# Chatham Visual Enhancements

Prepared for the Chatham Beautification Committee
August 2010

community design
assistance center
College of Architecture and Urban Studies
Virginia Polytechnic Institute and State University

# Project Team

| | |
|---|---|
| Elizabeth Gilboy | Director |
| Kim Steika | Landscape Architecture Project Coordinator |
| Shamsul Abu Bakar | PhD Student, Architecture & Design Research, College of Architecture and Urban Studies |
| Dustin Akers | Graduate Student, Urban Affairs and Planning |
| Sarah Rigot | Graduate Student, Architecture |
| Liz Blecksmith | Undergraduate Student, Horticulture |
| Ashleigh Marshall | Undergraduate Student, Landscape Architecture |

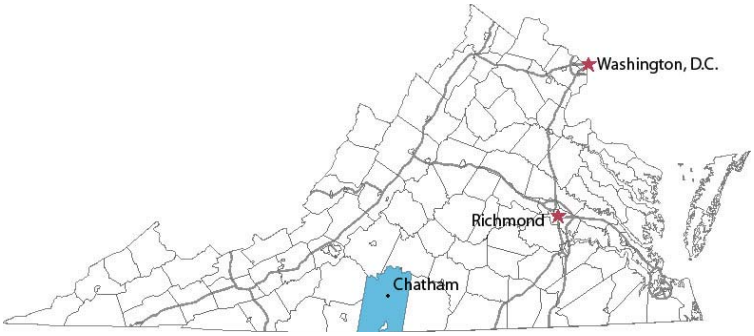
# Acknowledgements


| | |
|---|---|
| Mary Lee Black | Member, Beautification Committee |
| John Bush | Architect, Virginia Tech; Town Council Member, Town of Blacksburg |
| Betty Camp | Member, Beautification Committee |
| David Cothran | Treasurer and Clerk of Council, Town of Chatham |
| Ben Davenport | Chair, Chatham Beautification Committee |
| John Friend | Member, Beautification Committee |
| Bob Henson | Director, Public Works |
| Quatro Hubbard | Archivist, Virginia Department of Historic Resources |
| W. Dale Huff | Western Region Landscape Architect, Virginia Department of Transportation |
| Jeffery Kessler | District Transportation Planning Manager, Lynchburg District, Virginia Department of Transportation |
| William Lewis | Roadside Manager, Lynchburg District, Virginia Department of Transportation |
| Jim McDole | Councilman, Chatham Town Council |
| Eloise Nenon | Community Advocate |
| Mike Pulice | Architectural Historian, Virginia Department of Historic Resources |
| Joe Rogers | Councilman, Chatham Town Council |
| Terry Whitt | GIS Coordinator, Pittsylvania County |
| Calvin Young | Member, Beautification Committee |

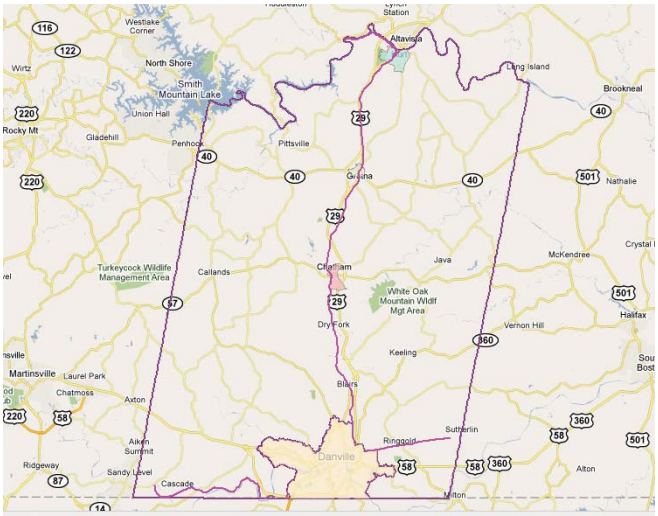
# Table of Contents


| | |
|---|---|
| Project Description | Page 5 |
| Design Process | Page 8 |
| Chatham Historic District & Character | Page 9 |
| Entry and Median Plantings | Page 14 |
| Streetscape Design Concepts | Page 26 |
| Chatham Perimeter Trail | Page 35 |
| Ordinances | Page 41 |
| Easements | Page 47 |
| Funding Opportunities | Page 48 |
| Conclusion | Page 56 |
| Appendices | Page 57 |

# Project Description




State map showing the Town of Chatham and Pittsylvania County in relationship to the Commonwealth of Virginia.




Map of Pittsylvania County showing the relationship of the Town of Chatham to the City of Danville and other towns in the County.

Chatham has historically prided itself on being a beautiful and peaceful place in which to live and raise a family. The two local high quality private preparatory schools, Hargrave Military Academy and Chatham Hall, contribute to the Town's character and diversity and infuse the area with a well-educated population.

The purpose of this project was to assist the Town of Chatham with several aspects of visual and experiential enhancements to the Town. Key focus areas of the project included visual improvements, the Chatham Perimeter Trail , researching model ordinances, and researching possible grants, all with the aims of strengthening the character and desirability of Chatham as a destination for residents and visitors alike. Specific study areas are highlighted on the maps on pages 6 and 7.

Visual Improvements:

The Design Center provided recommendations for entryway designs, suggestions for streetscape improvements in the downtown (i.e.: lighting, street trees, paving materials), provided representative façade sketches for the downtown area, and recommended ways in which the Depot could be better incorporated into the persona of the Town. The CDAC team also made conceptual design recommendations to address two blighted areas along Main Street.

Chatham Perimeter Trail:

Working from the existing proposed concept plan for the Chatham Perimeter Trail prepared by Dewberry and Davis in 2003, explored the proposed trail routing to Town Council and Beautification members. Character sketches for the trail and recommend a phasing plan were developed. The CDAC team also gathered examples of typical easements used for trails for the Chatham Town staff to use as a basis for crafting their own easement language.

Model Ordinances:

The CDAC team researched other communities that have model ordinances in place that guide the visual character of their communities. These ordinances were reviewed in comparison to the Historical Preservation and Architectural Design Control Overlay District that has been drafted by the Town of Chatham. Exemplary ideas and wording from such ordinances were organized and provided to the Town of Chatham as a guide to crafting their own ordinance.

Grants:

The Design Center conducted a basic search to identify possible grant opportunities to support implementation of such beautification improvements.

Map and images highlighting US 29 South, Southern Entry and Main Street Southern Median

Map and images highlighting areas of study on the downtown area of Main Street

Map and images highlighting US 29 South, Northern Entry

# Design Process

CDAC team members Shamsul Abu Bakar (left), Sarah Rigot (second from left), and Elizabeth Gilboy (left center) discuss the project with Beautification Committee members.

CDAC team member Liz Blecksmith (left center) talks with Betty Camp (left) about possible plant species for Chatham's medians.

The project began with an initial meeting with Beautification Committee members, Town staff, and Town Council members in March 2010. The CDAC team also met with Glenn Giles and Langhorne Jones Jr. to discuss the train depot renovation and tour the facility. Following these two meetings, some time was spent exploring and photographing Chatham.

The CDAC team returned to Chatham in April 2010 for an exploratory hike of portions of the proposed Chatham Perimeter Trail. Mary Lee Black, Joe Rogers, and Eloise Nenon accompanied the CDAC team as the group explored routing, possible trail heads, and points of interest. The CDAC team also spent time taking street, sidewalk, and median dimensions, as well as soil samples in the planted medians.

The information gathered from these two initial site visits was used in the development of preliminary conceptual design ideas for the project. The CDAC team met with architect and Blacksburg Town Council Member John Bush to discuss town historic district overlays, historic design review boards, and ordinances. The CDAC team also met with Virginia Department of Transportation's Western Region Landscape Architect, Dale Huff, to discuss initial ideas for the US 29 exit ramp plantings and Chatham Main Street median plantings.

Preliminary conceptual design ideas and ordinance and easement findings were presented to Chatham staff, Town Council, and the Beautification Committee on April 30th, 2010. After receiving feedback from the client, the CDAC team worked to refine the conceptual planting designs and discuss ideas with VDOT staff Dale Huff and Jeff Kessler. Model ordinances from other Virginia communities were identified and outlined, and additional supporting drawings were prepared.

This updated information was presented to Town staff, council, Beautification Committee members, and community members on July 30th, 2010. This report was prepared to describe the design ideas and planning recommendations presented to the community.

# Chatham Historic District & Character

Historic image of Main Street Chatham, courtesy of Mary Lee Black.

Historic image of South Main Street in Chatham. Image courtesy of Mary Lee Black.

Chatham is a charming, southern town with an impressive tree canopy, an excellent architectural stock, and a refreshingly relaxed pace of life. As county seat for Pittsylvania County, Chatham possesses the lovely county courthouse structure and excellent genealogical resources. The soon-to-be-complete train depot restoration, the extensive Town cemetery, and the presence of Hargrave Military Academy and Chatham Hall offer additional draws for visitors.

Chatham has a historic district that is listed on both the National and State Historic Registers. The district is bounded by Main, Payne, Pruden, Reid, and Whittle Streets; Lanier Avenue; Court Place; and Gilmer Drive. The district contains 191 historic resources including 138 primary buildings, 50 secondary buildings, 2 cemeteries, and 1 statue. Areas of significance include architecture, commerce, and politics/government. The period of significance listed on the National Register nomination form is 1807 to 1950. Architectural classifications that are contained in the historic district include: Early Classical Revival, Federal, High Victorian Revival, Queen Anne, Italianate, Beaux Arts, Classical Revival, Craftsman, Commercial Style, Modern and Art Deco.

For further descriptions of the National Historic District, see the Chatham Final nomination form at:
http://www.dhr.virginia.gov/registers/Counties/Pittsylvania/187-5001_Chatham_Historic_District_2001_Final_Nomination.pdf

The following pages contain pictures from downtown Chatham, a map depicting the approximate boundary of Chatham's National Historic District, and a palette of images highlighting the character of Chatham in relation to various elements such as architecture, points of interest, materials, and other details.

Train depot currently being renovated in Chatham.

Historic marker located near Chatham's visitor information kiosk.

Monument to confederate soldiers, located next to the Pittsylvania County Courthouse in downtown Chatham.

Chatham is listed on the Civil War Trails route.

Chatham's current visitor's center - an informational kiosk location on Main Street.

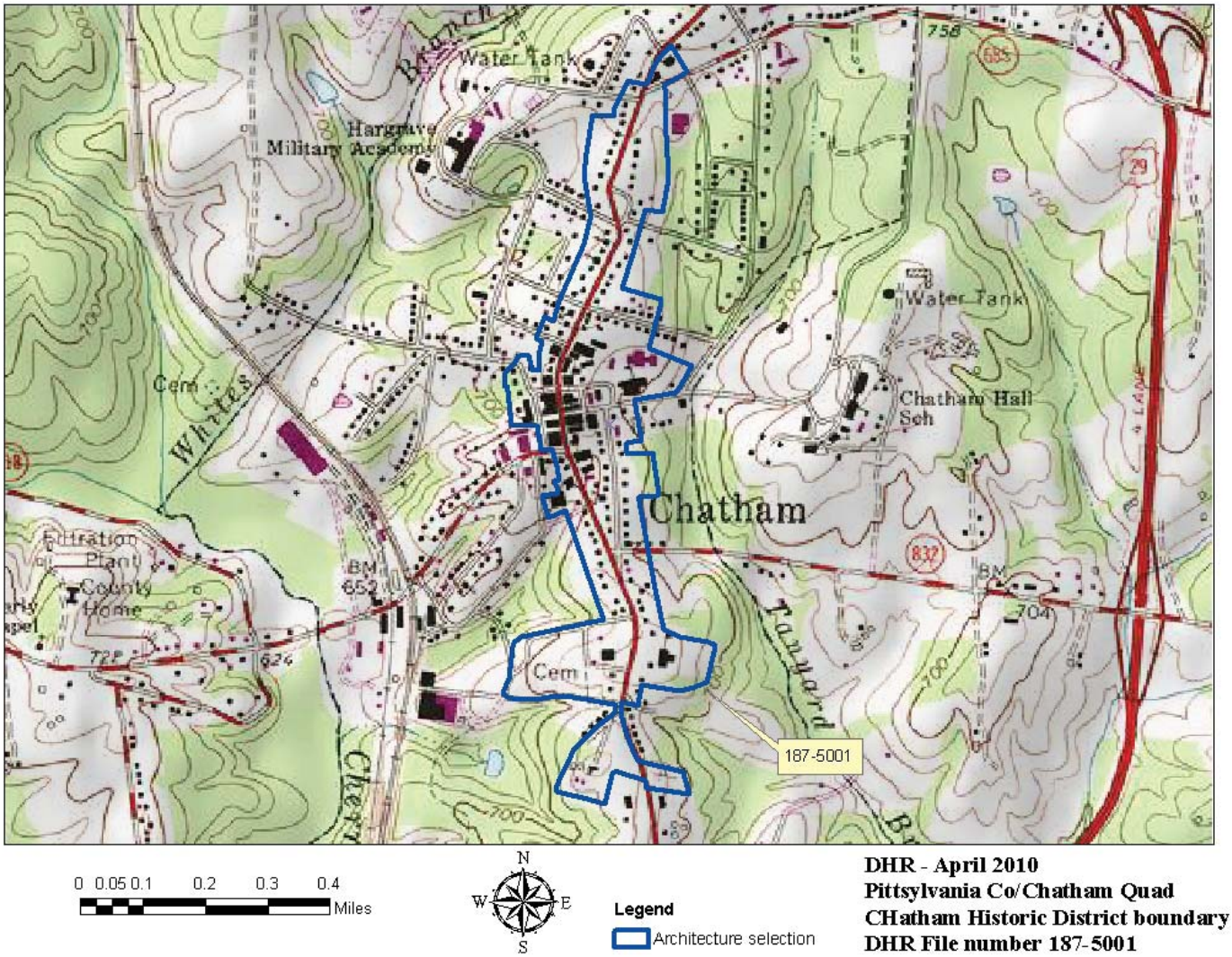
Historic marker for the Pittsylvania County Court House.

