



## Town of Ashland



### I. Introduction

The purpose of this Design Guidelines Manual is to encourage future development in the Town of Ashland to follow the development styles and patterns that exist in the Town's much-loved older neighborhoods; that is, those styles that make Ashland Ashland.

Located in a growing region, Ashland has a limited number of vacant lots and infill opportunities as well as large, undeveloped properties at the edges of town that may develop as individual new buildings or large new developments in the coming years.

These design guidelines set out basic standards for new development that compliment the character, scale, and design that make Ashland Ashland, rather than detract from it.



## The Comprehensive Plan

This Design Guidelines Manual is an extension of the vision for Ashland's future growth and development laid out in the Comprehensive Plan (most recently revised in December 2011). Developers of new projects in the town should continue to rely on the Comprehensive Plan, along with these guidelines, to inform the design and function of new buildings and neighborhoods of Ashland.

In particular, the Comprehensive Plan's Community Character and Design plan (section 3) expresses the desire that future growth not change Ashland's small-town character, with a tradition of walkable neighborhoods and a unique sense of place.

*The Community Character & Design chapter of the Plan strives to enhance the form, character, and aesthetic appeal of the community by:*

- *Ensuring that a high level of design and quality construction is maintained on all projects within the Town borders.*
- *Promoting design characteristics that are consistent with the current architecture and nature of the Town.*
- *Encouraging sustainable development that utilizes eco-friendly construction materials that are high quality.*
- *Encouraging sensitive infill and redevelopment to create a cohesive Downtown area and preserve the historical nature of the Town.*
- *Maintaining and enhancing the Town's relationship with Randolph-Macon College.*
- *Enhancing the identity of Downtown through the promotion of the arts and entrepreneurs.*
- *Providing for the maintenance and replanting of the Town's trees to ensure the green quality of the Town in the future.*

*(Ashland Comprehensive Plan 2011)*

The focus of the Comprehensive Plan, and of this Design Guidelines Manual is on ensuring that new Ashland development matches the organization, design, and quality of its best-loved neighborhoods.

*"The Town of Ashland strives to have a high level of design and quality construction on all projects within its borders." (Ashland Comprehensive Plan 2011)*

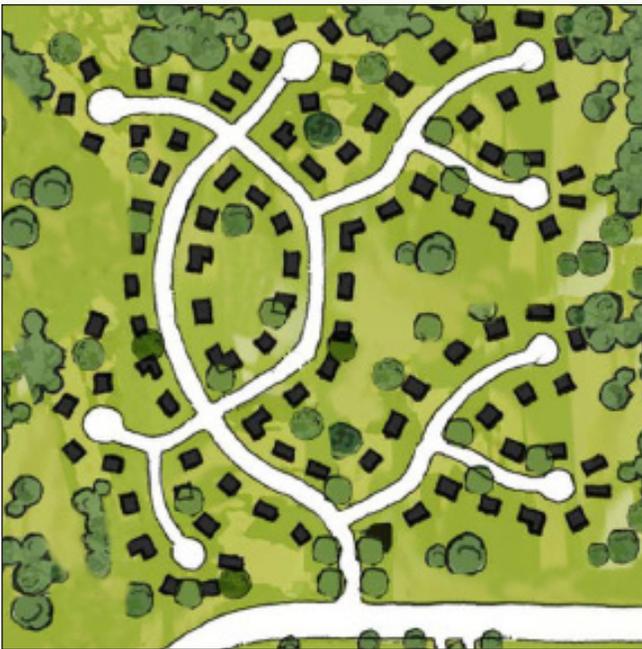
The following sections detail the design requirements for blocks, streets, styles, and elements that will make successful new Ashland developments, and fulfill the Town's goals for its future.



## II. Blocks

As with most older Virginia towns, Ashland's oldest and most loved neighborhoods are arranged in a grid pattern, with long, straight streets that intersect at right angles. The grid makes up a series of residential and mixed use blocks. In this arrangement, there are many different paths to travel from one area of town to another, spreading out car traffic and reducing congestion at any one point. The paths through the grid are also relatively direct, reducing the distance to destinations for people walking and biking.

Outside of Ashland, modern suburban developments are often made up of many curving, dead-end streets. This suburban layout makes these developments hard to navigate, and also makes walking to any destination difficult. This cul-de-sac plan actually increases traffic at entrances and other congestion points.



### **Suburban Streets:**

*Residential lots on cul-de-sacs form a typical suburban sprawl development accessed from a major collector. With very little connectivity, walking to a destination is nearly impossible. Traffic is concentrated at major entrances, causing congestion.*

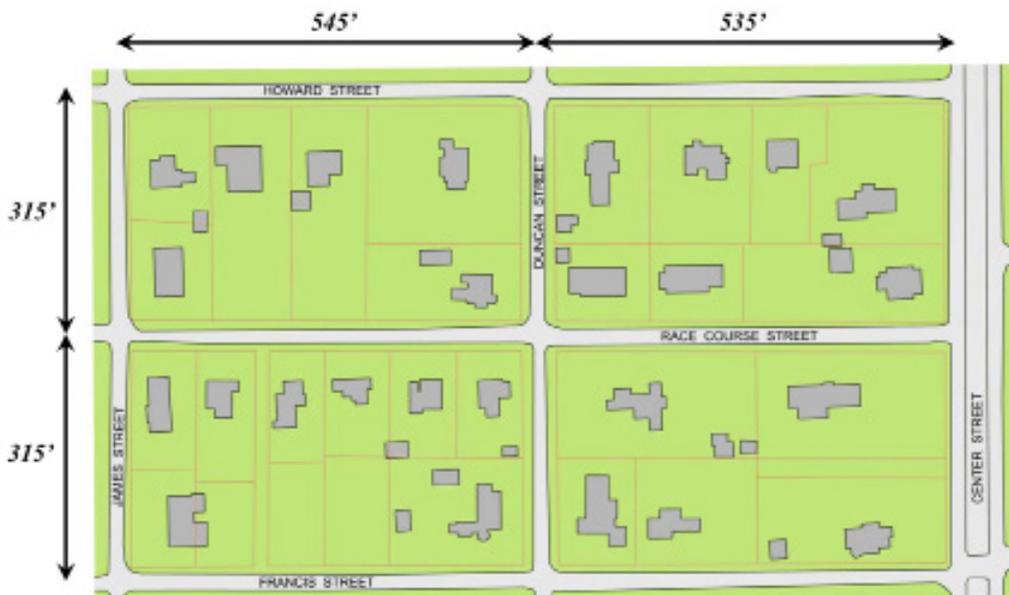
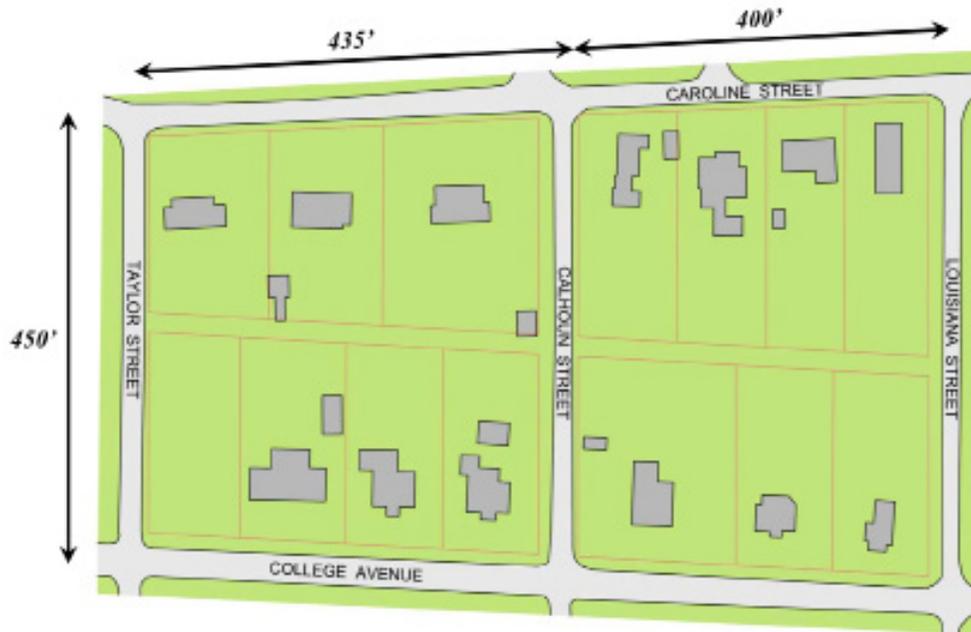


### **Grid Streets:**

*Streets make multiple connections, forming a logical network that makes walking or bicycling to destinations possible. The grid pattern also spreads out traffic between many streets and intersections, reducing traffic congestion.*



Any new development in Ashland should strive for vehicular and pedestrian connectivity. This is best accomplished by mirroring the grid pattern of streets that is found in the town as it exists today. While the exact size and shape of Ashland's blocks varies from place to place, blocks do fit a general pattern that should be followed in any future development that requires the building of new street connections. When measured from the centerlines of the streets that border them, Ashland blocks are generally from 400 to 550 feet long, and from 300 to 500 feet deep. These measurements allow for a wide variety of house and lot sizes, as discussed elsewhere in this manual, and provide connectivity that makes walking and biking possible.



