The Elements of Downtown Design

The downtown's physical quality plays an important role in consumers' decisions about where to shop. In the last several decades Americans have become accustomed to shopping malls and centers — artificial environments where design elements are closely controlled, from parking lots to window displays to shopping bags. Mall designers are keenly aware of the aspects of human behavior that influence shopping habits: interior fountains are installed to mask background noises; artificial lighting gives the impression that time is passing slowly; flags and banners draw the eye through the mall, and into store windows; decorated infill panels disguise vacancies.

While shopping malls may be visually stimulating, there are no distinct qualities that differentiate one from another. A community's unique design characteristics — the elements that reflect its past and explain the ways in which it developed — are found downtown, not at the mall. City squares, parks, public buildings, monuments, alleys and traditional commercial buildings are the elements that physically define the town. Each downtown is a one-of-a-kind expression of its community's heritage, unlike any other. It cannot be duplicated. Once gone, it can never be replaced.

There is no formula for good downtown design, just an appreciation of Main Street's unique assets and an eye for improvements that are compatible with the existing environment. Years of deferred maintenance and insensitive alterations often obscure the richness and beauty of traditional commercial buildings. Heavy-handed approaches to managing parking and traffic have upset the delicate balance that exists between infrastructure and architecture. Fortunately, insensitive design treatments can usually be reversed. In many cases, it may be as simple as removing aluminum covering to reveal an original facade, or making a park more accessible. Occasionally, a building or other design element may require more extensive repair or restoration. As long as the modifications reinforce the downtown's design assets and represent good design, they almost always lead to an improved environment — one that reflects the present as well as the past.

Elements of Downtown Design

Downtown design affects a number of elements besides the buildings, such as public infrastructure, marketing materials and parking areas. All components that communicate a visual message to consumers about the downtown should be addressed by the program's design improvement efforts, including:

- *Buildings.* Buildings of all ages and architectural styles contribute to the downtown's distinctive personality. Similarities in storefront placement, building height, road setback and proportion of door and window openings give a strong sense of rhythm and continuity along the street, visually tying buildings together and creating a cohesive streetscape.

- *Public improvements.* Public improvements include sidewalks, streets, lights, fountains, benches, plantings, utility lines and poles and other elements that support downtown pedestrian and vehicular activity.

- Signs. Public information and private business signs have a significant impact on the downtown's visual image. Like all other design elements, signs should reinforce the district's style in terms of size, scale, color, materials and placement.

- *Parking.* Downtown parking areas include on-street spaces, public and private lots and parking garages. Certainly one of the most misunderstood of the downtown's design elements, parking is often blamed for many economic problems — when, in reality, it serves a secondary function.

- *Graphics.* Logos, posters, advertisements and other broadcast or printed marketing materials that convey a visual message about the downtown are also important design components. These graphics should be of high quality, reflecting the downtown's unique characteristics.

Downtown Design Principles

There are six basic principles for implementing successful downtown design improvements:

- ***Appreciate what already exists.*** Establishing a design improvement program first involves calling attention to Main Street's unique design characteristics and fostering appreciation for the downtown's

importance to the community's personality and quality of life. Once the design characteristics are identified, there are countless ways of promoting their variety and distinctiveness, from guidebooks to walking tours to investors' workshops.

- *Design with compatibility in mind.* A successful downtown design improvement program should manage visual change constructively, building on existing physical assets and encouraging innovation that supports them. Downtown design does not mean that new construction should imitate historic styles or themes,- instead, it involves making changes that are compatible with the commercial area's established characteristics, especially building height, setback from the road, use of materials and the rhythm of window and door openings.

- *Avoid formulas that work at the mall.* The design qualities that entice costumers to the shopping mall rarely work when applied to the downtown. Because malls are designed and built as single units where temperature, light and pedestrian activity can be controlled, certain design elements — such as unified facades and broadcasted music — are possible. In the downtown, though, many of these elements appear unnatural and gimmicky, detracting from the district's own special design qualities.

- *Recognize the limitations of design improvement projects.* Design improvements enhance the appearance of the downtown and make it a more appealing place for consumers. But design improvements alone will not reverse economic decline,- they must be complemented by business development activities, aggressive marketing and the structure provided by a strong organization capable of coordinating the many steps involved in the downtown revitalization process.

- *Establish unified goals for the physical and visual improvement of buildings, public improvements, parking areas and marketing materials.* All design improvements on Main Street should be unified, with improvements in one area reinforcing and coordinated with improvements in others.

- *Always stress quality.* Every visual element associated with the downtown should reflect quality and pride — characteristics that make it unique in the marketplace.

The Role of Historic Preservation in Downtown Design

One of the most critical issues in downtown revitalization is finding ways to make traditional commercial buildings economically viable once again. In the past few decades, many communities have attempted to give downtown buildings new life by altering their appearance in some way — for instance, by covering them with aluminum slipcovers, adopting false historic themes or concealing them with oversized signs. But approaches that alter the architectural features of these buildings have rarely been successful in improving their economic value.

Historic preservation, however, uses a building's distinctive architectural characteristics for economic benefit. People enjoy shopping in unique environments that offer value, quality and a high level of personal service and involvement — assets almost all downtowns have. The traditional buildings in a downtown make it absolutely unique. The degree of craft inherent in downtown buildings represents a level of quality often unmatched elsewhere in the community. And, because commercial buildings reflect a community's history, the traditional downtown environment makes shoppers feel at home. By taking advantage of these characteristics, a revitalization program can position the downtown as a unique shopping environment that offers qualities and services no shopping center or mall can provide.

Historic preservation means managing change in the built environment. Because communities constantly evolve, their building stocks evolve, too. New buildings reflect the times in which they are constructed — the community's current goals, aspirations and values. When well-designed, new buildings blend with Main Street's existing architecture, creating a rich pattern of visual clues that reflect its social and cultural values throughout time.

Preservation is not anti-change; it does not advocate restricting design improvements, reconstructing demolished historic buildings, applying historic themes to new buildings or saving all old buildings just for the sake of it. Instead, historic preservation recognizes good design from the past, maintains the built environment's unique characteristics and encourages good new design — whether in the construction of new buildings or in the modification of existing ones — that is compatible with the old.

Storefront Design

Many factors contribute to the success of a downtown commercial district. Merchandising skills, accurate marketing and availability of merchandise, for instance, are all crucial to a healthy, economically viable downtown. But improvements in storefront design—new paint, moderate renovation or full-scale rehabilitation — are often the first visible signs that something positive is happening, signaling to the community that exciting changes are taking place downtown.

Storefront buildings — traditional buildings with large display windows on the ground floor and one or more stories above—are the basic units of downtown commercial areas. Storefront buildings were, and still are, designed to facilitate retail activity. Large expanses of glass in the ground-floor facade allow pedestrians to look into shops and see displayed merchandise. Recessed entryways blur the distinction between the sidewalk, which is public space, and the private space of the store, giving shoppers the feeling that the store is a semipublic space and, therefore, inviting them to come in and browse around. The long, narrow shapes of storefront buildings make it possible to group a large number of shops on one block. In turn, these stores can display a wide variety of goods and services to shoppers as they walk down the street. Storage spaces in the rear of the buildings facilitate delivery of goods from alleys and secondary roads.

After World War One, when downtown commercial districts started experiencing competition from shopping centers and other outlying areas, downtown businesses began losing customers and sales revenues, and many buildings fell into disrepair. Maintenance was deferred indefinitely. Many downtown business owners tried to compete with shopping malls by covering building facades with aluminum in an attempt to create a unified image. Some towns even adopted phony historic themes.