Newly constructed community center offers a new cultural gathering place for the community.

Historic County Court House and clock tower.

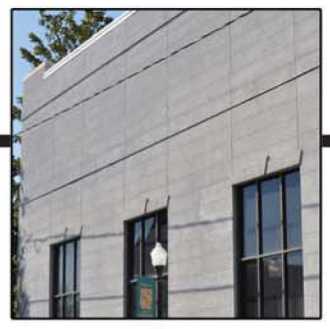
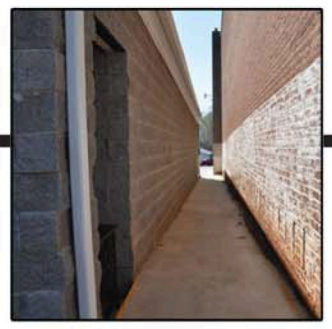
Example of wrought-ironwork in downtown Chatham.

Example of interesting signage and architectural elements in Chatham.

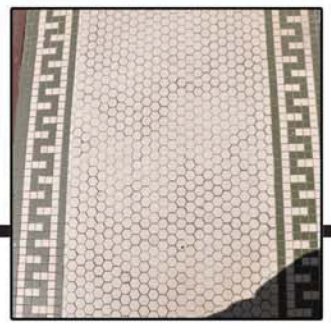


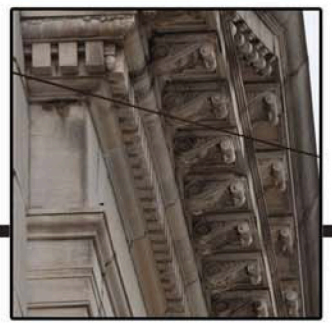

Map depicting the approximate boundaries of the Chatham Historic District (outlined in blue). Information provided by the Virginia Department of Historic Resources.

## Material Palette

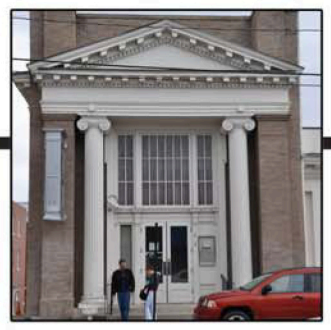
## Detail Palette

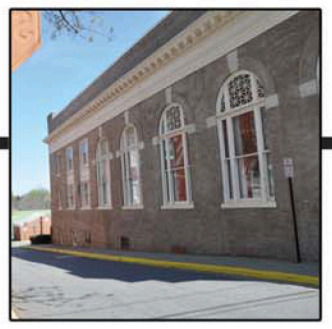




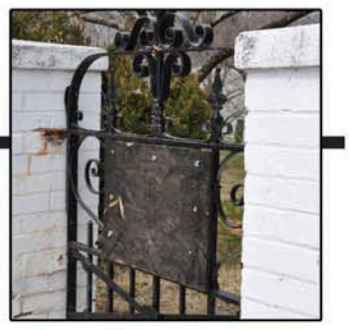
## Signage Palette

## Facade Palette

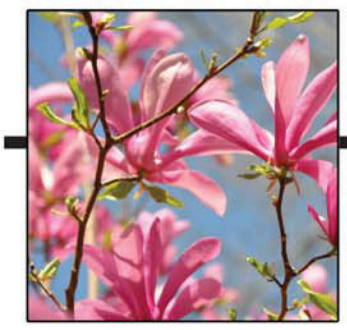
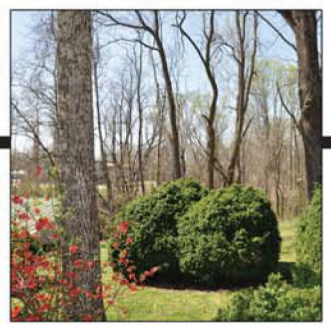




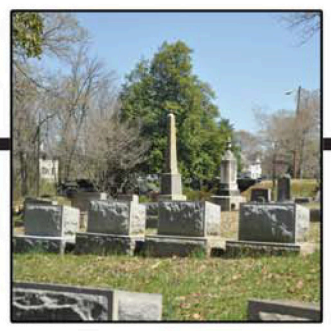
## Fencing Palette



## Plant Palette

## Public Palette



## Ironwork Palette

# Entry and Median Plantings

CDAC team members Kim Steika (left center) and Liz Blecksmith (right) discuss planting designs with VDOT staff Jeff Kessler (left) and Dale Huff (right center).

Chatham has an excellent stock of existing, large canopy trees.

In an effort to enhance Chatham's already lovely appearance, the Town's Beautification Committee asked the CDAC team to develop conceptual designs to enhance the US 29 South, southern and northern exit ramps as well as the three existing planted medians on Chatham's Main Street. The CDAC team documented existing site conditions of the aforementioned areas, photographing each place and taking dimensions and soil samples for the existing medians (See Appendix D for soil sample results). The Virginia Department of Transportation's Planting Guidelines were reviewed (See Appendix C for more information) and VDOT staff members Jeff Kessler and Dale Huff were consulted regarding the specifics of each planting design.

A plant palette was developed to offer a ribbon on consistency, weaving the theme of beauty and welcome and similar materials into each planting area. This theme will make a lasting impression on visitors and residents alike, as it will be seen in various parts of the Town of Chatham. Proposed plant materials were selected for multi-season interest, hardiness, native and/or non-invasive characteristics, and minimal maintenance demands (See Appendices A and B for more plant information). Plant height was carefully considered to ensure sightlines were not blocked. In some cases, plant material was used to screen, frame, or direct one's eye to elements of interest, such as welcome signs.

A detailed description of each entry and median planting, along with 11x17 pullouts of the proposed designs, can be found on the following pages.

# US 29 South, Southern Entry

US 29 exit ramp for the Southern Entry into Chatham. The existing welcome sign can be seen at the far right.

Existing welcome sign located on the eastern slope of the Southern Entry.

**Existing Conditions**

The US 29 South Southern Entry currently has a "Welcome to Chatham" sign with some small foundation plantings around the sign. This sign was designed and constructed as an Eagle Scout project. VDOT regulations regarding such signage have changed since this sign was installed. The current sign is "grandfathered" in; changes to the sign's location would involve a review process that may not allow another sign to be added. Because of the angle of the road, the slope of the land in front of the sign, and the color of the sign itself, it tends to blend into the landscape and not be in the direct line of vision of motorists entering into Chatham via the ramp. In addition to the area where the current sign is located, there is a large, relatively flat expanse of land to the left of the ramp. The CDAC team looked at this area for additional plantings as well. Sight lines, clear zones, and set backs were discussed with VDOT staff Dale Huff and Jeff Kessler as the CDAC team considered conceptual designs for this area.

**Conceptual Design**

The primary aim of the conceptual planting design for the US 29 South, Southern Entry was to create a bold entrance statement. With trees, shrubs, and flowers in a descending height order, passing motorists will be sure to take notice and interest in this colorful display. The addition of evergreen trees behind the existing signage, the slight reduction of grade in front of the sign, additional colorful swaths of perennials, and proposed uplighting at night will all help to direct the driver's eye toward the existing welcome sign. Proposed swaths of wildflowers and native grasses serve as low growing visual accents that will provide color and interest in the spring, summer, and fall and also serve reduce mowing needs.

Plants selected for this area will offer the hardiness needed for the intense environmental conditions of the site while also offering a showy, seasonal display. The Cornelian Cherry Dogwood has yellow flowers in the very early spring. The Fothergilla has white flowers in the early spring and striking fall color. The Scarlet Oak has great fall color. The Washington Hawthorn has lovely fall color which is followed by red berries which are showy in the winter. Cherry Laurel, American Hollies, and Eastern Red Cedars are evergreens that provide green in the winter. The Hollies also have red berries through the winter. Crape Myrtles would provide attractive bark in the winter along with good fall color and summer flowers. Overall the plantings should have interesting features in any season and make a great first impression!

*An 11x17 pullout of the planting plan and perspective of the proposed design can be found on the following page.*

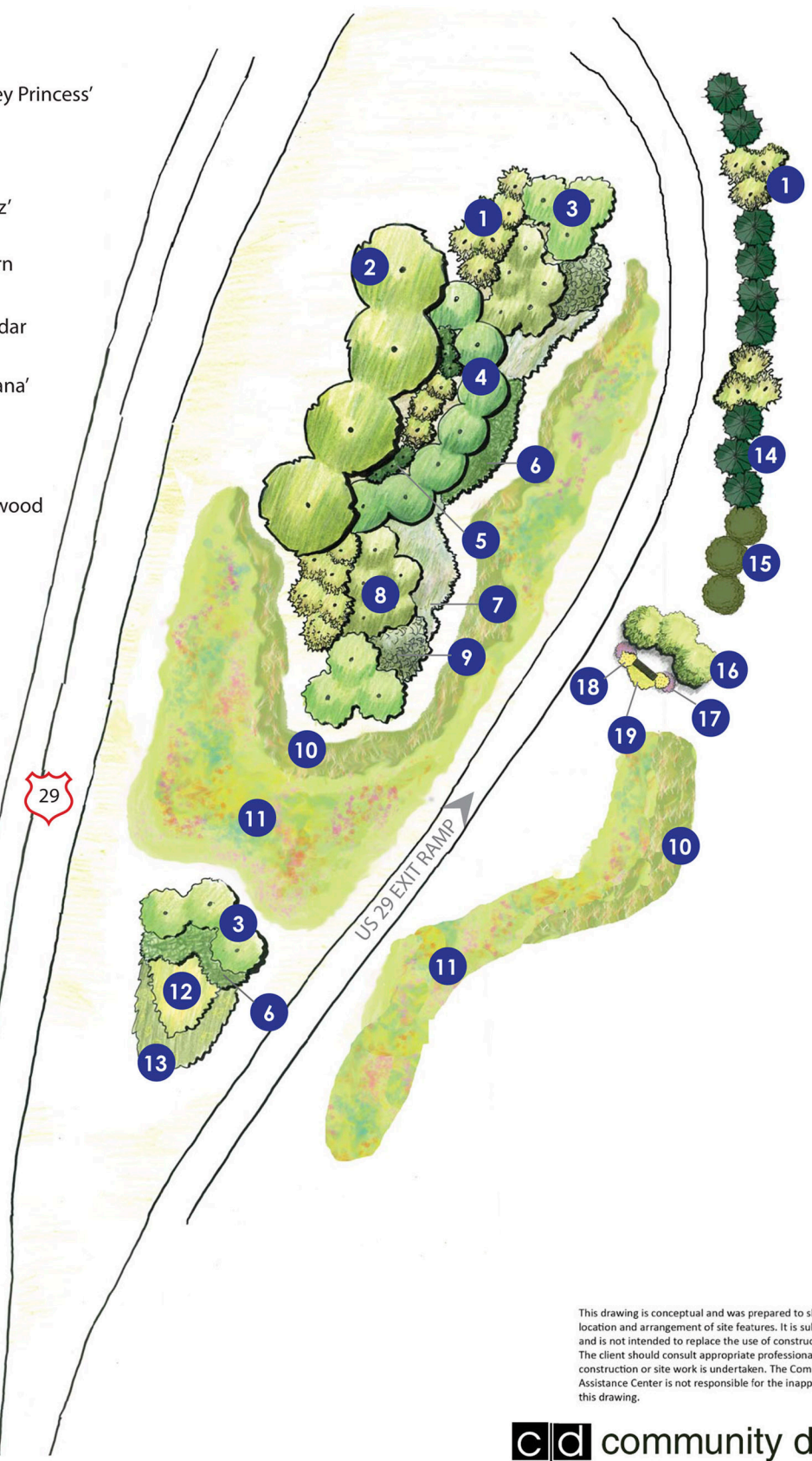
# US 29 South, Southern Entry.