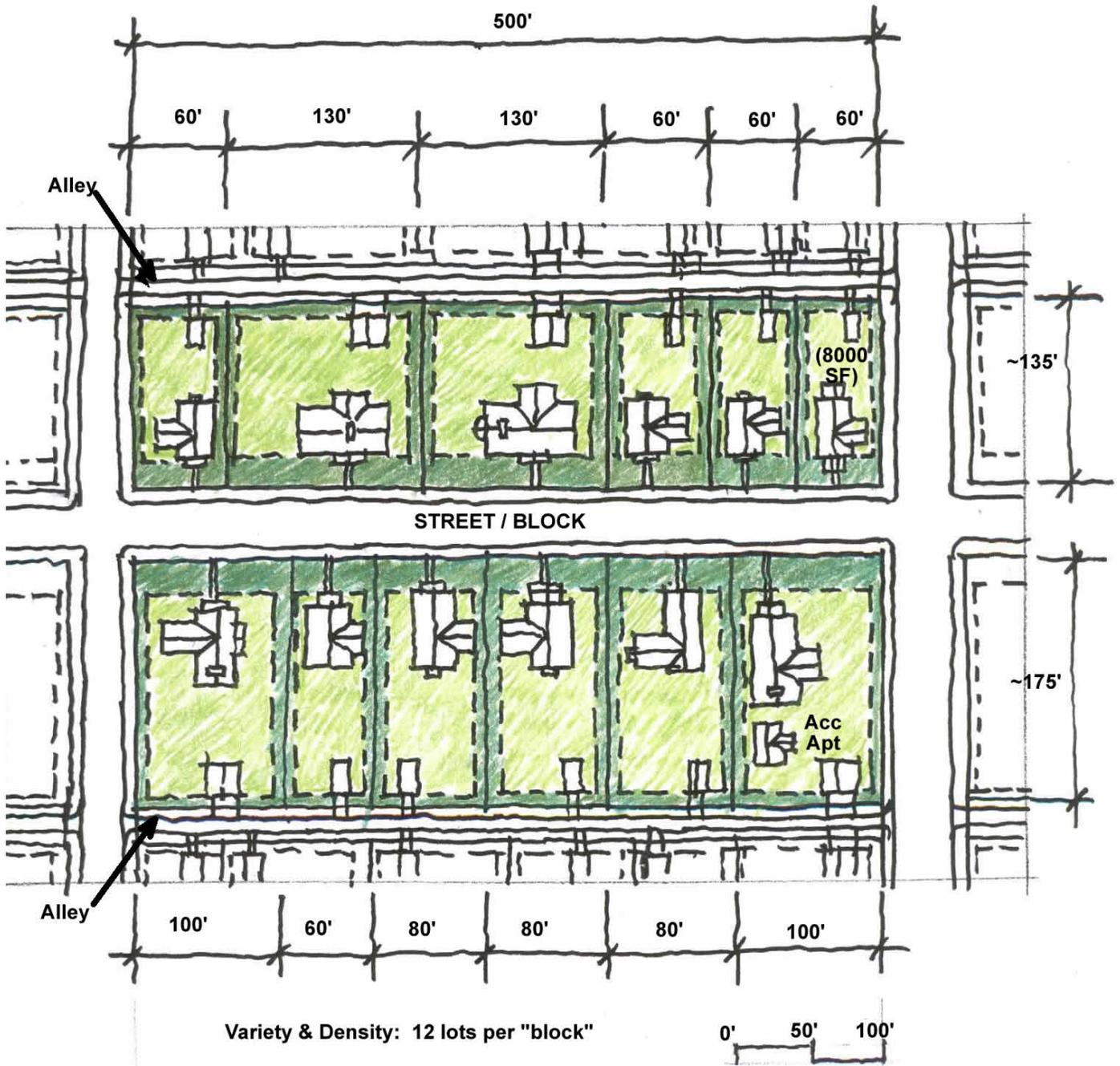
### III. Lots

Lots in Ashland's prized older neighborhoods are exceptionally varied in their size and shape, and are generally smaller than suburban or rural lots outside of Ashland. This small size puts houses closer to the street, and closer to each other, making quality design paramount. Perhaps the most important feature of Ashland neighborhoods is that they include a variety of lot sizes, often mixed together within the same street or block.

These design guidelines present two sets of lots (examples on page 6) that are standard in their depth, making mid-block alleys possible, but highly variable in their width, making possible the housing variety desired by the Comprehensive Plan. These lot sizes are based on existing lot and block sizes in Ashland neighborhoods, and are designed to be combined into block arrangements within the street types included in this manual.

To achieve desired variety in housing and lot width, based on existing Ashland neighborhoods, a **minimum lot width** of 60' and a **minimum average lot width** of 80' per residential "block" (two sets of homes facing each other on a given street) is highly desired. An example of varying lot widths on a typical 500' block may be - 2 lots 60' wide, 2 lots - 80' wide, 2 lots - 90' wide and 1 lot 100' wide.





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## IV. Garages



*Garage facing a minor side street.*



*Garages along a common alley.*



*Front-facing garages are not compatible with a walkable streetscape and should be **avoided**.*

Traditional town neighborhoods like the older neighborhoods of Ashland are often very different from contemporary suburban development in the way that they handle garages and other facilities for cars. Ashland's old neighborhoods may have originally been developed in a time with lower levels of car ownership, or even before the invention of the automobile. For this reason, driveways and garages were treated as add-on or utilitarian spaces. When a garage is present, it is almost always located at the rear or side of a house, and is not immediately or glaringly obvious.

In more recent years, with much higher rates of car ownership and where long-distance commuting is common, cars have a more central role in the lives of suburbanites. Automobile facilities have also become central to suburban development, with houses featuring long, wide driveways and multiple car garages attached to the front of the house with large garage doors facing the street. The look of many suburban places is dominated more by driveways and garages than by houses, sidewalks, or other facilities meant for people.

Future residential development in Ashland should be designed to emphasize houses and places for its residents, not places for cars. Cars are an important part of household life for many, but garages and driveways should be treated as utilitarian spaces, and de-emphasized visually whenever possible.

This Design Guidelines Manual suggests the following garage and driveway configurations for residential lots:



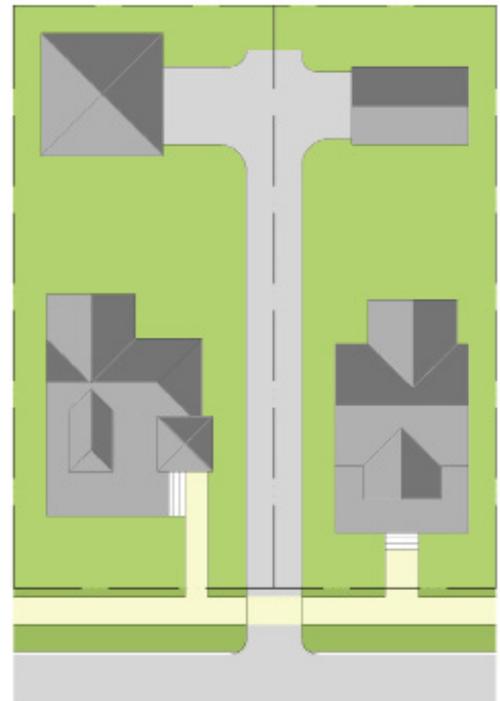
**Alley**

Blocks in newly developed areas of Ashland may be designed with mid-block alleys that allow very low speed automobile access to the rear of residential lots. Garages or other parking areas may be constructed in this often unused rear lot space.



**Shared Drive**

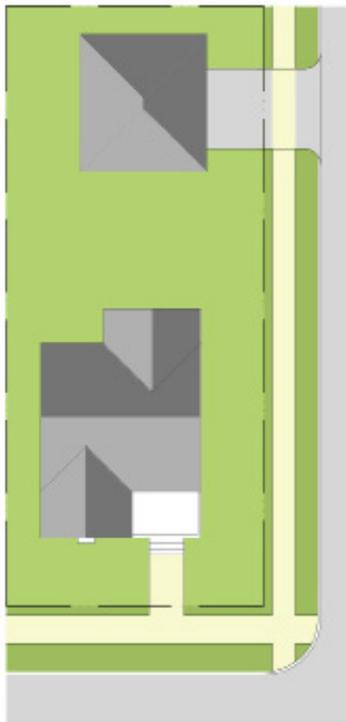
To minimize the disruption to residential streets and sidewalks caused by driveway crossings, two adjacent houses may share a single driveway. A narrow drive, built on the property line separating the two houses, may be used to access garages or parking areas in the rear of both homes, where they are less visible from the street.





### Side Drive

Rear garages and parking areas may also be accessed by a side driveway serving only one house. This option is available where there is an adequate side yard setback to accommodate a narrow lane leading to the rear of the lot.



### Side Street Garage

Where a residential lot occupies the corner where two public streets meet, this corner lot may have a garage or parking area that fronts the more minor of the two streets. In this configuration, the home's main façade fronts the major street, while its garage, whether attached or detached, fronts the minor street. Because the garage still fronts on a public street, all efforts should still be made to reduce its visual impact and interference with automobile and pedestrian traffic.



## V. Architecture

New residential development within the Town of Ashland should follow the architectural principles of the town's beloved older neighborhoods. The success of these old neighborhoods is due in large part to their attractive and well-kept homes. These homes rely on quality materials, sensible design, and a wide variety of architectural styles. Many contemporary suburbs suffer from the sameness of repeating one or two house designs throughout, and from using cheap materials and imitation finishes. New construction should avoid these traps and strive to take inspiration from, or even replicate, the design of old Ashland.

### Architectural Principles for Ashland

New homes within future Ashland developments, as well as those built in limited numbers in infill situations, should strive for architectural compatibility with the town as a whole by adhering to the following principles:

- *Homes should draw from the wide variety of existing architectural styles present in Ashland today, from traditional early American designs, to later bungalows and ranch houses.*
- *Ashland's new homes should be built of durable, quality materials seen in existing older homes, and should avoid imitation materials and finishes.*
- *Buildings should be designed with entrances and frontage on a grid system of streets that bind the homes together into a seamless neighborhood.*
- *Homes within the neighborhood should be set at, or close to, the street edge, to provide a somewhat uniform street wall, yet with variability in order to replicate historic development patterns.*
- *Buildings should embody the scale, visual order, rhythm, and proportion found in traditional architecture, and in older Ashland neighborhoods.*
- *Traditional urban architectural and hardscape elements, such as benches, custom streetlights, and creative signage, should be compatible and coordinated with architectural stylings in the neighborhood.*
- *While using traditional architectural themes, homes should incorporate state-of-the-art green building technologies and promote sustainability and conservation.*



## Basic Elements

This manual provides specific goals for the architectural style, lot size, garage placement, street section, and other parameters for new residential and non-residential development within the Town of Ashland. However, more basic elements of the scale, order, rhythm, and proportion of new buildings are also extremely important. The Town's goal for its future development is to encourage design variety while continuing the pattern of existing Ashland neighborhoods. The issues of scale, order, rhythm, and proportion covered here can inform the design of buildings that fit in Ashland, and illustrate the differences between traditional Ashland design and conventional suburban development.

### Scale

Scale is the ratio of the size of one object to the size of another. Scale relationships in architecture include: (1) the size of the parts of a building related to the whole building, (2) the buildings size in relation to its setting., and (3) the size of the parts of a building compared to a person.

Because Ashland's older and best-loved neighborhoods are walkable and pedestrian scaled, new Ashland neighborhoods should be the same. Designers of new Ashland buildings should consider that their work is meant to be seen and experienced by people on foot, not people driving quickly by in a car. This difference in perspective is largely responsible for the differences between typical suburban developments and traditional neighborhoods.

The scale of elements such as doors, windows, and columns, should be chosen with the pedestrian in mind. Consistency of these elements among residences throughout the development should also be maintained. Large, unbroken, or towering facades should be avoided. Ideally, a multi-story façade will be softened by a single story porch or entry.