Imitating the physical design of shopping malls, however, did not make downtowns more competitive. Shoppers went to malls for many reasons other than their physical appearance/ reasons like the unified hours mall businesses offered, the way businesses were clustered to group together similar goods and services and the variety of activities malls provided for members of the entire family.

Ironically, it is the unique design characteristics of traditional downtown commercial buildings that, at least in a design sense, give them a marketing advantage over shopping malls. Traditional buildings reflect the community's history and give the downtown a unique visual identity, unlike any other in the world—something shopping malls cannot offer. Concealing or neglecting architectural details that help tell the story of the community's development deprives the downtown of one of its best marketing tools: its unique image.

Good downtown design starts with a solid understanding of the ways the buildings work, the reasons they were designed the way they were and the different elements that make up the downtown's physical environment

Storefront Evolution and the Elements of Storefront Design

Regardless of their age, almost all downtown commercial buildings are composed of three basic elements: the storefront, upper facade and cornice.

- *The storefront* The storefront is the ground-floor section of the front facade. It typically contains large glass display windows with bulkheads, or kick plates, below that provide protection from breakage and elevate merchandise to eye level for pedestrians looking inside. Many storefronts have transoms above the display windows. Transom windows filter light into the ground-floor space. A structural beam spans the storefront opening, supporting the weight of the upper facade. Sometimes, the structural beam is exposed on the outside of the building and might be decorated or used as a background for sign lettering. In other instances, the structural beam might be concealed by a decorative cornice running the width of the storefront opening.

- *The upper facade.* The area above the ground-floor storefront opening — the upper facade — contains both wall material (typically brick, wood or stucco) and windows. Upper facade windows are usually arranged in even horizontal rows, sometimes accentuated by horizontal bands of a contrasting building material.

- *The cornice.* The entire facade — storefront and upper facade together — is capped by a decorative cornice. The cornice might be made of elaborate wood moldings (common during the federal and Victorian periods), pressed metal, terra-cotta, brick or other materials. In addition to giving the buildings a visual termination, the cornice sometimes conceal gutters and facilitate roof drainage as well.

These three elements can be found in downtown

commercial buildings from any period of American history. Although earlier buildings were generally not as tall as later ones and tended to have smaller storefront display windows, they nonetheless had the same basic elements.

Most changes in the design of downtown commercial buildings have taken place because of improvements in the way glass was manufactured. In the 18th century, glass was expensive and could be manufactured for practical purposes only in small panes. For these reasons, storefront display windows were small, with perhaps as many as 16 or 20 panes of glass in one window. As it became less expensive to manufacture glass in larger sections, storefront windows gradually became larger. In the mid-19th century, storefront windows typically measured five to six feet in height, with as few as four panes of glass in each window. By the late 19th century, glass could be manufactured in single sheets that filled the entire storefront window opening and, during the next several decades, storefront window openings continued to increase in size.

Other technological innovations have also modified the appearance of downtown commercial buildings. The introduction of cast iron and steel in the 19th century enabled builders to span greater distances without intermediate supports, making it possible for storefront window openings to be larger and commercial buildings wider. In the first half of the 20th century, the use of aluminum and structural pigmented glass led to the design of some very innovative Art Deco and Art Moderne commercial storefronts.

In spite of the technological advances that slightly modified the appearance of traditional commercial architecture, the commercial building's three basic design elements remained the same. These elements — storefront, upper facade and cornice — give storefront buildings visual cohesiveness. Each element is closely related to the others and, together, create a balanced architectural composition.

The Importance of Building Design to the Entire Streetscape

The significance of these elements, however, goes beyond their importance to the composition of individual buildings. Regardless of its age, a downtown building's components help make it compatible with surrounding buildings and the entire block. The way the patterns of storefronts, upper facades and cornices repeat from one building to the next along a street gives the whole Streetscape visual cohesiveness and creates a physical rhythm that provides orientation to pedestrians and motorists. Through this repeated pattern, the Streetscape itself takes on design characteristics as distinctive as those of individual buildings:

- *Height and width.* The proportions of the height and width of most buildings are relatively constant within a commercial district. Wide buildings are usually divided into separate bays, reinforcing the overall proportions of the Streetscape.

- *Setback.* Almost all downtown buildings abut the sidewalk, instead of being set back from it.

- *Color.* While color choices in downtown buildings differ considerably, depending on the materials used and the climate in which the structures are built, the use of color throughout the commercial area should be harmonious. For instance, if the colors of downtown buildings are primarily muted earth tones, a bright red or purple building would not be sympathetic - a better choice might be a soft brown or rust.

- *Proportions of door and window openings.* The proportions of door and window openings throughout the downtown area, and especially in adjacent buildings, are relatively constant. The height of upper-floor window placement is also somewhat constant, reinforcing a strong horizontal relationship between upper-story windows along the block.

- *Roof shape or profile.* Roof profiles are usually consistent throughout downtown commercial areas. Whether most buildings have flat roofs, hip roofs or another shape, consistent profiles help create a strong rhythm of design elements along the street.

Building improvements that take place downtown should be compatible with the design characteristics of the Streetscape as well as with those of the building. A building that is incongruous with its neighbors in height, color, roof profile, proportion or setback can have a significant negative impact on the overall appearance of the entire block.

Common Design Problems

During the past several decades, many downtown buildings have suffered from deferred maintenance or attempts to disguise or alter their original architectural

characteristics. Fortunately, many of these changes can easily be reversed. The first step in correcting insensitive alterations is to identify the changes and analyze their impact on the building's and streetscape's basic design elements. The most common architectural design problems found downtown include:

False Historical Themes

The difference between a good reconstruction of an original storefront and an unsuccessful one lies in its degree of authenticity. In recent years, many downtown buildings have been remodeled using false historical details, trims and moldings. The easy availability of such elements as pseudocolonial doorways and plastic snap-in window muntins has, unfortunately, led to many fine late 19th- or early 20th-century buildings being "earlied up." Fake colonial themes are not the only ones that frequently occur mansard roofs,-plastic, Spanish-like pan tiles, artificial "Swiss chalet" half-timbers; and wild West, rough-sawn, cedar saloon fronts all appear from time to time.

The problem of false historical themes downtown is a continuing one. Community members frequently confuse historic preservation, the management of existing historic resources, with the *creation* of historical images. Inevitably, it will be necessary to explain to an eager building owner, who is proud of his or her decision to "go historic," why lumberyard colonial windows, cross-buck vinyl storm doors and similar elements are not the best expressions of the past. Often, it is most effective to simply make a case for the long-term, lower cost, accurate rehabilitation; authenticity is more likely to survive than the passing fads of the lumberyard or phony themes.

Slipcovers

In an effort to compete with shopping malls in the 1960s and 1970s, many downtown groups encouraged property owners to cover their buildings with metal slipcovers, hoping that, by making a whole downtown block appear to be one single, massive building, the downtown itself would look like a shopping mall. While these programs had the best of intentions, Main Street organizations have since discovered, again and again, that making the downtown look like a shopping mall will not bring back business.

Fortunately, the aluminum or light-gauge steel panels used to slipcover downtown facades were usually installed quickly and inexpensively. Framing or brackets that attached the metal panels to the facade were often anchored in only a few places, making removal relatively easy. In many instances, all the building's original architectural features are still in place beneath the metal cover, although, the anchoring devices may have damaged masonry, woodwork or other building fabric. In some cases, window frames or even entire cornices were removed to make the metal panels fit flush against the facade. In all instances, examine how the anchors are installed before beginning to remove them. Extra care should be taken to prevent further damage.

