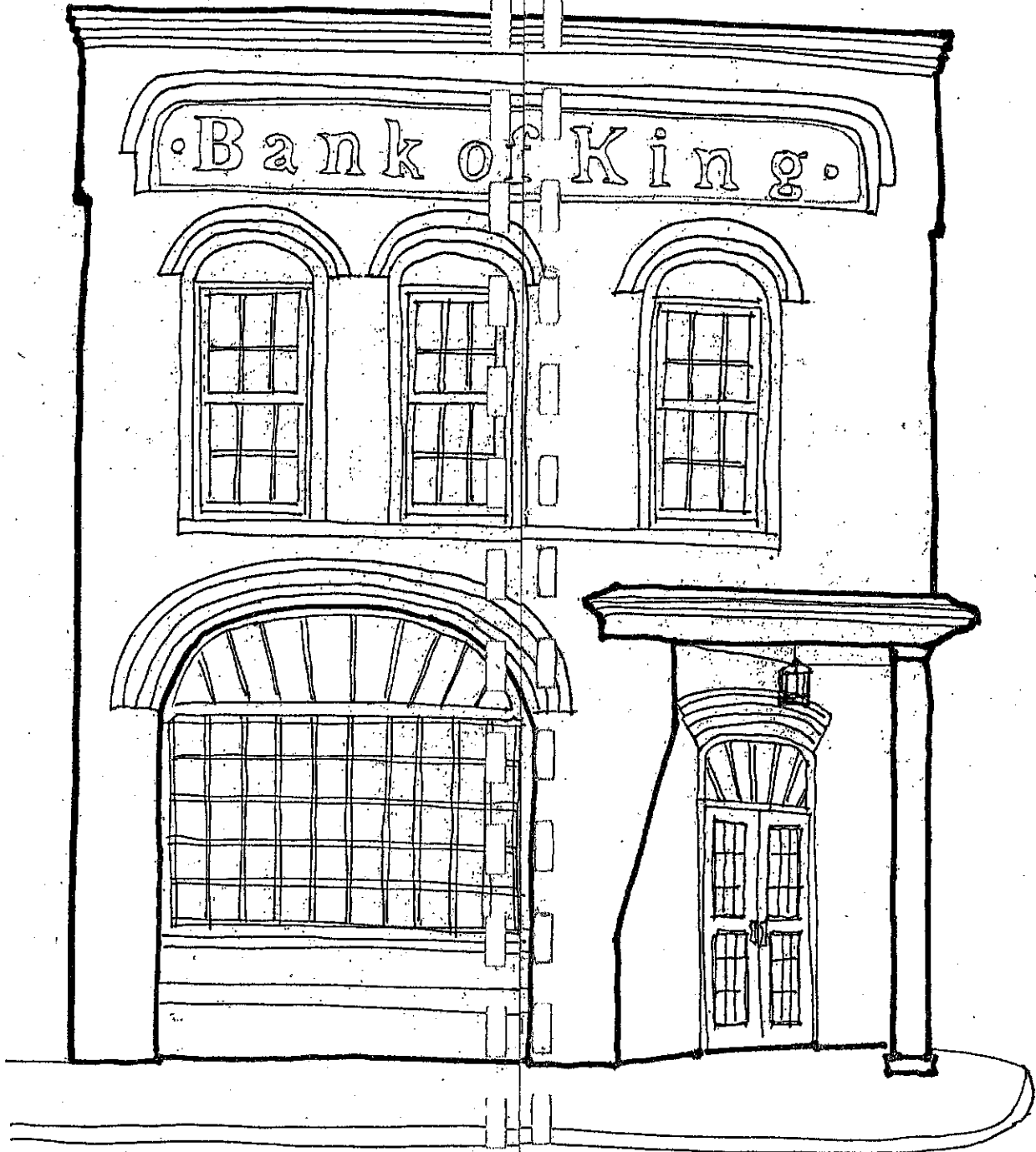
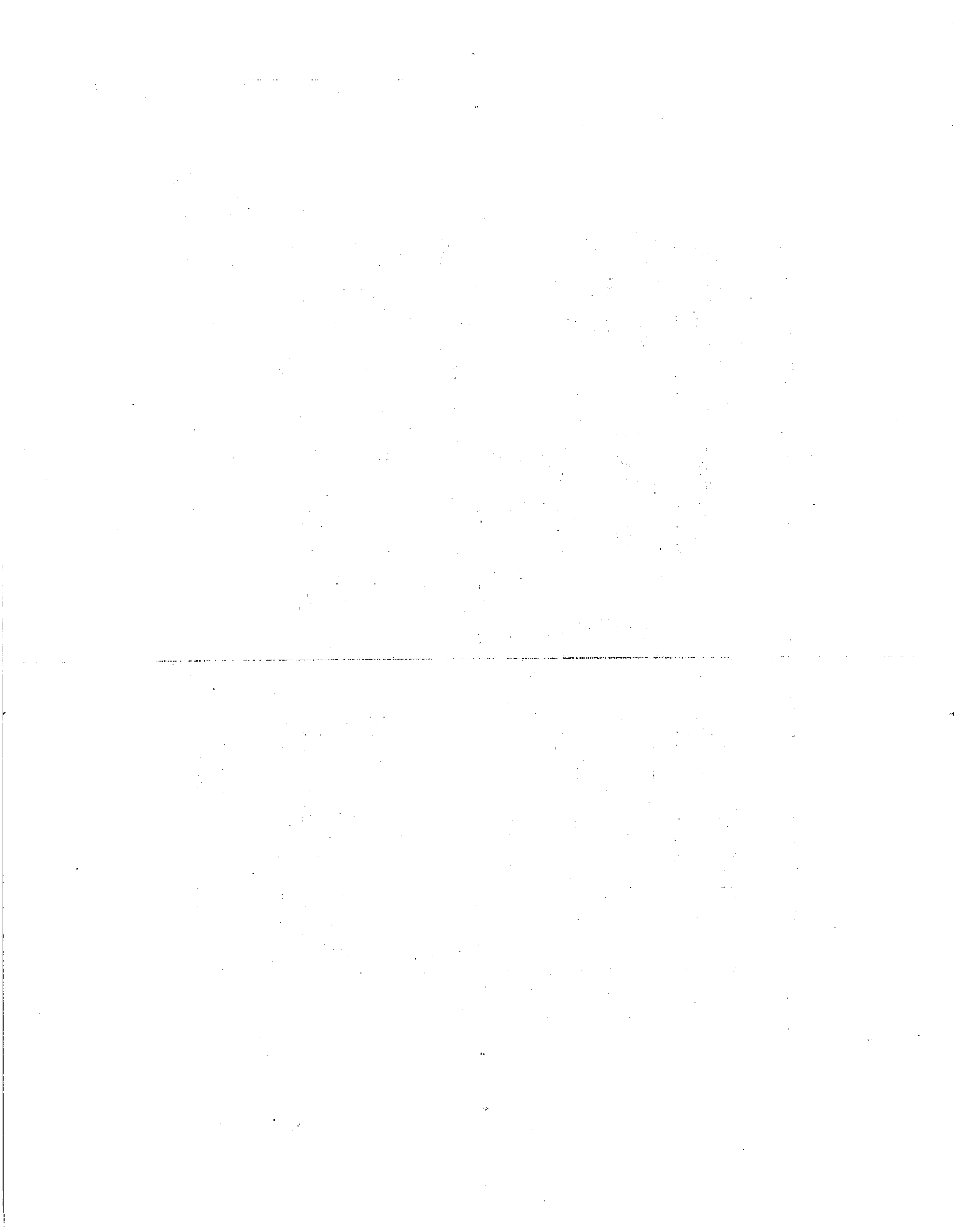


Facade Improvement Guide

City of King
North Carolina



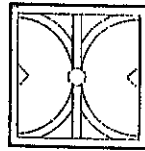
September 29, 1997



Facade Improvement Guide

for the

**City Of King,
North Carolina**



September 29, 1997

King Facade Guidelines
Sources of Further Assistance

**Architectural Antiques and
Building Materials:**

One Way
127 Bob Rierson St.
King, N.C. 27021
910-983-6790

Facade Guidelines

Project Consultant:

David E. Gall, A.I.A., Architect
938 West Fifth Street
Winston-Salem, N.C. 27101

Acknowledgements:

Thank you to Mr. Theodore L. Voorhees, City Manager and Ms. Anyce Donaldson of the King Chamber of Commerce for their assistance in the preparation of the "Sources of Further Assistance" list at the conclusion of this document.

Photographs in this document were provided by the project consultant.

