

YOU'RE ONE PAGE AWAY
from a STUDY OF
HUMAN PERCEPTION
in the DESIGN OF ARCHITECTURE.

It seeks to support
HUMAN SCALE
&
AESTHETIC PRINCIPLES.

DIVERSE DESIGN
&
PREDICTABLE PROCESS.

STREAMLINED APPROVALS
&
QUALITY ENVIRONMENTS.

In many ways,
IT'S ABOUT THE FUTURE,
AS WELL AS THE PAST,
HOW ONE CAN INFORM THE OTHER,
AND WHAT THAT MEANS
FOR ARCHITECTURE TODAY.

THIS IS A TOOL TO ENCOURAGE
THE MAKING OF GREAT PLACES.
AND ONE IN PARTICULAR.

Town of Cary
NORTH CAROLINA



Community Appearance Manual
ARCHITECTURAL DESIGN

Contents

PUBLISHED – JULY 2005

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Introduction

APPLICABILITY

Requirements of the Community Appearance Manual related to facade design apply to all Activity Centers or other nonresidential developments where buildings are arranged in close proximity to each other. This component of the Manual also applies to individual nonresidential infill buildings and attached residential buildings along thoroughfares and collectors (e.g. Lake Pine, Kildaire Farms). This component does not apply to office and/or warehouse buildings located within office parks (e.g. Weston, Regency) and does not apply to detached, single family residential properties.

Civic and Institutional buildings (e.g. Schools, Churches, Libraries) are signature elements within the community. As such, they may intentionally be made exceptions to the more regulated patterns of private development. Appropriate designs for these buildings become even more important in representing and anchoring the community's image. While Civic and Institutional buildings shall meet the facade principles that follow, exceptions may be provided when the specific design circumstance justifies the exception.

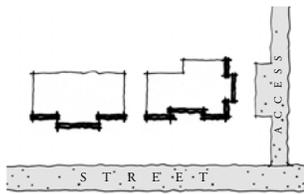
These requirements are reviewed and approved with the submission of all new development plans. They are available and may be discussed at the required pre-submittal meeting for all new development plans. Facade changes and renovations (redevelopment/reuse plans) to existing buildings should incorporate these requirements unless it would be deemed impractical or unreasonable given the constraints of the existing building(s) (see Section 3.11.7 Limitations - Redevelopment/Reuse). Specifically, facade changes should attempt to meet requirements on any portion of the facade being modified.

Development standards included in this manual may be modified in accordance with Land Development Ordinance Section 3.19.1 Minor Modification to Development and Zoning District Standards. Specifically, the approval authority may modify the requirements (Planning Director up to 10% and the Town Council up to 25%). In addition, Planning Department decisions on these standards may be appealed to Council in accordance with LDO Section 3.9.2 (G). The Council may reaffirm, reverse or modify the decision.

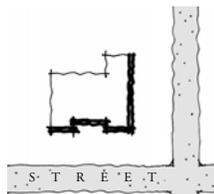
FACADES TO BE REVIEWED

Principal elevations of applicable buildings are required to be reviewed based on their visibility within the community. Elevations will be reviewed on the principles outlined in this manual and shall be presented in a series of facade overlays.

Required elevations can vary from one to four based on the building's frontage on a street or primary travelway. For example, buildings that front a street with one visible elevation are required to have facade overlays for that elevation only, while buildings on a corner site shall be considered to have two primary facades, and facade overlays will be required for both elevations. Travelways shall be defined as access points into the site, locations of ingress and egress, and connecting drives within the site or across the site.



Site with One Street Frontage; One Facade Review
Site with Frontage and Access; Two Facade Review



Corner Site with Two Street Frontages;
Two Facades Required for Review



Site with Streets and Travelways on all Sides;
Four Facades Required for Review

Introduction

PROCESS

NONRESIDENTIAL CENTER

The Town of Cary requires that a Statement of Architectural Compatibility (SAC) be submitted as a part of the development plan approval process for all site plans for buildings within a nonresidential center. This is a written document, describing the site and discussing design intent. In addition to the document, facade overlays and material samples must also be submitted with individual building plans.

NONRESIDENTIAL SUBDIVISION OR BUILDING

If the application is for a parcel that is not a part of a nonresidential center, the SAC form does not need to be completed. However, the applicant is still required to submit a statement as to how the proposed project will meet the intent of the Appearance Ordinance as discussed in the Ordinance [14.1.3. (a) 2] along with facade overlays and material samples. The statement must accompany the first site plan submission. The facade overlays and material samples must be submitted with the building plans.