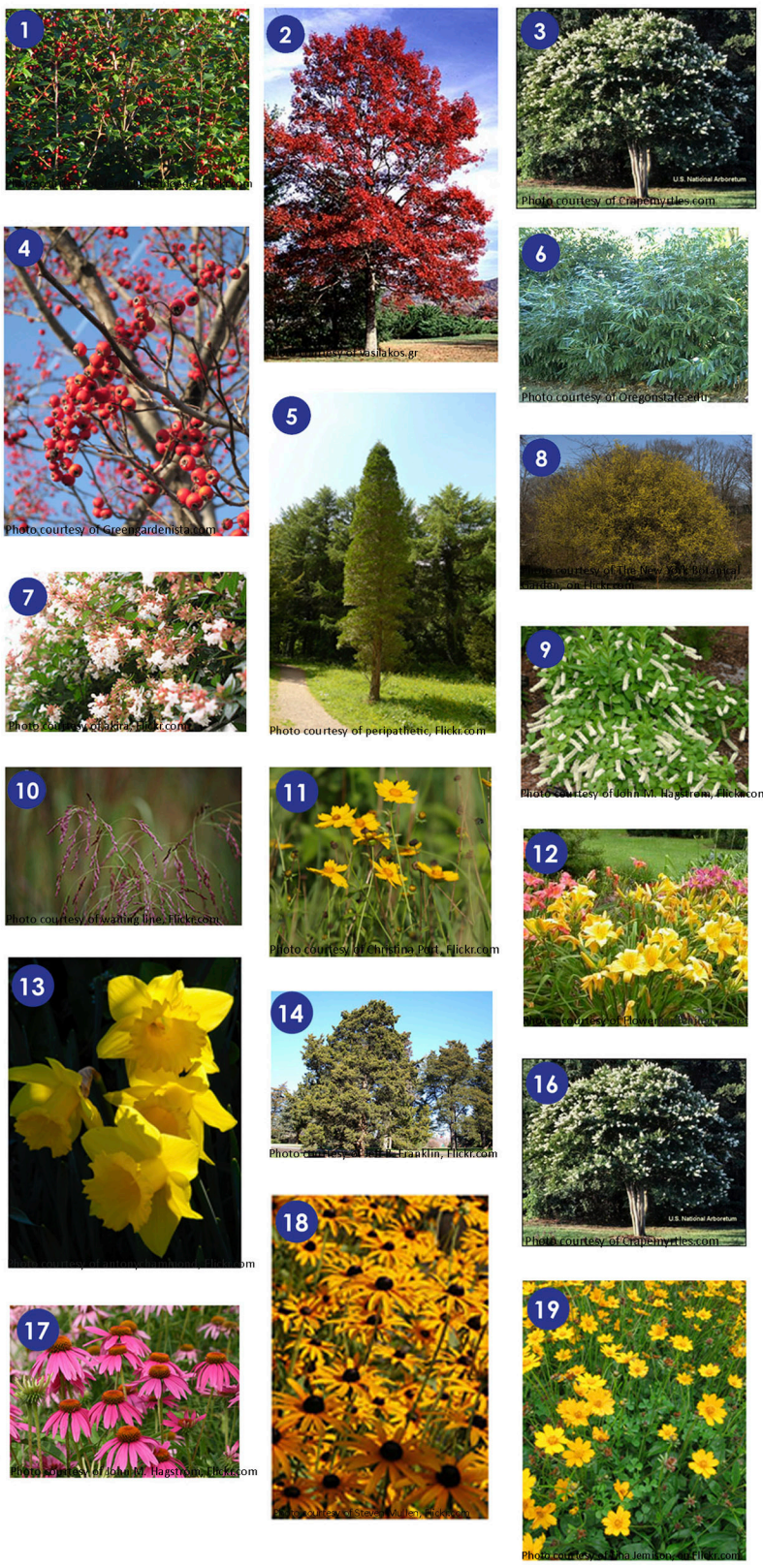
## illustrative planting plan

### Key

1. American Holly 'Jersey Princess'
2. Scarlet Oak
3. Crape Myrtle 'Natchez'
4. Washington Hawthorn
5. California Incense-cedar
6. Cherry Laurel 'Zabeliana'
7. Glossy Abelia
8. Cornelia Cherry Dogwood
9. Fothergilla
10. Native Grasses
11. Wildflowers
12. Daylilies
13. Daffodils
14. Eastern Red Cedar
15. Existing Trees
16. Crape Myrtle 'Sioux'
17. Purple Coneflower
18. Orange Coneflower
19. Dwarf Coreopsis

US 29 South




This drawing is conceptual and was prepared to show approximate location and arrangement of site features. It is subject to change and is not intended to replace the use of construction documents. The client should consult appropriate professionals before any construction or site work is undertaken. The Community Design Assistance Center is not responsible for the inappropriate use of this drawing.

NORTH

0 25 50 100

community design assistance center
College of Architecture and Urban Studies
Virginia Polytechnic Institute and State University

# Main Street Southern Median

CDAC team member Liz Blecksmith documents existing conditions at the Southern Median.

View of existing shrubs in the Southern Median.

### Existing Conditions

The Main Street Southern Median is a long, linear planted median with a concrete curb. The median currently has a mix of Barberry and Nandina shrubs. Stumps from former hollies are visible upon closer inspection. The soil is fairly compacted and the pH is 6.94. A memorial plaque recognizing a member of the garden club is also sited in this planting median. Maintaining clear sight lines is very important, as the US 29 South ramp merges onto Main Street at this junction.

### Conceptual Design

For this design, the median is meant to be used as a vibrant "*welcome!*" With waves of color in a whimsical pattern, the median makes a friendly statement. Low growing, showy, and hardy plants were selected for this area, with no plants growing higher than 28 inches. Proposed native Dwarf Coreopsis will glow yellow in the spring and native Purple Coneflowers and Orange Coneflowers will be at their finest from midsummer through early fall. Autumn Joy Sedum provides interesting, succulent foliage from spring through fall with pink flower clusters in the fall. The native Scarlet Oak has delightful red fall color. Wall and Creeping Germander provide evergreen foliage in the winter, and purple flowers in early summer. All plantings in the median should stay below visibility lines without having to be cut back. Turf could be left in the areas shown on the plan while the Creeping Germander is allowed to fill in within the planting bed.

*An 11x17 pullout of the planting plan and perspective of the proposed design can be found on the following page.*

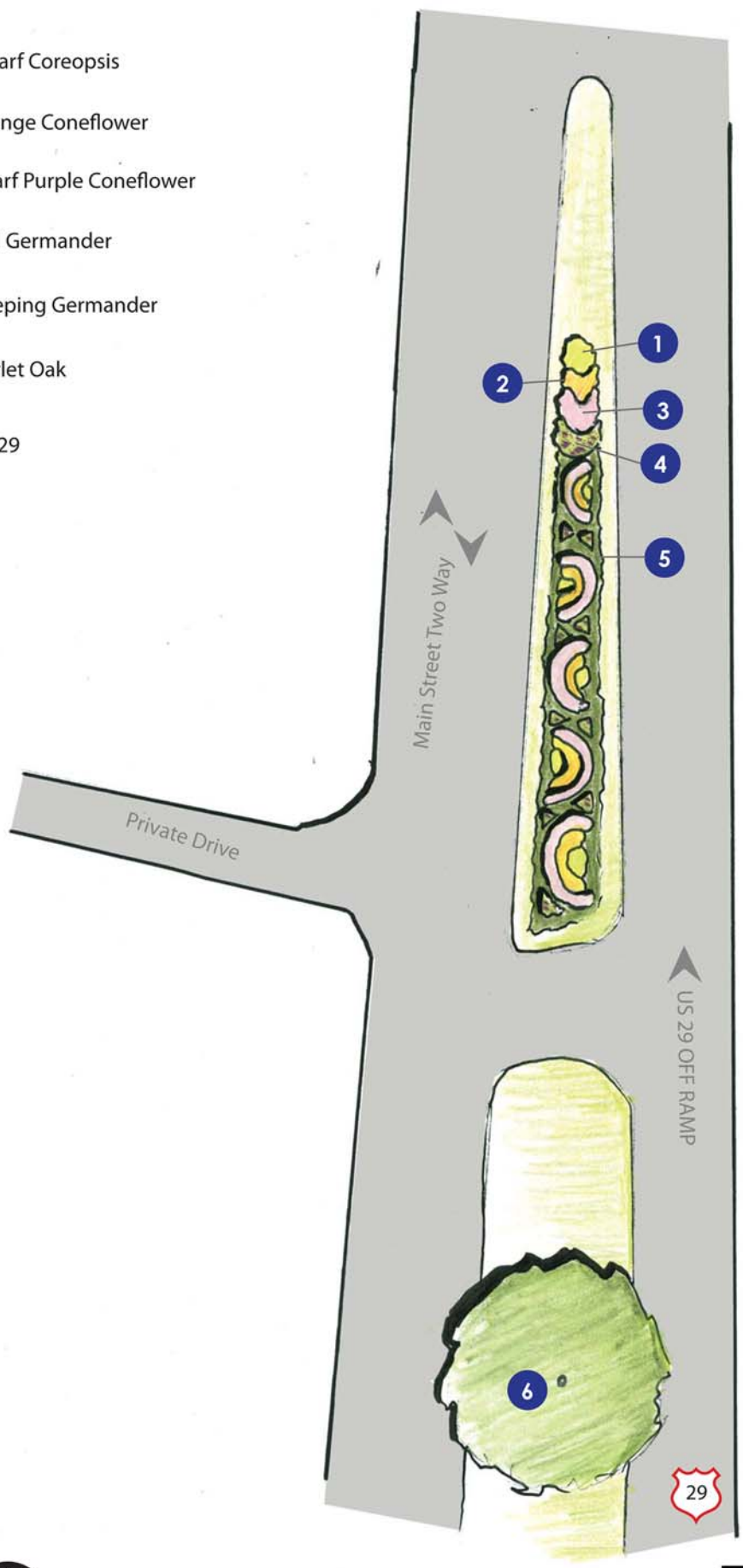
# Chatham Main Street Southern Median.

## illustrative planting plan

### Key

1. Dwarf Coreopsis
2. Orange Coneflower
3. Dwarf Purple Coneflower
4. Wall Germander
5. Creeping Germander
6. Scarlet Oak

29 US 29



This drawing is conceptual and was prepared to show approximate location and arrangement of site features. It is subject to change and is not intended to replace the use of construction documents. The client should consult appropriate professionals before any construction or site work is undertaken. The Community Design Assistance Center is not responsible for the inappropriate use of this drawing.

NORTH

0 20 40 60

community design assistance center

College of Architecture and Urban Studies
Virginia Polytechnic Institute and State University

# Main Street Crewes Corner Median

Image of Crewes Corner Median while heading north on Main Street.

CDAC team member Liz Blecksmith examines the soil in Crewes Corner.

**Existing Conditions**

The Crewes Corner Median, named after a dedicated volunteer who maintained this median in the past, is located at a strategic and busy intersection. The median marks an informal entrance into downtown Chatham and can serve as a gateway welcoming visitors into Chatham's historic district and commercial and civic core. The median is also surrounded by a network of roads, signs, overhead wires and street lights, which can communicate an overwhelming message to those new to the area. The soil in this median is fair, with a pH of 7.3.

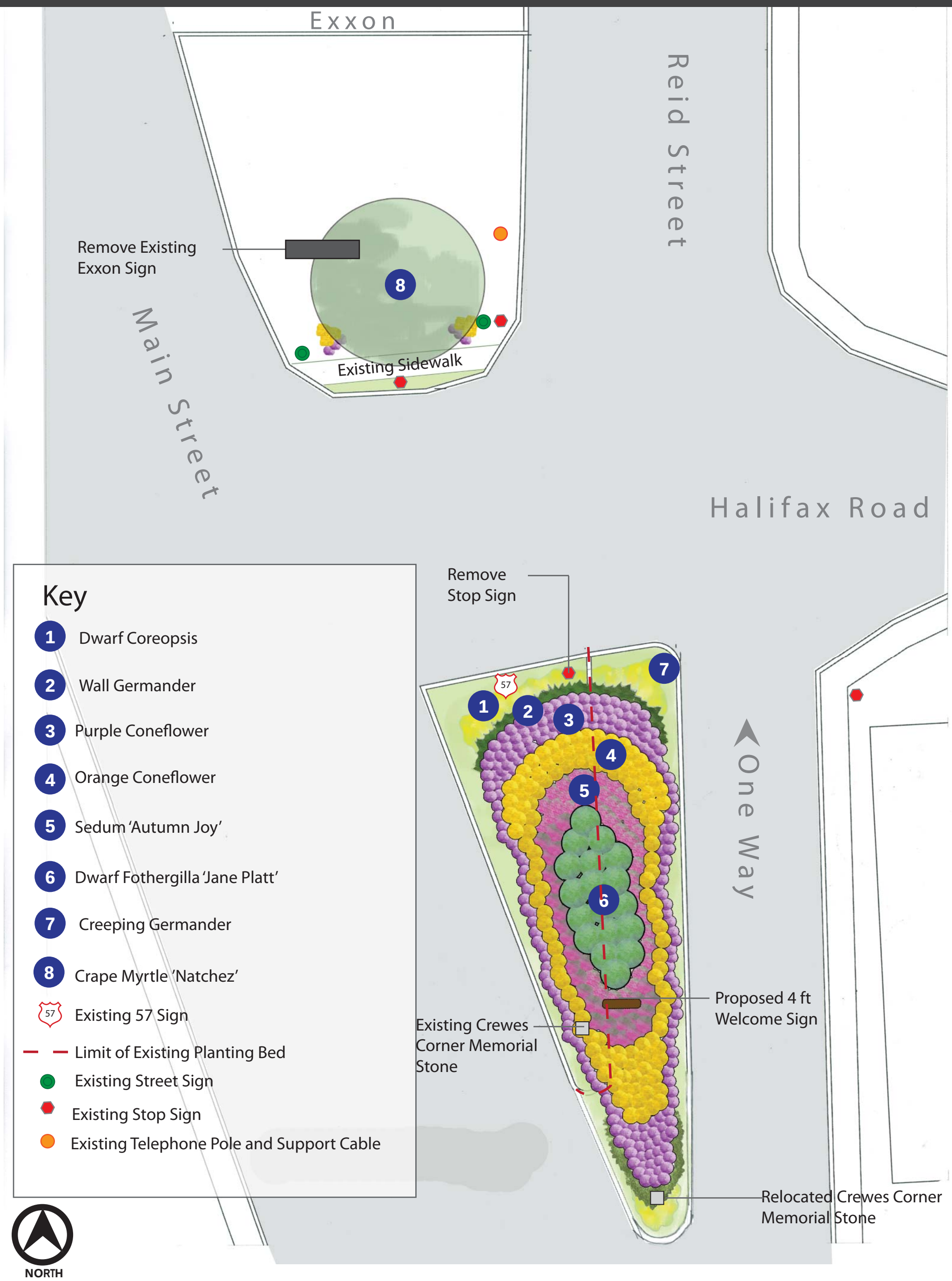
**Conceptual Design**

The concept for the Crewes Corner Median involves the expansion of the existing median and the addition of a welcome sign. The expansion of the median should serve to simplify this confusing intersection by making it clear that the road to its right is a one-way street. The existing stop sign in the median is proposed to be removed, eliminating some visual clutter, as there is another existing stop sign immediately adjacent to the sign in the median. A proposed welcome sign is sited in the median. This sign will signify the entry into the downtown area, welcoming visitors and notifying motorists of a transition to a more pedestrian-oriented area. It is proposed that the existing sidewalk near the Exxon station be replaced with brick, or concrete with brick accents. Two crosswalks are proposed to help facilitate increased pedestrian safety and activity in this area. The concept for this area also suggests that the current Exxon sign be removed and integrated into the existing canopy structure or replaced with a smaller sign with more appropriate materials, such as brick. Proposed plantings fill the space where current Exxon sign is located.