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King Facade Guidelines
Sources of Further Assistance

Paint Color Matching Assistance:

Munsell Color Co.
Box 230
Newburgh, N.Y. 12551-0230
1-800-622-2384

Awnings:

Brinkley Mfg. Company
223 N. Main St.
Walnut Cove, N.C. 27050
910-581-3690

The Dize Company
1512 South Main Street
Winston-Salem, N.C. 27127
910-722-5181

Awning Depot
228 Forest Brook Drive
Winston-Salem, N.C. 27106
910-774-0747

High Point Awning and Canvas
(a Division of Dize Company)
1-800-642-0606

Sun Master
101 South Scientific Street
High Point, N.C. 27260
910-882-1313

Signs:

Carroll Signs and Advertising
Highway 66, North
P.O. Box 809
King, N.C. 27021
910-983-3415

Neon Sign Design and Repair:

Davis Sign Co.
208 Regent Drive
Winston-Salem, N.C. 27103
910-765-2990

Epoxy Consolidation:

Mr. Matt Flint
319 W. Horah St.
Salisbury, N.C. 28144
704-633-5419

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Introduction

The buildings that make up the City of King are important economic assets in the community. An important quality of any economic asset is that it appreciates in value for its owner. It is an investment. Therefore, in the case of the buildings in the City of King, ownership may be broadly seen as including not only the specific property owner, but also the entire community. In particular, the buildings in downtown King give the community a unique and specific identity and heritage (see Figure 1). This special quality is known as a *sense of place*.

To protect an investment and support its appreciation in value, a property owner takes care to keep it well maintained and in good repair. Lacking such care and attention, the investment can fall into disrepair and depreciate in value. While these Guidelines offer recommendations on specific and practical ways of maintaining buildings as valuable economic investments for property owners, they also support the community's investment in its tax base.



Figure 1. Attractive brick arches and detailing characterize this important landmark (Old Bank of King) at 102 East Dalton Road.

Door Hardware:

Antique Hardware Co.
RD #2, Box A, Route 611
Kitnersville, Pa. 18930
215-847-2447

Ball and Ball Co.
463 W. Lincoln Highway
Exton, Pa. 19341
1-800-257-3711

Custom Window Manufacturers:

Pella Window and Door Company
102 Main Street
Pella, Iowa 50219
1-800-849-8550 x207

Marvin Windows and Doors
Box 100
Warroad, Mn. 56763-9989
1-800-346-3363

Custom Glass Suppliers:

S.A. Bendheim Co.
122 Hudson St.
New York, N.Y. 10013
212-226-6370

Leaded Glass Fabricators:

Dodge Stained Glass
737 Rt. 82, Dept. TB
Hopewell Junction, N.Y. 12533
914-221-2096

Paint Products:

Stokes Paints and Wallcoverings
102 E. King St.
King, N.C. 27021
910-983-0920

Sherwin-Williams Company
Cleveland, Ohio 44101
1-800-321-8194

MAB Paints and Coatings
600 Reed Road
Broomall, Pa. 19008
1-800-MAB-1899

Metal Work (cont.)

Lawler Machine and Foundry Co.
Box 320069
Birmingham, Al. 35232
205-595-0596

Suppliers of Custom Woodwork:

Rowland Woodworking Inc.
111 East Market Center Drive
High Point, N.C. 27260
910-887-0700

Salisbury Lumber Co.
5 Railroad St.
Salisbury, N.C. 28144
704-636-5821

Goodman Lumber Co.
201 Lumber St.
Salisbury, N.C. 28144
704-633-2421

**Glass Fiber Reinforced
Concrete Castings**

Ball Consulting, Ltd.
338 Fourteenth St.
Suite 201
Ambridge, Pa. 15003
412-266-1502

AOI Waterproofing
649 Morgan Ave.
Brooklyn, N.Y. 11222
718-388-0900

Architectural Fiberglass Corp.
1395 Marconi Blvd.
Copiague, N.Y. 11726
1-800-439-2000

Architectural Products Mfg. Co.
7470 Greenbush Avenue
North Hollywood, Ca. 91605
818-982-2311

Architectural Reproductions
525 N. Tillamook St.
Portland, Or. 97227
503-284-8007

Aluminum Castings:

Alloy Castings Co.
3900 Peachtree Road
Mesquite, Texas 75180
1-800-527-1318

Promotion

Like economic development, the notion of "promotion" operates at both the level of an individual business as well as at the community level. By keeping a property in good repair and attractive, a business owner or landlord can make that property a more valuable commodity. As such, landlords can secure higher rent payments while business owners take advantage of more customer traffic. For the community, healthy and thriving commercial centers provide a solid basis for "marketing" the community as a stable and attractive place to expand an existing business, attract new businesses, and to raise a family. These Guidelines seek to offer a basis for continuing promotion of the City of King and especially its downtown area for both individual merchants as well as promoting the general welfare of the community.

Design

Like the organs of the human body, the components that go into the design of a building constitute a system that includes a skin, a structure, heating and cooling mechanisms, and protections against damage. In the human body, our immune system fights to keep out the common enemy of germs and viruses. In a building, the common enemy that seeks to cause deterioration of its systems is water. The broad thesis that runs through these Guidelines is a series of recommendations on how to keep the "common enemy," water, from damaging building systems.

It is very important to recognize that building systems exist in support of each other and not as separate entities. While the brick and mortar skin of a structure may be well built with strong bricks and well-laid mortar joints, if the openings in that wall, the doors and windows, are not properly installed with the correct type of flashing, then water can penetrate at the edges of openings and cause the well built brick wall to deteriorate.

Older buildings in the downtown area were constructed with building systems that were complete and unique to their time of construction. While contemporary building materials and techniques may be combined with each other in today's buildings, they are often not compatible with the systems used to construct their predecessors. In fact, mixing the two systems can cause harm to

King Facade Guidelines Introduction

the weaker of the two, usually the older system. These Guidelines offer recommendations on effective ways of maintaining and repairing older building systems. Many of the "good practices" noted in these Guidelines offer valuable advise for newer structures as well. By using correct repair methods and techniques, it can be more economical to maintain and repair an older structure to its original design, appearance, and system than imposing a contemporary repair that will not last as long or cause harm to other building components.

These Guidelines offer repair, rehabilitation, and maintenance recommendations that are guided by the Secretary of the Interior's Standards for Rehabilitation (copies of these standards can be obtained from the state historic preservation office, see sources of further assistance at the conclusion of these guidelines). They seek to use common sense, sensitivity, respect for older building systems, and good design to promote architectural character, help protect the value of investments, improve the quality of change, and to restore and enhance the visual quality of the City of King.

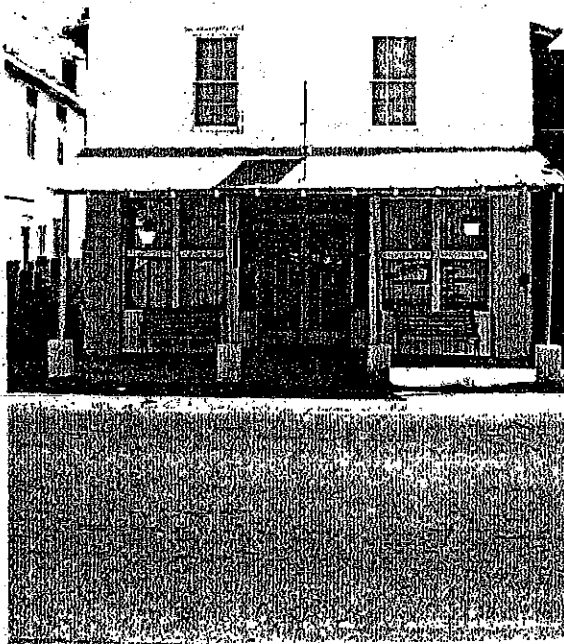


Figure 2. A simple storefront at 121 East Dalton Road made attractive with accessories: Potted flowers, benches, a flag, and window signage that can be easily read by pedestrians.

King Facade Guidelines Sources of Further Assistance

Mortar Suppliers:

Essroc Materials, Inc.
Hoskins Road
Charlotte, N.C. 28216
1-800-368-4902

Riverton Corporation
100 Riverton Road
Front Royal, Va. 22630
1-800-336-2490

Blue Circle Cement, Inc.
6060 Albans St., Suite 502
Charlotte, N.C. 28287
1-800-228-8246

Brick Masons with experience in Repointing Work:

Austin Construction Co.
Route 1, Box 110
Mt. Pleasant, N.C. 28124
704-436-9778

Stone Masons:

Steve Carroll Stone Masonry
Kiser Road
King, N.C. 27021
910-983-4171

Metal Work:

Davis Steel Co.
1035 Commercial Drive
Matthews, N.C. 28105
704-821-7676

Architectural Iron Co.
Box 126
Milford, Pa. 18337
717-296-7722

Historical Arts and Castings, Inc.
5580 West Bagley Park Road
West Jordan, Ut. 84088-5642
801-569-2400

Ramco Fabricators
Box 87
Colfax, N.C. 27235
910-668-2427

Swaim Ornamental Iron Works
2570 Landmark Drive
Winston-Salem, N.C. 27103
910-765-5271

Professional and Trade Groups (cont.)

Brick Institute of America
11490 Commerce Park Drive
Reston, Va. 22091
703-620-0010

National Glass Association
8200 Greensboro Drive, Suite 302
McLean, Va. 22102
703-442-4890

Local History Information:

King Public Library
101 Pilot View Drive
King, N.C. 27021
910-983-3868

General Contractors:

Triad Builders of King, Inc.
151 Jefferson Church Road
King, N.C. 27021
910-983-9400

Restoration Contractors:

One Way
127 Bob Rierson St.
King, N.C. 27021
910-983-6790

Custom Brick Masonry Suppliers:

Mr. Art Burkhardt
Old Carolina Brick Co.
Box 77
Salisbury, N.C. 28144
704-636-8850

David and Wyn Frame
New London Brick Co.
Box 257
Gold Hill, N.C. 28071
704-279-6901

Masonry Cleaning Chemicals:

Mr. Louis Boyd
ProSoCo, Inc.
Box 11330
Charlotte, N.C. 28220
704-552-7771



Figure 3. Leaded glass transom at 110 East Dalton Road. Original leaded glass transoms are sometimes concealed behind contemporary signage and can be restored.