Separating the Ground Floor from the Upper Facade

Another prevalent type of building alteration grew out of the popularity of shopping malls and strip commercial areas: treating the ground floor and upper facade as unrelated elements. Brightly lit, oversized signs were plastered across the fronts of downtown buildings in the 1950s and 1960s. Large, plastic projecting signs also appeared, often bolted right through the wall surface. The signs were intended to attract the attention of passing motorists and, because most commercial signs were being manufactured for the shopping strip, the ones that worked best on the highway were also installed downtown.

Downtowns, however, are scaled for pedestrians and slow-moving vehicles. In most instances, applying flashy, oversized signs to traditional commercial buildings destroyed the balanced relationship between the storefront and the upper facade, in effect, separating the ground floor from the rest of the building. Downtown building facades with this type of sign no longer worked as integrated design units, individually or as part of the streetscape.

Like slipcovers, though, large signs are fairly easy to remove. Before developing plans to remove a sign, thoroughly examine the anchoring system to minimize any damage that may occur. Also, try to determine whether any architectural details were altered or removed when the sign was installed, and plan ways to repair, replace or compensate missing features in the final design.

Filling in Display Windows, Transom Windows and Doors

The loss of balance between the storefront and upper-facade spaces through the use of slipcovers and oversized signs led to other building modifications. The balance between display window, transom and upper-floor windows also disappeared; and, as a result, these spaces were often boarded up or filled in. Sometimes, transom windows were covered over when suspended acoustical tile ceilings were installed. Or, if upper

floors were no longer used, windows were often sealed. Occasionally, two storefront spaces were combined when a business expanded, with one storefront opening — windows and door together — filled in completely. Filling in display, transom and upper-floor windows upsets the relationship of facade elements to one another and disrupts the rhythm of repeating patterns along the streetscape.

Using Color Inappropriately

Color was originally used on downtown commercial architecture for a variety of reasons. In hot climates, buildings were often painted pastel or pale earth tones to reflect heat. Commercial buildings from the Victorian period tended to use paint playfully to highlight elaborate moldings and other architectural details. Buildings made of soft brick were usually painted to help protect the masonry from moisture, wind and sun damage. But buildings made of more durable masonry were not typically painted.

A common problem with downtown buildings is the inappropriate use of color. In some instances, one paint color might be used not only for the building facade but also for its architectural trim, making it difficult to see the detail around windows and doors and on the cornice. In other cases, colors that clash with surrounding buildings are used, making the building stand out too boldly, thereby disrupting the streetscape.

Using Inappropriate Materials

Like unsuitable colors, the use of inappropriate materials to construct or alter downtown commercial buildings frequently severs them from their surroundings. While new materials need not replicate old ones, they should be compatible in texture, scale and color with those already found in the downtown area. Materials like cedar snakes, molded stone, rough-cut logs and stained wood rarely have precedents in the traditional downtown environment and usually should not be used.

Design Improvements and Building Rehabilitation

Once a building's design problems have been identified and an assessment has been made to determine which parts of the building are affected (and to what extent), a design improvement plan must be developed. The plan should meet several objectives:

- ❑ *It should capitalize on the building's assets.* A good design improvement plan will take advantage of a building's original architectural materials, its unique details and other existing features.

- ❑ *It should respect the relationship of storefront, upper facade and cornice.* In cases where this relationship has been upset by the use of inappropriate materials, colors, slipcovers, signs or other alterations, the incompatible elements should be removed. Any new modifications should reestablish this design relationship.

- ❑ *When appropriate, it should preserve as much of the original building fabric and significant modifications as possible.* Once gone, a building's original fabric can never be replaced. New design work should preserve as much of the original material as possible. Building modifications that have taken place in the past might be significant, as well. For instance, some storefronts built in the late 19th century were altered in the 1920s and 1930s when new materials, such as aluminum and structural pigmented glass, became available. Many of these modifications represent good examples of Art Deco design and may, therefore, be worthy of preservation. In cases like this, analyze the modification carefully. If it respects the relationship of kick plate, display window, transom, upper facade and cornice, is compatible with other buildings in the district and represents good design work of the period in which it was created, it might be best to preserve the alteration.

There are three possible courses of action to pursue in rehabilitating traditional commercial buildings. In some instances, any of the three alternatives may be possible. In other cases, only one may be. The best course of action will depend on the building's condition, its historic and architectural characteristics and the nature of the surrounding streetscape.

Restoration

Restoration involves reproducing the appearance of a building exactly as it looked at some time in the past. For commercial buildings, restoration in the strictest sense might mean removing every element that was not part of the original structure (signs, store windows, canopies, doors, air conditioners), then duplicating original parts that are now missing. Restoration can be expensive because it requires a degree of artisanship that is not common today. It also requires extensive, accurate research and a good understanding of historic construction techniques.

Sometimes, restoration is the best alternative. For instance, national landmarks, extraordinary examples of a particular style of architecture or buildings that are excellent examples of a famous architect's work may warrant the extra care and expense required for restoration. This kind of monument can — and should — be considered the exception, rather than the rule.

There is a second, and more likely, instance in which restoration might be the most appropriate design treatment. Many downtowns have buildings that have never been altered, not even on the ground floor. These buildings are often in bad repair and, at first glance, are eyesores. A more careful examination, however, will reveal their true architectural qualities. In these situations, a new coat of paint and simple maintenance can return a building to its original appearance; thus, the building is restored.

The major difference between these two types of restoration is the cost. With the unaltered building, restoration may be the least expensive and most logical option. The results of a restoration project can be astonishing. A restored building is an authentic part of the community's history and serves as a dramatic demonstration of how architectural deterioration of the downtown can be reversed.

Major Rehabilitation

When commercial buildings have been drastically altered — for instance, by the removal of substantial building elements or a replacement of the storefront — major rehabilitation is required to return the building to a form consistent with the rest of the downtown. Although many kinds of construction and materials may be used, most fall into one of two categories:

- *Reconstruction of a period storefront* When accurate restoration is truly appropriate and desirable (as in the instance of a landmark building), reconstruction of a storefront — from the period in which the building was built or in which it attained its historic significance — may be appropriate. Remember, though, that adopting a historical theme as a basis for widespread building alterations downtown is not appropriate. Historical themes cause problems by confusing people about the age of the buildings and their authenticity and by overlooking each structure's individual, intrinsic design characteristics.

- *Construction of a new, compatible storefront* In some cases, using newer materials for storefront renovation offers advantages that make this treatment more appropriate than restoration or reconstruction. Visually, the subtle contrast of new, compatible materials and old, original building fabric can create a handsome blend of the past and present. And, because new materials are usually stock items carried as regular inventory in lumber yards, they are available almost everywhere.

Generally, if the new materials are as simple in line and form as possible, they will blend into the building better than more elaborate treatments. But, be sure to use new materials in shapes, forms, sizes and colors that are similar to, and supportive of, original building characteristics. This will help establish a functional and aesthetic consistency with the past. Storefront features like the short panels below the display windows and the transom windows above are common in many traditional commercial buildings but can be expressed in new materials. It is quite possible to create attractive, compatible new features using materials that were not available when the buildings were originally constructed.

New materials can have significant advantages over traditional ones. For instance, some new building materials require less maintenance than the originals. There can be energy conservation benefits in using new materials, too. Many have higher "R-values" than old ones, meaning that they do not conduct heat and cold as quickly, making them more energy efficient.

Conservative Rehabilitation

Conservative rehabilitation is the design treatment most often used in downtown building improvement projects. Conservative rehabilitation involves simply improving the storefront's appearance by minimizing its less attractive features and using simple, inexpensive techniques to emphasize its positive ones.

The Incremental Nature of Design Improvements

Downtown design improvements will not be completed in one year or even two. In fact, they probably will never be finished, because the downtown will continue to grow and evolve as time passes, as new architectural styles and new building materials emerge and as better preservation techniques develop.