### Visual Order

Visual order comes from consistency among architectural components, including porches, stairs, columns, windows, and doors. The symmetry of traditional Virginia architectural styles is an example of this order, with the entrance to a building usually found in the center of a symmetrical façade. A great many traditional Virginia buildings look and feel like a consistent group because this element of order is repeated. A strong system of visual order within each building and between buildings should be established in new Ashland developments as a way to tie the development together. By creating and maintaining visual order, designers can ensure that the range of dwelling types, sizes, and styles within Ashland look and feel like a cohesive community and not just a collection of unassociated parts.



### Rhythm

Rhythm is the consistent repetition of building forms or architectural components at regular intervals. A building with good architectural rhythm has openings spaced regularly across the façade. The opening may be a door or a window, but fits into the rhythm of the façade regardless. Once established, the rhythm, with the same measurements, should be repeated on all floors, and in other elements, such as porch columns. Once a rhythmic pattern has been established, any interruption in that pattern, such as a missing window on an upper floor above one that exists on a lower floor, becomes an unwelcome focal point. Such an interruption of rhythm often happens when a designer sacrifices the look of the façade for reasons dealing with the interior layout of the building. Designers working in Ashland should strive for the type of quality design that justifies interior layout with exterior architectural rhythm.

### Proportion

Architectural proportion means maintaining specific scale ratios between associated architectural components. For example, when the façade of a building that is twice as tall as it is wide has windows that are also twice as tall as wide, excellent proportion results.

Another instance of proportion deals with the relationship of openings (doors and windows) to solid walls in the façade. Once this proportion is established, it should be maintained on all floors, and in all parts of the façade, and should relate to other homes within the neighborhood. Designers should also be aware that the traditional town architecture sought in Ashland typically has a greater proportion of openings to walls (more doors and windows) than more recent buildings. The section of this manual on windows sets more specific goals for proportion.



## Architectural Styles

The Town of Ashland has a rich and varied architectural history, connected to the rural, colonial, and early industrial architectural heritage of Virginia and the piedmont. Over time, elements imported from Europe by colonial-era and later settlers, have been mixed with local vernacular building forms, like the simple farm house and log cabin, to create a unique piedmont architecture that characterizes much of Virginia. Even later, these traditional building forms have been modified in response to smaller in-town building sites and modern construction materials.



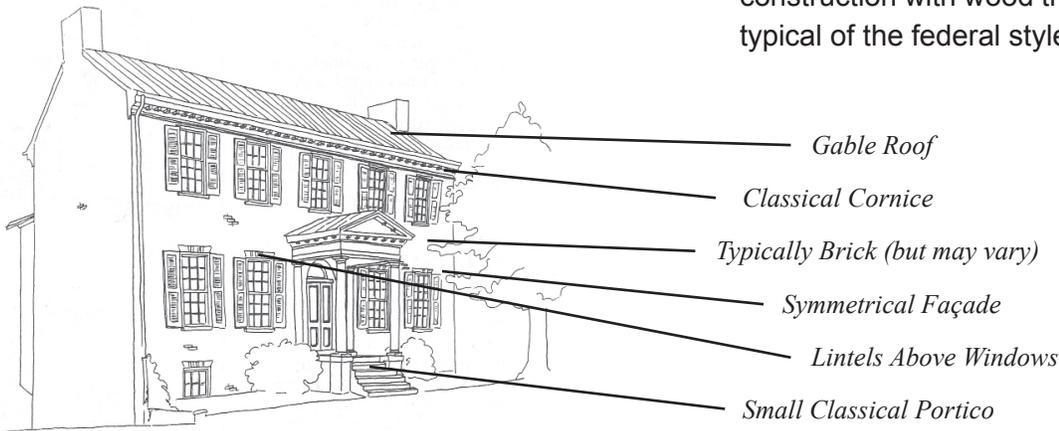
While the modification over time of Virginia architecture has led to innovation and greater efficiency, not all modifications have been for the better. Standard home plans simply dressed with the exterior finishes of traditional architecture are a detriment to the overall architectural quality of Ashland. Traditional architectural design involves not only finishes, but the plan and layout of the entire structure and its placement within the building site. A rich variety of styles are evident in Ashland, and the town intends that new residential construction should also exhibit a wide variety of architectural style.





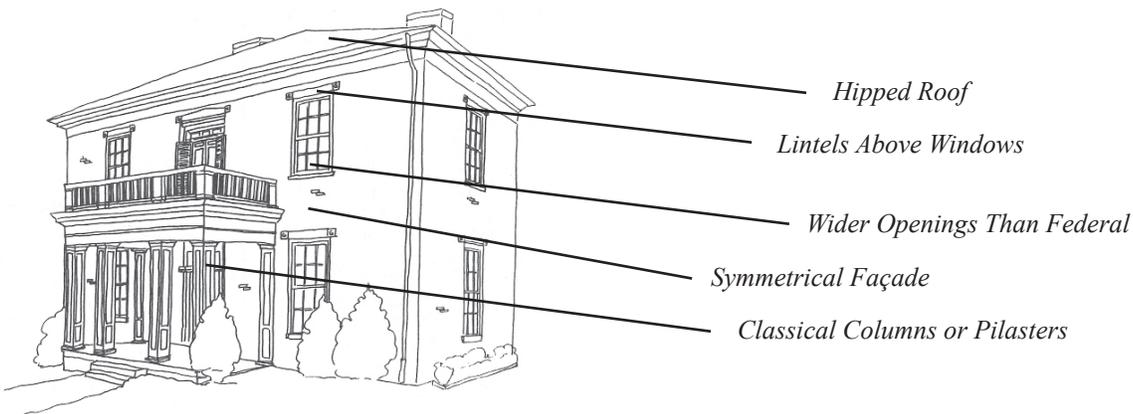
**Federal**

Federal architecture came about in the early 1800s, and drew inspiration from classical Roman architectural styles. Federal style houses are typically tall and spare, without elaborate ornamentation, but instead feature columns, friezes, or pediments, either as genuine structural elements of the building, or for decoration. Brick construction with wood trim painted white is very typical of the federal style.



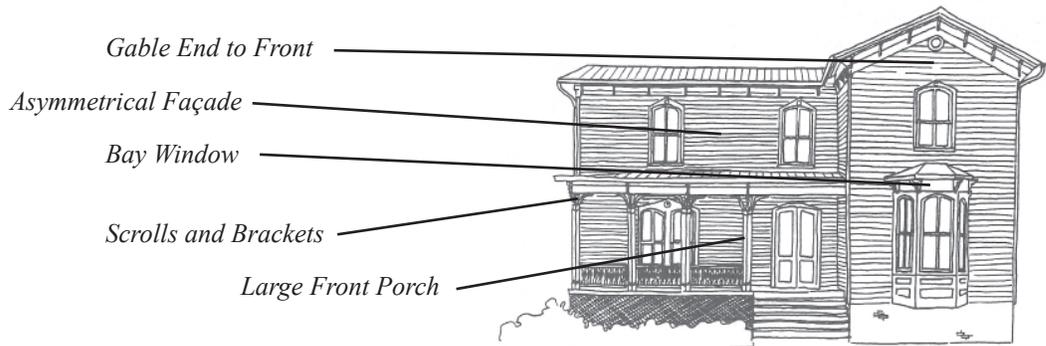
**Greek Revival**

The Greek Revival followed the Federal style's use of Roman architectural elements by reaching farther back into history to draw on Greek elements. This revival started in the early to mid 1800s. The Greek Revival differs in its use of pilasters (square columns or column-like elements set flat against the façade), and generally more square proportions.



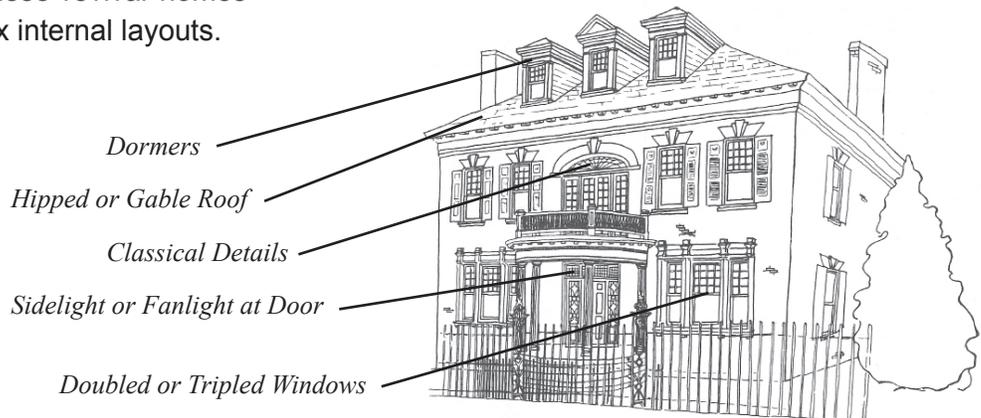
**Queen Anne**

The Queen Anne house was developed in the late 1800s, falling out of favor again in the early 1900s, although some examples have been built later. The main feature making this style different from earlier styles is its asymmetric façade. This asymmetric façade is created by a front-facing gable. The typical Queen Anne home is two stories tall, and has a large front porch.



**Colonial Revival**

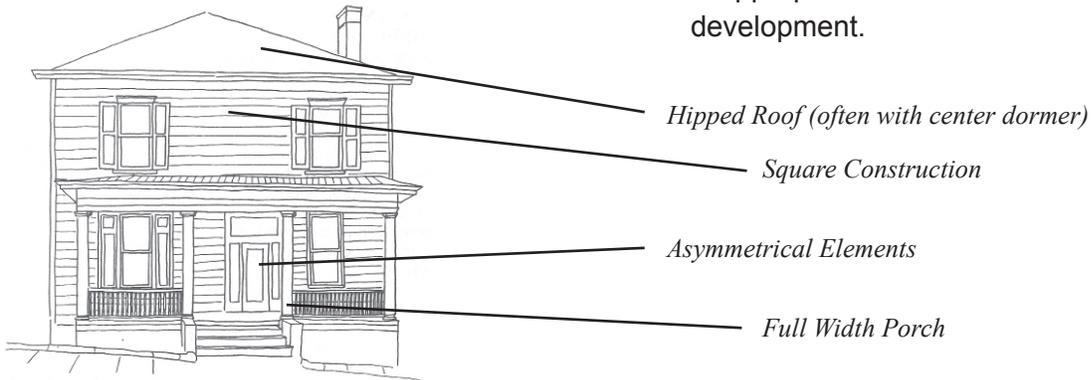
The Colonial Revival took place mainly in the first half of the 20th century, when architects and home owners brought back elements of early American design and applied them to modern building layouts. Colonial revival homes are typically two stories high, with symmetrical facades, simple pitched roofs oriented parallel to the facade, columns, and end chimneys. Unlike original colonial buildings, these revival homes are larger, with more complex internal layouts.





