Design Guidelines

for

Small-Lot Single Family

Residential Developments

Prepared by:

Henrico County

Planning Department

Table of Contents

Background

Section 1: Community Standards

Section 1.1 Introduction

Section 1.2 Density

Section 1.3 Public Realm

Section 1.3a Public Realm – Street

Section 1.3b Public Realm – Sidewalk

Section 1.3c Public Realm – Lighting

Section 1.3d Public Realm – Planting Strip and Street Trees

Section 1.3e Public Realm - Community Open Space

Section 2: Building Standards

Section 2.1 Dwelling

Section 2.2 Façade

Section 2.3 Entry

Section 2.4 Parking / Garage

Section 2.5 Building Materials

Section 2.6 Windows and Doors

Section 2.7 Roofs

Section 2.8 Lighting

Background

The following residential design guidelines are specifically written for 'small lot' single family developments. Small lots as identified in the zoning ordinance are single family lots that range in size from 3,000 square feet to 6,000 square feet with detached houses. Larger lots within a development are allowed and follow the same guidelines.

Small lots provide a path for housing in Henrico County that bridges the gap between densities of other single-family designations and multi-family uses. Guidelines are specifically needed for this district because a residential development is a long-term investment for Henrico County and the design of small lot communities is fundamentally a site planning challenge for the overall development as well as the individual parcel. It requires addressing practical spatial requirements in the master plan while simultaneously creating high-quality living environments for the individual. These spatial requirements include: small lot sizes or unusual configurations, setbacks, open space requirements, parking and automobile access, pedestrian circulation, adequate access to air, light, and ventilation, outdoor space and privacy, refuse bin placement, and utility location. Developers must address these issues in a master plan in ways that ultimately enhance the living environment of each dwelling unit. These guidelines provide recommendations to address these complexities while allowing creative approaches with innovative site layouts and high-quality design elements to enhance the overall development.

This document is designed to assist the public, developers, and county staff in achieving high-quality residential developments that are beneficial to Henrico County and its residents. County staff will use these guidelines as a framework for evaluating development proposals submitted to the Planning Commission and the Board of Supervisors. Small-lot, single-family projects should adhere to the design standards in these guidelines unless the Planning Director determines that an alternative design will result in a project of higher quality and better compatibility than the guidelines.

Some of the overarching goals of these guidelines include:

- encouraging landowners, developers, designers, and the general public to consider a range of creative design solutions in land planning with the goal of achieving a higher standard of design
- encouraging a variety of attractive and innovative community and building designs that combine the best of contemporary and traditional design thinking
- establishing the appropriate siting of houses within the limitations of the zoning regulations having regard for size, architectural style and location within the county
- encouraging harmonious, walkable, and attractive streetscapes through attention to the public realm and exterior architectural quality
- ensuring infill development fits within the context of the adjacent community
- establishing open spaces that enhance the livability of communities by promoting healthy activity and by providing places of gathering for active play, quite retreat, or social interactions

SECTION 1:
Community Standards

1.0 Introduction

The planning and design of small-lot communities involves thinking at different scales and levels of detail. The key is to see each house, street or space as part of the community building process, where all contribute to the betterment of the neighborhood because they follow good design principles. These master plan development standards provide guidance in the creation of communities, not just dwelling units.

1.1 Density

The maximum density for small-lot single family residential is 10 units per net acre. Special Flood Hazard Areas should not be used in calculating density and should remain in a natural state.

1.2 Public Realm

Each project, however small or large, must contribute to a vital and meaningful public realm through an improved network of streets, sidewalks, lighting, landscaping, signage, community spaces, and visitor parking.

1.2.a Public Realm - Streets

The intent of these design guidelines is to foster the practice of providing complete streets that support and encourage walking and bicycling while promoting safe operations for all users. Street patterns can enhance the neighborhood atmosphere by following these guidelines:

- Neighborhoods should be designed as a system of streets that connect to each other and adjacent neighborhoods and nearby amenities
- Narrow streets are encouraged.
- On-street parking is encouraged in developments with alleys and rear loaded garages.
- Cul-de-sacs are generally discouraged.
- Blocks should be no more than 600 feet in length.