Initially, building owners might be willing to invest in moderate improvements, but not ready to conduct major rehabilitation projects. Remember that design improvements happen incrementally — if moderate improvements make his or her business stronger, the building owner will probably want to continue the

rehabilitation process later on. Also, initial design improvements in a downtown commercial area will call attention to the positive changes taking place. A dozen small building improvement projects can have more impact than one major one.

Implementing Common Storefront Design Improvements

Frequently, a building's appearance can be significantly improved simply by cleaning it and taking care of neglected maintenance problems or by removing inappropriate alterations and repairing architectural features. Common storefront design improvement projects include:

Cleaning Traditional Commercial Buildings

A variety of cleaning techniques are available; but choose carefully as some can be damaging.

- ❑ *Abrasive cleaning.* Abrasive cleaning techniques like sandblasting should *never* be used on traditional commercial buildings. Such harsh cleaning actually cuts into the building material, causing irreversible damage. Brick, for instance, has a hard, baked exterior surface. Inside the brick, though, the masonry is much softer. When sandblasted, the hard outer surface disappears, exposing the much softer masonry inside to moisture and wind damage. Abrasive cleaning has similar effects on wood and stone.

  If a masonry building has already been sandblasted but is not yet too severely deteriorated, painting the building might slow down the deterioration process. Avoid varnishes, enamels, polyurethane sealants and other products impervious to moisture penetration- they will lock moisture *inside* the masonry and prevent it from evaporating, ultimately causing severe moisture damage.

- ❑ *Water wash.* Most often, a gentle water wash is the most appropriate, least damaging way to clean a traditional commercial building. Water pressure should be low — not more than 200 pounds of pressure per square inch (psi). Use a soft, natural bristle brush (not metal) to gently scrub details. If necessary, use a mild detergent, then thoroughly wash to remove any residue.

- ❑ *Chemical cleaners.* In some instances, a chemical cleaner might be needed to remove paint or heavy grime. The masonry should be moistened first to soften dirt. Then, a chemical paint remover is applied and allowed to remain on the building surface for a period of time before it is rinsed off with water and, sometimes, a neutralizer. The process may be repeated several times to remove built-up paint or dirt.

  Finding the right chemical cleaner for the building material is crucial. Chemical cleaners can be either alkaline or acidic; one is appropriate for some materials, one for others. Using the wrong chemical can damage the building material.

  When using chemical cleaners, be sure the area surrounding the building is well protected and that adequate drainage is available. Also, thoroughly cover any architectural features that will not be treated with the chemical. Metal cornices, for instance, can be eroded by some types of chemicals that cause an electrolytic reaction.

  Chemical cleaning should always be done by experienced professionals. Many communities do not have professional building cleaning companies, but firms in most larger cities are willing to travel long distances. It might be possible to reduce the firm's transportation costs by having more than one building owner agree to use their services at the same time.

Regardless of whether a water wash, steam or a chemical cleaner will be used, it is always wise to clean a test patch first. Pick a section of the building that is not too visible — a side or rear wall, for instance — and treat a section about three or four square feet in area. Allow the test patch to dry thoroughly, then examine it closely for any signs of damage. Look for possible damage to the mortar joints and for any residue left on the wall surface by the cleaning process. Examine bricks closely to see if the edges are rounder than they were or if the surface feels flaky. Some masonry surfaces may be too soft to be cleaned.

Removing Inappropriate Alterations

When inappropriate alterations like oversized signs, window coverings or metal slipcovers are being removed, follow these steps in planning the work:

- ❑ *Identify elements.* From a full-facade photograph or an accurate facade drawing, note all the elements that should be removed.

- ❑ *Determine how the inappropriate elements are attached.* Examine each element that will be removed to see how it was attached to the building and to determine the condition of the building around

the anchor area. Make careful notes about each element and key them to numbers or letters on the facade photo or drawing; this will make it easier for the contractor to plan the removal of each piece.

It is often possible to see how metal slipcovers were attached by looking outside through upper-floor windows. If there is a big enough gap between the original facade and the metal slipcover, use a flashlight to look between them for anchoring devices. It is usually a good idea to remove a small section of the slipcover before planning the whole job. Metal panels were often screwed to metal or wood frames or bolted to metal flanges attached directly to the facade. In either case, a screwdriver and a small crowbar may be all that are needed to remove a section of paneling.

- ❑ *Repair original material that was damaged when alterations were made.* The most common types of damage caused by alterations include drilled holes, lost or pared decorative elements, accumulated dirt and rust stains.

  - There are several ways to treat holes drilled into the facade. If the hole was drilled into a mortar joint, it can be replaced or patched. Be sure the new mortar closely matches the original in composition and color. If the hole was drilled into brick or other masonry, a patch can be made by grinding up similar masonry, mixing it with an epoxy and filling the hole. Or, the hole can be filled with epoxy and closed with a solid plug cut from matching masonry. If the hole was drilled into wood, it can be filled with putty, sanded and painted along with the rest of the facade.

  - If a decorative element, such as a cornice or trim around a window, was removed or pared to help the slipcover fit flat against the facade, it can be replicated by a skilled artisan or replaced with a simpler element. The alternative chosen will depend largely on the extent of the damage, the owner's preference and his or her budget for the project. If the exact appearance of the original element is not known, it is usually best to substitute a more simple designed replacement part than try to invent a period design.

  - Rust stains might be present if, as in most cases, metal anchors were used to attach the slipcover to the facade. Stains can often be removed by apply ing a poultice mixed with an appropriate chemical to the stained area, letting the poultice dry, brushing it off and cleaning the area. Poultices usually have to be applied several times to remove all the stain. The poultice should be prepared by an experienced professional building cleaner who knows which chemicals to use for different types of stains on different materials.

In almost all instances, cleaning the facade once the slipcover has been removed will probably be necessary to clear away dirt and debris that has accumulated.

Adding New Materials

When missing or damaged architectural features are replaced, the new building fabric should duplicate the old or match it as closely as possible. Replacement parts should blend in with existing ones, they should not call attention to themselves. These parts should not be antiqued, however, or made to look old and worn.

One of the most common storefront elements to be replaced is the upper-floor window. Over the past several decades, an enormous amount of damage has been done to storefront buildings by insensitive window replacement. Often, aluminum storm windows have been installed outside upper-floor windows, concealing their original decorative trim and detracting from their appearance. Ironically, the cost of replacing the windows usually far exceeds any energy savings that may result from replacement. Even minor changes in form, details and materials used in new windows can significantly affect the facade's overall appearance. In many cases, windows can easily be repaired, making replacement unnecessary. When replacement is truly justified, be careful to match the building's original window treatment as closely as possible.

When a larger architectural element needs to be replaced (such as the storefront opening itself), developing an appropriate design becomes more complex. In these instances, several approaches are possible.

- ❑ The new work might involve an accurate reconstruction of all the parts that have been severely damaged or removed, restoring the building to its appearance at some previous point in time.

- ❑ The new work might follow the general form and scale of that which previously existed but differ in design characteristics

- ❑ The new work might involve a distinctly different design that complements the older building elements but has its own qualities of expression.

The approach chosen depends on the project budget and the purposes the rehabilitated building is to serve. But, before deciding on an approach, consider two additional factors:

- *The building's historic or architectural significance.* If the building is a major architectural landmark in the community or if it has historic significance, restoration is the most desirable approach. Regardless of whether literal restoration takes place, new materials should not be disguised to look old. This way, future generations will be able to tell which parts of the building are original and which are not. If the building in question is less significant as an individual architectural work, restoration still remains an option, but more latitude exists for creating a new design. In such instances, a new design is usually preferable because it enables the downtown to grow and change as architectural styles evolve. Except in the very rare cases where the downtown's appearance has remained virtually intact, design changes should reflect good design from all periods of time, including the present, The most important design considerations to keep in mind are the relationship of the three basic elements of storefront design — storefront, upper facade and cornice—and the compatibility of new design with old in terms of scale, proportion, setback, color, materials and roof profile.