Remember that all of the recommendations contained in these Guidelines should be considered in the broader context of local zoning and sign ordinances, the North Carolina Building Code, the Americans with Disabilities Act, and the health and safety regulations of government at all levels.

General

Maintenance, repair, and rehabilitation work is most effective when undertaken by trained professionals who are familiar with specific materials, labor techniques, and coordination of their work with other trades. Also, free advice is often available from professional groups who are familiar with work on older buildings. The following is a partial list of professional groups, craftsmen, contractors, and suppliers that are available to assist with work in the downtown area:

North Carolina State Government:

N.C. Department of Cultural Resources
State Historic Preservation Office
515 N. Blount St.
Raleigh, N.C. 27601
919-733-6547

United States Government:

Southern Regional Office
National Trust for Historic Preservation
456 King Street
Charleston, S.C. 29403
803-724-4711

U.S. Department of the Interior
National Park Service
Box 37127
Washington, D.C. 20013-7127
202-343-9578

Southeast Regional Office
National Park Service
75 Spring Street, S.W.
Atlanta, Ga. 30303
404-331-4998

Professional and Trade Groups:

Association for Preservation Technology
Box 8178
Fredericksburg, Va. 22404
703-373-1621

Historic Preservation Foundation of North Carolina
Box 27644
Raleigh, N.C. 27611-7644

Architectural Woodwork Institute
Box 1550
Centreville, Va. 22020-8550
703-222-1100

stitched into the awning fabric or surface applied using vinyl letters.

Painted wood signs are best designed with paint products and wood materials with the capability to resist weathering. Marine-grade plywood is a good base material if properly sealed and finished. Raised letters may be cut from redwood stock and painted. Pine may be appropriate for some applications provided that a high grade of wood is used.

Metal in the form of galvanized sheet steel or cast letters is an appropriate sign material. Appropriate primers and paint coatings must be applied to galvanized sheet goods as well as ferrous castings and their condition closely monitored for corrosion. Cast aluminum or bronze letters do not corrode but will require periodic refinishing.

Avoid using plastic base materials or castings for signs in the downtown area. They are historically inappropriate and do not enhance the architectural character of the area.

All signs should be properly secured to the structural frame or walls of a building. Non-corrosive stainless steel fasteners are encouraged to avoid rust "streaking" caused by ferrous steel fasteners. Inspect signs periodically to verify their condition and attachment and make needed repairs immediately to keep signs in good condition and fulfilling their role in attracting customers.

How To Use These Guidelines

The Guidelines are indexed into three major categories:

Storefronts and Facades: a guide to the basic parts in the design of a storefront and facade.

Materials: an in-depth look at common exterior materials and how they can be properly repaired and maintained.

Facade Enhancements: an examination of elements such as awnings, paint application, signs, display window design, and color that are important compositional or aesthetic features in storefronts and facades.

Where do I begin? Consider the particular question that has prompted an examination of these Guidelines. A particular repair or maintenance problem can begin with the "Materials" section. Looking for suggestions on how to handle design and locate a new sign or plan a paint color scheme? See "Facade Enhancements." Searching for more general information on how to restore a "modernized" storefront? Begin with "Storefronts and Facades."

Remember that all of the parts of a facade and storefront work together as a system to create a final design. While specific questions can be answered by searching only parts of these Guidelines, the overall success of a rehabilitation, repair, or new construction project is best undertaken with an examination of the full scope of recommendations in these Guidelines.

If your question is not answered by the main body of text in these Guidelines, check the "Sources of Further Assistance" at the end. There are numerous other sources of valuable information and advice, often provided free-of-charge, that can assist in the development of a project.

Storefronts and Facades

General Characteristics

Storefronts and facades in the downtown area follow a consistent design common to many late nineteenth and early twentieth century commercial buildings. The design includes a grade level storefront marked by large display windows and a recessed entry. The storefront often had a protective awning immediately above the display windows. The awning frequently protected a glazed transom running the full width of the first floor at the ceiling line. An example of this type of glazed transom consisting of leaded glass panels can be found at 110 East Dalton Road (see Figure 3).

The traditional facade is capped by a decorative cornice, usually of sheet metal or decorative masonry, spanning the full width of the facade. The structure usually has a flat roof that was concealed behind the upper cornice by a raised wall called a parapet.

There are various architectural features and design techniques that many traditional storefronts share (see Figure 4) including: a special scale and proportion characterized by facade height and width as well as common construction materials. The type, location, and design of doors and windows are also common among many traditional facades.

Scale

Scale is the relative size of one object when compared to another or when compared to the human body. Traditional storefronts are characterized by a facade of significant size at the street front (often made purposely taller with an extended parapet), creating a special "presence" along the public street (see Figure 5 and 6). Rear facades are usually of a significantly smaller scale, reflecting their secondary location. Detail elements, such as windows, doors, awnings, and trim at the street facade are used to reduce its scale.

Text Style and Content

Letter styles for signs may be distinguished into three varieties:

- This style is called "serif" because each letter retains a distinctive "tail" or articulation on each line stroke.
- This style is called "san-serif" because it lacks the small articulations on the ends of each line stroke.
- This style is called "italicized" and resembles hand written script.

Signs on pre-1930 commercial structures generally used a "serif" letter style in all capital letters or a mixture of lower case and capitals. The letters were either painted directly onto a sign surface or cut from wood or metal into specific letter shapes and applied individually to wall surfaces.

The sign "content" can be considered to include the general appearance of the sign as well as its text, graphics, and logos. All of the latter aspects fall under the heading of "nomenclature." It is helpful to coordinate sign nomenclature so that any special graphics or logos on the sign face work in harmony with text style, color, etc. For example, contemporary graphic devices representative of a franchised "chain" establishment may be inappropriate with a text style from a previous era. It is important to work with a sign designer and fabricator familiar with historic facades and to obtain the assistance of qualified design advice from professionals in developing a good sign design.

Construction Materials

While painted wood and sheet metal signs predominate on older commercial structures, other materials may also be used, especially if an old photograph can be used as documentation. Painted masonry walls were also often used and can be reapplied provided that the condition of the masonry is verified and any needed repointing completed (see Masonry section of these Guidelines). Signs on glazed surfaces may be done using etched glass or surface applied letters usually applied on the interior side of the glass. Awning signs may be



Figure 26. Note banners marking store entrances. Original leaded glass transoms, storefront display windows and doors have been preserved. Signage is well positioned and designed in keeping with the building's historic character.
 Figure 1: Metal awning with attractive fabric skirt at south side of 142 South Main Street.

Color

Coordinate the color of your sign with the overall color scheme of your facade. The use of colored letters and graphics that contrast with their background is effective but should not "clash" with other colors used as trim accents or on awnings. See the "Color" section of these Guidelines for more information on how to select colors.

Lighting

Signs on older structures were either unlighted or illuminated by incandescent fixtures that cast light directly onto the sign surface. Do not use internally lit plastic signs or self-illuminated letters. Avoid fluorescent or other contemporary lamp types for direct-illuminated signs. Stick with incandescent bulbs, they provide good color rendition. Bulbs should be shielded with protective covers so that lamps are not directly visible.

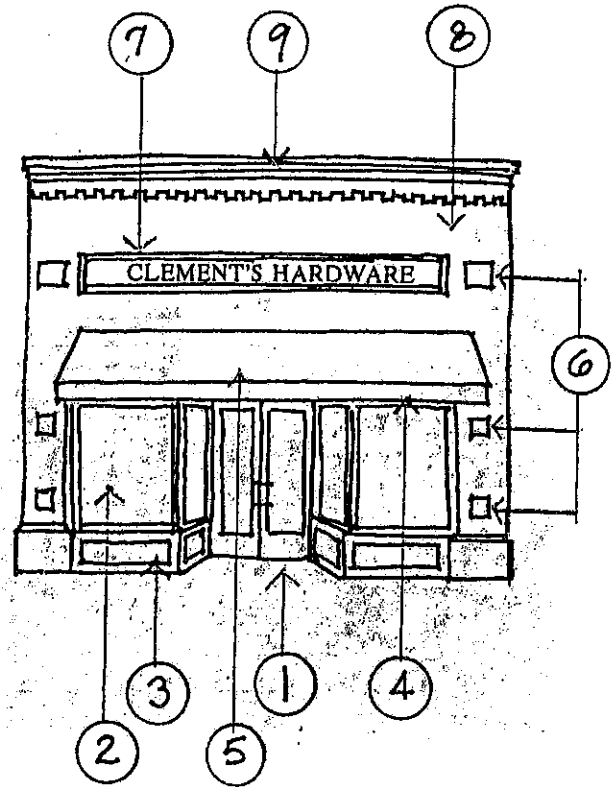


Figure 4. Typical elements of a one story storefront facade:

- 1 Recessed entrance
- 2 Display windows
- 3 Kickplates
- 4 Canvas awning
- 5 Transom windows (concealed by awning)
- 6 Decorative masonry work
- 7 Sign located in masonry inset
- 8 Masonry wall
- 9 Decorative cornice

Proportion

Proportion is the relationship of the size of one part to the whole and in traditional storefront facades is characterized by a harmony among all of the parts. Some examples of characteristics of well proportioned facades include the relative size of windows and other openings to wall area, the relationship of the height of an awning to the height of the opening that it covers, or the width of a masonry pier compared to its height.