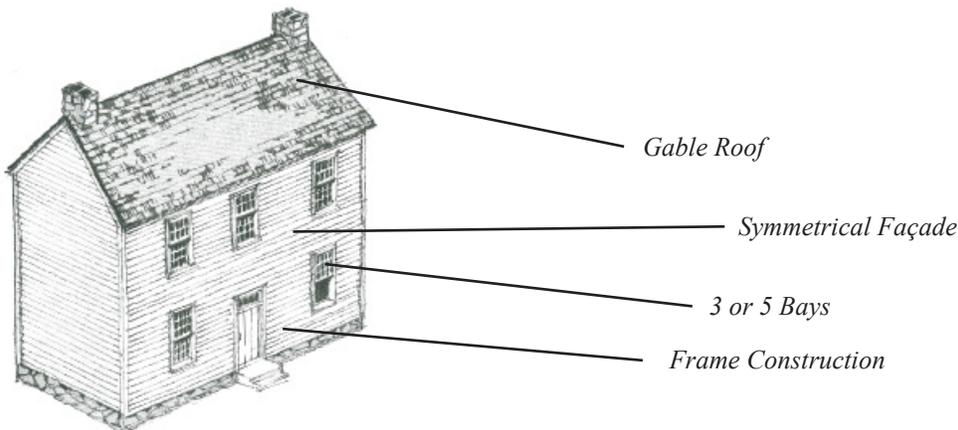
**Foursquare**

The foursquare is a house type developed in the late 1800 to early 1900s. The plan is typically square or nearly square, and is two rooms wide and two rooms deep. While not strictly an architectural style, the foursquare is rather a house form that may be dressed in a variety of styles. Nonetheless, the foursquare has a prominent place in the architectural style of Ashland, and so is appropriate for inclusion in any new residential development.



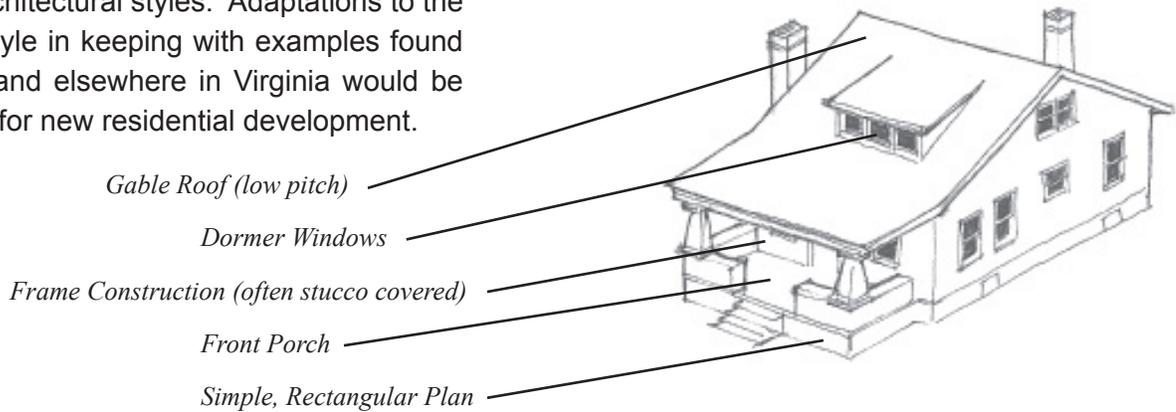
**I-house**

The I-house is a popular American vernacular house style, especially in the Mid-Atlantic and south. An I-house is two or more rooms wide, one room deep, and two stories high, with a symmetrical façade. The facade may have 3 or 5 bays (openings). Like the foursquare, the I-house is not style-specific, and may be dressed in various styles.



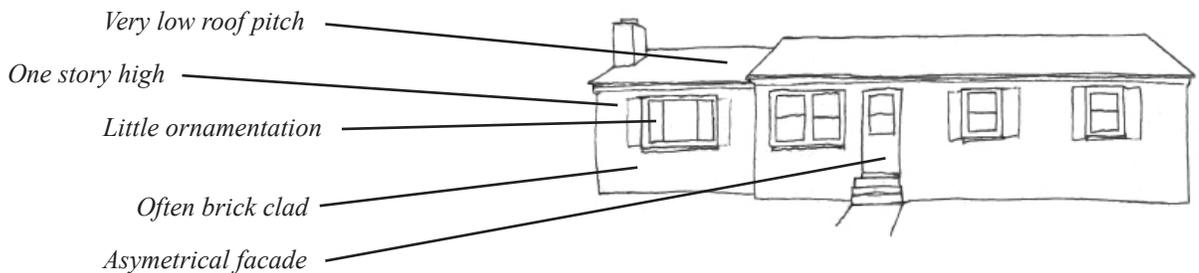
**Bungalow**

Bungalows are a type of small home built mainly between the beginning of the 20th century and the World War II. Many bungalows are one story tall, while some are one-and-a-half stories (the second floor is above the eave of the roof, with dormer windows). This style of house is often an in-town home, designed for small lots and affordability of construction. The bungalow is found in all areas of the US, with minor stylistic changes to suit local architectural styles. Adaptations to the bungalow style in keeping with examples found in Ashland and elsewhere in Virginia would be appropriate for new residential development.



**Ranch**

Following World War II, ranch style houses became the dominant house type in much of the country for the 1950s and 60s. The ranch is an asymmetrical single story house with a low pitched roof. With only one level, the ranch house has a large footprint, and so was most often built in suburbs where land is plentiful. The ranch house is often clad in brick. Several examples of 50s and 60s ranch houses are found in Ashland's older neighborhoods, where they may have replaced an older house, or were built on an infill lot.



## Architectural Materials

The materials used in new Ashland homes should be in agreement with local architectural traditions, and compatible with the home's architectural style. The emphasis for all new Ashland homes should be on using durable, quality materials as seen in older homes, while avoiding inexpensive or imitation finishes that have become common in contemporary suburban construction. Exterior materials will include, but shouldn't be limited to, those contained in this section:



### Plank Siding

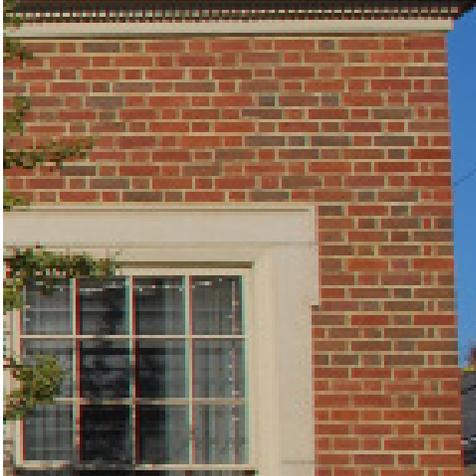
The most common siding material seen in existing homes around Virginia is wooden plank siding. Planks are relatively inexpensive, easy to use, and can be painted in any color. Today, wooden planks are often replaced with materials such as aluminum, vinyl, and composite products. These materials replicate wood planking, but with varying levels of attractiveness. Of these alternatives, fiber-cement siding (such as HardiePlank) is an attractive and durable modern equivalent, and should be used in Ashland, while vinyl and aluminum sidings are poor substitutes, and should be avoided.



### Stucco

Stucco is a cement-like compound that can be applied to the exterior of a building. Once dry, stucco is extremely durable, and so can require very little maintenance. Stucco gives the exterior of a building a rough, grainy texture, but is otherwise uniform, not showing lines or joints in the way that wood siding or brick does. Use of stucco is not tied to any particular architectural style, but is rather used in many styles.





### Brick

There is a long tradition of brick construction in Virginia, where the clay soil is ideal for brick making. Although brick making and brick construction can be more time consuming and more expensive than other construction methods, brick is extremely durable and requires little maintenance. Today, brick is often used as a facing material on residential buildings, especially those in colonial or federal styles.



### Stone

While buildings made entirely of stone are rare in Ashland, and in Virginia, examples do exist. More commonly, stone is used for part of a building, such as a foundation or accent. This has been especially true in piedmont regions where farming or the development of a building may have turned up stones that could be used in building. While stone can be expensive and difficult to work with, it is commonly seen today as a facing material or accent.



*Siding materials should be consistent on all sides of the building.*

### Material Consistency

Exterior material choices for individual homes in Ashland should be consistent for all sides of the home. The intent of this standard is to avoid a too-common feature of recent suburban development in which a building has a veneer of stone or brick on the front façade, but the remaining three sides are covered with lesser materials. As this is not consistent with Ashland's traditional neighborhoods.



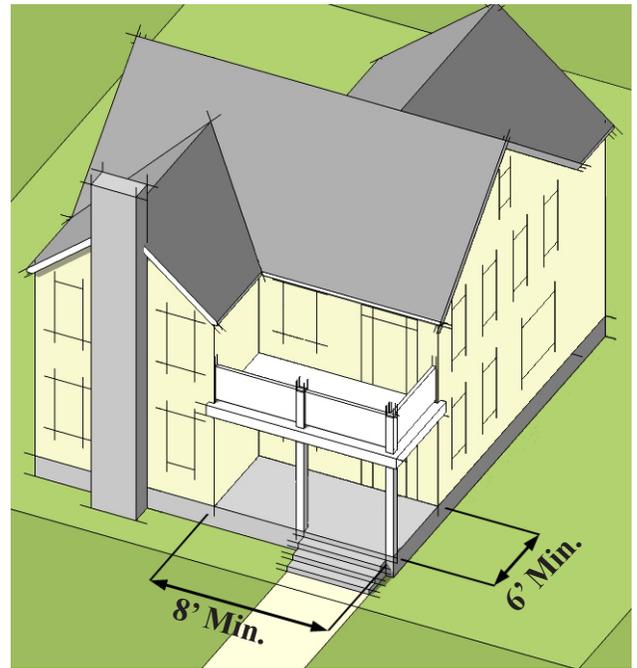
## Other Elements

Despite varying architectural styles, the homes within any new Ashland neighborhood should have common architectural and structural elements that relate to one another, as well as to the individual architectural style of the home, in order to make a cohesive and attractive neighborhood. These architectural elements are found in typical Ashland homes. While they may or may not be included in new construction, if included they should follow these guidelines:

### Porches

The majority of traditional Virginia house styles include a porch in some form in their construction. Functionally, the porch gives protection from the elements, and (in the case of large porches) offers a shaded outdoor space that can be used as an extension of the living space. Aesthetically, the porch serves to announce and embellish the main entrance to the home, adding emphasis to this most important element of the façade.