- *The building's physical relationship to the rest of the downtown.* In some communities, downtown buildings are homogeneous in appearance, most having been built during the same time period with similar characteristics of form, style, shape and materials. In these instances, new building sections should visually relate to the physical environment of the entire streetscape as much as possible. A new design that contrasts sharply will call attention to itself at the expense of the downtown's overall appearance. In most downtowns, though, buildings vary considerably in size, scale, style and materials. These buildings may span a lengthy period of time and include a variety of good alterations. Under these circumstances, there can be greater flexibility when designing new work.

Stimulating Interest in Building Improvements

Initially, many business and property owners are reluctant to invest in building improvements. They have good reason to be cautious: without any guarantee that the money they invest will generate new revenues, undertaking building improvement projects can appear risky. Once the downtown revitalization program is well underway and demonstrates that positive changes are taking place, owners will be more willing to make improvements.

Ironically, one of the best ways to demonstrate positive change early in the downtown revitalization program is through building improvement projects. Seeing physical improvements take place convinces citizens that something exciting is happening downtown and helps reverse any negative perceptions they may have. Therefore, stimulating interest in building improvement activity helps generate immediate projects and creates momentum for future projects. Listed below are common ways Main Street programs have stimulated interest in building improvements:

- *Offering free design assistance.* Helping owners develop improvement plans — at no cost to them — is a tremendous incentive. Often, the assistance may be minor: help in selecting paint colors, for example, or estimating the cost to remove a metal slipcover. Some state Main Street programs offer free design assistance to downtown property owners in designated Main Street communities. In other towns, the revitalization programs purchase blocks of consulting time from local design professionals and, in turn, offer the time, free of charge, to downtown property owners. The Main Street program manager or downtown coordinator can usually help property owners by providing basic guidance and sharing technical information and publications with them.

- *Creating financial incentive programs.* Financial incentive programs help stimulate building improvements by reducing the financial risk to the property owner. Incentive programs that offer low-interest loans, incentive grants and interest buy-downs typically provide only a small percentage of the funds needed for an improvement project, but they might be the only incentive necessary to get an owner to go ahead with improvement plans. Here are some guidelines to follow when creating financial incentive programs.

- Make the first program small. If the program offers more money than is likely to be used within six months or a year, property owners will not feel they need to move quickly to take advantage of it. Incentive programs that offer large amounts of money to downtown property owners are less likely to be used than those offering small amounts.

- Assign a definite time line to the program — and stick to it. Create the illusion of a shortage and urgency by making the program available for a limited period of time. Property owners will be more likely to act quickly if the funds are offered for a short time. If funds are not used during the designated time period, use the funds for a different type of incentive program.

- Target the program for specific types of improvements. Initially, the incentive program might be made available for facade improvements. Later in the revitalization process, there might be a greater need to stimulate interest in upper-floor development or building code compliance. Incentive programs will be most effective if they are intended for specific, clearly defined types of building improvements.

- Aggressively market the incentive program. No incentive program — no matter how wonderful the incentive — will be successful unless it is marketed vigorously. Be sure that *all* downtown property owners, including absentee owners, are informed before the program begins. Then, make sure they each receive copies of promotional literature and, if appropriate, application forms when the program is launched. Finally, promote completed improvement projects that received assistance from the incentive program in local papers, the revitalization program's newsletter and special one-page profiles of each project.

- Remember that the incentive is intended to stimulate, not sustain, building improvement activity. Sometimes, when incentive programs are offered for extended periods of time, property owners begin to *expect* an incentive and resist carrying out building improvement projects without financial assistance. To avoid this situation, keep incentive programs small, offer them for limited periods of time and stipulate that the incentives can only be used for specific types of projects.

❑ *Conducting building surveys and maintaining information files on each downtown building.* Assembling information packets on downtown buildings will help property owners move quickly when they are ready to plan building improvement projects. For instance, a photograph that shows how a building looked when it was constructed can help in the planning of projects that involve reconstruction of missing elements. Some of the information that should be gathered includes:

- historic photographs
- records of past tenants and owners
- date of construction
- identification and description of architectural style
- references to city and county planning maps
- fire insurance maps showing the building's shape, materials and other characteristics at different times in the past
- descriptions and, if possible, photos or drawings of any alterations that have taken place

❑ *Working to improve building code regulations and enforcement policies for traditional commercial buildings.* Building codes used throughout American communities today were written primarily to regulate new construction. Often, building codes have sections that simply cannot be applied to traditional commercial buildings or that do not take into account some of their characteristics. For example, some codes require that storefront display windows in new commercial buildings be located no less than two feet from the ground. In some communities, building code officials have applied this regulation to traditional commercial buildings, significantly altering the appearance of kick plates shorter than two feet when making window repairs.

Working closely with local building code officials can help downtown property owners make improvements that support their buildings' original design characteristics. Let code officials know the goals of the downtown revitalization program and how traditional commercial buildings differ from new ones. Also, point out to them that most current major codes, including the BOCA Code, Universal Building Code and Southern (or Standard) Building Code, now contain provisions that give local officials considerable discretion when applying code requirements to historic buildings.

Public Improvements

Public improvements — the trees, streetlights, benches, fountains, plazas and public art that make Main Street an inviting place for pedestrians — are probably the least understood design elements. Downtown public improvements have always been essential for providing functional support to pedestrian and vehicular traffic and helping buildings function efficiently. Unfortunately, in the last few decades, public improvements have become predominant design elements in the downtown, often overshadowing the architecture that surrounds them.

Things were not always this way. Traditionally, downtown architecture was the dominant design element, with public improvements supporting building design and usage patterns and delivery of services to and from shops, offices, residential areas, industries, public buildings and parks. Public improvements were also meant to support the overall design of the surrounding urban environment. A successful public improvements system today should build upon this historic precedent by supporting, visually and functionally, the downtown's buildings and their uses.

Why have so many revitalization programs adopted heavy-handed public improvements? When shopping malls began to compete with downtowns for customers, many commercial districts responded by trying to apply some of the mall's design characteristics to the downtown environment, hoping to entice as many customers as the mall. Unfortunately, most elements of shopping mall design cannot be translated to the downtown. In particular, three factors that give mall interiors their appeal simply do not apply to the downtown at all.

- *Clearly defined entrances, exits and boundaries.* Shopping malls have definite boundaries; they are self-contained and are usually built in areas that do not have any strong design characteristics. The downtown's boundaries are not as well defined. Commercial buildings usually extend several blocks beyond the core business district; and the downtown is surrounded by buffer zones of offices, public buildings, churches and recreational areas that help create a gradual transition from a commercial to a residential environment.

  It is appropriate for a shopping mall's public improvement elements to be contained within its walls. But in the downtown, public improvements look unnatural when applied to an artificially imposed set of boundaries. Because the commercial character of the downtown extends beyond the central business district, the boundaries for public improvements are difficult to establish.

- *The ability to coordinate storefront design.* Shopping malls are built as single buildings, with all individual storefronts constructed together. For this reason, coordinating public improvements with storefront design inside a shopping mall is easy. In most downtowns, however, buildings were constructed over a long period of time. They vary in size and style — characteristics that make the downtown unique and give it a distinct marketing identity. Thus, public improvements for a downtown commercial environment must support a wide variety of individual storefronts, and coordinating them with existing buildings is a complicated process. Placing elements at regular intervals along the street, as might be done inside a shopping mall, is not effective downtown.