1.2.b Public Realm - Sidewalks

When sidewalks become both spaces for travel and spaces for living, where people play or stop to talk, they become more interesting places to walk. The purposes of a sidewalk range from transportation to recreation to fostering a sense of community. Along with these benefits, a significant purpose of a sidewalk network is to increase the safety of pedestrians, bicyclists and motorists.

- Sidewalks at least 5 feet wide should be provided on both sides of all streets.
- Sidewalks or multi-purpose paths should provide direct connections between residential neighborhoods and activity centers such as neighborhood parks and trails, off-site commercial centers, schools, and other institutions.

- Sidewalks may serve as lot frontage in accordance with the zoning ordinance.

1.2.c Public Realm - Lighting

As a general rule, more and shorter lights are preferred to fewer, taller, high-intensity lights. The scale of lighting fixtures and the illumination provided must be appropriate for both pedestrian and vehicular movements.

- Streetlighting and pedestrian lighting must be designed to control glare, minimize light trespass onto adjacent properties, minimize direct upward light emission, and promote safety and security for all modes of travel. The minimum intensity needed for the intended purpose should be used.

- Light fixtures should complement the architectural style of the development.

- Fixture height should be a pedestrian scale no more than 15’ in height.

1.2.d Public Realm - Planting Strips and Street Trees

Neighborhood streets are not just thoroughfares for motor vehicles; with sidewalks they serve as public spaces where people walk, meet, and participate in activities that make living enjoyable. In order to make the experience safe and enjoyable, the separation of the sidewalk from the travel way with a planting strip or verge with trees is essential. Tree canopies create neighborhood streets that slow traffic and increase the enjoyment of walking, bicycling, and interacting with neighbors.

- A minimum of one deciduous canopy tree must be provided for each 35 feet of street or sidewalk lot frontage, or fraction thereof.

- Where existing features such as utilities or topographic challenges are present, trees can be clustered and do not need to be evenly spaced.

- Trees along streets should be located between the sidewalk and the curb. If placement of street trees within the right-of-way will interfere with utility lines, trees may be planted within the front yard setback adjacent to the sidewalk.

1.2.e Public Realm - Community Open Space

The amount of private open space in small-lot communities is limited; therefore, it is crucial to have quality community space that includes multi-purpose areas for active play, passive recreation, and social interaction.

The open space system must be an integral part of the design for the neighborhood. The open spaces must be connected, both internally and when the proposed development ties into adjacent open spaces and public features.

- A minimum of 20% of the **gross acreage** for a development is required for common open space as required by Article 5 Division 2 of the zoning ordinance.

- A minimum of 5% of the **net developable acres** should be useable open space. To be considered as usable open space, land must be dedicated and intended for the common use or enjoyment of the residents and their guests. The space must be centrally located within the development with passive or active amenity improvements and can include structures such as community centers as well as parking. It should be adequately lit for nighttime users.

- Usable open space can be used in the calculation of the 20% requirement for open space, but any additional recreational components within the open space, such as trails, should not be counted toward usable open space.

- A reduction in the open space requirement may be considered if the Director of Planning determines the project's open space requirements are met by current facilities, such as an adjacent public park.

- When a community has distinct neighborhoods, each should have at least one neighborhood park. In all cases, 80% of the dwellings should be within 1,500 feet from a neighborhood or pocket park.

- Neighborhood parks that are surrounded on at least three sides by streets or dwelling fronts (such as a mews) may be counted at twice the actual area toward the satisfaction of the usable open space requirement.

- Along with the intentional design of the open space system and layout of lots, odd shaped leftover spaces are sometimes created. Areas such as these can provide opportunities for small sitting areas, community gardens, or pocket parks.

- Where a development is adjacent to a public park or trail, direct pedestrian access to the public park or trail is required.