When a porch is included, it should be designed in proportion to the home, with architectural elements consistent with the overall home design. The porch should be designed as a function and occupiable space, not simple as a imitation architectural feature. To this end, any porch should include a minimum of 6x8 feet of covered space. The porch should be constructed of materials consistent with the overall construction of the home.





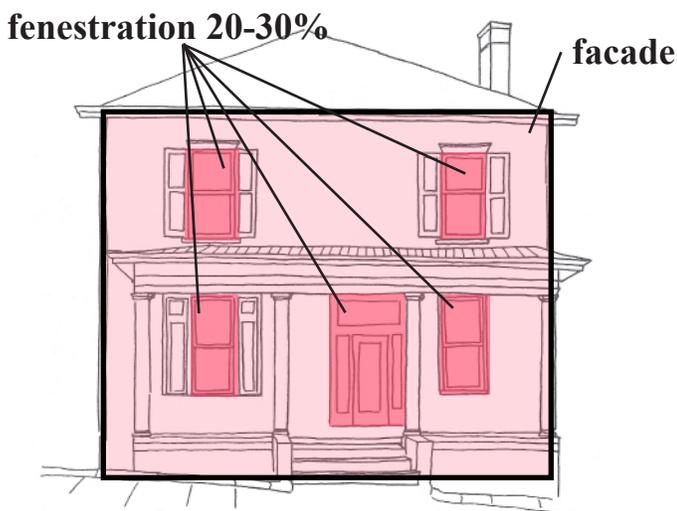
**Doors**

The doors of new homes built in Ashland should be an obvious feature when viewed from the street. The door may be given visual importance by a porch, path, landscaping, or other element, and no front-facing garage doors or façade elements should be allowed to compete visually with the entry. No element of the home’s façade should project closer to the street than the door by more than 8 feet. In addition, each new house should have one, and only one, door or entrance that faces the public street.



**Windows**

The location and size of windows should be designed with attention to the principles of proportion and rhythm outlined in this manual. The design of the window itself should also relate to local precedents. Overwhelmingly, windows in Ashland neighborhoods are sash windows, often with divided panes (lights), whether actual or simulated. Ranch or bungalow style homes may have no divided lights, with windows that are simply a plain upper and lower sash. All windows should include exterior trim and sills. Casement windows or fixed panes of glass are not typical of Ashland and should be avoided.



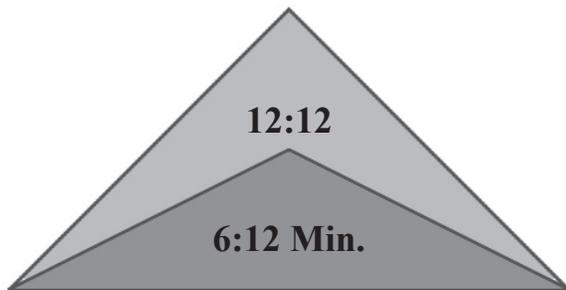
The ratio of windows (and doors) to the total size of a building’s front façade should also be considered. This ratio of openings (fenestration) to façade for existing Ashland residential architecture, as well as for other traditional Virginia homes, tends to fall within a relatively fixed normal range. New homes should avoid large areas of blank wall facing the street, but should also avoid extremely modern styles with large expanses of glass. In general, new residences in Ashland should have window and door openings on the front façade that make up between 20% and 30% of the total façade area.





### **Dormers**

Dormers are small projections above the roof line that contain one or more windows. When designed and executed properly, dormers can be a part of many of the architectural styles seen in Ashland and outlined in this manual. Dormers should be used to minimize the height of houses or other buildings over 2 stories, to keep them from towering over the street and sidewalk. In most cases, dormers should be constructed of the same siding and roofing materials as the remainder of the home.



### **Roofs**

The roofs of new homes should follow the example of Ashland's older neighborhoods, which vary significantly in their design and materials, but use structural forms and materials that match the home's architectural style, as well as with the overall character of the neighborhood. Most roofs should be gable or hip designs, as suggested in this manual's section on architectural styles. For most styles, roof pitch should not be less than 6:12 or more than 12:12. For bungalow or ranch designs, roof pitches may be lower, but should generally fit with the architectural style of the house, and be approved locally.



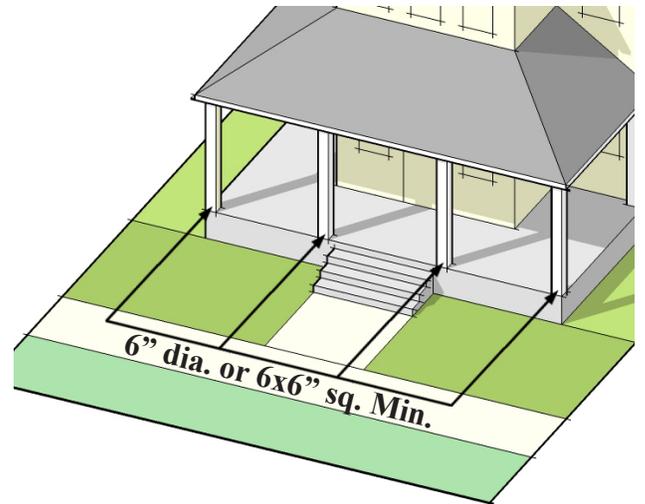
Roofing materials may be standing seam metal, asphalt shingle, wood shake shingle, or slate. Modern synthetic products that faithfully approximate these materials may also be used.



**Columns**

Columns are associated with many of the traditional styles seen in Ashland and outlined in this manual, usually supporting the roof of a porch. The design of columns should be coordinated with the overall style of the structure. In most cases, simple round or square columns with similar bases (capitals) should be used. In the Queen Anne style, scroll-work capitals might be used, and more elaborate or fluted columns may be used with Federal or Greek Revival styles.

It is also important that the scale of columns is appropriate to the structure. Too often, columns or simple posts are used that are too small for the building, giving the impression that porches or ornamentation are a design afterthought. Proper column for new Ashland homes should be at least 6-inches in diameter for round columns, or 6-inches on each side for square columns.



**Desirable Architectural Features**

*Roof pitch between 6:12 and 12:12*

*Windows and doors make up 20-30% of facade*

*Details form a consistent style*

*Sash windows with trim*

*Quality and consistent materials*

*Columns at least 6" in diameter*

*Porch at least 8' x 6'*





## VI. Green Building

Successful new developments in Ashland should be built with the environment in mind. Green building techniques range from how land is chosen and developments are laid out, to what building materials are used and how household waste is handled. These techniques can help the town to do its part to preserve the aesthetic and environmental qualities that are important to the residents of Ashland.

### Earthcraft for Residential Development

All new single family residences in Ashland should meet industry standard Earthcraft certification. The Earthcraft certification program gives residential buildings points for various green building efforts in a variety of categories – some common and some requiring significant innovation. By earning the required number of points, a home can be certified as an Earthcraft home. The program was originally conceived by home builders to appeal to buyers who value conservation. These are also values that are important to the Town of Ashland.

### Site Planning

As prescribed in this manual, homes on smaller lots, and for neighborhoods with street connectivity, pedestrian or bike facilities, and close proximity to mixed use areas are encouraged. It is also desirable to preserve existing environmental features and planting of native plant species.

### Construction Waste Management

Certification recognizes buildings that minimize waste of materials during construction, and that reuse, recycle, or otherwise keep construction waste out of landfills.



**Resource Efficiency**

Earthcraft homes should strive to use materials that are recycled, locally sources, or contain natural or renewable components, and should use designs or framing techniques that require fewer materials overall.

**Durability and Moisture Management**

Building designs and techniques that use appropriate shielding, flashing, vapor barrier, and other waterproofing to prevent water damage or mold are encouraged.

**Indoor Air Quality**

Systems should be in place to protect residents of the home from carbon monoxide and other air pollutants by properly sealing fireplaces, garages, furnaces, and other potential pollution sources.

**High Performance Building Envelope**

Ashland seeks homes that are exceptionally well-insulated, including wall, foundation, roof, windows, and doors. Homes should be tested to identify and prevent outside air penetration.

**Energy Efficient Systems**

All appliances and other home equipment should be selected for energy efficiency. Energy Star kitchen, lighting, and air-handling equipment is recommended, as are ground-source heat pumps.

**Water Efficiency**

Earthcraft homes conserve water by using low-flow and low capacity fixtures. Outdoor water conservation measures like drought-tolerant landscaping and rainwater collection should also be used.

**Innovation**

Credit is given to homes that employ innovative systems including solar, wind, or other alternative power sources.





### LEED for Commercial Development

New commercial, as well as civic, institutional, and other non-residential projects in Ashland should strive for a separate certification of green building quality; LEED certification.

LEED (Leadership in Energy and Environmental Design) is a ratings system that is designed to quantify environmental features included in the design, construction, and operation of buildings. While LEED certification for residential buildings has recently become available, the program is primarily focused on non-residential commercial, civic, and institutional buildings.

To earn LEED certification, a project must satisfy all LEED prerequisites and earn at least 40 points on a 110-point LEED rating scale that emphasizes green design and building techniques related to the building site, water efficiency, energy consumption, materials and resources, and indoor environmental quality.

**Sustainable sites** Minimize the buildings impact on ecosystems and water resources, including locating buildings on infill or brownfield sites, preserving open space, connecting to alternative transportation systems, and increasing density.

**Water efficiency** Smarter use of water, inside and outside the building through the reduction of potable water use, planting of water efficient landscaping, and innovative treatment of wastewater.

**Energy & atmosphere** Building energy performance through innovative strategies that reduce the building's energy needs, generate on-site energy, or utilize alternative or renewable energy resources off site.

**Materials & resources** Sustainable building materials and reducing construction waste.

**Indoor environmental quality** Indoor air quality through the use of low emitting building materials, and encourage access to daylight and views for building occupants.



## Stormwater and Best Management Practices

Any new development in Ashland will require that large areas of undeveloped land be covered with buildings, roads, parking lots and other impervious surfaces. In changing from natural ground to impervious surfaces, this construction will affect stormwater, or what happens to rain that falls on the site. New Ashland developments should include stormwater systems that reduce environmental impact and promote clean water.

While rain falling on an undeveloped lot can slowly soak into the ground, impervious surfaces stop that infiltration. Unless otherwise planned for, stormwater runs off of developed sites and into natural swales or creeks at higher velocities (causing downstream erosion or flooding), and carrying pollutants such as fertilizers used on landscaping and oil dripped from parked cars.