- *A climate-controlled environment* Because shopping malls have controlled climates, their promotional directors can schedule a wide variety of indoor activities throughout the year. Many downtowns have emulated mall furnishings, installing benches, tables with inlaid game boards, planters and other fixtures that work well in a climate-controlled environment, but can be used for only few months of the year when placed on a downtown sidewalk or pedestrian mall.

The Functions of Downtown Public Improvements

In general, the downtown's public improvements should satisfy five goals.

- *Public improvements should encourage pedestrian movement through the downtown and into shops and businesses.* The quality of the physical link between public and private spaces is crucial to the proper functioning of the downtown—and its businesses. Public improvements should help create an inviting environment for shoppers, with clearly marked streets, convenient stopping places, well-lit sidewalks and good pathways between parking areas and stores. Improvements should be designed to create an overall rhythm, establishing a consistent, comprehensible system of movement throughout the downtown. Crosswalks, sidewalks and the paths between parking areas and shops should be safe, convenient and attractive, emphasizing pedestrian scale. Pedestrian areas should be well lit and, when appropriate, served by amenities like water

fountains, benches, trees and public telephones.

Traditionally, streets, sidewalks and commercial buildings were designed and oriented to create a comfortable environment for people strolling through the downtown and browsing in shops. Today, public improvements should continue to channel pedestrian traffic into retail shops, offices and public buildings.

- Public improvements should support storefront merchandising by blurring sidewalk's public space with the recessed, semiprivate space of a store's entryway and display window.

- When possible, plantings should serve practical as well as aesthetic purposes by providing shade and shelter and acting as a buffer between the sidewalk and street. Plantings can enhance commercial buildings by drawing attention to entrances or away from unattractive areas.

- Entryways to the downtown should be marked along major access routes. Directional and informational signs should be clear, attractive and sized for the relatively slow pace of downtown traffic. Pedestrian access routes from parking areas and surrounding neighborhoods to businesses should be well designed and pleasant. A shopper who has to walk past untended public areas will form a negative impression of the downtown.

- Public buildings (city halls, libraries, etc.) are often separated from the street by plazas or open spaces. Public improvements should reinforce the special functions of public buildings by creating an appropriate physical environment for them.

❑ *Public improvements should support, not overshadow, downtown functions.* Public improvements should provide basic utilities, like water, sewage and energy. They should make it easy for pedestrians and vehicles to travel throughout the downtown and should accommodate all aspects of transportation such as parking, bus service and connections to other major roads. And, they should provide these services in a manner that is visually compatible with the nature of the functions they support. For example, the design of sidewalks, streetlights and signs should reinforce patterns of pedestrian movement along streets and into shops.

❑ *Public improvements should help create a pleasant environment.* A clean, attractive downtown is an asset to the entire community. Businesses and industries look at all sections of a community when deciding whether to locate there. A downtown represents substantial public and private investment — in commercial and residential buildings, in utilities, in business ventures. It also generates considerable municipal revenues through property and business taxes, business licenses and the re-circulation of money throughout the community. Thus, the physical appearance of the downtown indicates how well the town is protecting its investments and how residents feel about their community.

Proper maintenance of public improvements is an important factor in projecting a positive image of the downtown. Maintenance costs and responsibilities for upkeep should be included in plans for public improvements.

❑ *Public improvements should provide direction within the downtown.* Signs must be well designed and properly located to direct people to, and through, the commercial district. Entrances to the downtown should be clearly defined and inviting; passage through the district should be convenient; and exits from the downtown should provide direction tc other parts of town. If one or more roads in the downtown are state highways or other major routes, they should facilitate traffic through the district and provide easy transfer to secondary roads. The location of parking areas and transit stops should be distinctly marked, and locational maps within the downtown should be considered. Directional signs should be compatible with the area's existing design characteristics.

❑ *Public improvements should be integrated with other physical improvements.* Public improvements and private projects such as facade rehabilitations should be planned as parts of the same program; neither group alone can carry the full weight of the downtown's physical revitalization. Public improvements should be planned incrementally, with implementation of the program timed to fit the downtown's overall schedule of activity.

Planning Public Improvements

A comprehensive public improvements program should be an integral part of the revitalization process. It should be tailored to the specific needs of the downtown while reinforcing private projects. Planning for public improvements usually involves four steps.

- ❑ Conduct an inventory of existing downtown public improvements.
- ❑ Analyze each element's effectiveness and examine the possibilities for modification.
- ❑ Establish goals and priorities.
- ❑ Develop an incremental, realistic implementation plan.

Conducting the Inventory

To begin the inventory, start with a base map of the downtown area. It should show streets, sidewalks and the outlines of all buildings, and should be large enough to accommodate drawn symbols and detailed notes. Most city planning offices have this type of map.

With map in hand, walk around the downtown and note the locations of all public improvement elements. Develop a set of symbols for common elements to save space on the map. Try to be as accurate as possible in locating elements on the map; use buildings as guides for proper placement. Some of the things to look for and note on the map include:

- ❑ Directional and informational signs
- ❑ Pedestrian spaces (e.g., parks, malls, plazas)
- ❑ Plantings
- ❑ Street furniture
- ❑ Drinking fountains
- ❑ Public restrooms
- ❑ Phone booths
- ❑ Transportation stops (e.g., bus stops, cab stands)
- ❑ Loading zones
- ❑ Lighting (Note whether street lighting is designed to provide primary illumination to the street, sidewalk or both. Also, note the type of light used: mercury vapor, halogen, etc.)
- ❑ Parking spaces and parking lots (Note any time limits on parking spaces, whether they are metered, whether they are reserved for handicapped drivers and whether they are for public or private use.)
- ❑ Telephone and utility poles
- ❑ Fire hydrants
- ❑ Mail boxes
- ❑ Traffic equipment (e.g., switching boxes)

As you mark each element on the map, give it an identifying number. Then, on a separate sheet of paper, note the following characteristics for each element:

- ❑ *Condition.* Is the element in good repair? Is it being properly maintained?

- ❑ *Installation.* Has the element been properly installed? If replacement is necessary, are there any factors unique to the element or its location that might affect installation? Does it have special energy or security requirements that are not being met?

- ❑ *Placement* Is the element placed where it will be most effective? How is it integrated into its surroundings? How does it affect pedestrian or vehicular traffic?

- ❑ *Seasonal change.* How might the element be used differently or have a different impact on its environment throughout the year? For example, does a fountain that functions well during warm months become a maintenance problem or a safety hazard during winter months? How can it be secured during cold weather so that it is safe and does not become an eyesore?

Finally, be sure to write the date, the time of day and a brief description of the weather on both the map and the inventory sheet.

The inventory should be conducted several times a year to determine how different spaces are used at different times of the day, week and year. For instance, the inventory should note whether delivery trucks cause traffic congestion by double parking at certain times of day or whether are bus stops impede the flow of pedestrians along the sidewalk. To supplement the inventory, collect any existing studies on present or forecasted patterns of use in the downtown, such as pedestrian counts, traffic counts, parking usage or plans to upgrade public infrastructure.

The Analysis

The inventory and data collected should be reviewed and analyzed by the Main Street Design Committee (or a subcommittee or task force it establishes). Begin with general considerations and gradually move to specifics. In this way, the analysis focuses first on the entire downtown and general patterns so that an overall picture of circulation, high traffic areas, underused spots and so on emerges.

Next, sort and analyze the collected information *according to specific function.* For example, all elements that affect parking should be examined together, as should all elements that affect vehicular traffic or pedestrian movement. Elements will often overlap. For instance, a crosswalk affects both pedestrian and vehicular traffic. A row of trees that screens a parking lot might also provide a pleasant, shaded pathway for

pedestrians. The analysis should identify all areas where elements overlap by function so that it will be easier to determine which areas and functions might be affected by modification of any element.