Plants for this area are drawn from the planting palette used in the other medians. Native Dwarf Coreopsis blooms yellow in the spring and native Purple Coneflowers and Orange Coneflowers will be at their finest from midsummer through early fall. Autumn Joy Sedum provides interesting, succulent foliage from spring through fall with pink flower clusters in the fall. Wall and Creeping Germander provide evergreen foliage in the winter, and purple flowers in early summer. Native 'Jane Platt' Dwarf Fothergilla was chosen as it rarely reaches over 3 feet and should not affect sight lines. It blooms with white bottle-brush flowers in very early spring and has fantastic fall color. Adjacent to the Exxon, a proposed Crape Myrtle will provide shade for pedestrians, attractive bark in the winter, flowers in the summer, and lovely foliage color in the fall. Liriope surrounding the sidewalk area would provide low-maintenance evergreen foliage. The Coral Bells would provide fascinating foliage for pedestrians to enjoy. Overall, the proposed plantings and expanded median should have both a beautifying and traffic-calming effect, improving the area for pedestrians and motorists alike.

*An 11x17 pullout of the planting plan and perspective of the proposed design can be found on the following pages.*

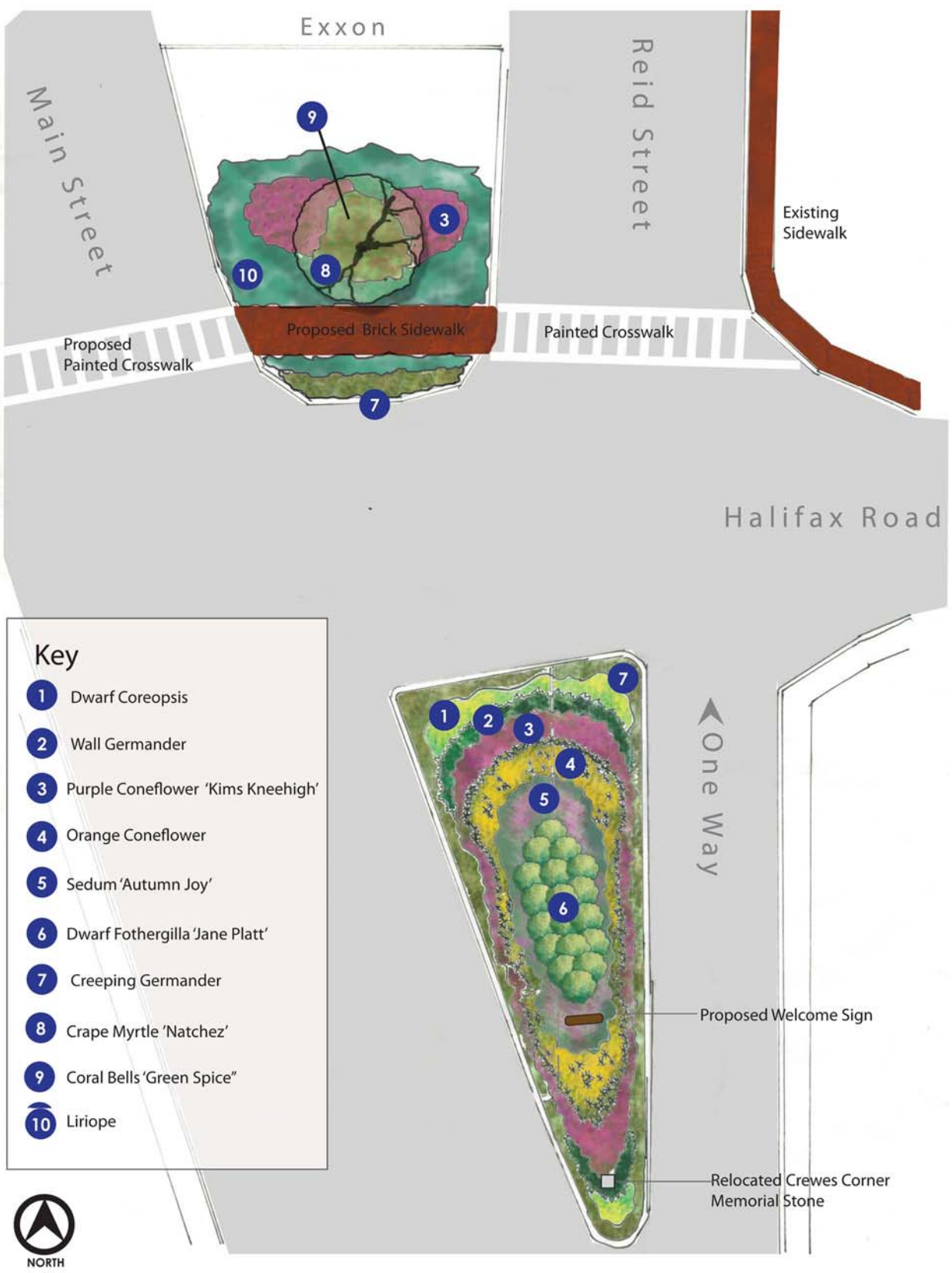
# Crewes Corner Median. planting plan and site inventory




This drawing is conceptual and was prepared to show approximate location and arrangement of site features. It is subject to change and is not intended to replace the use of construction documents. The client should consult appropriate professionals before any construction or site work is undertaken. The Community Design Assistance Center is not responsible for the inappropriate use of this drawing.

community design assistance center
College of Architecture and Urban Studies
Virginia Polytechnic Institute and State University

# Crewes Corner Median. illustrative planting plan




## Key

1. Dwarf Coreopsis
2. Wall Germander
3. Purple Coneflower 'Kims Kneehigh'
4. Orange Coneflower
5. Sedum 'Autumn Joy'
6. Dwarf Fothergilla 'Jane Platt'
7. Creeping Germander
8. Crape Myrtle 'Natchez'
9. Coral Bells 'Green Spice"
10. Liriope

This drawing is conceptual and was prepared to show approximate location and arrangement of site features. It is subject to change and is not intended to replace the use of construction documents. The client should consult appropriate professionals before any construction or site work is undertaken. The Community Design Assistance Center is not responsible for the inappropriate use of this drawing.

community design assistance center
College of Architecture and Urban Studies
Virginia Polytechnic Institute and State University

# Main Street Northern Median

View of the Northern Median when traveling south on Main Street.

CDAC team member Liz Blecksmith takes a soil sample at the Northern Median.

**Existing Conditions**

The Northern Median is currently in the best condition of all the existing medians in Chatham. The soil is uncompacted, with a generous amount of leaf mulch and a pH of 7.3. Existing Azaelas, Crape Myrtles, Flowering Dogwoods, and spring bulbs offer a showy spring and fall color display. Like Crewes Corner, the Northern Median is surrounded by roads. Main Street edges the median's eastern side, while an old, under utilized two-way road flanks the median to the west. Wooden railroad ties currently edge the planting median. After talking with VDOT officials, the existing wooden railroad ties are not an approved curbing system if trees are to be included in the design. The current railroad ties need to be replaced with concrete curbing.

**Conceptual Design**

As this median already has Flowering Dogwoods, Crape Myrtles, Azaleas, and spring bulbs that are loved and enjoyed by the Beautification Committee and Town residents, the primary concept for this median was to enhance what is already there and plan for the future. Like Crewes Corner, it is proposed that the median be expanded slightly, to provide more room for plantings to help facilitate a more aesthetic view and site line for visitors. Concrete curbing should be added to replace the existing railroad ties. A welcome sign, similar in character to the proposed Crewes Corner sign, is proposed, informing visitors that they are entering historic downtown Chatham. Proposed planters are incorporated into the sign as well as to adjacent fencing, adding a seasonal splash of color with annuals and directing one's eye toward the median and sign rather than the adjacent asphalt.

The planting plan for this median retains existing trees, shrubs, and bulbs. The health of existing trees and shrubs should be evaluated by a certified arborist after the concrete curbing is installed. Any declining tree or shrub should be removed and replaced with a similar species. Flowering perennials are proposed around the existing trees and shrubs, filling in gaps, increasing seasonal value, and suppressing weed-growth.

*An 11x17 pullout of the planting plan and perspective of the proposed design can be found on the following page.*

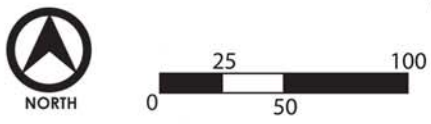
# Chatham Main Street Northern Median.

## illustrative planting plan

### Key

1. Creeping Germander
2. Orange Coneflower
3. Dwarf Purple Coneflower
4. Dwarf Coreopsis
5. Existing Azaleas
6. Existing Crape Myrtle
7. Existing Dogwood

This drawing is conceptual and was prepared to show approximate location and arrangement of site features. It is subject to change and is not intended to replace the use of construction documents. The client should consult appropriate professionals before any construction or site work is undertaken. The Community Design Assistance Center is not responsible for the inappropriate use of this drawing.




community design assistance center
College of Architecture and Urban Studies
Virginia Polytechnic Institute and State University

# US 29 South, Northern Entry

Exit ramp from US 29 South, for northern entry into Chatham.

View of US 29 South, Northern Entry ramp from Main Street.

**Existing Conditions**

The US 29 South, Northern Entry has some existing plantings, both at the conjuncture of US 29 and the ramp and then further up the ramp near the intersection of the ramp and US 29 Business (Main Street). The existing stand of trees near the intersection of the ramp and Main Street are in good condition and should be maintained. The small triangular planting near the conjuncture of US 29 and the exit ramp seemed overgrown and unmaintained. This area has been redesigned in the proposed concept. As the planting design for this area was not part of the original project charge, but rather added after the project was well underway, soil samples were not taken for this area.

**Conceptual Design**

The concept behind the US 29 South, Northern Entry design was to make a bold entrance statement. With trees, shrubs, and flowers in a descending height order, a gateway is created welcoming motorists as they approach a northern entry into Chatham. Proposed wildflower swaths will provide color and interest in the spring, summer, and fall while also would reducing mowing need. The placement of the trees and shrubs is important, due to sight-line needs. This was taken into consideration during the planting design. If for some reason there are additional concerns about visibility for on-coming Main Street traffic, the planting design could easily be adjusted back from Main Street or condensed.

The planting palette for this area contains similar species as the other areas, with the addition of a few trees and shrubs for added seasonal value. The proposed, native Virginia Sweetspire, Fothergilla, and Washington Hawthorn along with the Crape Myrtle all will provide great fall colors. Native American Hollies will offer winter value, bearing red fruits throughout the winter along with their evergreen leaves. The native Washington Hawthorn will also bear red fruits through the winter. The bark of the Natchez Crape Myrtle is a lovely cinnamon color, once matured. The Cherry Laurel and California Incense-cedar will also provide evergreen structure in the winter. Inter-planted Daffodils and Daylilies in the forefront of the planting groups will have a succession of yellow blooms from early spring (the Daffodils) through the summer.

*An 11x17 pullout of the planting plan and perspective of the proposed design can be found on the following page.*

# US 29 South, Northern Entry. illustrative planting plan

## Key

1. Existing Woods
2. Wildflowers
3. Crape Myrtle 'Natchez'
4. Washington Hawthorn
5. Fothergilla
6. Cherry Laurel 'Zabeliana'
7. Daylilies and Daffodils
8. Virginia Sweetspire
9. California Incense-cedar
10. American Holly

US 29 South

25 100
0 50

NORTH

This drawing is conceptual and was prepared to show approximate location and arrangement of site features. It is subject to change and is not intended to replace the use of construction documents. The client should consult appropriate professionals before any construction or site work is undertaken. The Community Design Assistance Center is not responsible for the inappropriate use of this drawing.

community design assistance center
College of Architecture and Urban Studies
Virginia Polytechnic Institute and State University

# Streetscape Design Concepts

View of Main Street looking north.

Image of Pittsylvania County Courthouse located on Chatham's Main Street.

Chatham, unlike many other small town's, has not lost it's Main Street to other shopping areas in town. Several local restaurants, special shops, and businesses call it home. Downtown Main Street is located within the historic district and serves as the "front yard" of County Courthouse. Main Street's character should be inviting and pedestrian oriented. The addition of some streetscape elements such as street tree bumpouts, seating, and hanging baskets will help reinforce the pedestrian scale of downtown Main Street and will showcase it as a desirable destination to stop and linger.

Design concepts for Main Street, Depot Street, and two under-utilized parcels along Main Street are highlighted in this section. Descriptions and supporting drawings for each area can be found on the following pages.