REQUIRED SUBMISSIONS

STATEMENT OF ARCHITECTURAL COMPATIBILITY (SAC)

Elements to be addressed:

- Statement of Design Intent
- Physical Site Description
- Principles for Façade Design
- Site Considerations

(Full SAC Form incorporated in the appendix)

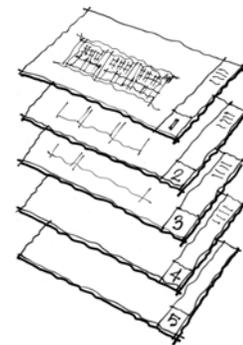


FACADE OVERLAYS

Elements to be addressed:

- Materials
- Composition
- Scale
- Proportion
- Rhythm
- Transparency
- Articulation
- Expression
- Color

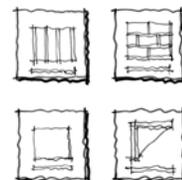
(Examples of Facade Overlays incorporated in the appendix)



MATERIAL SAMPLES

Samples of exterior materials including name, grade and color:

- Sample of brick or masonry products
- Sample of siding with chosen color applied
- Sample of roof materials if exposed
- Sample of window/door frames and glass color



Principles For Facade Design

INTRODUCTION

The following section outlines a series of design principles for **building facades**. Each principle includes a **specific and measurable standard**.

Reinforcing concepts in the Cary Design Guidelines, these principles provide quantifiable objectives for facade design.

This is not a recipe book or a step-by step guide. It is instead a description of inherent **human principles** in the making of architecture. Using this premise, the standards seek to increase the **prospect of compatibility** between **buildings, styles, and generations**.

The talent and creativity of individual designers must still be infused within each building for these standards to be successful.



Principles For Facade Design

PRINCIPLE 1

MATERIALS

High quality materials are the building blocks of good buildings and great places. The message of quality and durability inherent in long-lasting materials promotes the human perception of timelessness and continuity of place. High quality materials provide an expression of concern for the quality of the pedestrian experience.

Masonry elements provide a particularly strong connection between human scale and the built environment. The size of a brick is directly related to the ability of a mason to lay it comfortably by hand. Therefore, we perceive buildings that have been assembled with human-scaled materials as the result of tangible human activities rather than as abstract or synthetic.

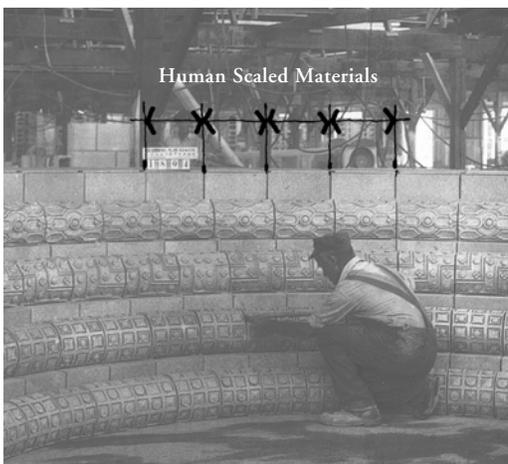
Materials also contribute to the perception of a building's overall scale and texture. Individual elements of a known size allow the observer to understand the total size and scale of the structure. The texture of the surface, together with its color, will affect its visual weight, scale and light reflective qualities.

The standards require commercial buildings to use masonry materials over a majority of their surface area. Exceptions may be considered when the context of a building site suggests the use of other materials (e.g. an historic district). Materials used on designated primary facades, if not used for the entire building, should return along secondary sides a minimum distance based on visibility.

REQUIREMENT

Building walls shall incorporate brick, cast stone, stone, formed concrete, or other high quality, long-lasting masonry material over a minimum percentage of surface area (excluding windows, doors and curtain walls). The remainder of wall area may incorporate other materials. Minimum percentages are outlined as follows:

- Commercial and mixed-use buildings: 75% of surface area minimum; and
- Attached residential buildings: 35% of surface area minimum.



Principles For Facade Design

PRINCIPLE 2

COMPOSITION

Visual balance should be achieved in the building composition. A fundamental tool for achieving balance is the use of symmetry.

The human perception of beauty is found to be influenced by the measure of symmetry within an individual composition. Psychologists ascribe this to the awareness that the body is basically symmetrical, so intuitively this principle is extended to other artistic efforts.

Applied to buildings, this principle creates order within elements of a composition. Groups of elements are read visually by their rooflines. Under each roofline, a composition is formed which is visually enhanced when symmetry is achieved.

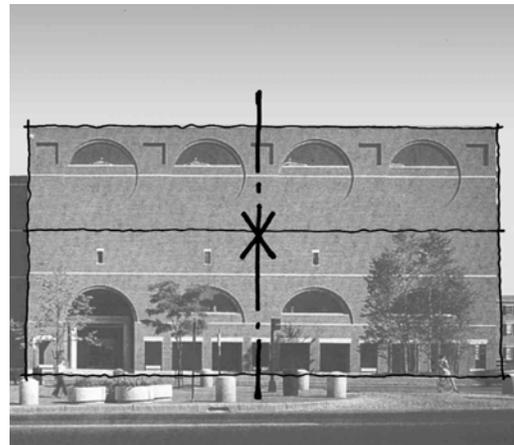
Minor variations to a symmetrical condition, for example a door that is balanced by a window of the same proportion on the other side, can be absorbed while maintaining an overall sense of balance.