SECTION 2: Building Standards

2.1 DWELLING

In order to make construction more feasible, the small lot classification minimizes the required sizes of side, rear, and front yards. As a result, small lots are ultimately shaped by building configuration. Architects and builders are presented with design opportunities to create livable environments.

- Building design within the development should be architecturally varied but complementary. Building materials should be compatible with the character of surrounding properties.

- Individual units should incorporate creative design features to assure high quality, distinctive design and a cohesive variety within the project. Building facades should have offsets and step backs, particularly above the first floor, to reduce the appearance of building mass and bulk.

- Roof elements should be varied to create a comfortable human scale.

- Architectural features such as bay windows and porches are encouraged to provide a visually rich environment and an opportunity for neighborhood interaction.

- Front porches should be designed to be usable with a minimum depth of 6 feet.

- Building materials should be durable, high-quality and consistent throughout the project. Window types, door types and architectural features (such as trellises, porches and railings) should be consistently applied to each unit within the project. Piecemeal and frequent changes in materials should be avoided.

- Different housing types, styles and sizes should be integrated within neighborhoods to provide a variety of housing choices.

2.2 FAÇADE

The building facade is a crucial element in relating the building to the street and neighborhood. Design elements such as porches and stoops can orient the housing towards the street and promote active and interesting neighborhoods.

- Effectively placed and articulated doors, windows, and balconies can enhance the overall quality of the project.

- Employ architectural details to enhance scale and interest by breaking the facade up into distinct planes that are offset from the main building facade.

- The placement of windows should follow a consistent rhythm to create visual clarity and character-defining features while avoiding the creation of blank walls.

- Provide windows on building facades that front on public streets, private driveways, and internal pedestrian pathways within the development.

- Layer architectural features to emphasize elements such as entries, corners, windows, and organization of units.

- Alternate different textures, colors, materials, and distinctive architectural treatments to add visual interest while avoiding blank facades.

- Treat all facades of the building with an equal level of detail, articulation, and architectural rigor.

- Include overhead architectural features at entrances and windows that provide shade and passive cooling.

- Design balconies so that their size and location maximize their intended use for open space. Avoid “tacked on” balconies with limited purpose or function.

- Reduce the monotony of undifferentiated facades through landscape screening elements, entry enhancements, and enhanced design for building/garage facades

- Vary building placement to increase variation in facades and more articulated building edges.

2.3 ENTRY

When entries are well articulated and easy to find, they function as gateways — simultaneously welcoming visitors and clearly delineating the boundaries of the private realm. A welcoming entry should be the dominant feature of the front elevation of each home.

- Primary entryways should be clearly identifiable and connected to the public street by a walkway. Garages should not take the place of the main entryway

- Entryways can also offer habitable outdoor space in the form of a small front porch or patio.

- Usable front porches and wide entry stairs, which are permitted to extend into setbacks, can personalize the streetscape.

- The building plan and roof form help highlight the entry, providing visibility and identity from the street.

- Detailing of front doors should reflect the style and quality of the home.

- Articulate or recess doors into the wall plane

- Use ornamental low-level lighting to highlight and provide security for pedestrian paths and entrances. Ensure all parking areas and walkways are illuminated

2.4 PARKING / GARAGE

Ideally, neighborhoods would be designed with on-street parking and alleys with rear-loaded detached garages or parking pads. While front loaded garages or driveways may be allowed in certain instances, the design of small lot developments must simultaneously maintain high quality public and private living environments while also accommodating the automobile.

The placement of front-loaded garages and driveways on small lots can significantly impact the visual aesthetic of the dwelling façade, front yard, and

streetscape design, as well as endangering pedestrians. These guidelines ensure front-loaded garages do not dominate the structure or the streetscape.