Figure 5. Front wall of 121 East Dalton Road is raised above the roof line, presenting a more imposing urban facade to the street.

Height and Width

Facade height and width vary from store to store. Facade heights are one or two stories. Facades are generally "one store wide" and immediately adjoin each other creating a continuous wall along the street front, particularly at East Dalton Road (see Figure 6) and on South Main Street between Dalton Road and the train tracks.

Materials

Masonry is the most common facade material in the downtown area and is often decorated with special brick detailing in the form of window arches, trim, belt courses, or parapets. Wood windows are predominant.

Shape

The design of the shape of a sign should follow the general guidelines noted above for sign size; allow the sign shape to work within the architectural context of a storefront rather than impose an unusual or inappropriate shape. Generally, the below-cornice, above-awning signs are rectangular but may be articulated with cut-out corners, edge banding, or other treatments. In this way, the sign continues to fit its location but can be cleverly designed to be unique and attractive (see Figure 26).



Figure 25. Clever signage at rear of 142 South Main Street integrating lighting and graphics on a familiar marker.

King Facade Guidelines Facade Enhancements

very top of a facade. Signs best communicate their message to potential customers at the street level.



Figure 24. Note signage on awning face and large "boot" graphic. Sign text can be easily read by pedestrians and boot is visible from several blocks away. The boot is an eye catching reminder of the merchandise sold at this store.

Size

The size of a sign should be cued to its surroundings and supportive of the architectural character of a facade. For example, there is often a well defined area bordered with brick or wood trim near the first floor cornice that is intended as a sign location. Usually this occurs below the cornice and above the top edge of the awning. This wall area may be subdivided into smaller areas and the sign should respect the number of these bays or paneled areas rather than overwhelm or span over the dividers. As noted in the previous paragraph, the sign should be designed to communicate to pedestrians and motorists at street level and therefore does not need to be overly large (see Figure 25). The size of a sign should fit the proportions of the overall building and the wall area in which it is located.

King Facade Guidelines Storefronts and Facades



Figure 6. Adjoining storefronts create a continuous "wall" along the edge of Dalton Road.

Doors

Original entrance doors in the downtown area were made of wood with large panes of glass. Single doors were often oversized in large openings or there were small paired doors. In either case, the entrance was designed as a visually significant and large element and its size was often increased through the use of a glazed transom. Doors were often set back from the edge of the facade in deep recesses, further accentuating their location.

Windows

Storefront windows were generally very large sheets of clear plate glass set into narrow wood frames. The deep entry recesses allow the amount of glass area to be increased from the sidewalk to the entry door. Both the size and length of storefront glass support a large area for display cases. The bottom of the storefront glass is often raised to the level of the floor of the display case with a wood paneled area called a "kickplate" below. Where they occur, upper story windows are generally operable double

King Facade Guidelines Storefronts and Facades

hung wood windows with clear glass. The opening may or may not have decorative treatment such as an arched head. The glazing in the window sash is sometimes reduced in scale through the use of small wood frame pieces called muntins.



Figure 7. Contemporary cedar shake canopy is an inappropriate addition to this older building. Recessed panels in brick work as sign locations were overlooked. Original storefront glazing, kickplates, and doors have been removed.

King Facade Guidelines Facade Enhancements

Applying paint to surfaces that are wet and/or dirty.

Signs

While this section deals primarily with signs that identify a particular business, it is valuable to note that other features of a storefront communicate much to potential customers in the way of "advertising." For example, a well designed and well kept storefront may be seen as an advertisement in itself, drawing new customers by simply appearing as a safe and attractive place to do business. Moreover, a good storefront appearance is an asset to neighboring businesses, helping to stabilize and further appreciate property values.

Signs that identify a particular store or product should be designed as an integral part of the architectural character of a facade. Important aspects of the design of signage include: sign location, size, shape, color, lighting, text style and content, and construction materials. Signs must be securely anchored to a building facade and building owners should thoroughly investigate the requirements of the North Carolina Building Code and the City of King's Sign Ordinance before proceeding with any sign project.

Signs are an important historic and architectural feature on older commercial structures. Check old photographs for the location and character of signs that may have been used at an earlier date on a particular structure.

Sign Design and Installation

Location

Locate signs to accentuate rather than detract from the architectural features of a storefront.

Signs on older structures are most typically located under the low cornice immediately at the top of the first floor storefront or in recessed panels in brick walls (see Figure 9). Other traditional locations include: lettering on doors, windows or transoms, bracket mounted signs hanging perpendicular to the building wall over the sidewalk, and on awning surfaces (see Figure 24). New signs should align with the bays or rhythms of a facade. Avoid locating large signs at the

manufacturer's instructions related to application and compatibility.

Select and apply the correct undercoat primer. Do not confuse paint primers with finish (top) coat paints, each is chemically composed to do a specific job; primers have more "binder" components that help them to adhere to base surfaces and create a strong surface to receive the topcoats. The topcoats have more "pigment" and less "binder" and should not be used on bare, unprimed surfaces. As a rule, apply primers to surfaces within 48 hours after preparation and only if they are dry. Do not paint in direct sunlight and schedule painting after the morning dew has dried and stop painting two hours before sunset. Paint only when air temperatures are between 50° F. and 90° F. Oil based paints can be more successfully applied in colder weather but require more drying time. Always use recommended pre-treatments, primers, and topcoats from the same manufacturer.

Apply new caulking and glazing putty. Do not skimp on the quality of caulk and putty. A good silicone caulk can last as long or longer than an application of paint. Apply caulking where moisture is likely to enter between two surfaces, especially surfaces of two different materials, however, avoid caulking the underside of surfaces or bottoms of walls where trapped moisture can "weep" out of a cavity.

Use qualified painters with experience in similar types of projects and high quality paint materials. Good preparation and proper application of pre-treatments, primers, and top coats will last longer and make your time and financial investment worthwhile. Also, do not believe that you will save money by using "cheap" paint. Less costly paints are manufactured with fewer resins and other constituents and will not last as long as well manufactured products.

Practices to Avoid

Applying paint to surfaces that are already deteriorated or have not been adequately prepared for painting.

Use of sandblasting or power washing at pressures greater than 600 psi. Power washing should never be undertaken by inexperienced personnel.

Masonry

Structures that have been maintained in good condition by focusing periodic care and attention to the watertightness of their mortar joints and by maintaining the brick surface in an undamaged state can remain watertight for many years. The brick and mortar work together as a system with each component dependent on certain characteristics of the other to maintain watertightness.

Brick masonry walls of older structures were commonly laid using a lime-based mortar. More recent structures have brick walls laid in a Portland cement based mortar. It is important to recognize and distinguish these different types of mortar and repair or patch walls using new mortar that matches the original building mortar. Lime-based mortars are typically softer than the very hard Portland cement mortars used today. A lime-based mortar can be easily gouged with a pocket knife and a small piece will dissolve when placed in an acid solution. Portland cement mortars are difficult to score with a pocket knife and will not dissolve in acid.

Mortar Joints Lime based mortars allow brick walls to adjust to minor structural settlement as well as to thermal stresses caused by daytime heating and nighttime cooling. They also vapor permeable, that is, they allow internal water vapor to "breathe" through the wall and escape to the exterior.

While the older mortar allows for natural structural movement and vapor transmission, by virtue of its softness it does tend to breakdown through weathering more rapidly than hard mortars and must be periodically replaced through a process known as repointing. In this process, the older worn mortar is removed from the joints by hand and is replaced with new lime-based mortar that matches the chemical composition of the old mortar. In this way, the "brick-mortar system" can continue to function as it was originally installed and keep the building watertight.

The process of finishing a wet mortar joint is called "tooling." It is an aptly named process because the mason will use a different tool to press the exposed edge of the mortar as the wall is erected resulting in joints with different profiles (see Figure 8). Pressing

the wet mortar with a tool helps to compact it in the joint and makes the wall more watertight. When repairing old masonry walls or constructing new masonry work in an older building, be sure to match the type of "tooling" used on the old joints.

Old mortar may also be of a color that differs from the "average" gray mortar. This was usually accomplished by adding sand, clay, or even soot of a certain color as a basic ingredient in the original mortar mix.