REQUIREMENT

Elements within each segment of a building facade, defined by a different roof height, are required to be symmetrical. A symmetrical condition is achieved when facade elements and openings are repeated in the same positions on either side of a central vertical line for that segment.



Multiple symmetrical segments defined by roof heights.



Facade openings balanced at the centerline; Note offset entry.

Principles For Facade Design

PRINCIPLE 3

SCALE

Scale in architecture is relative size. It refers to how we perceive the size of a building element relative to other forms, and to the human body. There are two types of scale: overall scale and human scale.

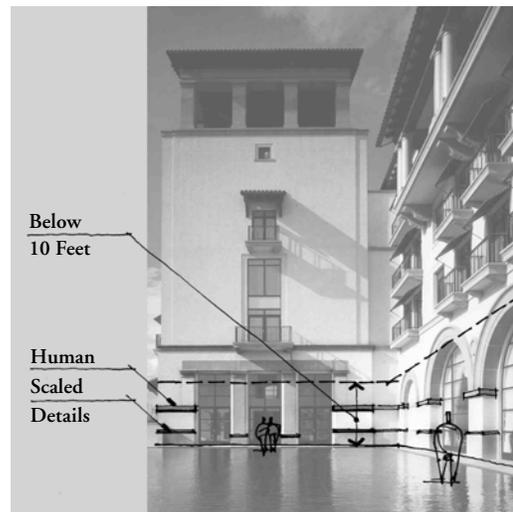
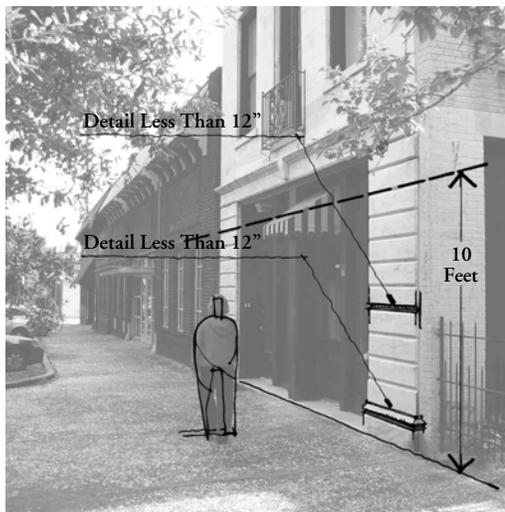
Overall scale is the legibility of a building from a distance, for example the roofline. Human scale is the legibility of elements when one is very close to a building, for example the storefront details. Good buildings incorporate both types of scale simultaneously.

In keeping with the goals of this manual, human scale will be emphasized. Humans are similar enough in size that dimensions based on the body can be used to establish elements of detail in a building. A place can be measured by our ability to reach out and touch detail and texture.

It is therefore important that up close, buildings possess a level of refinement that is tangible. These details not only provide comfort by allowing one to judge the size of a space, but also give it human scale and intimacy.

REQUIREMENT

Facades shall incorporate a minimum of two (2) continuous details refined to the scale of 12 inches or less within the first 10 feet of the building wall, measured vertically at street level.



Principles For Facade Design

PRINCIPLE 4

PROPORTION

Proportion refers to the relationship of two ratios, for example, height to width. In architecture, this can refer to the overall building mass as well as openings for windows and doors within it.

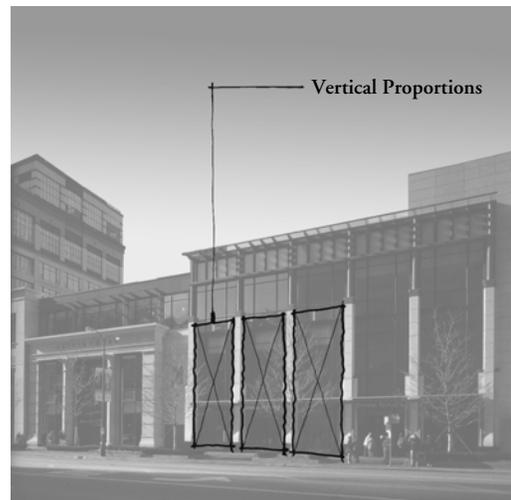
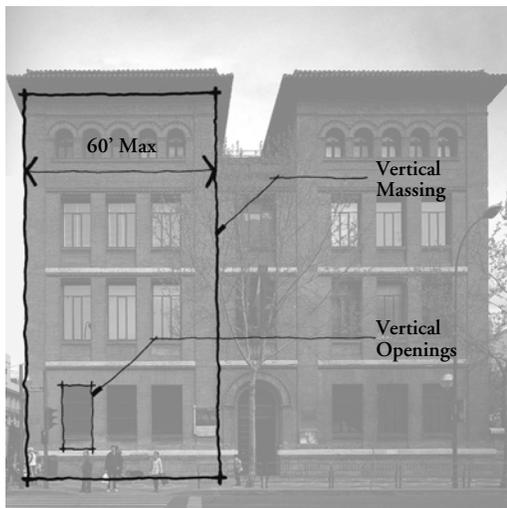
The human body contains a rich system of proportions with harmonious relationships between the body and face. Much research has been done relating proportions of human form to laws of nature and mathematics. Significant among these systems of thought, the Golden Section (1:1.618) is found repeatedly throughout the relationships of parts in the human body. These proportions have been used in architecture for over two thousand years to create a sense of natural order, over and above the individual style.