If allowed, front-loaded garages should be designed and oriented to be a secondary element to the more pronounced residential façade when viewed from the street. The front elevation should prominently feature an entrance for people rather than automobiles. Some ways to de-emphasize the garage so that it is not the most prominent architectural feature of the house include:

- Recess the garage from the front façade of the house. Garages must not protrude beyond the front facade.
- Provide one and a half or two story massing so that the garage is a smaller part of the overall front façade of the home.
- Provide a pergola, trellis, lattice, or arbor above the garage door to vary the shade and shadowing on the door.
- Where appropriate, provide a balcony or deck on the second level to provide interest over the garage.
- Detail the garage consistent with the architecture of the house. The design treatment of the door should reduce the overall visual mass of the garage.
- Use decorative garage doors with glass details and pattern moldings.
- Doors should be colored to complement the façade materials
- For lots 50' wide and less, two-car garages should not be used.
- Maximize green space, both private and common, while minimizing the total amount of driveway space.
- From the edge of pavement to 5 feet behind the back edge of the sidewalk, the maximum width of a driveway should be 10 feet. Driveways may be wider in the area more than 5 feet behind the back edge of the sidewalk.

2.5 BUILDING MATERIALS

The selection of materials and colors should provide an enduring quality and enhance the architectural and massing concepts for the building

- The use of "traditional" building materials in new construction, including wood, stone, brick, cement fiber and stucco is recommended. These materials should be the primary materials used in residential construction. Synthetic cladding and trim materials such as aluminum and vinyl siding may be used sparingly for accent elements, rather than as a primary exterior finish material, and in a durable heavy gauge material.
- Design elevations to be viewed from multiple directions. Provide a well-integrated continuity of materials, colors and detailing, with a consistent treatment that wraps around all facades. Avoid large, flat facades, especially where sides or the back are visible to the public.
- Select building materials, architectural details, and finishes, that convey a sense of permanence. Quality materials should be used to withstand weather and wear regardless of architectural style.

- Apply trim, metal and woodwork, lighting, and other details in a manner that is consistent with the proportions and scale of the buildings.

- Apply changes in material in a manner corresponding to variations in building mass.

- Materials and colors should promote harmony, as well as interest within a neighborhood. Architectural styles should utilize a limited palette of compatible materials, avoiding excessive different materials and colors that detract more than enhance the overall appearance.

- Compatible (not duplicate) color schemes should be used on adjacent homes.

- Transitioning of materials on the building should be subtle and occur with a change of plane on the facade. A masonry or brick foundation around the base of the house is encouraged.

- Vary roof materials and colors from one house to the next, in a compatible manner. Roof materials should complement the architectural style.

- Materials and colors of gutters and downspouts should be integral with the architecture.

2.6 WINDOWS AND DOORS

Window patterns, proportions and detailing are a major component of the architectural style. Use appropriate window forms (deeply recessed, arched, grouped or double-hung windows, etc.) to complement the architectural style of the building.

- Include special treatments such as divided panes, window boxes, deep sills and functional shutters to highlight the windows. Avoid unpainted aluminum or large expanses of undivided pane windows.

- Windows and doors should have raised elements to create shadow and interest on the facade.

- Recess windows into the wall plane and align windows whenever possible.

- Window casing materials and colors should complement the building's materials and colors

2.7 ROOFS

Create a varied roofscape appropriate to the architectural style, while avoiding repetitive and monotonous forms.

- Articulate roof forms to provide varied planes and masses within the overall roof; for example, combine a variety of one- and two-story roofs with eave height variations, roof offsets, dormers, vents and breaks in roof plane.

- Avoid monotonous simple pitched roofs. Vary roof orientations, slopes and heights to create interesting planes and ridges, and to break up large expanses.

- Flat or almost flat roofs are strongly discouraged.

- Punctuate large expanses of roof by allowing the roof form to reflect the functional spaces within each building.

- Include overhanging eaves and detailed gutters to create shadows on the building.

- Include roof elements like dormers and gables where appropriate.

2.8 LIGHTING

Lighting should be designed as an integral feature to the building and site according to the following guidelines:

- Free-standing and wall-mounted fixtures should incorporate cutoffs to screen the view of light sources from neighboring residential uses and streets

- Fixtures and posts should be consistent throughout the project