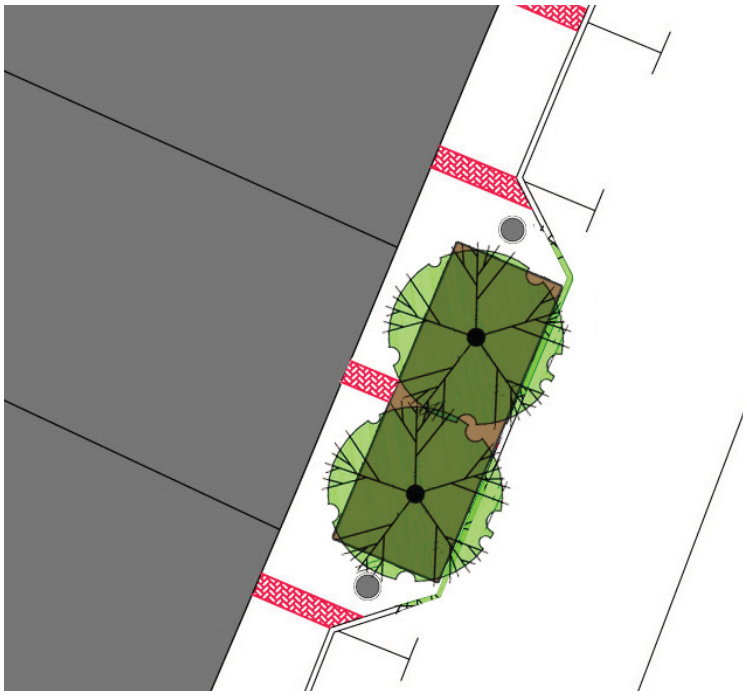
# Main Street

The conceptual plan for Main Street looks to highlight the historic civic and commercial corridor of Chatham. Sidewalks are enhanced with the addition of brick pavers, street trees, hanging baskets, seating, and improved pedestrian crosswalks.

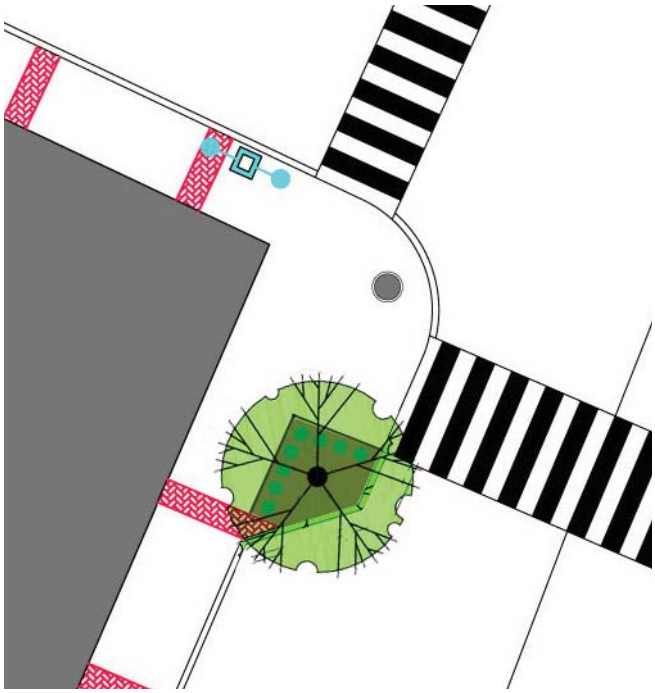
Street tree bumpouts are created in the place of some parallel parking spots, greening downtown Chatham and offering shade and seasonal value through flowers and fall color.

Proposed streetscape enhancements (lighting, hanging baskets, and brick pavers) continue down Depot Street, linking the restored historic Depot to downtown Chatham. Detailed drawings for Depot Street improvements can be found on page 32.

Perspective sketch showing the addition of street trees to Main Street Chatham.



Detail of possible two-tree bumpout on Main Street. A tree island would be added where two parallel parking spots are currently located.



Detail of a single tree bumpout at a corner on Main Street.

# Chatham Streetscape Design Suggestions

## *Downtown Main Street and Depot Street*

Perspective Sketch of Main Street

Possible Street Tree Species

Serviceberry

American Fringetree

American Smoketree

Longstalk Holly

Okame Cherry

Perspective Sketch of North Main Street and Depot Street Corner

community design assistance center

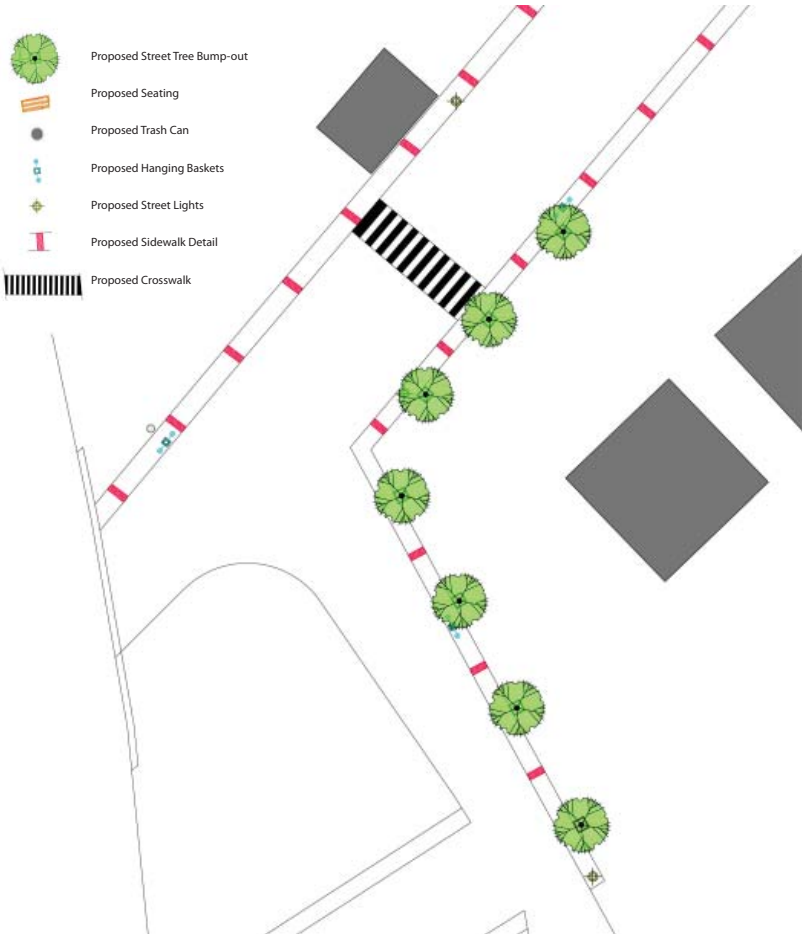
College of Architecture and Urban Studies
Virginia Polytechnic Institute and State University

This drawing is conceptual and was prepared to show approximate location and arrangement of site features. It is subject to change and is not intended to replace the use of construction documents. The client should consult appropriate professionals before any construction or site work is undertaken. The Community Design Assistance Center is not responsible for the inappropriate use of this drawing.

# Depot Street

Streetscape enhancements are proposed on Depot Street as well, with the aim of helping to link the restored Depot to downtown Chatham. The proposed streetscape enhancements start at the intersection of Main Street and Depot Street and continue down Depot Street to the railroad trestle over Depot Street.

Proposed enhancements for this corridor include the addition of brick pavers to sidewalk joints, historic street lighting, and hanging baskets. Because of sidewalk and road widths, street tree bumpouts are not plausible for Depot Street unless added on private property. An example of a potential location for street trees can be seen in the plan to the right. These proposed trees help announce the entrance to the restored Train Depot.




Conceptual plan drawing showing possible locations for lighting, brick pavers, pedestrian crosswalks and potential street trees.

Perspective sketch depicting streetscape enhancements leading to the restored Depot.

# Blighted Areas

The CDAC team was asked to look at two areas on Main Street with under-utilized potential and offer some preliminary conceptual ideas for how the spaces could be improved. The first area is at the intersection of Main Street and Depot Street. A historic train car was formerly located here and was recently removed.

The CDAC team prepared two conceptual sketches for this area. The first looked at how the intersection would look if an infill building of similar character and dimension of adjacent buildings was added. The second concept looks at how the space could potentially look as a pocket park with seating, public art, and a small grove of trees.

The second area examined was the former grocery store on Main Street which is now a vacant parking lot. The CDAC team looked at this area as a potential farmer's market. The building on site could be improved and could house a complementary business. The covered market area could serve as event space for other activities when the market was not in session. The addition of green space and street trees with biorentention will help address stormwater issues while also adding a desirable, natural aesthetic to the space.

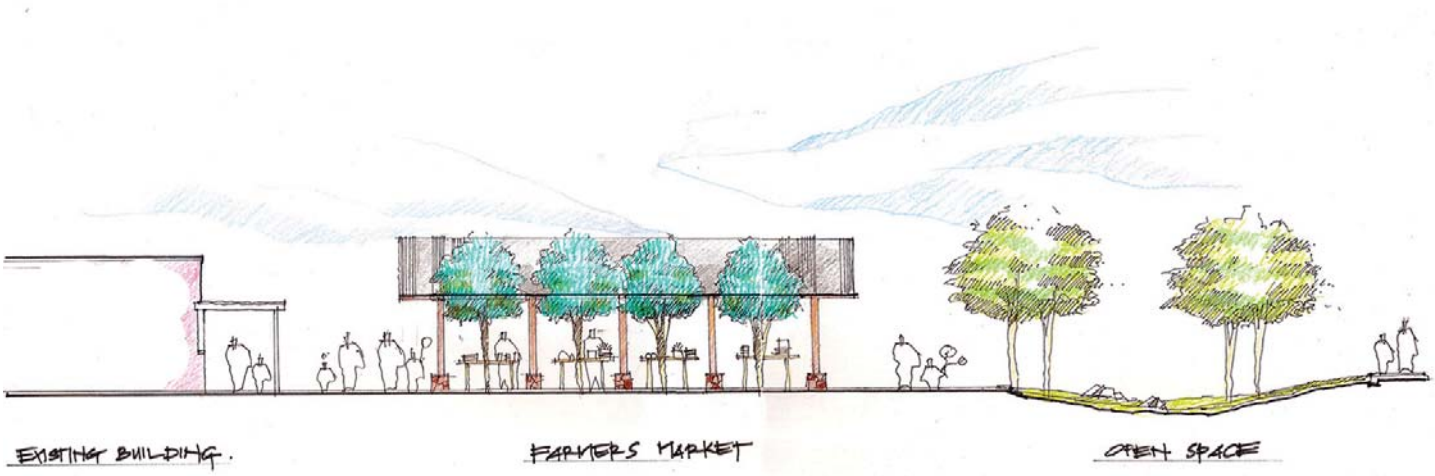
Corner lot at the intersection of Main Street and Depot Street.

Perspective sketch of the corner lot at the intersection of Main Street and Depot Street with the addition of an infill building.

Perspective sketch of the corner lot at the intersection of Main Street and Depot Street with the addition of a pocket park.

Vacant building and empty paved lot where a former grocery store once was on Main Street.

Perspective sketch of the vacant grocery store lot with the addition of a farmer's market structure, tree islands with biorentention, improved hardscape, and better defined parking.




Cross-section showing the addition of a farmer's market and green space to the vacant grocery store lot.

Example of a planted bioretention area in Blacksburg, VA. A similar measure could be added to the proposed green space to address storm water and improve aesthetics in the vacant parking lot.

Low impact development example from Blacksburg, VA: A small bioretention area to the right addresses storm water on site. The gravel path provides both pedestrian connectivity and serves as storage and filtration for stormwater as well.

Example of an infiltration trench in a parking lot.

# Chatham Perimeter Trail

An existing sewer easement offers a flat corridor for siting the trail.