Significant for this manual is the fundamental premise that vertical proportions in architecture relate to the upright human body. Buildings and spaces that communicate a vertical proportion relate inherently to the understanding of the living human form, doors and windows that follow these proportions confirm this understanding.

Architectural features can be used to organize the perceived mass of larger buildings. Building features such as columns, piers, rooflines and brick patterns can divide and create vertical orientation on a large surface. Once these proportions have been established windows and doors should reinforce the vertical orientation of the composition.

REQUIREMENT

The frontage of buildings shall be divided into architecturally distinct sections no more than sixty (60) feet in width with each section taller than it is wide. Windows and storefront glazing shall be divided to be either square or vertical in proportion so that each section is taller than it is wide.



Principles For Facade Design

PRINCIPLE 5

RHYTHM

Rhythm applied to architecture refers to the regular or harmonious recurrence of lines, shapes, forms and details. It incorporates repetition and spacing as a fundamental device to create visual organization.

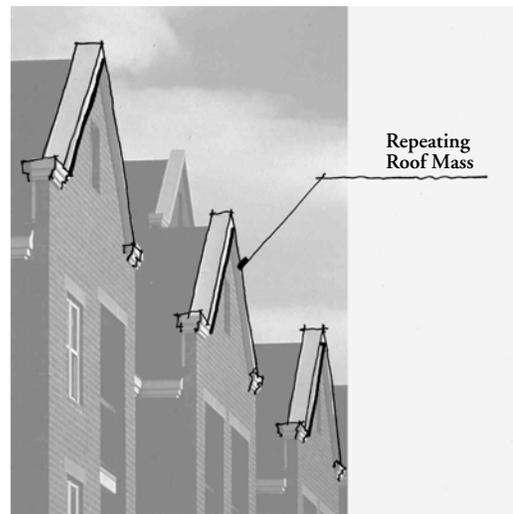
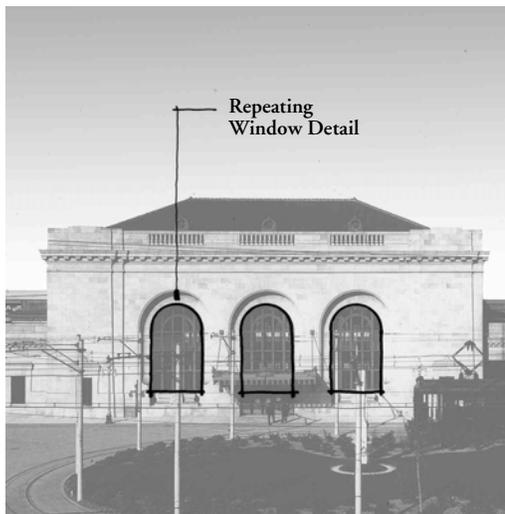
Studies of human perception show that the mind and eye actually seek some type of organization in order to relate various elements. The viewer is uncomfortable with confusion or unrelated chaos. The mind tends to group items that are close to each other, whether they are objects, or the spaces between objects.

Almost all buildings incorporate elements that are by their very nature repetitive. For example, windows and doors repeatedly puncture a building's surface to allow light and access. When these elements are considered together, they have the potential to create visual rhythm. The result can enliven a surface that is too blank, measure a surface too long, and create visual unity over the facade of the structure.

Architectural elements chosen to repeat on a facade, whether a massing form or detail element, should represent a primary characteristic of the building's identity.

REQUIREMENT

A minimum of one significant detail or massing component shall be repeated no less than three (3) times along each applicable elevation. The scale of the chosen element should relate to the scale of the structure.



Principles For Facade Design

PRINCIPLE 6

TRANSPARENCY

Building facades for commercial buildings should have large window areas to share the buildings interior activities with the street.

Windows and doors narrate the uses inside the building to the observer and are a measure of how public or private these uses are intended to be. For example, storefront windows at street level are more expansive, suggesting common uses, while upper levels are smaller, indicating more private uses.

The design of storefronts in particular can enhance pedestrian activity. Commercial and mixed-use buildings should provide a high level of transparency at the street level in order to visually connect activities within and outside of the building.

Seen from the outside, it is the openings in a wall that create one of the strongest visual impacts beyond the wall itself. As design elements, windows and doors provide the opportunity to accomplish many of the other facade principles.