Older developments may do nothing to address stormwater, or address only the volume of water running off of a site. In this case, water is directed into a basin and released downstream gradually rather than all at once. This solves the problems of downstream flooding and erosion, but doesn't treat the pollution found in runoff. Also, conventional stormwater basins can be unattractive and surrounded by fences for liability reasons.

Modern green building techniques have resulted in stormwater systems that are more efficient and more attractive. Reducing impervious surfaces, using vegetation to remove pollutants, and other stormwater improvement techniques are often called Low Impact Development (LID). These techniques have increasingly been incorporated into legal requirements, including the Virginia Department of Conservation and Recreation's (DCR) new regulations that require more stringent stormwater planning, including some of the following techniques:



*Conventional stormwater basins can be unattractive, and only address stormwater volume, not pollution.*



*Low Impact Development (LID) treats stormwater quantity as well as quality, often with natural vegetation and other techniques.*





**Infiltration measures** come in a variety of forms and designs, but all work to capture runoff where it can slowly soak into the ground rather than be released downstream as in typical stormwater basins. Infiltration measures reduce downstream flooding and erosion, and use the ground as a natural filter for sediment and pollution.

**Bio-retention or rain gardens** are natural-looking or landscaped vegetated areas that form shallow depressions or swales in the landscape. They collect runoff and allow infiltration, but also work to clean stormwater as it is absorbed by specially selected plants and vegetation.



**Manufactured urban BMPs** also come in a variety of designs, but all work to clean polluted road or parking lot runoff, and are made to be installed in built-up areas where there is no room for above ground measures like rain gardens. Manufactured BMPs usually consist of underground chambers filled with sand filters or other separating equipment, or stormwater inlets planted with trees to filter runoff.



**Porous pavements** can be used to directly counter the urban runoff problems associated with impervious parking lot, roadway, and sidewalk surfaces. By using alternative materials that allow some rainwater to soak through the asphalt or concrete surface and into the ground, runoff volume and velocity can be reduced. Porous surfaces are appropriate for parking or lightly-used travel ways, and allow up to 80% of rainwater to soak through to the ground beneath.

**Rainwater harvesting** can capture the relatively clean runoff from building roofs and store it for later use. Harvesting can reduce the volume of water put into the stormwater system, as well as reduce water consumption when the harvested water is used for irrigation, maintenance tasks, or even treated and used inside the building.



## VII. Streets

Several undeveloped properties within Ashland are of sufficient size that future development will require the building of additional streets to serve new houses or businesses. These streets should be designed to mirror the street designs seen in older Ashland neighborhoods. In general, these existing streets can be described as “complete streets”; that is, streets that are designed to accommodate pedestrians and bicycles as well as automobiles. Unfortunately, many contemporary suburban streets do not meet this standard. They are built to move a large volume of cars at high speeds, and have few, if any, pedestrian facilities.

As new developments are designed and constructed, streets similar to those presented in this manual should be used. Design variations may be necessary to accommodate projected levels of traffic, as well as topographic and environmental conditions. Street designs must also meet all applicable state, regional, and local engineering standards.



*Ashland homes should address the street, not a driveway.*



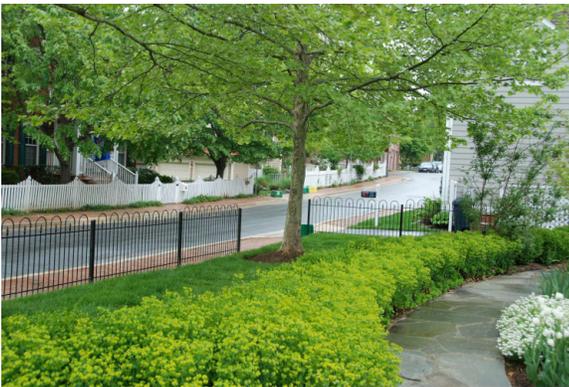
*Streets should work as well for pedestrians and cyclists as for cars.*



*Street trees are an important part of Ashland’s streets, but require maintenance. Low branches should be kept trimmed to a minimum of 13.5 feet above sidewalks and streets to avoid interfering with cars and pedestrians, while high branches must be kept clear of overhead utilities.*



**Minor Residential Street**



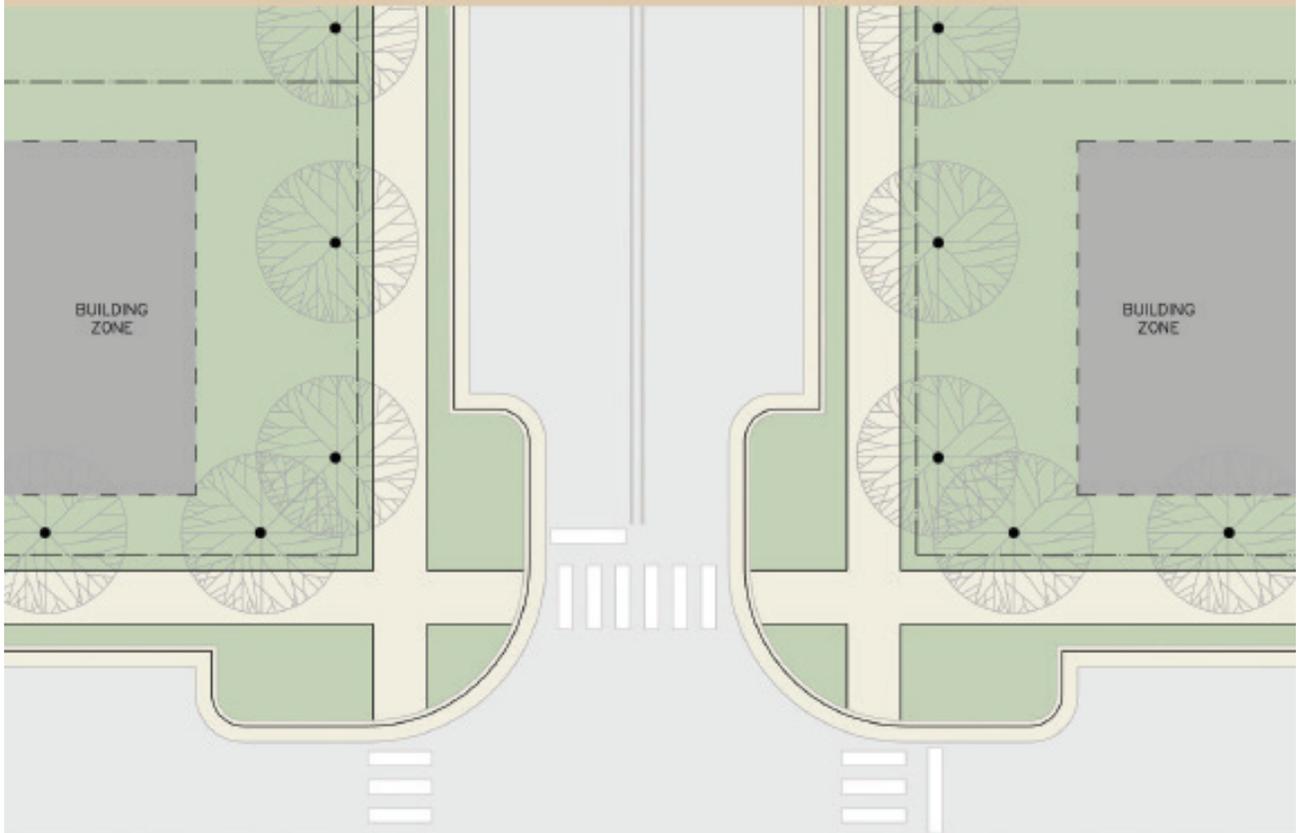
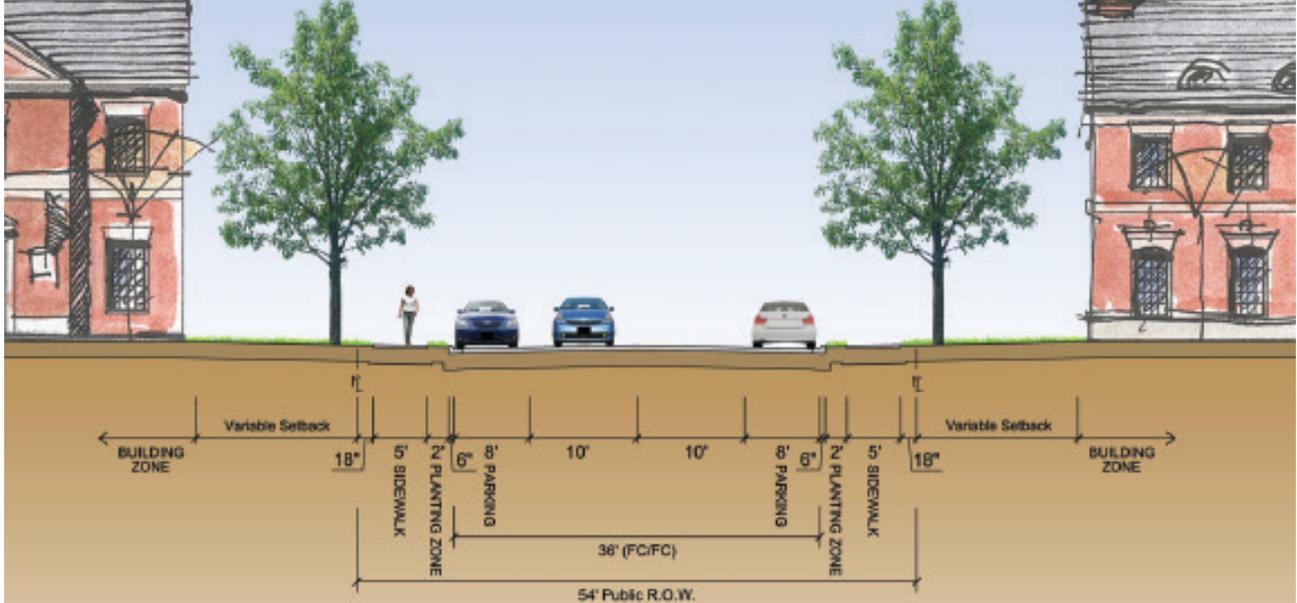
When new streets do not serve as important through streets, or where traffic is expected to be light, a smaller street section may be used. The minor residential street may use two 10 foot lanes rather than the major street's 11 foot lanes, but is the same in all other respects. These narrower lanes save on infrastructure space and expense, and encourage slower traffic in quieter areas of a residential development. Like the major residential street, this design provides parallel parking and 5 foot sidewalks on both sides.