Conclude the analysis by summarizing the major findings. The summary statements should note where public improvements are functioning properly as well as pinpointing areas that need improvement. Statements should be brief but explanatory, for example:

- ❑ "The crosswalk at the corner of Main and Fourth is not clearly marked, and pedestrians are cautious about crossing there."
- ❑ "Security lights at the Sycamore Street parking lot aren't working."
- ❑ 'Traffic backs up along Second Street around noon on Monday, Wednesday and Friday because the grocery store's delivery truck has to double-park in the street."
- ❑ "Use of the public parking lot behind City Hall has increased about 30 percent since plantings were installed in the alley connecting it f o Main Street."

Establishing Goals and Priorities

Consider the summary statements carefully. Where do they indicate that immediate action is needed? What improvements would make the area look better, but do not necessarily affect downtown safety or circulation? Which are likely to be most expensive?

The statements should then be prioritized. Issues related to safety should always come first to ensure that the downtown is safe for pedestrians and motorists. Prioritize the remaining concerns according to the goals for downtown design improvement developed by the Main Street Design Committee. Goals differ considerably from town to town, but might include such basic considerations as:

- ❑ Promoting downtown economic revitalization
- ❑ Enhancing the downtown's overall appearance
- ❑ Encouraging building rehabilitations
- ❑ Improving the functional characteristics of public spaces
- ❑ Making parking seem more convenient

Finally, group areas of concern according to each goal, and in order of priority.

Developing an Implementation Plan

The final step is to develop an implementation plan. Remember that public improvements need not be implemented all at once. A public improvements plan should be implemented gradually, as funds and energy permit, and in accordance with the pace of building improvements. Implementation of each improvement involves five distinct steps.

- ❑ *Choose an approach.* Does the improvement involve repairing, replacing or modifying an existing element or adding a new one? In choosing an approach, keep the following guidelines in mind:
  - Less is better than more.
  - It is best to correct problems with existing infrastructure before adding new public improvement elements to the downtown.
  - Try to find management solutions to problems before considering design solutions.
  - Major improvements should be planned and executed so as to cause the least disruption.
  - New elements should be visually compatible with existing elements and buildings.
  - Any strategy for upgrading public improvements should include maintenance considerations for both new and existing elements.

- ❑ *Select appropriate elements.* Is the design or repair of the element visually and functionally compatible with existing elements downtown? Does the element conform with established design guidelines? Some factors to consider when selecting elements include:
  - *Impact.* What impact will this change have on the downtown and its functions? How will the downtown be affected during construction or installation of the improvement?
  - Cost. What will this improvement cost? Is the benefit worth the price? How will it be funded? What are the maintenance costs? Would its removal, modification or replacement cause maintenance costs in other areas of the downtown?
  - *Responsibility.* Who will be responsible for designing, installing, maintaining and managing this improvement?
  - *Compatibility.* Is the element visually compatible with the downtown environment? Does it reinforce the design of downtown buildings?
  - *Security.* Does the element have special security requirements? If so, what are they?

- *Energy.* Does the element have any energy costs associated with it? If so, what are they, and who will be responsible for them?
- *Circulation.* How will this element affect pedestrian and vehicular circulation? Can its design facilitate movement into shops and businesses? Does it provide direction to other parts of the downtown and the rest of the community?
- *Initial cost versus long-term cost.* Will the community be saving money up front by purchasing an inexpensive item that will need to be replaced within a few years? Will it be less expensive in the long run to buy an element that will last longer or that does not require as much upkeep?

❑ *Plan appropriate locations.* Where will the element be located? If it is an existing element that is being repaired, would it be advantageous to relocate it? If it is a new element, where will it best be located to serve its function and support others?

❑ *Organize the work.* When will work begin and how long will it last? Is the work schedule timed to create as little disruption as possible for businesses and traffic? Who will be responsible for each phase of the work plan?

❑ *Plan follow-up activities.* After the element has been repaired, installed or modified, determine how well it is functioning. Is there an adequate maintenance plan in place? Who is responsible for maintenance? Has the change had the desired effect?

Because implementation of the public improvements program is incremental, funding will be incremental as well. Funding for various segments of the program may come from different sources. The downtown should consider traditional funding sources such as capital improvements programs, and less traditional sources such as public improvements gift catalogues, foundations and other private-sector sources, special taxing districts and tax-increment financing.

The Importance of a Public-Private Partnership

Both the public and the private sectors are responsible for design improvements downtown. A public improvements program by itself cannot leverage private investments. On the other hand, a program carried out in conjunction with private building improvements and within the broader framework of the Main Street approach will significantly contribute to the downtown revitalization effort and provide a more attractive environment for businesses, investors and consumers.

Design Glossary

A

Abrasive cleaning. A process for cleaning building materials, The building surface is usually blasted under pressure with sand, glass pellets or water. Unfortunately, abrasive cleaning cuts away the protective outer coating of most building materials and causes irreversible damage. Consequently, abrasive cleaning is almost never appropriate for traditional commercial buildings.

Awning. A sloping, roof-like structure that projects from a building (generally above the storefront) and covers the sidewalk. Awnings can be retractable or fixed. Although usually made of fabric stretched across a metal frame, awnings can also be made of wood or metal.

B

Bearing wall. A building wall that carries a structural load. Most traditional commercial buildings are deep and narrow; the long walls in these buildings bear loads transferred from joists and beams in the flooring and roof systems.

C

Canopy. Like awnings, canopies are roof-like structures that project from a building (usually above the storefront] and cover the sidewalk. While awnings are sloped, however, canopies are flat and are not retractable. Canopies can be made of wood, metal, glass, concrete or fabric.

Carrara glass. See Structural pigmented glass.

Certified local government (CLG). A local government *certified* by the state historic preservation office (SHPO) to undertake local historic preservation activities. To be certified, a community must establish a historic preservation commission and design a program that meets federal and state standards. Certified local governments are eligible to apply for earmarked grants distributed through the SHPO from the National Historic Preservation Fund. CLGs also receive technical assistance from the SHPO and assist in nominating local properties to the National Register of Historic Places.

Compatibility. The congruity of design characteristics. Design features of traditional commercial buildings should be compatible with the streetscape's overall design characteristics in terms of size, color, materials, proportion of window and door openings, setback from the street and roof shape.

Comprehensive plan. A plan prepared—usually by the local government — to direct community growth and delivery of services. Most communities prepare or update comprehensive plans at least once every 10 years. Comprehensive plans usually address housing needs, commercial activity, transportation, education, recreation, medical and social services and infrastructure. Many cities include sections on the needs of the downtown commercial area.

Cornice. The decorative band at the top of a building. The cornices of traditional commercial buildings can be made of wood, pressed metal, brick, decorative tile or other materials.

D

Design guidelines. Written guidelines that help designers and property owners decide how to rehabilitate a building. Often accompanied by illustrations, design guidelines should be tailored to the needs and unique design characteristics of the district in which they are to be used. They are usually provided by the local government, a private historic preservation organization or the downtown revitalization project. Programs that offer facade rehabilitation loans or other financial incentives for building improvements often require recipients to follow the design guidelines. Occasionally, a local government will adopt design guidelines as part of the design review process for a local historic district, with issuance of building permits tied to compliance with the guidelines. (See Design review.)

Design review. The process of reviewing proposed building modifications to ensure compatibility with established design guidelines. Design review can be a voluntary or mandatory process. Some communities approve ordinances requiring design review for designated areas in order to ensure design compatibility. In many instances, design review is part of voluntary financial incentive programs that offer grants, loans or other assistance to individuals or businesses who comply with the guidelines.