REQUIREMENT

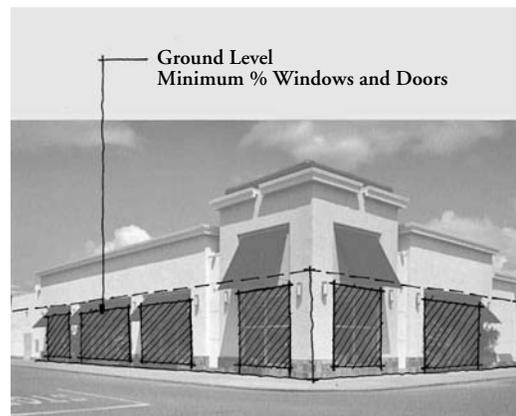
Facades of all commercial structures shall incorporate transparent features (windows and doors) over a minimum percentage of the surface area of street fronting facades. Minimum percentages for different levels are outlined as follows:

- Ground level of retail uses: 50% of surface area minimum;
- Ground level of office and other commercial uses: 35% of surface area min;
- Ground level of any commercial use over 25,000 SF: 25% of surface area min; and
- Upper levels of all uses: 20% surface area minimum.

Transparency of the ground level shall be calculated within the first 15 feet of the building wall, measured vertically at street level.

In cases where a building has more than two facades fronting a street or primary travelway, the transparency requirement shall only be required on two facades based on pedestrian traffic and vehicular visibility.

All ground level windows shall provide direct views to the building's interior or to a lit display area extending a minimum of 3 feet behind the window. Ground level windows shall extend above an 18 to 24 inch base.



Principles For Facade Design

PRINCIPLE 7

ARTICULATION

Facades should be organized into three major components, the base, body and cap. These elements transcend style and relate architecture to the human body with the visual analogy of feet, torso and head. The feet provide stability, the torso provides height and bulk, and the head provides identity.

Base: ground level, where the building makes contact with the earth.

Body: upper architecture, forming the majority of the structure.

Cap: parapet, entablature or roofline, where the building meets the sky.

To the ancient Greeks and Romans, the elements of base body and cap were essential to architecture and were described through various architectural Orders, each representing in its proportions an ideal expression of harmony and visual unity. These concepts have been updated and employed in building design for over two thousand years.

This suggests both timelessness and a universal relationship to visual psychology. These elements may be present today in varying proportions, and achieved using a wide variety of techniques, but should always be clearly identifiable.

REQUIREMENT

The building facade shall have a clearly identifiable base, body and cap with horizontal elements separating these components. The component described as the body shall constitute a minimum of 50% of the total building height.



Principles For Facade Design

PRINCIPLE 8

EXPRESSION

The principle of structural expression creates facades with inherent visual logic, and provides a human comfort level to the observer corresponding to our intuitive understanding of gravity.

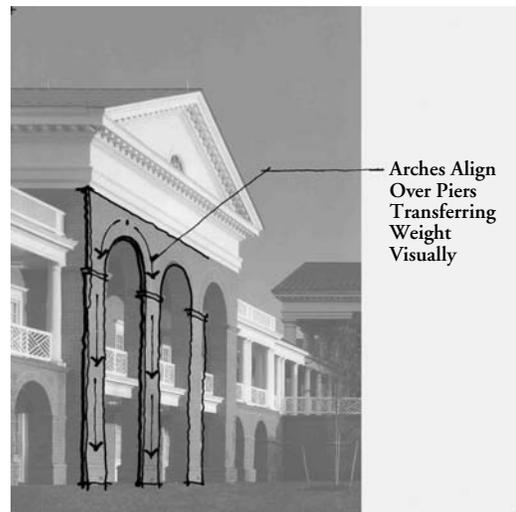
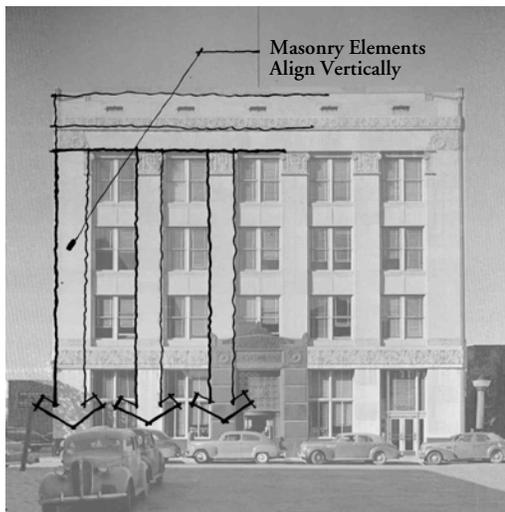
Beams and columns, whether expressed or concealed on the facade, form a structural framework that defines modules of space. In the construction of architecture, structural elements must span across spaces and transmit their loads through vertical supports to a building's foundation. The size and proportion of these elements are directly related to the structural tasks they perform.

Elevation design should work within the framework of chosen materials. Design and detailing of materials should result in an authentic appearing structure, with dimensions and spans of visible materials related to their own structural properties.

For example, masonry elements should display characteristics of load-bearing design such as arches and headers that relate directly to columns or pilasters below. Alternatively, steel elements should display characteristics of framed structural members.