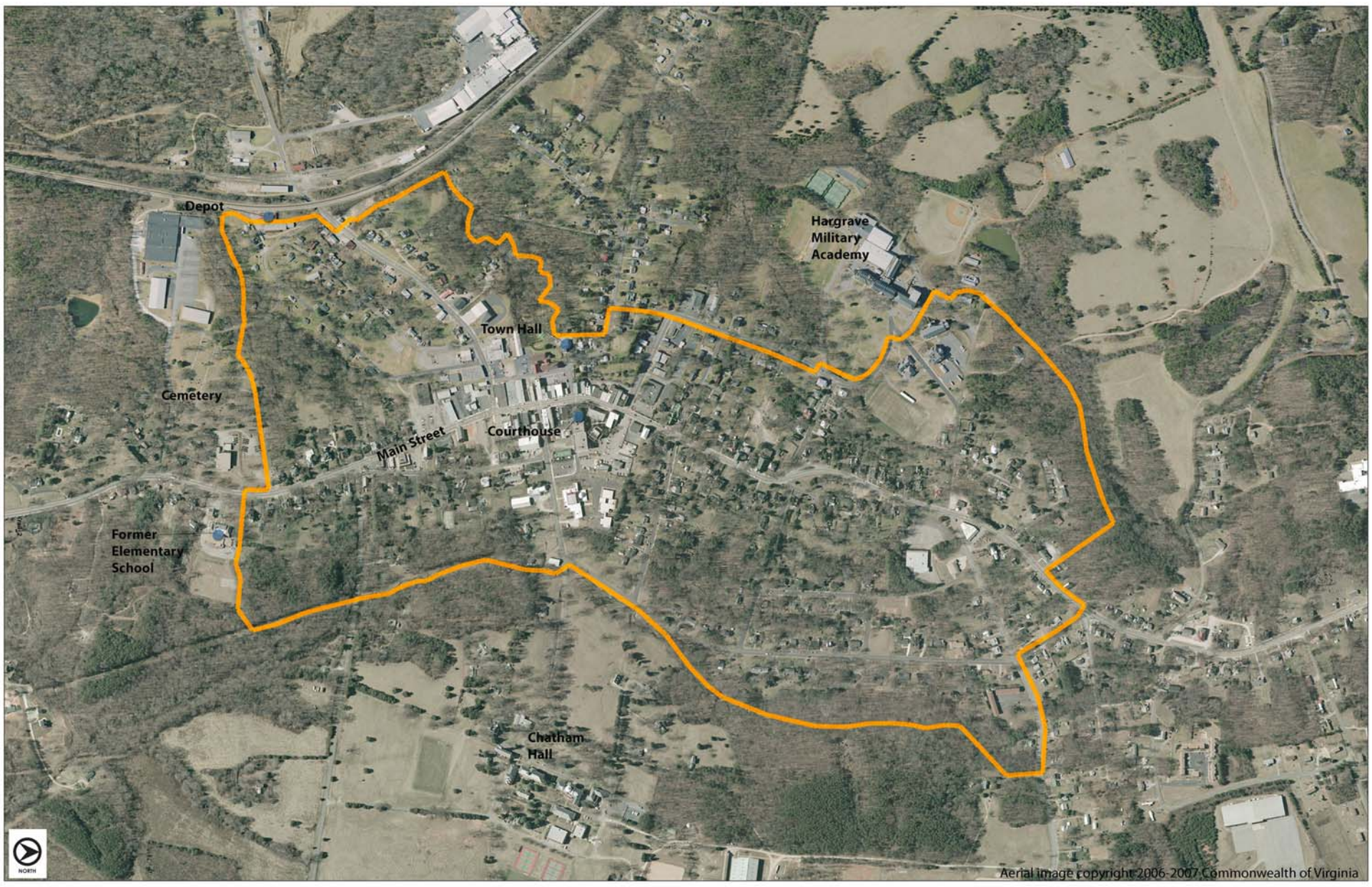
The Chatham Perimeter Trail was a concept developed by the Chatham Planning Commission several years ago. The potential trail route had previously been walked by boy scouts and a rough concept was drawn up by Dewberry and Davis. The CDAC team was charged with developing a few character sketches of what the trail could look like. To do this, the team wanted to explore as much of the various route as possible, to get a feel for what the character of the route was. The CDAC team spent several hours hiking the potential route with Planning Commission members Mary Lee Black and Joe Rogers. They were also accompanied by Eloise Nenon. Portions of the proposed route are on Town-owned land or public sidewalk. Many sections are wooded, offering a natural, relaxing experience for the trail user. Topography will be a challenge in a few areas, particularly the section from Town Hall to the restored Depot, particularly if ADA accessibility is sought for the entire loop. The Town Hall and the Depot offer excellent facilities as potential trail heads, with parking and publicly accessible restrooms in place or under construction.

The creation of the Chatham Perimeter Trail would be an excellent addition to the town. It would offer health, social, and recreation benefits to residents and would be an interesting attraction for visitors. Maps depicting potential trail location, points of interest and phasing, supporting character sketches, and pictures of the potential trail route can be found on the following pages.

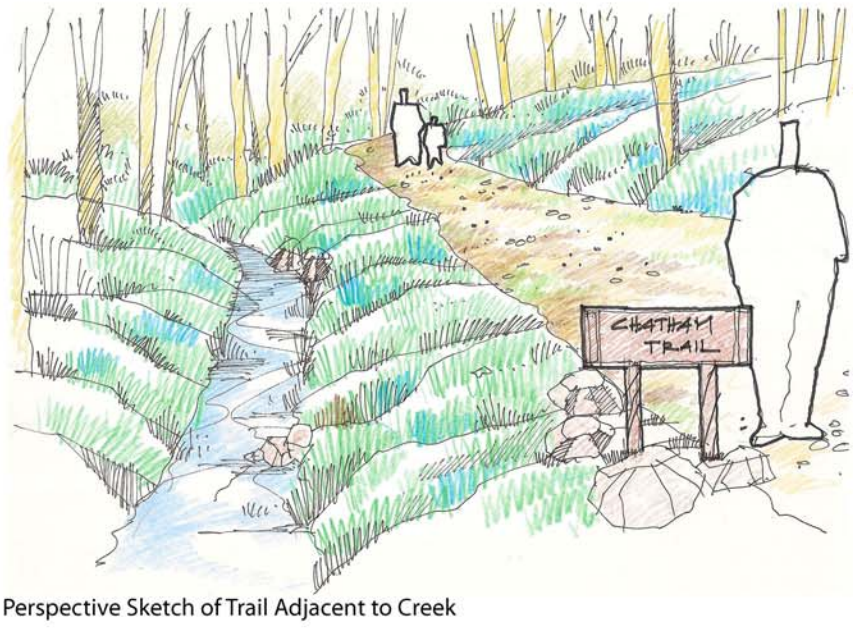
Wooded area behind the Town Hall.

# Chatham Perimeter Trail

## *Character Sketches*

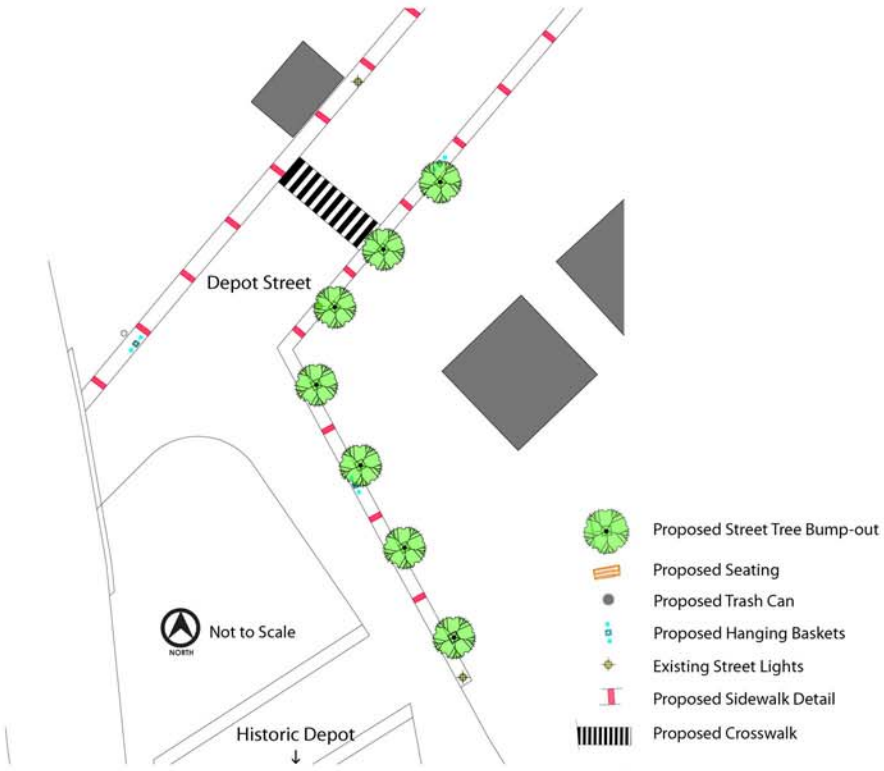


Perspective Sketch of Trail behind Town Hall




Perspective Sketch of Trail Adjacent to Creek

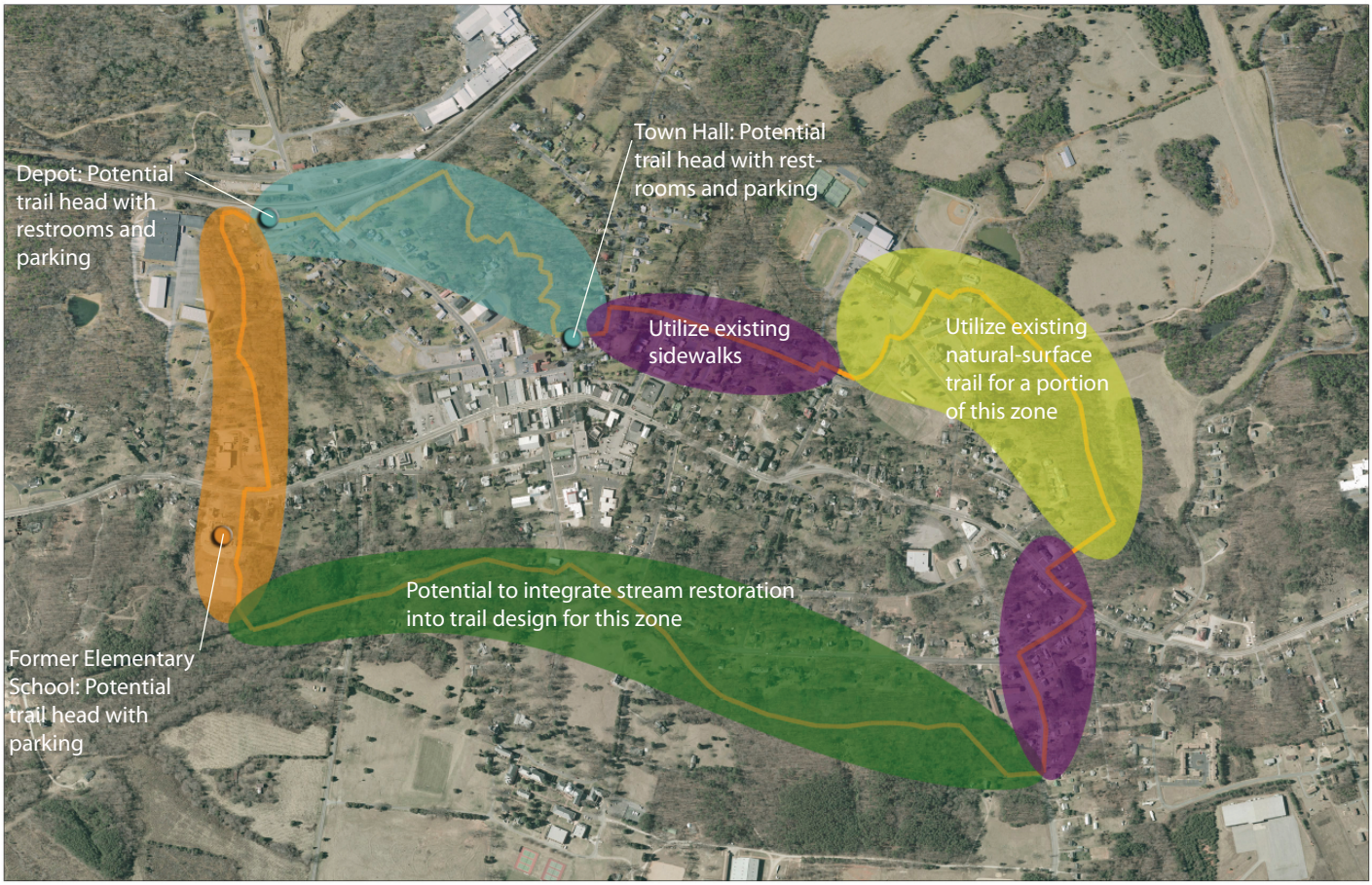
Perspective Sketch of Trail Connection to the Historic Depot




community design assistance center
College of Architecture and Urban Studies
Virginia Polytechnic Institute and State University

This drawing is conceptual and was prepared to show approximate location and arrangement of site features. It is subject to change and is not intended to replace the use of construction documents. The client should consult appropriate professionals before any construction or site work is undertaken. The Community Design Assistance Center is not responsible for the inappropriate use of this drawing.

# *Potential Trail Zones*



## *Town Hall to Depot Section*

## *Chatham Hall Section*

## *Hargrave Trail Section*

# Ordinances

An ordinance is a law enacted by a municipal body, such as a town or county council, that governs matters not already covered by state or federal law. A zoning ordinance often defines the purpose for which the ordinance is adopted; the various zoning classifications and permitted uses within each; restrictions; the procedure for handling non-conforming uses; the procedure for granting amendments, variances, and hearing appeals; and penalties for violation of the ordinance.

In order to suggest revisions most appropriate for Chatham's Historical Preservation and Architectural Design Control Overlay District, model city's ordinances were reviewed and researched. Ordinances were examined from numerous model cities including the following in Virginia: Leesburg, Blacksburg, Winchester, Front Royal, Staunton, Lexington, Richmond, Altavista, Abingdon, Lynchburg, and Roanoke. Based on the success of their downtown districts and ordinance enforcement, three cities were chosen to base the ordinance outlines on. The cities chosen are also in three different population size groups in order to show the different needs of growing cities.

## *Model Ordinance Cities*

**Altavista, Virginia**
Population: 3,368
In downtown Altavista, mixed use development, incorporating commercial, office, and housing has brought people downtown and created an expanded market for the restaurants, entertainment, retail and service establishments that opened shortly thereafter. Downtown's ambiance is due in large part to the preservation and enhancement of the varied historic structures preserved in the downtown historic district.

**Front Royal, Virginia**
Population: 14,616
Main Street, the second oldest street in Front Royal, contains the downtown shopping area. This area was revitalized in the 1980s to reflect a Victorian village with its tree lined avenue, town clock, and gazebo. The remainder of the Historic District includes residential areas that were developed in the late 19th Century.

**Leesburg, Virginia**
Population: 39,641
Leesburg is a vibrant community located in one of the fastest growing counties in the United States. As the seat of government, it is richly historic and has managed to preserve its heritage in light of the rapid growth. Leesburg's future hinges on the current efforts to organize and implement plans to sustain and enhance downtown as a place to create new investment opportunities while maintaining the charm of the authentic Old and Historic District.

The following pages highlight some key components related to developing an ordinance for a local historic district:

- establishing a local historic district
- developing a board of architectural review
- creating a permit ordinance
- creating a signage ordinace.