The character of Ashland's older neighborhoods is very much shaped by their trees and other landscaping. Street trees and other landscaping should be included in all new streets. The major and minor residential street designs include a 2 foot grass strip between the sidewalk and the back of the curb. This strip may require a waiver of typical street design standards. Space outside of the public right-of-way for street trees is also included in accordance with Ashland's zoning and landscape ordinances. The inclusion of green space is important to the visual quality of streets, and street trees are useful both visually and to provide shade to pedestrians.

<b>Right of Way:</b>	<i>52' ROW width; 45' with one-side parking</i>
<b>Pavement:</b>	<i>2 travel lanes – 10' wide</i>
<b>Parking:</b>	<i>Parallel spaces - 8' wide (unmarked) on one or two sides</i>
<b>Sidewalks:</b>	<i>Required 5' width</i>
<b>Speed:</b>	<i>25 mph maximum</i>
<b>Landscape:</b>	<i>2' grass strip; trees outside ROW</i>
<b>Hardscape:</b>	<i>Delineated crosswalks; street lights</i>



### Minor Residential Street



**Major Residential Street**

In residential areas, streets should provide adequate vehicle access, as well as serve parking and pedestrian roles. While suburban residential streets serve cars exclusively, streets in Ashland’s older neighborhoods are multi-functional. Because houses occupy smaller lots and sit close to the street, parking is often accommodated on the street rather than in a driveway or garage. Streets in these traditional neighborhoods also serve a pedestrian function, with residents walking for enjoyment or to travel to nearby stores, schools, or parks. Pedestrians will use these residential streets whether sidewalks are available or not, and so sidewalks should be provided to allow safe travel for all users of the street.

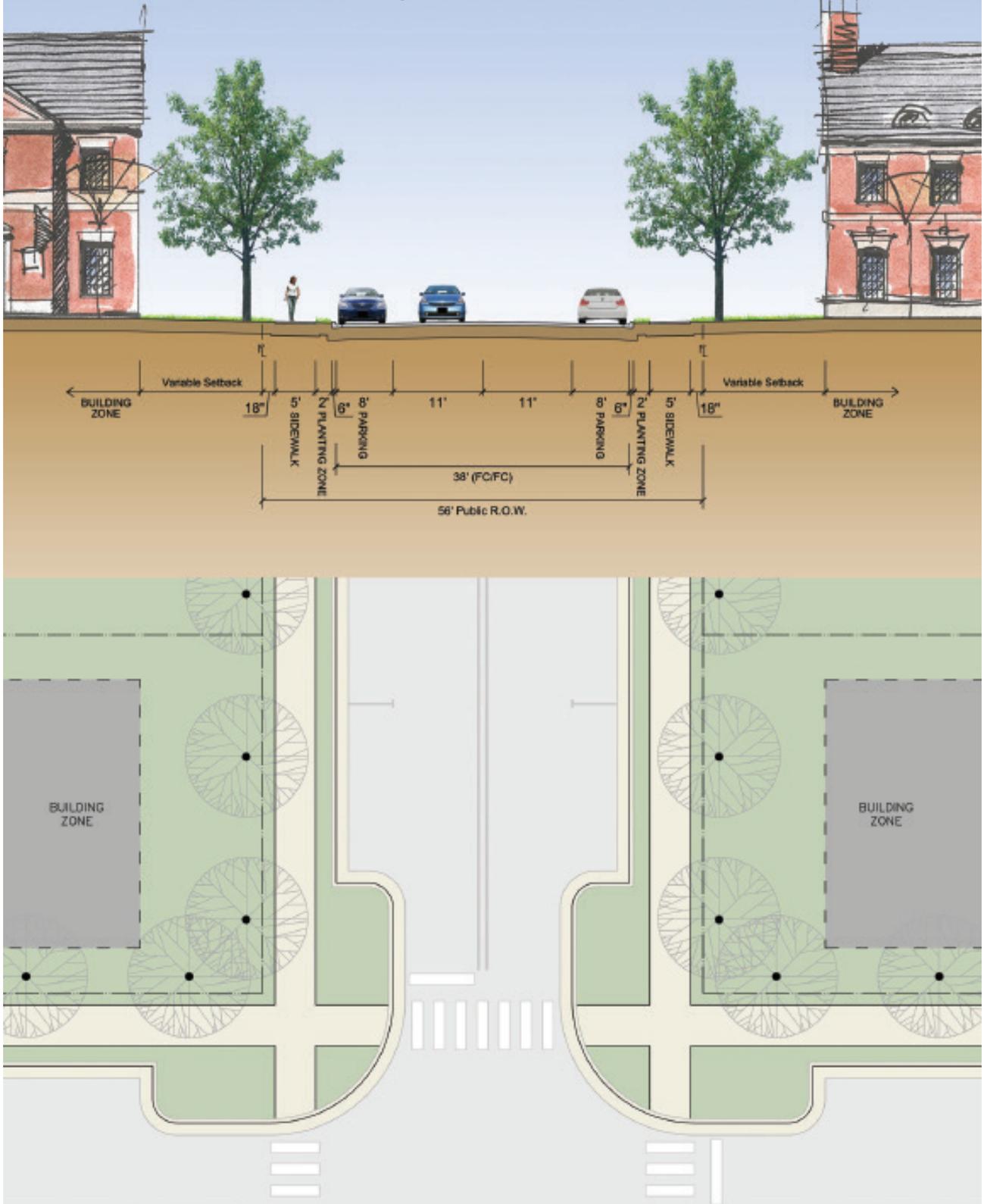
The major residential street design should be used for important through routes within new residential areas, and where anticipated traffic is high. The design includes two-way traffic in 11 foot lanes, and 5 foot sidewalks on both sides. Parking is also included in 7 foot wide parallel spaces on both sides of the street



<b>Right of Way:</b>	<i>54' ROW width; 47' with one-side parking</i>
<b>Pavement:</b>	<i>2 travel lanes – 11' wide</i>
<b>Parking:</b>	<i>Parallel spaces - 8' wide on one or two sides</i>
<b>Sidewalks:</b>	<i>Required 5' width</i>
<b>Speed:</b>	<i>25 mph maximum</i>
<b>Landscape:</b>	<i>2' grass strip; trees outside ROW</i>
<b>Hardscape:</b>	<i>Delineated crosswalks; street lights</i>



### Major Residential Street



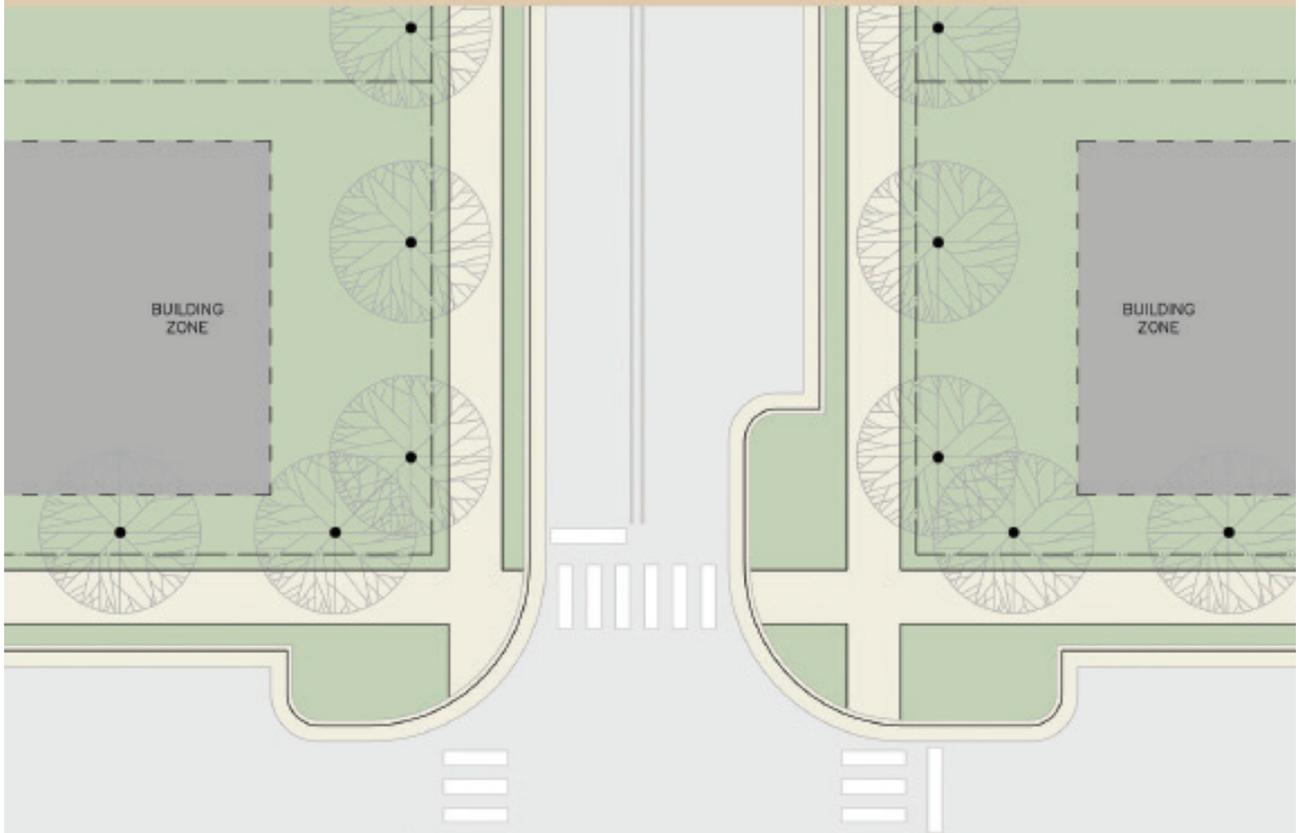
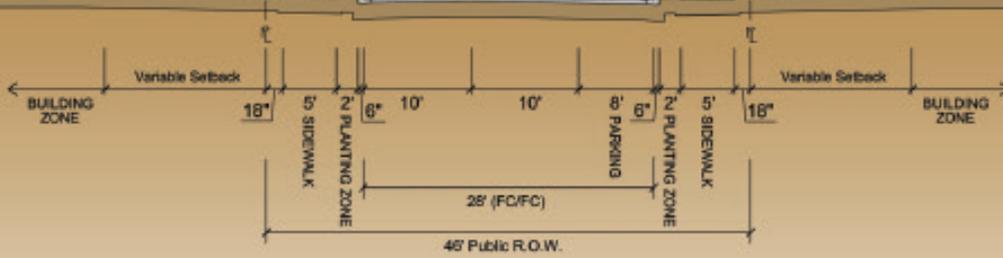
### *Parking on One Side*

The recommended designs for major and minor residential streets include parallel parking on both side of the street. This is a common arrangement in many old neighborhoods where large driveways and large garages are not common. Many contemporary suburban streets are also designed for on-street parking, but with long driveways and multi-car garages, this space is rarely used. In this case, the parking space makes the street appear overly-wide, contributing to higher vehicle speeds than are safe in a neighborhood, as well as being visual unappealing.