REQUIREMENT

All masonry elements designed to appear as load-bearing shall be visually supported by other masonry elements directly below. On masonry building walls, expressed or implied structural piers shall be evident as vertical alignments on the facade.



Principles For Facade Design

PRINCIPLE 9

COLOR

Brick, concrete, and stone have their own inherent color and should be left in their natural state to weather over time. Paint can be used to complement and accent other exterior building materials. To ensure that there is consistency, the Town of Cary requires a project-based palette related to color.

Proposed color schemes shall incorporate a base primary color for each building. Each building within a complex does not need to be of the same base primary color but the color must be compatible with other selected colors on the site.

In the case of buildings that are entirely of brick, concrete or stone, the base color may be the natural color of the material.

Color definitions are as follows:

Color Palette: A color scheme that incorporates related colors of complimentary hues and shades.

Primary Color: One to three base colors chosen to dominate a color scheme.

Accent Color: A contrasting color used to emphasize architectural elements.

REQUIREMENT

A maximum of two primary colors for each building segment may be proposed with a maximum of two secondary accent colors. If accent colors are to be used, they too must be described and used throughout the development.



Site Considerations

SITE CONSIDERATIONS

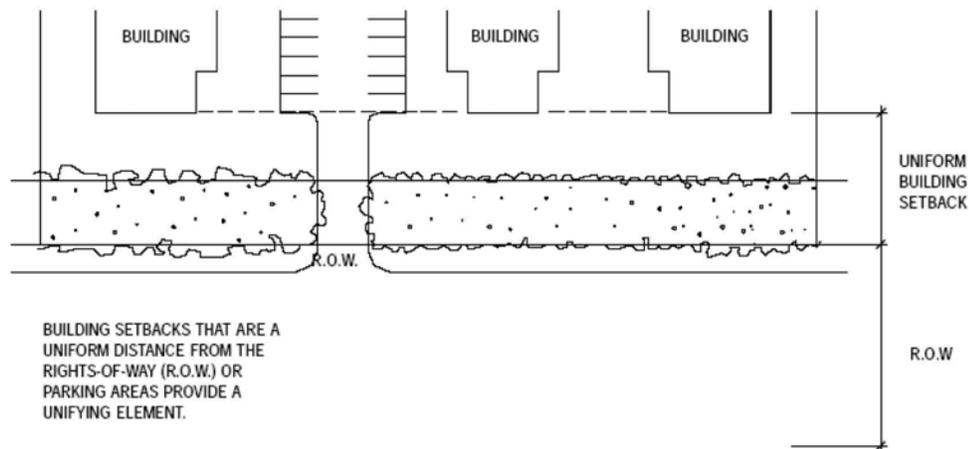
Site design elements can have a significant and positive overall impact.

The vision for Cary's future development is to ensure that all elements contribute to the integrity and identity of the place, support a more human-scale and pedestrian-oriented environment, and increase connectivity.

In addition to the elements outlined below, further information on site planning and design elements can be found in the Cary Design Guidelines (August 2001).

BUILDING SETBACKS

The relationship of buildings to the street or parking area contributes to the character of the overall site. Whether uniform or varied, the setback informs the appearance and feel of the complex.



Site Considerations

LANDSCAPE AND PEDESTRIAN CIRCULATION (HARDSCAPE)

Landscape design can be used to unify a site with a clear concept of spatial hierarchy, pedestrian and vehicular circulation, material selection, and creation of special features, gathering spaces, and defined public open space.

Street trees can enclose and define the streetscape, native vegetation can provide a natural transition between uses and parcels, and significant sites, gateways, and entrances can be enhanced by special plantings. The paved, accent portion of the landscape such as sidewalks, crosswalks, terraces, or plazas greatly contribute to the character and attractiveness of a place. Such accenting can also enhance the safety of an area, emphasizing pedestrian crossings in front of storefronts with brick pavers or other material change. This can be further enhanced with special planting and lighting effects.

LIGHTING

The selection of light fixtures, pole types, lamp color, and style all contribute to the character and sense of place within a complex.

AMENITIES

Patio seating, a plaza with several benches, a promenade, a playground, a water feature, or a clock tower are examples of amenities that could be provided on a site to contribute to its 'sense of place.'