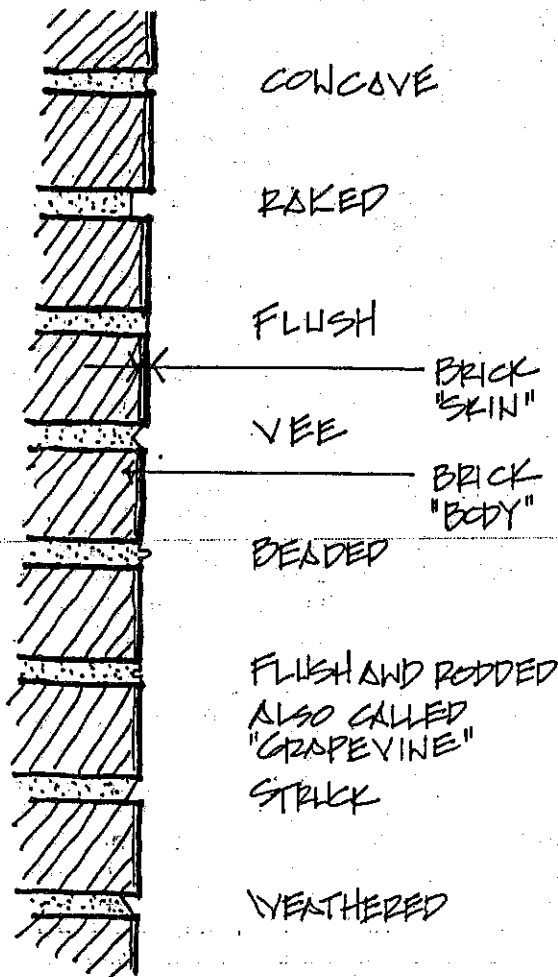


Figure 8. Drawing illustrating various types of "tooled" masonry mortar joints and location of brick "skin" and brick "body".

Brick

Brick Like their "system" mortar counterpart, the brick used in older structures in the downtown area is of a somewhat different composition than contemporary masonry.

preparation time but should be carefully undertaken to prevent damage to the base surface to be painted; 1) putty knives and hand scrapers are good for small areas of loose paint, 2) hand sanding allows for fine feathering of edges, 3) power sanding (with orbital sanders) can be useful if carefully undertaken (wood grain can be damaged by improper sanding), 4) chemical strippers can be cost effective for removing large areas of paint but should only be used as recommended by their manufacturer, and 5) heat tools are useful on large flat surfaces, however be aware that heat build-up can ignite fires or cause smoldering inside of walls that could ignite hours later. Use heat generating tools only on solid wood items such as moldings and trim. Old surfaces are often painted with lead-based paints. Take care to wear proper protective gear when doing paint removal and dispose of paint residue in accordance with local requirements. Power washing is often an inviting method of removing old paint but should be avoided because it can be harmful to base surfaces. The high pressure of a power wash can be as abrasive as sand blasting and force water behind exterior surfaces, trapping moisture in wall cavities or behind moldings. Power washing should only be undertaken by trained personnel using hoses with variable pressure nozzles. Use as low a pressure as will complete the job and always power wash from the top down from ladders or scaffolds to avoid forcing water under finished surfaces.

Perform proper pre-treatment work. Wood, for example, may need further sanding or coating with a preservative. A water repellent fungicide treatment should be considered in areas of high moisture content. Apply all pre-treatments in accordance with manufacturer's recommendations.

Investigate whether an oil based (alkyd) paint or a water based (latex) paint will best suit the surface to be painted. Oil based paints will seep into surfaces and adhere for a longer period of time but will eventually become brittle. Latex paints allow water vapor to pass through and are useful on walls with excessive interior moisture. If latex paint must be applied over old oil-based paint, first apply a flat oil based primer and allow to dry thoroughly. If the existing paint finish is latex, either oil based or new latex paint may be applied as a new finish coat. Always follow the paint

specific surfaces are addressed in each "Materials" Section of these Guidelines.

Surface Preparation and Application of Paint

Good Practices

Look for interior and exterior conditions that may cause paint failure. Water damage is the single largest cause of paint failure. Leaking gutters, downspouts, roofs, and parapets can often allow water to penetrate behind a wall or molding and cause paint failure. Trim plants that grow too close to a wall, their limbs and leaves can hold moisture and damage painted surfaces. Be sure there is adequate drainage away from the base of walls to prevent moisture from traveling upward (wicking). Water can sometimes travel through a wall surface as vapor and cause paint deterioration. Look for interior sources of water vapor such as areas with high humidity and take steps to reduce or eliminate vapor transmission through the use of a plastic vapor retarder fabric in walls or by adding an exhaust fan that is ducted to the exterior (not into an attic).

Prepare surfaces to receive paint. Paint will not stick to a dirty surface. Your paint project will last longer if you wash surfaces to be painted before beginning your work. Washing can involve several steps, depending on the level of dirt build-up; spray from a garden hose will knock down loose paint, grime and grease are best removed using hot water with household detergent and a stiff brush. Mildew (small, individual "spots" of fungus that look like dirt) is a sign of the continuing presence of water on a wall surface and should be removed using a dilute solution of water and household bleach. Look to eliminating the interior source of water to deter mildew. Always wash from the bottom up and rinse the area immediately after washing. Do not proceed with painting until the surface has dried.

Remove old and failing paint using the gentlest means possible. You can determine if old paint has lost its grip by attaching a piece of adhesive tape and ripping it off. If paint comes off with the tape, the old paint has lost its adhesion and needs to be replaced. Remove all loose paint and old putty and caulking. Using the correct tool or method for paint removal can shorten

The older bricks have a characteristically hard kiln-fired exterior surface or "skin" that maintains their watertightness. The internal portion of the older brick (known as "the body" of the brick) is strong enough to carry the floor and roof loads of the structure but was not exposed to the full heat of the brick kiln and is therefore softer. So, it is very important to keep intact and maintain the skin of these older brick so that water cannot gain access to the brick body and cause deterioration through freezing and thawing.

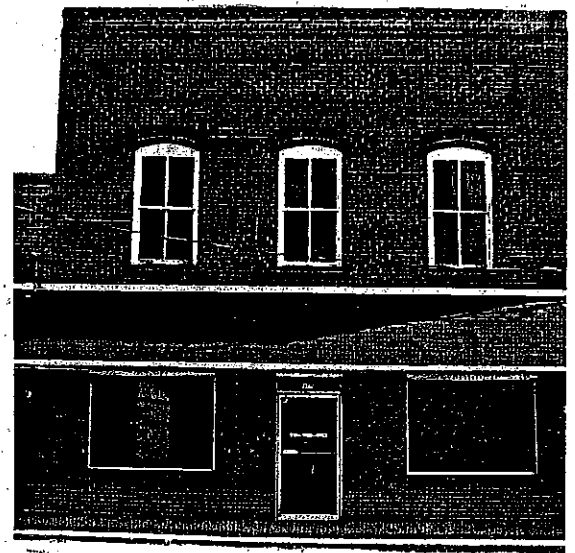


Figure 9. 109 East Dalton Road. Note recessed panel in brickwork for signage above second floor windows and attractive brick banding at parapet and arched windows with double brick sills.

There are several ways in which the brick skin and brick body can be damaged, all having to do with the "common enemy" mentioned earlier in these Guidelines - water. One of the most common forms of damage is to clean the exterior of the brick with an abrasive method that wears away

the skin such as sandblasting, chemical treatments or high pressure water washing. Others include the failure of flashing materials at the roof or at openings that allow water to penetrate to the interior of the wall or a failure to provide adequate positive drainage away from the wall at ground level that allows moisture to soak into the wall and travel upwards through a process known as "rising damp."

Modifications to buildings which require patching of brick walls should be avoided, however, when a new opening is required, old brick should be carefully salvaged during demolition work and used with a lime-based mortar to do patch work. Be careful to orient the reinstalled salvaged brick so that the hard fired skin faces the exterior.

Maintenance and Repair

Good Practices

□ Most masonry buildings "wear their age" very well and do not require cleaning. If the masonry must be cleaned, use the gentlest means possible. This can usually be accomplished by using water, a mild detergent solution, and a bristle brush (do not use a wire brush). Remove bird droppings that are very acidic and can damage brick ledges

If stronger methods are needed to combat a stain or graffiti, contact a qualified professional who can visit your building and recommend a mild chemical cleaner that is compatible with both the brick and the stain to be removed. Do a test patch of chemical cleaning in an unobtrusive location and allow it to weather for a period of time before committing to cleaning a prominent location. This will give you an opportunity to observe the chemical's effectiveness and determine whether it has damaged the skin. Protect non-masonry surfaces such as wood, glass, and metal during any chemical cleaning process. Steam cleaning can be an effective way of removing dirt and stains but should only be performed by a qualified professional. Cleaning operations often involve disruptions to public streets and sidewalks due to ladders, scaffolding, dust/dirt accumulation, etc. Be sure to notify the General Services Department of the City of King (see "Sources of Further Assistance"

Installation and Maintenance

Good practices

Use awnings that are appropriate to the age and character of your facade. Awnings should be well proportioned and of appropriate color and shape, and should be used to enhance architectural details rather than cover them.

Use awning colors and graphics to enhance your storefront color scheme and as a medium to advertise your business. Facades having many architectural details are enhanced by awnings of simple design and muted colors. Plain buildings are improved by unusually shaped awnings with bright colors, trim, stripes, or graphics.

Maintain awnings with twice yearly cleaning and make immediate repairs to any tears. Neglect of repair work can increase damage and soiling. Attach awnings to facades with non-corrosive (non-rusting) metal anchors and frames. A well kept awning is a positive attraction to customers.