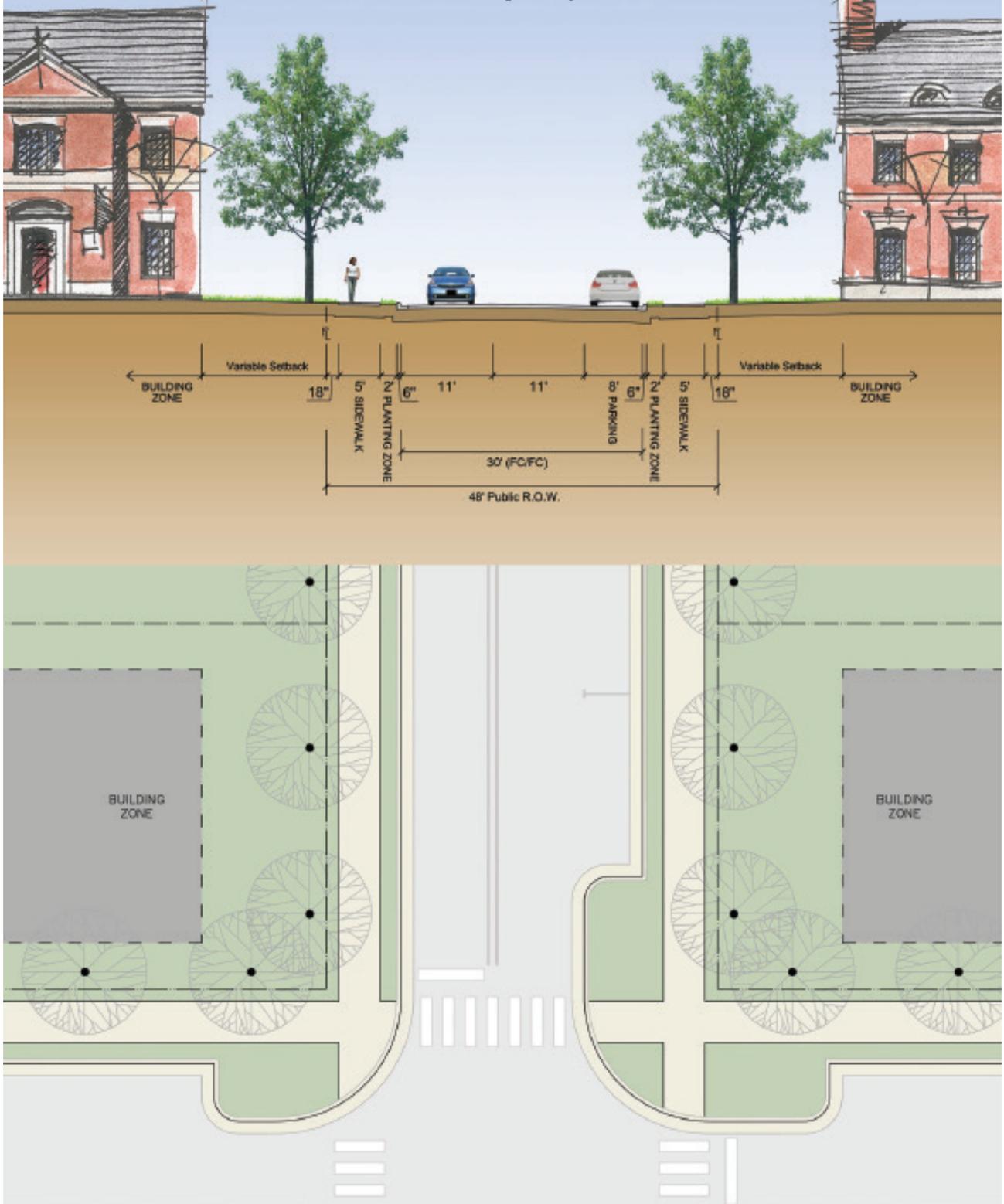
On-street parking should only be provided to the extent that it is necessary and is likely to be used regularly. For this reason, the design guidelines include alternate section designs for major and minor residential streets with parking on only one side. These section designs should be used when careful consideration determines that fewer parking spaces are needed. This decision should be made based on the availability of alley parking, the presence of shared driveways, the average size of lots, and other characteristics of the block.



Minor Residential Street  
*one-side parking*



Major Residential Street  
*one-side parking*



**Alley**

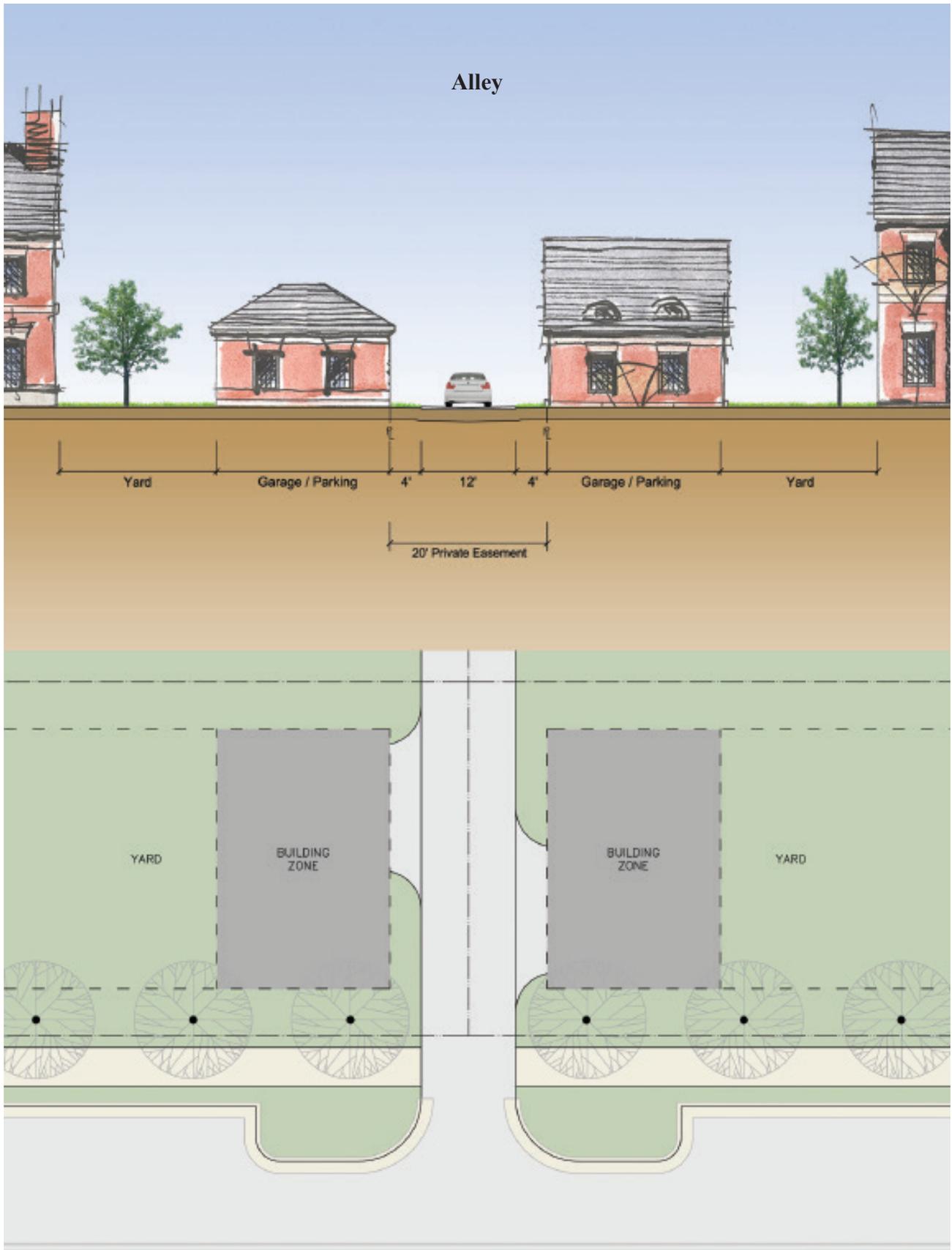


A major difference between contemporary suburban streets and Ashland’s older neighborhood streets is the prevalence of cars, garages, and driveways. It is very difficult to create an attractive street where people can feel comfortable walking when large front-facing garages, large driveways, and frequent curb cuts disrupt the street. Alleys provide a utilitarian space in the center of the block where parking and garages will not disrupt the streetscape. The alley may also serve utility, trash pickup, and other needs. It is useful to note that several older Ashland neighborhoods include alleys, as have some recent projects. In several other areas in Ashland, alleys exist on paper but are not constructed.

The alley design section includes a 12 foot alley pavement that functions like a common driveway to several houses, and is not a public street. The alley should allow travel in both directions, although yielding will be necessary for opposing traffic.

<b>Right of Way:</b>	<i>20' Private Easement</i>
<b>Pavement:</b>	<i>12' pavement width</i>
<b>Parking:</b>	<i>No parking within alley easement</i>
<b>Sidewalks:</b>	<i>None</i>
<b>Speed:</b>	<i>15 mph maximum</i>
<b>Landscape:</b>	<i>Ground cover planted in 4' shoulder</i>
<b>Hardscape:</b>	<i>Paved access to private surface / garage parking</i>





**Mixed Use Street**

In new areas of commercial development, or in areas with a mix of commercial and residential uses, streets should provide ample pedestrian and parking space to facilitate commerce, while allowing for vehicle access and providing a pleasant streetscape. The mixed use street design allows two-way traffic in 12 foot lanes, with parallel parking on both sides of the street, and large 12 foot sidewalks covering the entire distance from the curb to the front of buildings. Despite the large sidewalks, landscaping and tree canopy are very important to a successful mixed use street. Trees should be planted in bump-outs between parking spaces and at intersections as shown.



<b>Right of Way:</b>	<i>63' ROW width</i>
<b>Pavement:</b>	<i>2 travel lanes – 12' lane widths</i>
<b>Parking:</b>	<i>Parallel spaces - 8' wide on both sides</i>
<b>Sidewalks:</b>	<i>12' minimum width</i>
<b>Speed:</b>	<i>25 mph maximum</i>
<b>Landscape:</b>	<i>Street trees in bumpouts</i>
<b>Hardscape:</b>	<i>Delineated crosswalks; street lighting, planters, public art, street furniture</i>