SERVICE ELEMENTS

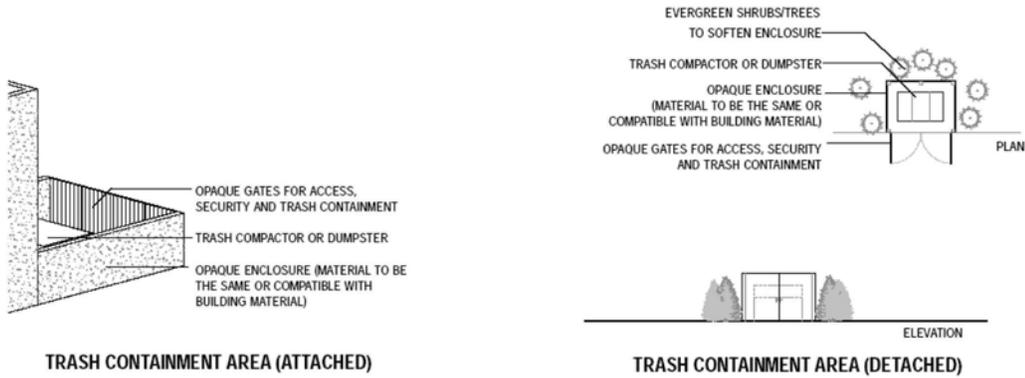
The intent is to screen from public view mechanical equipment and service related elements such as dumpsters. These standards apply to commercial properties, apartment, and townhouse complexes.

Mechanical equipment and dumpsters are necessary elements, but do not enhance the overall appearance of the site. Often attempts at 'hiding' such functional items actually highlights their presence. The Town of Cary recognizes the need for easy access to service areas, yet also recognizes that simple screening or incorporation within the building architecture can do much to minimize the impact on a site.

Site Considerations

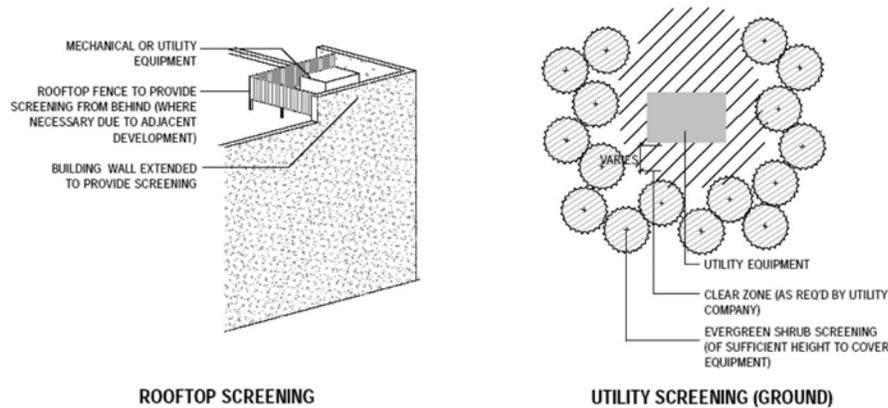
TRASH CONTAINMENT AND DUMPSTERS

Dumpster facilities should be located away from residential areas. If located in an independent structure, masonry is the required building material. If located within an extension of the building, the material is required to reflect that of the associated building facade. Fencing is only allowed in certain cases - the fence and dumpster must not be visible from a public roadway.



MECHANICAL AND UTILITY EQUIPMENT

Noise mitigation is of concern. If equipment generates over 60 decibels, and the site is adjacent to any residential development, the equipment must incorporate mufflers or other noise reducing equipment. These items must be located on roofs or in rear yards and must be screened from view of a public roadway or adjacent property.



STATEMENT OF ARCHITECTURAL COMPATIBILITY

APPLICATION

SECTION 1

A Statement of Architectural Compatibility (SAC) is required as a submission with all site plans for buildings within a nonresidential center. The SAC shall be submitted with the first site plan or with the construction plan after approval of a sketch plan. The portion of the SAC application related to facade design and material samples is also required for individual parcels that are not a part of a multi-building development.

Where an existing Zoning condition or Statement of Architectural Compatibility exists, the following shall apply: 1) All new structures and modifications to existing structures must meet all applicable elements of Architectural Design unless rezoning conditions dictate otherwise. 2) Any requirements for material percentages as prescribed in the existing SAC will be superseded by the Architectural Design standards. 3) An amendment to the SAC may be made to incorporate additional colors creating an expanded color palette (family of colors) than prescribed in the existing SAC.

Applications are reviewed by the Planning Department and approved by the Planning Director. The information provided within this application, and approved by the Town of Cary's Planning Director, will be binding on future buildings on any parcel noted below as being part of this application.

Development Name:

Location:

Subdivision or Site Plan Case Number:

Town of Cary Property Identification Numbers for each parcel to which this application applies:

Authorized Agent For Plan Application Information

Contact Person:

Address:

Telephone:

Fax:

Email:

Owner/Developer:

Address:

Telephone:

Fax:

Email:

Owner's Signature:

Date:

In filing this plan either by myself as the property owner(s) or through my duly authorized agents, I/we do hereby agree and firmly bind ourselves, my/our heirs, executors, administrators, successors and assigns jointly and severally to abide by these guidelines as approved in all future construction on the properties listed herein. I/we hereby designate _____ to serve as my agent regarding this application, to receive and respond to administrative comments, to resubmit plans on my behalf and to represent me in any discussion regarding this application. Furthermore, I/we acknowledge that notation shall be placed on all plats that record property within the boundaries of this SAC application stating that future development is subject to applicable SAC on file with the Town of Cary Planning Department.