## *Establishing a Local Historic District*

A historic district is a group of buildings, properties, or sites that have been designated to be historically or architecturally significant by an entity. These buildings, properties, and sites are then divided into the categories of contributing or non-contributing. Contributing refers to something within the district that adds to the integrity or architectural significance that makes the historic district significant. Non-contributing refers to something within the district that is not associated with the historic or architectural significance of the district.

There are many advantages of a local historic district. A historic district offers protection of historic properties that help define an area and its importance in history. Local districts protect the investments of owners and residents. Buyers recognize that the features that make the historic district attractive will be protected over time. Developers will build new buildings that fit in with the architectural style of the existing structures creating a unified design. The rehabilitation of historic properties is more environmentally friendly and promotes sustainability. Tourism and economic development benefit from historic districts through a higher quality of life and by showcasing the areas most important attractions.

Below is a sample historic district ordinance outline that can be a guide. Sample verbiage taken from ordinances from the model cities can be found in Appendix H.

I. Description

II. Applicability

III. Created and Established

IV. Public Meetings Required

V. Historic District Permits

VI. Administrative Approval of Historic District Permits

VII. Demolition Applications

VIII. Maintenance of Historic Properties

IX. Designation of Historic District and Landmarks

X. Violations

## *Board of Architectural Review*

The Board of Architectural Review operates at the local level. They are often appointed by the Town Council or Mayor and have a range of powers and responsibilities set forth through laws and ordinances. Those that are appointed have a vested interest and expertise in historic preservation and rehabilitation. Members of the Board of Architectural Review often consist of architects, urban planners, landscape architects, archaeologists, historians, members of the planning commission or community in general.

Typically, the Board of Architectural Review will conduct town wide surveys, work to designate locally significant landmarks and districts, administer permit programs for applications to alter designated properties and construct new buildings, and provide guidance and guidelines in order to maintain a cohesive architectural design throughout designated areas.

Below is a sample Board of Architectural Review Ordinance outline that can be used as a guide. Sample verbiage taken from ordinances from the model cities can be found in Appendix H.

I. Purpose

II. Authority and Establishment

III. Required Qualifications

IV. Elections of Officers

V. Procedure for Meeting

VI. Powers and Duties

VII. Rules of Procedure

VIII. Record of Meetings

IX. Authority to Request Information

## *Permit Ordinance*

Processing of applications includes the following actions:

- Town staff will review project proposals to determine whether they will require an administrative review by the review board.

- For projects going to the review board, Town staff will notify owners of adjoining properties that the proposal will be discussed at the review board public meeting.

- The applicant, other property owners in the district, and other potentially affected parties will have an opportunity to comment on the proposal at the review board meeting.

- The review board and Town staff will review proposals according to the Design Guidelines and will render an assessment at the public meeting.

- Town staff will notify applicant in writing of the assessment regarding the proposal. Staff will maintain minutes of the review board meeting that outline the facts of the proposal assessment.

- The Town will issue a review letter, or for mandatory guidelines, a Certificate of Appropriateness or notice of denial of application to the property owner.

Below is a sample Permit Ordinance outline that can be used as a guide. Sample verbiage taken from ordinances from the model cities can be found in Appendix H.

I. Applicability

II. Required Contents of Applications

III. Application Filing Deadline and Fee

IV. Public Hearing Notice

V. Review of Plans in a Timely Manner

VI. Board Action on Applications
   - A. General Review and Approval Criteria
     - i. General Criteria
     - ii. Criteria for Existing Buildings and Structures
     - iii. Criteria for New Construction
     - iv. Demolition Permit Review and Approval Criteria

VII. Board Authority to Seek Outside Advice

VIII. Explanation of Disapproval

IX. Zoning Permits; Accurate Drawings of Approved Plans

X. Conformance with Plans Required

XI. Lapse of Approval

XII. Change of Plans after Issuance of Permit

XIII. Appeals
- A. Reconsideration by the Board of Architectural Review
- B. Appeals to Town Council
- C. Appeals to Circuit Court

## *Sign Ordinance*

In order to maintain an aesthetically pleasing and well organized historic district, a sign ordinance should be established to provide guidelines on what is appropriate. Signs should meet code requirements that address the safety, health, and general welfare of the public. Poorly placed or inappropriate sized signs can affect traffic circulation, turning movements, and pedestrian activity. It is important to promote the use of signs which are aesthetically pleasing, of appropriate scale, and integrated with the surrounding buildings and landscape, in order to meet the community's expressed desire for quality development. A sign ordinance can also protect property values, the local economy, and the quality of life by preserving and enhancing the appearance of the streetscape

Below is a sample Sign Ordinance outline that can be used as a guide. Sample verbiage taken from ordinances from the model cities can be found in Appendix H.

I. Historic District Zoning Permit Required

II. Sign Modifications

III. Additional Review Criteria

IV. Area, Height, Number, and Location of Signs

# Easements

Easements are a type of property right that allows a non-owner to access and use the property owner's land for various uses. For the proposed Chatham Perimeter Trail, private property owners can offer a recreational easement to the Town of Chatham, or these rights can be purchased. There are a few important considerations that should be addressed within these easements:

When a landowner grants a recreational easement, it is dedicated for public access. The easement would be deemed a non-exclusive perpetual easement meaning that anyone has access and that the easement becomes a permanent right attached to the land. The easement must comply with the Americans with Disabilities Act and should also define the boundaries and appropriate usage times (dawn to dusk).

Appropriate uses must also be defined. Suggested appropriate uses would include hiking, biking, horseback riding, sightseeing, and research and educational purposes. Suggested inappropriate uses would include camping, fishing, motorized vehicles (except wheelchairs), hunting, and commercial uses.

One of the most important issues to both the landowner and the Town will be addressing liability issues. The Town shall hold the landowner harmless from all liability associated with use of private property for recreation. Any legal suit filed against the Town would fall under provisions provided by the Virginia Tort Claims Act. This states that the Town is only liable for damages if they are neglectful of a known issue that causes injury. Virginia Landowner Liability Legislation is further address in Appendix I.

Appendix J contains several examples of recreational easements that provide sample verbiage. Easements are included from Virginia Department of Recreation and Conservation, Fairfax County, Northern Virginia Recreational Park Authority, and the State of Vermont.

# Funding Opportunities

On the next few pages, funding opportunities, grants, and community designations that can help implement the Chatham Visual Enhancements Conceptual Master Plan are described. There are examples that apply to the Chatham Perimeter Trail, streetscape improvements, economic development, and historic preservation.

## *Land and Water Conservation Fund*

Synthia Waymack
Land and Water Conservation Fund Program
Planning and Recreation Resources
Department of Conservation and Recreation
203 Governor Street, Suite 326
Richmond, VA 23219-2010
Ph: (804) 786-4379
Website: http://www.dcr.virginia.gov/recreational_planning/trailfnd.shtml

The Land and Water Conservation Fund Act of 1965 established a federal reimbursement program for the acquisition and/or development of public outdoor recreation areas. The Land and Water Conservation Fund (LWCF) is administered in Virginia by the Department of Conservation & Recreation (DCR) for the National Park Service. The program represents a federal, state, and local partnership. A key feature of the program is that all LWCF assisted areas must be maintained and opened, in perpetuity, as public outdoor recreation areas. This requirement ensures their use for future generations.

The LWCF is a 50-50 percent matching reimbursement program. The grant recipient must be able to fund 100 percent of the project while seeking periodic reimbursements.

LWCF is very competitive. Requests for assistance typically total more than five times the funding available.

Eligible projects include:

- Public Outdoor Recreation Land Acquisition
- Public Outdoor Recreation Land Acquisition and Facility Development
- Public Outdoor Recreation Facility Development

In 2010, funds from the 2009 appropriation ($400,000) will be combined with anticipated funds for 2010 ($350,000). The total maximum grant award will be $125,000 (total project cost, $250,000). The minimum will be $50,000 (total cost, $100,000).

# *Virginia Recreational Trails Program*

Synthia Waymack
Land and Water Conservation Fund Program
Planning and Recreation Resources
Department of Conservation and Recreation
203 Governor Street, Suite 326
Richmond, VA 23219-2010
Ph: (804) 786-4379
Website: http://www.dcr.virginia.gov/recreational_planning/trailfnd.shtml

The Recreational Trails Program (RTP) is a reimbursement grant program established for the purposes of providing and maintaining recreational trails and trails-related facilities. It is funded through the Federal Highway Administration (FHWA), which establishes a program for allocating funds to the States for recreational trails. The state agency responsible for administering the program in Virginia is the Department of Conservation and Recreation (DCR).

This is a reimbursement program, meaning that the sponsoring agency should be capable of financing the project while requesting periodic reimbursements. All project applications must have a 20% (minimum) sponsor match in total cost. Planning proposals, gap analysis, and feasibility studies are not eligible for funding through this program. RTP can provide up to 80% of a project's total eligible costs. The sponsor will be responsible for the remaining 20%.

Grants are limited to a minimum of not less than $25,000 and no more than $100,000. Written assurances/permission for trails crossing private land is required in order for the sponsor receive a grant. A grant recipient may use monies received under this program for:

- Development of trail linkages.
- Construction of new trails.
- Restoration of existing recreational trails (includes restoration of backcountry terrain damaged by usage).
- Development/rehabilitation of trailside and trailhead facilities. This includes trail components or associated facilities which serve the purpose of improving the use of or safety of the recreational trail, and may include, but are not limited to the following: drainage, crossings, stabilization, parking, signage, controls, shelters, water, sanitary, and access facilities, and trail bridge restorations. "Rehabilitation" means extensive repair needed to bring a facility up to standards suitable for public use or to protect resources. Trailside and trailhead facilities should have a direct relationship with a recreational trail. Examples include
    - Water Trails
    - Provision of features that facilitate the access and use of trails by persons with disabilities.
    - Development of motorized trails except as noted under "uses not permitted.
    - Fee simple or easement acquisition for trails or for trail corridors in harmony with trail needs identified in the 2007 Virginia Outdoors Plan or local trails plan or comprehensive plan.

## *Virginia Department of Transportation - Transportation Enhancement Program*

Virginia Department of Transportation
Local Assistance Division
1401 E. Broad St.
Richmond, VA 23219
Fax: 804-371-0847
E-mail: EnhancementProgram@VDOT.Virginia.gov
http://www.virginiadot.org/business/prenhancegrants.asp

The Transportation Enhancement program is a federally funded reimbursement program established by Congress in 1991. The program provides federal transportation funds to reimburse up to a maximum 80% of the eligible costs for projects qualifying in one or more of the 12 Enhancement activities as set forth in the federal legislation. The legislation designated 12 activities meant to improve non-motorized transportation, enhance the public's traveling experience, revitalize communities, and improve the quality of life.

The program requires a minimum 20% local match. Eligible projects include:

- New or reconstructed sidewalks, cross walks, curb ramps
- Trails, both on and off-road
- Pedestrian / bicycle bridges and underpasses
- Landscaping and vegetation management including re-vegetation with native plants
- Historic light fixtures
- Street furniture including benches, trash receptacles, and planters
- Gateway signage
- Restoration of historic railroad depots
- Developing rail-with-trail facilities (trails built alongside abandoned and/or active rail corridors)

The Enhancements Program procedure manual can be located at:
http://www.virginiadot.org/business/resources/local_assistance/2009_Enhancement_Manual2.pdf

This program is administered along with the Locally Administered Projects Manual that can be located at:
http://www.virginiadot.org/business/resources/local_assistance/LAD_LAP_manual_final/LAP_Manual-July2010.pdf

# *Community Development Block Grants*

Virginia Department of Housing and Community Development
Project Management Office
600 East Main Street, Suite 300
Richmond, Virginia 23219
Ph: (804) 371-7061
Fax (804) 371-7093

http://www.dhcd.virginia.gov

The Virginia Community Development Block Grant (CDBG) Program provides funding to eligible units of local government to address critical community development needs, including housing, infrastructure, and economic development. This Program has been administered by the Virginia Department of Housing and Community Development (DHCD) since 1982. CDBG funds are made available to DHCD by the U.S. Department of Housing and Urban Development (HUD).

**Comprehensive Community Development**
These projects target the completion of a range of improvements to a neighborhood in direct response to identified needs therein. These needs should be derived from a recent client-based needs assessment of the neighborhood or target area. This assessment should include analysis of a full range of need areas including housing, water, sewer, streets, drainage, sidewalks, solid waste/garbage, debris removal, street lighting, recreation, police protection, fire protection, and other neighborhood-specific items. The emphasis of Comprehensive Community Development projects is addressing the housing conditions of the community. Other activities may be undertaken as appropriate and as identified through a neighborhood needs assessment. These projects are not intended to primarily focus on deferred maintenance of infrastructure.

**Economic Development**
The primary purposes for providing CDBG assistance to economic development activities are as follows:
• Create job and business opportunities for low- and moderate-income persons, particularly in the most economically disadvantaged, CDBG-eligible areas of the Commonwealth; and,
• Eliminate blighting conditions in deteriorated areas as a means of creating better environments for future economic activities.

CDBG assistance is available for economic development activities under the following categories:

- Job Creation and Retention
- Business District Revitalization
- Site Redevelopment
- Development Readiness

Most economic development projects will focus on one activity category. Some projects may focus on two or more. Projects targeting one category are eligible for up to $700,000 in CDBG assistance. Projects targeting two or more categories are eligible for up to $1,000,000. However, no single activity within a multi-activity economic development project may represent more than $700,000.