Check N.C. Building Code, insurance company requirements, and the City of King's sign ordinance before proceeding with any awning project.

Practices to Avoid

Poorly designed awnings that do not fit an opening properly, have inappropriate colors, or advertising graphics. Also, back-lighted awnings are inappropriate for pre-1930's structures and should not be used.

Neglect of needed repairs.

Paint

Most old and new buildings share one common design element - painted surfaces. While paint is sometimes regarded purely for its aesthetic value in providing color (see Color section of these Guidelines), it is also the first line of defense in protecting surfaces against the ravages of sunlight, water, and mildew. A surface that is correctly prepared for painting, is protected from interior water vapor, and is periodically repainted will last indefinitely. This Section of the Guidelines deals with general recommendations for all painting work. Recommendations related to painting of

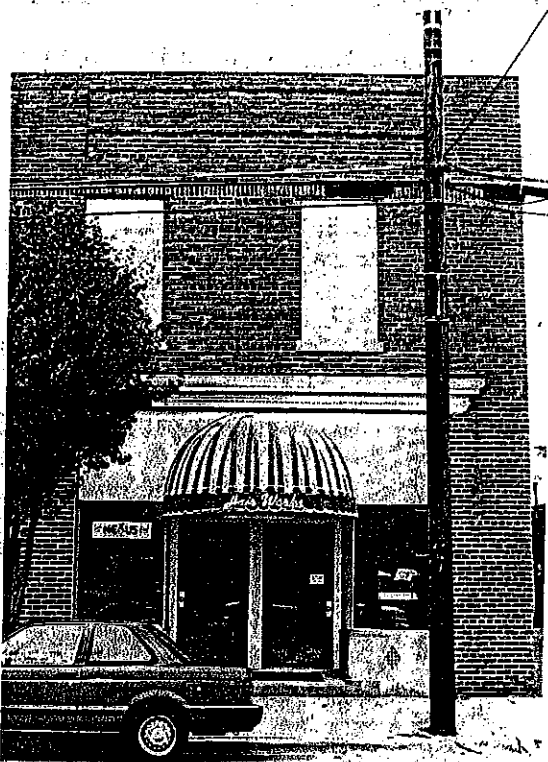


Figure 22. Round awning shape at this store is inappropriate for the rectangular transom opening and necessitated covering or destroying original transom glazing.



Figure 23. Attractive awnings follow the profile and edges of the openings they cover. Note business identification and street address on awning fringe.

in these Guidelines) before proceeding with any cleaning operations.

□ Obtain the services of a qualified mason to perform any needed repointing work. Check the mason's references and visit other repointing projects that he/she has completed. Does his/her work look compatible with other older work? Is the work watertight? Ask the mason questions based on the information contained in these Guidelines and be sure that an appropriate mortar that matches the composition of your building's original mortar is used. Any repointing work should also match the color, texture, and tooling of your original mortar joints. Repointing work should be accomplished using hand techniques and without the use of power tools or saws that can gouge joints or damage brick faces.

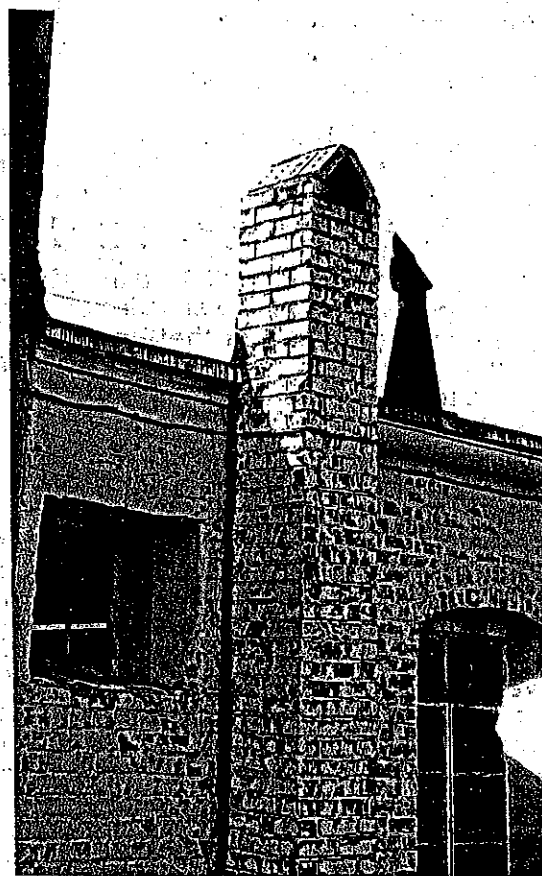


Figure 10. Brick chimney cover and arched window at rear of 116 South Main Street.

King Facade Guidelines

Materials

□ Take care to repair any flashings or gutters and downspouts that may be damaged or otherwise leak water as a part of any masonry repair project. New flashings should match original flashing materials (see Metals section of these Guidelines) and be integrated into mortar joints (see Figure 14).

□ Check the elevation of ground level around the base of your building to assure that drainage flows away from the building wall.

Practices to Avoid

□ Cleaning by means of sandblasting, high pressure (force greater than 600 pounds per square inch) water, or inappropriate chemical cleaners.

□ Cleaning with water or steam in the winter when moisture in the wall would not have a chance to dry before freezing/thawing takes place.

□ Painting of brick surfaces. The paint film can serve as a barrier to vapor transmission and contribute to trapping moisture in a wall system. If a surface is already painted it is best to maintain the paint instead of any cleaning process that might damage the skin. Check with your local paint supplier and obtain a primer/paint that can breathe and allow water vapor to migrate out of the wall system. Refer to the "Paint" section of these Guidelines for further information.

□ Covering brick surfaces with synthetic stucco materials such as insulation board with a thin coat of stucco and mesh as a wearing surface (see Figure 11). Although these systems can provide an increase in insulative ("R") value, they can be very damaging to older masonry buildings in several respects: they obscure old details that give the buildings their architectural character, they can trap moisture in wall systems that can contribute to ongoing deterioration, and they cover the wall so that deterioration processes become invisible. These systems are not maintenance-free as they require periodic renewal of sealants where insulative panels join each other. If the sealants are not renewed, water can get behind the system and cause deterioration to the system or wall.

King Facade Guidelines

Facade Enhancements

awning should follow the profile of the top of the opening that it covers, i.e., use square edge awnings at rectangular openings and round topped awnings in arched windows (see Figure 22).

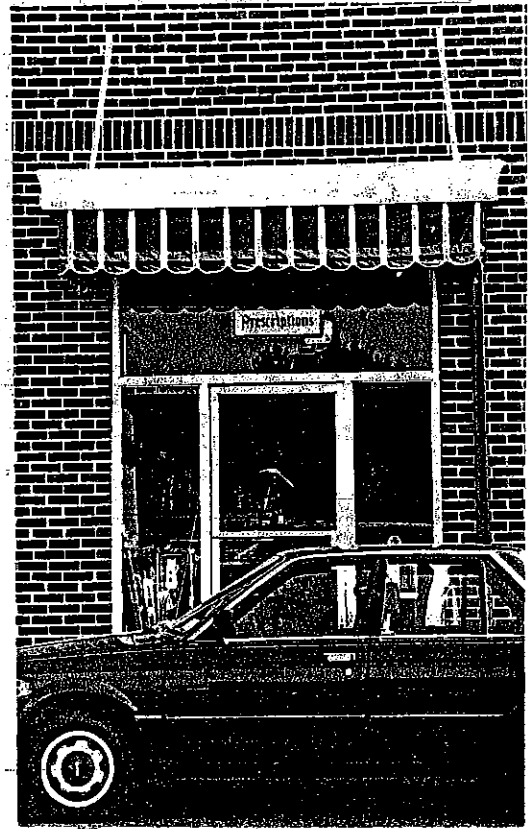


Figure 21. Metal awning with attractive fabric skirt at south side of 142 South Main Street.

Awnings may be used as surfaces for advertising through text, color, and/or logos (see Figure 23). Use care in selecting awning colors that complement building colors and logos and text in appropriate styles and sizes (see Signs section of these guidelines).

The lifespan of an awning can vary widely but is generally 5-12 years. Longevity can be increased with proper initial installation and periodic maintenance. Fabric should be tied taught to frames and surfaces should be washed twice yearly with mild detergent and water. Retract folding awnings during high winds.

King Facade Guidelines Facade Enhancements

Consider background and foreground materials to provide attractive "settings" for merchandise.

Practices to avoid

Avoid cluttered and ill-maintained window displays. Remove old and outdated merchandise that may be faded or is gathering dust.

Avoid bare light bulbs or fixtures that shine into the customer's vision.

Avoid inharmonious display arrangements with oversized, hand written signage and foreground/background colors that are loud or awkwardly combined with the display merchandise.

Awnings

Awnings are an attractive and practical facade improvement (see Figure 21). The color of an awning can be used to complement the overall color scheme of a building and the awning's shape and size can enhance a good sense of proportion in the facade. From a practical standpoint, awnings can provide protection to pedestrians from the elements and shade glass surfaces from sunlight thereby saving energy costs for cooling. Conversely, retractable awnings can be folded to allow sunlight to enter in the winter, saving heating costs.