SECTION 5
SITE CONSIDERATIONS

Building Setbacks:

Landscape and Pedestrian Circulation (Hardscape):

Lighting:

Amenities:

Service Elements:

SECTION 6
APPROVAL

I hereby certify that this document has been reviewed and meets the requirements of the Town of Cary.

Signature:

Date:

Facade Overlay Examples

1: MATERIALS OVERLAY

Diagram illustrating Materials Overlay. The facade is defined by width W and height H . The total facade area is calculated as $W \times H$. The area of windows and doors is subtracted from this total. The remaining area is used for material calculations, specifically for Brick/Stone/Cast Concrete.

SAMPLE CALCULATIONS

Total Facade Area ($W \times H$): _____sf
 Area of Windows and Doors: (-) (_____sf)
 Total Wall Area for Material Calculations: _____sf

Required Brick/Stone/Cast Conc: Commercial and Mixed-Uses (x .75) = _____sf min.
 Attached Residential Buildings (x .35) = _____sf min.

2: COMPOSITION OVERLAY

Diagram illustrating Composition Overlay. The facade is divided into Segment 1 and Segment 2. The diagram shows how elements are balanced within each segment and how centerlines are used for symmetrical balance.

SAMPLE CALCULATIONS

Graphic Overlay Only
 (No Calculations Required)

3: SCALE OVERLAY

Diagram illustrating Scale Overlay. The facade is shown with a height of 10 feet above street level. The diagram highlights details that are less than 12 inches in scale.

SAMPLE CALCULATIONS

Graphic Overlay Only
 (No Calculations Required)

Facade Overlay Examples

4: PROPORTION OVERLAY

Square or Vertical Window Proportions

60' max. Each Segment

W

Vertical Building Proportions

H

SAMPLE CALCULATIONS

Building Segment Ratio: Height: _____ ft Width: _____ ft (**H > W Required**)

Window and Door Ratio: Height: _____ ft Width: _____ ft (**H = W or H > W**)

5: RHYTHM OVERLAY

Equal Spacing

1 2 3

Repeating Elements (3 minimum)

SAMPLE CALCULATIONS

Graphic Overlay Only
(No Calculations Required)

6: TRANSPARENCY OVERLAY

W

H-2

H-1

Upper Level Glazing _____ sf

Ground Level Glazing _____ sf

SAMPLE CALCULATIONS

Ground Level Surface Area (W x H-1): _____ sf

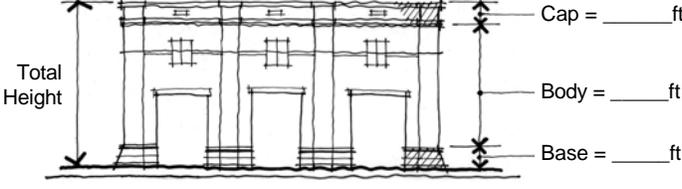
Area of Required Windows and Doors: Retail Uses (x .50) = _____ sf min.
(Calculated within first 15 feet of height) Other Uses (x .35) = _____ sf min.
Uses >25,000 sf (x .25) = _____ sf min.

Upper Levels Surface Area (W x H-2): _____ sf

Area of Required Windows and Doors: All Uses (x .20) = _____ sf min.

Facade Overlay Examples

7: ARTICULATION OVERLAY



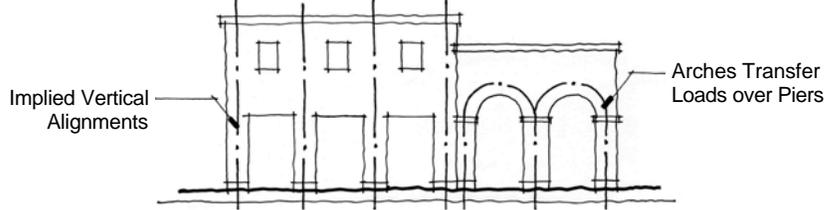
Cap = _____ ft
 Body = _____ ft
 Base = _____ ft

Total Height

SAMPLE CALCULATIONS

Total Building Height: _____ ft
 Minimum Height of Body: (x.50) = _____ ft

8: EXPRESSION OVERLAY



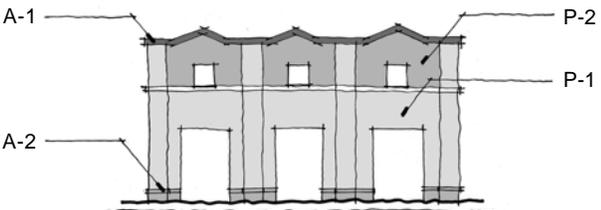
Implied Vertical Alignments

Arches Transfer Loads over Piers

SAMPLE CALCULATIONS

Graphic Overlay Only
 (No Calculations Required)

9: COLOR OVERLAY



A-1

P-2

P-1

A-2

Graphic Overlay Only (No Calculations Required)

Primary Color (P-1): _____
 Primary Color (P-2): _____
 Accent Color (A-1): _____
 Accent Color (A-2): _____