some cities are using zoning regulations to encourage variety in roofline design. Although San Francisco is the only downtown to actually require "party hats" on new office towers, zoning incentives in other cities have inspired a panoply of angled, pyramidal, curved, and pointed building tops.

It would be an overstatement, however, to attribute the growing phenomenon of ornate tops on new buildings exclusively to downtown zoning revisions. After all, corporate heads have long recognized that prominent signature roofs lend a certain cachet to their headquarters, and developers know that rental response, in the words of Ada Louise Huxtable, frequently relates "directly



to a building's recognition factor on the skyline." (The Tall Building Artistically Reconsidered, New York, Pantheon, 1982). Whether it is the Transamerica Tower in San Francisco, the RepublicBank Center in Houston, or the AT&T headquarters in New York City, corporations are discovering the benefits to be gained from having an identifying imprint on the skyline.

In addition, ever-shifting architectural tastes also shape roof-line design. Resurrected by the postmodern style, history is "respectable again," writes Huxtable, and "is being mined for nostalgia, novelty, and innuendo." The notorious split pediment of the AT&T building, for example, recalls for some the charm of 18th century Chippendale furniture, while other Johnson-Burgee office towers, featuring gables, pinnacles, and superscaled steeples, mirror the medieval Gothic style. Some of the new buildings have domes. Others have sharply angled tops like New York's Citicorp Building. Some, like Portland, Oregon's KOIN Center, are topped by pyramids.

## PARTY HATS IN SAN FRANCISCO

The urban design element of San Francisco's 1985 Downtown Plan addresses the appearance of individ-

ual new buildings as well as their cumulative impact on the city's skyline. According to the plan, the city should present a finely textured, finely scaled skyline:

In general, the texture of San Francisco, when viewed from close-up or from afar, is one of small-scale buildings covering the hills on a grid street pattern, punctuated by green space and occasional larger significant structures, such as churches, schools, and hospitals. The collective mass of office buildings in the Financial District has become the most prominent manmade component of the skyline. . . . The bulkiness and repetitive boxiness of many recent structures have obscured the fine-scale sculptured skyline of pre-World War II San Francisco. To create a new sculptured skyline, new buildings must have generally thinner and more complex shapes.

The downtown ordinance, which calls for "thinner, more finely detailed buildings," sets up bulk controls that taper buildings at both their lower and upper levels, and requires more expressive, sculptured building tops. To soften benching-the tendency to build to the height limit, particularly in districts where height is restricted to less than 400 feet, in effect creating a monotonous skyline of building tops all in a line-the code encourages tapered buildings and allows some exemptions from the height restrictions. Up to 10 percent of allowable height may be added for undertaking additional bulk reduction in upper floors to create a "more slender . . . profile and sculptured building termination."

Tapered buildings also promote other environmental objectives.
They allow more sunlight into the

streets and decrease ground-level wind velocity to enhance pedestrian comfort.

## INCENTIVES FOR ROOFTOP VARIETY

Rather than mandating sculptured roofs to add spice to their skylines, many cities encourage rooftop variety through various design review procedures. Bellevue, Washington's administrative design review process includes provisions for "encourag[ing] slender towers, particularly at upper levels" and for employing "high quality of design for all buildings . . . affording a silhouette against the sky." Portland, Oregon, is presently considering adding sculptured rooftops to its more than 20 design guidelines for the downtown.

Rooftop design is particularly important for projects with high visibility from above—from hills or nearby office towers. For example, one of the major design issues for RiverPlace, a mixed-use development

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on the west bank of the Willamette River in downtown Portland, was the site's visibility from nearby freeways, bridges, and office towers. Rooftop variety became one of the controlling design standards. No flat roofs were permitted on structures less than five stories. The mixture of gabled and other sloping roof types underscores the project's essentially residential character and bolsters the overall neighborhood theme. And the athletic club's peaked roofs and rounded-arch dormers give the project a recognizable profile.

A new building's contribution to the skyline is one design review criterion in Burlington, Vermont. The downtown zoning states that, "Traditionally, Burlington's values are expressed and reflected in its skyline. Future buildings shall be thoughtfully shaped in relationship to their position in the skyline and sympathetic to surrounding nineteenth century vernacular architecture. The impact of rooftop form shall be carefully considered. Alternatives to flat roofs shall be encouraged."

In Seattle, saucy building tops are considered a general public benefit for which additional density may be awarded. Additional floor area is granted for the total amount of area by which each upper-story floor is reduced with a maximum set at 30,000 square feet. Although the bonus is not limited to full-block development, the substantial amount of floor area reduction required on upper floors in order to qualify for the bonus makes it likely that only buildings with large floorplates will apply for the bonus.

The first building in Seattle to take advantage of the sculptured top bonus was the 55-story Washington Mutual Tower, designed by Kohn Pedersen Fox and completed in 1988. The stepped-back building, clad in Venetian gold granite and sporting a wedding cake cupola, undoubtedly was inspired by the older vernacular architecture of nearby art deco buildings. This test of the city's 1985 zoning ordinance-in the words of a local newspaper reporter, "the code shaped the building, and the building shaped the code"-revealed several glitches that needed to be ironed out of the code, one of which was the original formula for the sculptured rooftop bonus. Jon Runstad, the tower's developer, had to submit more than a dozen rooftop designs before the city finally agreed to award the additional density, which amounted to 45,000 square feet. The city has since changed the formula to alleviate this problem.

However, the bonus's still exces-

sively complicated formula may make it too costly to use. A developer who recently applied for a permit under the new zoning chose not to apply for the bonus, not wanting to risk the expense of paying an architect to submit numerous alternatives.

Some critics remain unconvinced of the wisdom of Seattle's fostering sculptured roofs. They think that the uniform skylines created by the refrigerator box, International Style buildings may merely give way to a new brand of monotony—a parade of pointed, look-alike stylized roof tops.

Critics also question the value and the efficacy of including this particular amenity feature within Seattle's incentive zoning system. They claim that because ornamental building tops are very much de rigueur, they will be built regardless of the density award. Jon Runstad seems to agree with this view. He acknowledged to the Seattle Post Intelligencer that the distinctive rooftop design for his postmodern Washington Mutual Tower was "chosen primarily for esthetic reasons rather than bonus value."

Another concern is that regulations generally lag several years behind changes in taste. Therefore, when the postmodern penchant for pointed roofs gives way to the next architectural trend, many zoning codes will continue to promote the earlier aesthetic. We may have already discarded more architectural styles in the 20th century than in the previous 500 years (as claimed in a letter to the editor in Architectural Record, October 1988). Can zoning regulations be sufficiently flexible and prescient to accommodate such frequent shifts in design preferences?

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