Awnings can be fabricated in a wide variety of sizes, shapes, and colors and with different types of fabric. Canvas awnings are most appropriate for pre-1930 facades while newer fabrics such as polyester or acrylic are often found on contemporary (post-1950) structures. Fabric treatments are available to make awnings fade and flame resistant. Some awning manufacturers now fabricate awnings with smaller pieces of fabric attached individually to frames, making fabric replacement easier and less costly. Old photographs of a building can be helpful in determining the design and type of original awnings.

The design of an awning should complement the architectural features of older buildings rather than cover them. For contemporary structures, an awning can become a significant architectural feature, enhancing an otherwise plain facade. The shape of a

King Facade Guidelines Materials

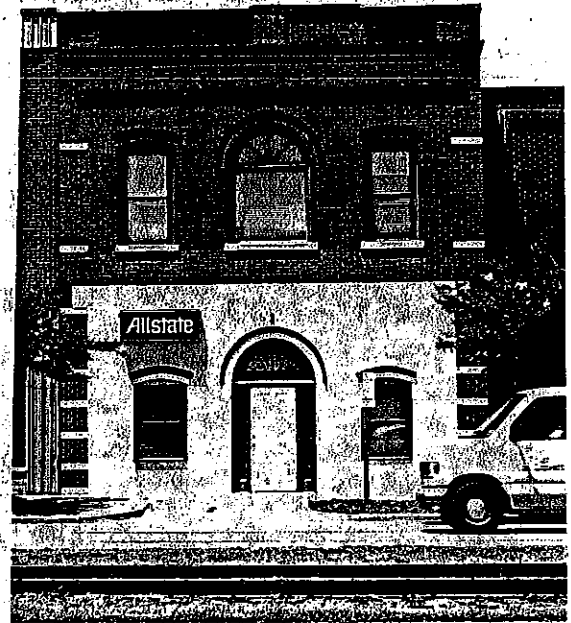


Figure 11. Inappropriate use of "stucco" to cover original storefront opening and brickwork. Note flashing is detached at roof parapet just right of center providing an avenue for water penetration.

□ Use of hard contemporary mortars for repointing or patch work. These mortars will concentrate structural stresses in the older bricks around the mortar joints and create pressures that cause bricks to crack or lose their skin (see Figure 12). A complete repointing job using hard, less permeable, contemporary mortar on a particular facade will tend to force water vapor to travel through the brick body to escape and thereby increase the likelihood that the older brick will be damaged by freezing/thawing.

□ Use of contemporary brick for patching. If new bricks are needed to complete a patch job, contact a brick supplier who can custom-fire a batch of new brick to match the exact size, shape, color, and texture of your original brick. See Sources of Further Assistance section at the end of these Guidelines for names and addresses of custom brick makers.

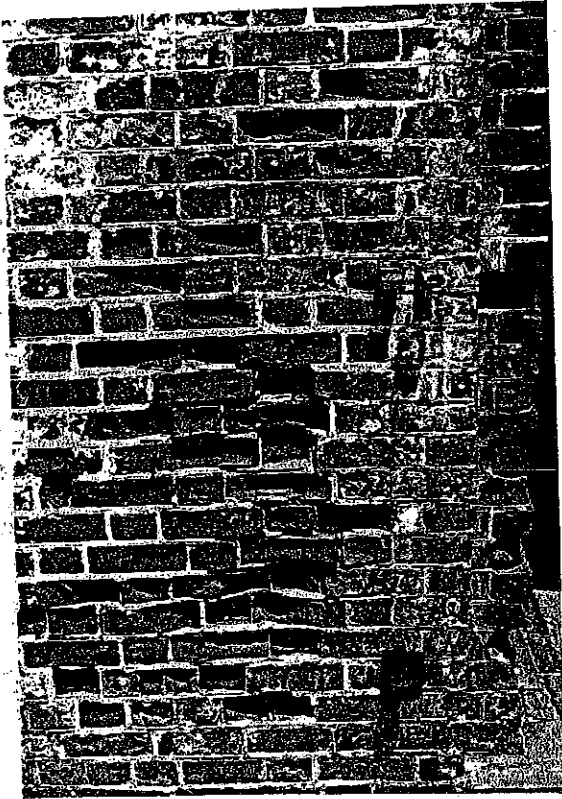


Figure 12. Original brickwork in this wall has been destroyed by improper repointing with hard contemporary mortar accelerated by weathering.

Wood

Because it is susceptible to rotting if kept moist for long periods of time, it is very important to protect wood against weathering. Moreover, damp wood is a haven for insects, especially termites. The most common way to protect wood is by priming and painting it. Wood that is in a location in heavy contact with water, such as a window sill, can be further protect by sloping any flat surfaces so that water will run off.

Because wood is used to provide important details in the older buildings in downtown, (see Figure 13) every effort should be made to preserve wood surfaces.

Carefully observe areas where water may penetrate wood surfaces such as joints between two pieces, where wood adjoins other surfaces, where it may be in contact

g) backdrops: the wall surface behind the display forms the background over which your displays are seen. Consider neutral backgrounds that do not detract from the individual item of merchandise. Alternatively, the background can be a part of the "theme" of the display. Take care to light backgrounds so as not to detract from the foreground merchandise.

Good Practices

Create and maintain eye-catching, neat, and attractive window displays as a customer marketing tool (see Figure 20).

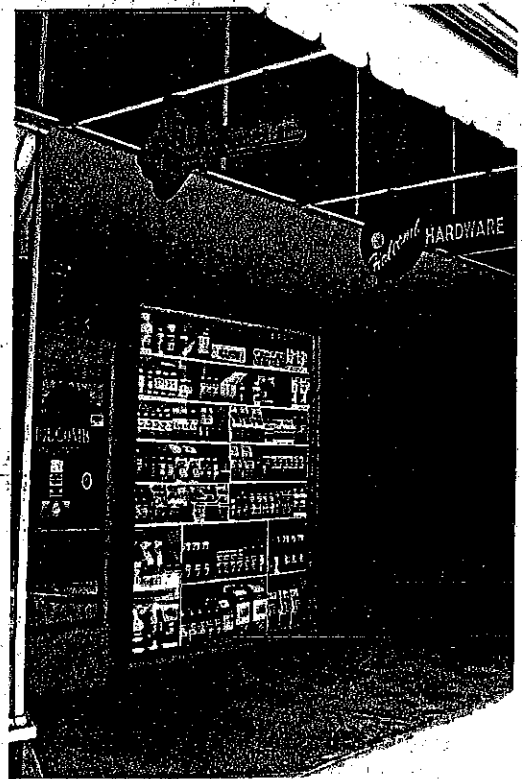


Figure 20. A clever use of a storage rack for a window display. Note the "key" signs hanging from the awning.

Allow window display merchandise to be clearly visible and carefully select the type of items to be displayed.

Locate items where they can be easily seen.

Provide adequate general illumination or in combination with direct spot lights.

Carefully compose and locate any signage in the window display and use pleasant color combinations.

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e) signage: if you provide signs at all, use ones that can be clearly read and understood. Often the merchandise itself can serve as its own "sign." Signs should not be so large as to overwhelm the merchandise or so small that they cannot be read even by pedestrians. Select sign colors that harmonize with the display merchandise.

f) foregrounds: consider the glass in the display window as the first surface to be designed. The interior of the glass can be edged with removable paint or "frosting" to highlight or "frame" specific areas of the display (see Figure 17) or be decorated in a complementary style to enhance your products; fall leaves painted on glass displaying rakes and leaf blowers, for example. The floor of the display window is also an important foreground (see Figure 19). In the window described above actual dried leaves could be scattered on the floor of the display case around the rakes and leaf blowers.



Figure 19. Dark colored cloth makes a for a good foreground on which to display small brightly colored objects.

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with the earth, or where water may lay on it. Where wood has deteriorated, it can be repaired or replaced. Repairs may be accomplished by filling cracks with a waterproof glue or putty. Damage to highly detailed or carved pieces may be repaired through a process known as epoxy consolidation. In this process, a trained craftsman injects a special liquid epoxy into a deteriorated area. The material hardens and can then be reworked by sanding to reestablish a particular carving or detail. As a last resort, a deteriorated piece of wood can be entirely replaced by using a new piece of wood that has been milled to match its original counterpart, maintaining the architectural character of a particular detail.



Figure 13. Original wood doors, sidelights, transom, and ceiling at 110A East Dalton Road. The door glazing has interesting wood sills at the bottom. Preserve original wood elements as valuable architectural elements.

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All wood repairs should be completed by priming and painting the repaired surfaces. Any new wood should also be "back-primed," by applying a paint or sealer finish to the concealed back and ends of a new piece of wood. This process allows the wood to resist shrinkage through loss of its natural moisture. Any new wood in contact with earth or prolonged contact with water should be "pressure treated" to resist insect attack and deterioration. Pressure treated wood can be painted immediately after installation if it has been kiln dried after treatment. Lumber that has been dried in this way receives a special ink stamp at the mill and you can look for it on the wood you buy.