E

Efflorescence. A type of masonry deterioration in which moisture inside the wall evaporates and leaves a residue of soluble salts on the building's surface. If detected early, the salts can be safely removed. The source of

moisture infiltration must be identified, however, and the infiltration halted.

F

Fenestration. The arrangement of windows in a wall—usually in the upper facade of downtown commercial buildings.

H

Historic district. A delineated area containing historic buildings that are related to one another by style, historic significance, theme, cultural or other design traits. Historic districts can be designated by the city, state or federal government and are usually established to protect the architectural, historic or cultural characteristics of an area.

I

Infrastructure. The term applied collectively to water mains, sewers, underground utilities, sidewalks, streetlights and other elements that support basic activity in public areas.

K

Kickplate. The bulkhead below a storefront display window. The kickplate protects the storefront window from breakage by elevating it several feet above the sidewalk.

M

Marquee. A permanent canopy over an entrance. Usually found on hotels or theaters, marquees are generally made of metal and glass and are often brightly lit.

Masonry. Stonework or brickwork.

Mortar. A moldable material used to bond masonry (bricks, stone, etc.). Mortar consists of three elements: cement, water and an aggregate (sand is almost always used; sometimes, coarser aggregates are used as well).

Muntins. Strips that separate glass panes in a window.

N

National Historic Preservation Act of 1966. An act of Congress establishing a national program to coordinate and support public and private efforts to identify, evaluate and protect historic and archeological resources. The National Historic Preservation Act created the National Register of Historic Places, established a national Advisory Council on Historic Preservation, set up guidelines for state historic preservation offices, authorized funding through the National Preservation Fund and created other mechanisms for preserving the nation's cultural resources.

National Register of Historic Places. The official list of the nation's cultural resources, authorized by the National Historic Preservation Act and maintained by the National Park Service under the Secretary of the Interior. Listing in the National Register recognizes a building's significance to the county, state or community in which it is located. A property listed in the National Register is eligible for federal tax benefits, receives special consideration in the planning of federally assisted projects and, when available, qualifies for federal funds earmarked for historic preservation. The following types of properties are eligible for the National Register, properties associated with significant events or individuals; properties that embody unique architectural or structural characteristics, and properties that have archeological significance. National Register listing does not restrict the owner's freedom to usr or modify the property.

O

Oriel. A large bay window projecting from the upper facade.

P

Parapet. A low wall at the edge of a roof. Most traditional commercial buildings have flat roofs, with parapets along the front. The roof usually slopes away from the parapet at a slight angle, helping provide drainage for rainwater.

Pediment. The triangular space that forms a gable at the top of a classical building with a pitched roof.

Pigment. A powdered substance, which is added to paint to give it color.

R

Rehabilitation. Physically improving a building's function and/or appearance in a manner that *does* preserve and utilize the building's historic features and characteristics. Substantial rehabilitation may involve some

degree of restoration. Most rehabilitation projects, though, are relatively simple, involving minimizing a building's less attractive features and using simple, inexpensive techniques to emphasize its positive ones.

Rehabilitation tax credits. The federal government provides an income tax credit for the *certified* rehabilitation of buildings listed in (or eligible for) the National Register of Historic Places. The tax credit is equal to 20 percent of the cost of the rehabilitation; expenses must equal the adjusted basis of the building or $5,000, whichever is greater, in order for the credit to be used. Also, the rehabilitation must comply with the Secretary of the Interior's Standards. The rehabilitation tax credit provides a valuable incentive for reinvestment in traditional commercial buildings. A 10 percent credit is available for non-historic buildings constructed at least 50 years ago.

Reinforced concrete. Concrete reinforced with metal bars or mesh. The metal reinforcement gives concrete — especially concrete used in columns and slabs — greater tensile strength and durability. Sidewalks are usually made of reinforced concrete, as are all structural elements in buildings.

Renovation. Physically improving a building's function and appearance in a manner that may or may not preserve and utilize the building's historic features and characteristics.

Repainting. The repair and replacement of mortar between masonry units (bricks, stone, etc.). In traditional commercial buildings, repointing should always be done by professionals skilled in historic preservation techniques to ensure that masonry is not damaged and that the new mortar matches the original as closely as possible in composition and application. Modern mortar — which has a higher concentration of Portland cement than mortar made more than 50 years ago — can sometimes cause damage because it is usually harder than the masonry, which then becomes susceptible to deterioration.

Restoration. Restoring a building's *original* features. This option is usually most appropriate for museum-like buildings-national landmarks, for instance, or extraordinary examples of a particular style of architecture.

S

Sandblasting. See Abrasive cleaning.

Sash. The metal or wood framework that surrounds panes of glass in a window or door.

Secretary of the Interior's Standards. Guidelines developed by the Secretary of the Interior for historic preservation activities. The Standards describe recommended — and *not* recommended — treatments for restoration, rehabilitation and renovation projects. Property owners who wish to qualify for the federal rehabilitation tax credit must comply with the Secretary of the Interior's Standards.

Spoiling. A form of deterioration in which the surface of a masonry unit—usually brick—chips or flakes off. Spalling is generally caused by the freeze-thaw action of moisture trapped inside the masonry; when the ice particles melt, they expand, causing the masonry to flake apart. If moisture problems are detected early enough, spalling can be prevented.

Specifications. The list and description of specific materials used in construction. Specifications often call for brand names of prefabricated building elements. They also usually describe the types of building materials that the designer intends the builder to use. Locating a traditional commercial building's original set of specifications can help during rehabilitation by providing detailed information about mortar composition, roofing materials, architectural details and other building features.

State historic preservation office (SHPO). The public-sector office that monitors historic preservation within the state and assists communities with preservation projects. Each state has a SHPO, which is responsible for reviewing nominations to the National Register of Historic Places, overseeing historic site surveys, regulating certified local governments, reviewing projects that use public funds to ensure compliance with the National Historic Preservation Act and monitoring other related activities. SHPOs typically receive some operating funds from the federal government - most also receive funding from the state government as well as private sources.

Storefront The ground-floor, front facade of a traditional commercial building. The storefront consists of a kickplate, display windows and transom windows. It is usually spanned by a structural beam carrying the weight of the upper facade. The structural beam is sometimes trimmed with a decorative cornice. The storefront entrance is often slightly recessed. The storefront space is designed to for merchandise and helping blend the sidewalk and the store interior.

Streetscape. The sequence of buildings along the street. In downtown commercial areas, the design characteristics of the streetscape are as significant as those of individual buildings in creating a visually cohesive district.

Structuralpigmented glass. A type of decorative glass (not structural, despite its name) used to cover a building facade. Structural pigmented glass — known primarily by the brand names Carrara and Vitrolite— was developed in the 1920s and used widely in Art Deco and Art Moderne architecture and in buildings remodeled from the 1920s to 1950s. Structural pigmented glass is no longer manufactured in the range of colors once available.

T

Terra-cotta. A glazed or unglazed tile used architecturally. The facades of some traditional downtown commercial buildings are clad with terra-cotta panels, often wood or metal joist or beam inside the building. Tie rods are frequently capped on the outside of the building with small metal plates created especially for a particular building. The terra-cotta panels are usually attached to the facade with metal anchors.

Tie rod. A rod (usually steel or iron) used as a structural brace, Tie rods often help secure a building's facade to its structural framework by connecting the facade to a shaped like stars or florets.

Transom. The window area directly above storefront display windows. Transom windows filter light back into narrow traditional commercial buildings, illuminating the interior.

U

Upper facade. The area of the facade above the storefront and below the cornice. The upper facades of traditional commercial buildings consist of an infill material (such as brick or wood) and fenestration.

Z

Zoning. The process of designating different sections of a town or city for specific types of activities, such as residential, commercial or industrial.