Maintenance and Repair

Good Practices

- Retain decorative woodwork rather than cover it with metal cladding.
- Check wood surfaces for deterioration paying close attention to joints. Make repairs to deteriorated pieces using the methods described above. Employ a qualified carpenter or woodworker. A local craftsman who can perform epoxy consolidation work is noted in the "Sources of Further Assistance" section of these Guidelines. As a last resort replace deteriorated wood with new wood to match the shape and profile of the piece that has been removed.
- Prime and paint all exposed wood surfaces. See "Paint" section of these Guidelines. Seal joints with caulk where wood adjoins other materials. Using a high quality of paint and sealants can reduce the amount of time between applications. Maintain the paint and sealants through reapplications as needed.
- Coordinate any termite treatment work so that work can be done in confined areas by workmen without exposure to chemical treatments. Follow health and safety rules in this regard.

Practices to Avoid

- Never use an abrasive process such as sandblasting to remove paint from wood surfaces. Instead, use hand tools that will not mar or gouge the surface of the wood.

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b) product type: consider which items of merchandise you wish to "move" to your customers. Also, display items that are in demand or likely to interest customers in entering your store. Often these can be accessory items; displaying lamps, for example, might sell light bulbs too. One-of-a-kind items are also good "magnets" for customers.

c) product location: place larger items on higher shelves where they can be visible from a distance and smaller items in the front of the window where customers can better see details. Place related items together; wallpaper hanging tools next to swatches of wallpaper, for example.

d) lighting: for large displays with many items, provide good general illumination (see Figure 18). For small displays with only a few very important items, consider individual spot lights. Consider how the type of light bulb renders the color of your product. Fluorescent lighting provides cool, general illumination and incandescent bulbs provide warm, color enhancing lighting that can be targeted on specific items with individual fixtures. Avoid aiming fixtures so that bulbs are visible to customers.



Figure 18. Keep displays simple and uncluttered.

King Facade Guidelines Facade Enhancements

faded, and not well maintained. Take care to keep window displays clear and current rather than cluttered and confusing.



Figure 17. Surface applied stencil work on interior glass surface frames the display in this window.

Do not take window displays for granted as marketing tools. They are the first thing seen by a customer entering your business. Instead, see your window display as a "billboard" to advertise your merchandise. Window displays have been calculated to be worth \$240-400 a month in advertising.

Strategies and techniques to consider in designing a window display include: product quantity, type, and location, lighting, signage, foregrounds, and backdrops.

a) product quantity: do not cram your window display with the maximum number of products that it can hold. Plan for a reasonable number of items that allow each to be clearly visible.

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When used by a qualified professional, a heat gun is a good tool that will soften old layers of paint for easy removal. Take care to follow all health and safety rules when removing old lead-based paint.

□ Do not replace finely milled wood trim elements with plain boards. Maintain the architectural character of an element by replacing it with a matching piece.

Metals

Ferrous (iron-containing) metals such as cast iron, pressed steel sheets, or non-galvanized steel shapes require paint to protect them from corrosion. Other softer metals such as lead, copper, and aluminum do not require paint protection but should be carefully examined for other forms of deterioration such as loss of anchorage, missing fasteners, or contact with dissimilar metals.

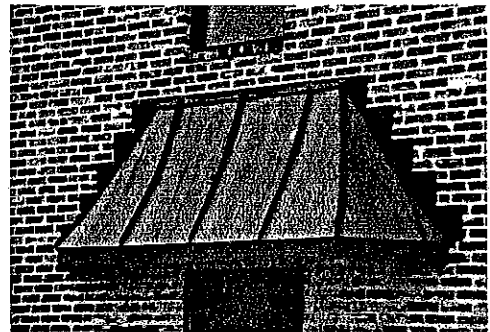


Figure 14. Standing seam copper canopy at rear of 142 South Main Street. Note copper "step" flashing at sloping sides of roof. Counterflashing integrated into brick mortar joints as shown here provides a solid barrier to water penetration and is superior to butted and caulked flashing joints.

When two differing types of metals come into contact with each other a type of very low voltage reaction called "galvanic" or "electrolytic" takes place causing the weaker of the two metals to slowly corrode. So, the use of a steel nail to fasten a piece of aluminum or copper will eventually cause

the latter to deteriorate. This process is easily overcome by using fasteners of the same metal as the piece to be fastened.

Maintenance and Repair

Good Practices

□ Protect ferrous metals against deterioration by priming and painting (see Figure 15). Before painting old metal, remove all corrosion using the gentlest possible means. Hand scraping and wire brushing are the most common method of removing old paint and minor rust. Excessive paint build-up or corrosion may require the use of low pressure sand blasting or chemical strippers. These methods should only be undertaken by qualified professionals using proper protective devices to shield adjacent masonry, wood, and glass surfaces. Sand blasting should only be undertaken to metals having sufficient thickness to withstand abrasive cleaning.

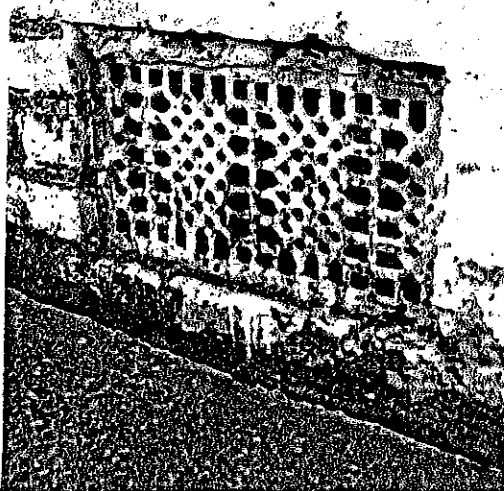


Figure 15. Decorative cast iron crawl space ventilation grille at West Side of 102 East Dalton Road. Original building elements made of ferrous metals should be preserved with periodic painting.

useful in establishing an overall color scheme. A design professional can be employed to determine original paint colors through a process of obtaining paint color chips from building surfaces and investigating the exact color of the original paint through microscopic analysis. Another effective, but less costly method of determining original paint colors is to explore areas of the facade where modern-day improvements have been added. Often by removing a piece of contemporary molding or trim, an original paint color can be found on an otherwise hidden surface.

Lacking any sort of paint surface analysis, it is still possible to develop an attractive palette of colors for repainting wood and metal surfaces. An overall color scheme should be developed that uses soft, neutral colors for broad expansive surfaces such as wood panels and bright colors for accent work on moldings and trim.

Rehabilitation and Repair

Good Practices

Use paint colors to accentuate architectural details following the general guidelines noted above. Consultation with a design professional such as an architect or architectural historian can be helpful in selecting colors.

Consider the orientation of your building. Structures that face south or west receive full sunlight for most of the day and appear "warmer" than those facing east or north. This may influence your color selection.

Practices to Avoid

Use of loud, garish, or awkwardly combined colors. Avoid bright colors on broad, expansive surfaces.

Window Displays

Good storefront window displays can be an important part of the downtown streetscape and serve at the same time as a sales and merchandising tool. A good window display is neat, attractive, and interesting while clearly showing the consumer the type and quality of merchandise offered. Window displays should be eye catching for the pedestrian because they are inviting. They should not be noticed because they are old,

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□ Repair or replace missing metal pieces and/or fasteners. When possible, use new metalwork that matches old work. There are commercial substitutes available for cast iron work that have aluminum, epoxy, fiberglass, or glass fiber reinforced concrete (GFRC) bases. These substitutions are best undertaken in consultation with a fabricator familiar with their use and should only be used as a last resort when it is impossible to match the original metalwork. All fasteners should be of the same metal that they are fastening. Take care to examine metal wall anchors that hold awnings, railings, or other accessories. Corrosion may render these fasteners ineffective and in need of replacement. In addition, the metal corrosion can damage the wall in which the anchors are attached.

Practices to Avoid

- Contact between dissimilar metals.
- Having ferrous metals come in contact with asphalt based roofing or coatings. Asphalt based products are acidic and accelerate metal corrosion.
- Covering metalwork with any type of cladding. The architectural character of the metalwork is lost and quite often the cladding will hide defects or corrosion that remain an ongoing problem even though concealed.
- Neglect of corrosion or repair work. Corrosion is an active process and will only get worse if not repaired/refinished.
- Use of incorrect metal primers and paint finishes and "quick" economical methods of paint application. Spray application of paint is not recommended unless performed by a skilled applicator. Unskilled work tends to provide a paint film of uneven thickness, hastening the need for subsequent repainting and not adequately protecting the metal surface in the interim. Paint is best applied by brush. Consult paint manufacturer's recommendations for the proper type and application of paint finishes.

Color

The use of color in the form of paint or awning fabric or other decorative treatment is an important element that can improve the architectural vitality of a structure and reinforce its character (see Figure 16). The application of paint is also a practical matter in providing a protective coating on surfaces to retard deterioration and preserve structural members. See "Paint" section of these guidelines for further information on this important topic.



Figure 16. Colorful flowers in brick plant boxes attract attention and customers to this store at the King Shopping Center. Note one mortar head joint is omitted in brickwork to relieve any moisture build-up in soil. Steel columns should be coated with a waterproofing paint before backfilling with soil.

Architectural features of older structures, particularly moldings and other detail work, can be enhanced by careful selection of paint colors. An exploration of the original paint colors of the building can often be