The Community Development Block Grants Manual can be found at:
http://www.dhcd.virginia.gov/CommunityDevelopmentRevitalization/PDFs/VCDBG_ProgramDesign.pdf

## *Preserve America Community Grants*

http://www.preserveamerica.gov/communities.html
http://www.nps.gov/history/hps/hpg/PreserveAmerica/index.htm

Advisory Council on Historic Preservation's Office of Preservation Initiatives
Old Post Office Building
1100 Pennsylvania Avenue, NW, Suite 803
Washington, DC 20004
Ph: (202)-606-8584

The Preserve America matching-grant program provides planning funding to designated Preserve America Communities to support preservation efforts through heritage tourism, education, and historic preservation planning.

Through these grant projects our country gains a greater shared knowledge about the Nation's past, strengthened regional identities and local pride, increased local participation in preserving the country's cultural and natural heritage assets, and support for the economic vitality of our communities.

**Preserve America Communities are communities that:**

- Protect and celebrate their heritage;
- Use their historic assets for economic development and community revitalization;
- Encourage people to experience and appreciate local historic resources through education and heritage tourism programs.

**Benefits of designation include:**

- White House recognition;
- A certificate of recognition;
- A Preserve America Community road sign;
- Eligibility for Preserve America grants;
- Authorization to use the Preserve America logo on signs, flags, banners, and promotional materials;
- Listing in a web-based Preserve America Community directory;
- Inclusion in national and regional press releases;
- Official notification of designation to State tourism offices and visitor bureaus; and
- Enhanced community visibility and pride.

Preserve America grants support planning, development, and implementation of innovative activities and programs in heritage tourism such as surveying and documenting historic resources, interpreting historic sites, planning, marketing, and training. Successful applicants will emphasize creative projects that promote and preserve the community's cultural resources. Successful projects will involve public-private partnerships and serve as models to communities nationwide for heritage tourism, education, and economic development.
Individual grants range from $20,000 to $250,000.

**Some examples of funded projects include:**
*Developing an Outreach Plan for Historic Central City Properties*
Fort Smith, Arkansas
$46,680
This grant will create a plan to promote the historically significant, central city area to developers, investors and business. Tourism related business and persons who might consider residing in the central city will also be the focus.

*Southeast Colorado Heritage Tourism Program*
Colorado Historical Society, State Historic Preservation Office
$130,000
The grant will create a regional marketing program for heritage tourism in a six-county rural region of Southeast Colorado. This public-private partnership will result in increased visitation and revenues to both historic sites and to local tourism supported businesses.

*Wayfinding and Marker Project*
Georgetown, Colorado
$33,000
This project will place wayfinding signs and markers to guide the heritage tourist to the outstanding historic sites in the Georgetown portion of Colorado's Georgetown-Silver Plume National Historic Landmark District.

*Historic Wethersfield Wayfinding Signage and Gateway Enhancement*
Wethersfield, Connecticut
$90,000
This project will enable the Town of Wethersfield to utilize the recommended sign design from the Historic Wethersfield Master Plan. It will proceed with the recommended placement of signs, the installation of directional and informational signs, and the implementation of recommended improvements to the main gateway from the interstate to the historic area.

*Wayfinding Plan*
Augusta (Richmond County), Georgia
$50,000
The grant will be used to develop a plan for a city-wide, coordinated wayfinding signage program with an emphasis on historic and cultural resources. The primary objectives are to assess the navigational needs of visitors; to conduct research in other cities and towns with effective signage programs; to determine the location, placement, number and design of the signs; and to design the content. The result will be a plan for a comprehensive wayfinding system to direct a diverse group of both motor tourists and pedestrians to local places of interest.

*Interpretation of Historic Bowling Green*
Bowling Green, Kentucky
$62,000
The City of Bowling Green will write, design and fabricate interpretive signs, trailheads, and other interpretive materials as part of a heritage tourism marketing campaign to promote their historic resources and enhance visitor experience.

*Rural Heritage Development Initiative Design Guidelines*
Bardstown, Kentucky
$48,925
The City of Bardstown, along with eight other Preserve America Communities, will work with the University of Kentucky Research Foundation to develop design guidelines that will help the region maintain the character of its rural landscapes and historic small communities. The resulting document will review regional design characteristics, case study examples, and prescriptive recommendations.

# *Certified Local Government*

Ms. Pamela A. Schenian
CLG Coordinator Department of Historic Resources
Tidewater Regional Preservation Office
14415 Old Courthouse Way, 2nd Floor
Newport News, Virginia 23608
Ph: (757)886-2818
Email: pam.schenian@dhr.virginia.gov
http://www.nps.gov/history/hps/clg/become_clg.html

The Certified Local Government Program is a preservation partnership between local, state and national governments focused on promoting historic preservation at the grass roots level. The program is jointly administered by the National Park Service (NPS) and the State Historic Preservation Offices (SHPOs) in each state, with each local community working through a certification process to become recognized as a Certified Local Government (CLG). CLGs then become an active partner in the Federal Historic Preservation Program and the opportunities it provides.

**Why become a CLG?**
There are many reasons that are described in depth in the links provided, but the key reason is the access certification provides to the expert technical advice of the State Offices as well as the NPS. Partnerships with the National Alliance of Preservation Commissions, Preserve America, the National Trust for Historic Preservation, and the National Main Street Center are also networks that CLGs have an opportunity to tap into. Of course, access to Federal funding is another benefit, making certified communities able to access the portion of Federal funds set aside by each SHPO for just CLGs annually. Being a CLG also shows your community's commitment to keeping what is significant from the past for future generations. As a certified town, city, or county seeking other opportunities, it becomes easy to demonstrate a readiness to take on a preservation project and be successful.

**What is a CLG required to do?**
A community must address the following minimum goals to demonstrate to the State and NPS that they are committed to historic preservation.

- Establish a qualified historic preservation commission.
- Enforce appropriate State or local legislation for the designation and protection of historic properties. In most cases this is done in the form of a local ordinance.
- Maintain a system for the survey and inventory of local historic resources.
- Provide for public participation in the local historic preservation program, including participation in the National Register process.
- Follow any additional requirements as outlined in the State's Procedures for Certification.

The 1,600 local governments that participate in the CLG program are eligible to apply to their State Historic Preservation Officer (SHPO) for annual funding. Each state is required to allocate ten percent of their annual Federal appropriation to CLG activities. On average, CLGs receive a total of approximately $3 million in HPF funds through sub-grants from the states.

Types of activities that can be funded include: architectural, historical, archeological surveys; nominations to the National Register of Historic Places; staff work for historic preservation commissions; design guidelines and preservation plans; public outreach materials such as publications, videos, exhibits, and brochures; training for commission members and staff; and rehabilitation or restoration of National Register listed properties.

Funding decisions are made by the states, thus each program can have varied requirements and fund different types of eligible activities. Eligible projects for funding include:

- architectural, historical, archeological surveys, and oral histories
- preparation of nominations to the National Register of Historic Places
- research and development of historic context information
- staff work for historic preservation commissions, including designation of properties under local landmark ordinances
- writing or amending preservation ordinances
- preparation of preservation plans
- publication information and education activities
- publication of historic sites inventories
- development of publication of walking/driving tours
- development of slide/tape shows, videotapes
- training for commission members and staff
- development of architectural drawings and specifications
- preparation of facade studies or condition assessments• rehabilitation or restoration of properties individually listed in the National Register of Historic Places or contributing to a National Register historic district

On a nationwide basis, CLG grants in 2001 ranged in size from $500 to $60,000. In most States, a 50/50, or "dollar-for-dollar" match is required. This means that for every dollar received the recipient must provide a matching dollar in services, cash, or volunteer hours, as specified by State policy.

SHPOs makes an annual mailing to each CLG, and each local government whose application for certification is pending, notifying them of the availability of CLG grant funds. Potential CLG applicants are informed of the total amount of funds available. State priorities for funding, criteria to be used in selecting proposals to be funded, a deadline for submitting requests, and a written description of what must be included in applications for CLG grants.

# Conclusion

Chatham is a lovely Town with beautiful architecture, mature trees, a relaxed atmosphere, and historic charm. It's genealogical resources, restored Depot, unique shops, bed & breakfasts, signature events (Classic Car Show), and nearby Tomahawk Vineyard help to make it a desirable destination for visitors. Strengthening the Town's historic core and its entrances through design and ordinances will further enhance the Town as a desirable destination to live or visit for current and future generations.

# Appendices

Appendix A - Plant Palette----------Page 58

Appendix B - Plant Maintenance Suggestions----------Page 72

Appendix C - VDOT Planting Guidelines---------- Page 82

Appendix D - Soil Sample Results----------Page 92

Appendix E - Trail Types and Surfacing----------Page 93

Appendix F - Design Guidelines Template----------Page 111

Appendix G - Historic Design Review Board Comparison----------Page 115

Appendix H - Model Ordinances---------- Page 124

Appendix I - Virginia Landowner Liability Law---------- Page 156

Appendix J - Sample Easements----------Page 158

# Appendix A: Plant Palette

## *Entry and Median Plant Palette*

*Photo courtesy of John M. Hagstrom, on Flickr.com*

**Purple Coneflower**

*Echinacea purpurea* 'Kim's Knee High'

Height: 1-2 ft

Spread: 1 ft

Bloom: June- September

Foliage: Deciduous

Native to U.S.

*Photo courtesy of Steven Mullen, on Flickr.com*

*Photo courtesy of Namethatplant.wordpress.com*

**Orange Coneflower**

*Rudbeckia fulgida* var. *sullvantii* 'Goldsturm'

Height: 18-24"

Spread: 18-24"

Bloom: July- September

Foliage: Semi-evergreen, near the ground

Native to U.S.

*Photo courtesy of Finegardening.com*

**Wall Germander**

*Teucrium chamaedrys*

Height: 6-12"

Spread: 6-9"

Bloom: Purple flowers, in the summer

Foliage: glossy, evergreen

*Photo courtesy of Tina Jemison, on Flickr.com*

**Mouse Ear Coreopsis**

*Coreopsis auriculata* 'Nana'

Height: under 12", including flower

Spread: spreading

Bloom: Spring-summer

Foliage: semi-evergreen

Native to U.S.

*Photo courtesy of KingsbraeGarden, on Flickr.com*

**Autumn Joy Sedum**

*Sedum* 'Autumn Joy'

Height: 18-24"

Spread: 18-24"

Bloom:  August-September

Foliage: deciduous

*Photo courtesy of Jeff B. Franklin, on Flickr.com*

**Eastern Red Cedar**

*Juniperus virginiana* 'Canaertii'

Height: 30 ft

Spread: 8-15ft

Foliage: Evergreen

Native to U.S.

*Photos courtesy of John M. Hagstrom, on Flickr.com*

**Dwarf Fothergilla**

*Fothergilla gardenii* 'Jane Platt'

Height: 2-3 ft

Spread: 2-3 ft

Bloom: Early Spring-Mid Spring, fragrant

Foliage: Excellent fall color, deciduous

Native to U.S.

*Photo courtesy of amwua.com*

**Creeping Germander**

*Teucrium chamaedrys* 'Prostratum'

Height: 2-6"

Spread: spreading

Bloom:  purple flowers, spring/summer

Foliage: Glossy, green foliage. Evergreen unless severe winter.

*Photo courtesy of vasilakos.gr*

**Scarlet Oak**

*Quercus coccinea*

Height: around 30ft at 20 years old, mature height is around 70ft

Spread: 40-50ft

Foliage: Lovely autumn color, deciduous

Native to U.S.

*Photo courtesy of waiting line, on Flickr.com*

*Photo courtesy of Christina Port, on Flickr.com*

**Wildflower and native grass mixes**

Can include many native wildflower and grass species. Pictured are Purple Top and Lance-leaved Coreopsis, both of which are found in the recommended "Virginia Gentleman's Mix" by Ernst Conservation Seeds.

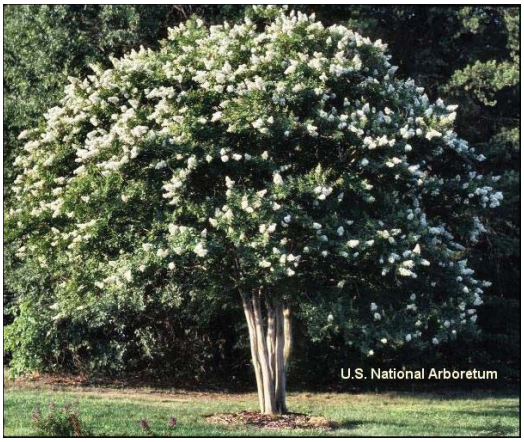



*Photo courtesy of Crapemyrtles.com*

**Crape Myrtle**

*Lagerstroemia* species & hybrids

Variable Heights, spreads, forms, flowers, based on hybrid selected

*Photo courtesy of akira*, on Flickr.com*

**Glossy Abelia**

*Abelia* x *grandiflora*

Height: 3-6 ft

Spread:  4-10 ft

Bloom: Pinkish white blooms from spring-early autumn.

Foliage: Glossy green in summer, turning purplish in autumn.

*Photo courtesy of peripathetic, on Flickr.com*

**California incense-cedar**

*Calocedrus decurrens*

Height: 30-50ft

Spread: 8-10 ft

Foliage: Rich,dark green; evergreen.

*Photo courtesy of The New York Botanical Garden, on Flickr.com*

**Cornelian Cherry Dogwood**

*Cornus mas*

Height: 20-25 ft

Spread: 15-20 ft

Bloom: Bright yellow in late winter/early spring.

*Photo courtesy of derAmialtebloede, on Flickr.com*

**American Holly**

*Ilex opaca* 'Jersey Knight' (male) and 'Jersey Princess' (female)

Height: 15-30 ft

Spread: 15-20 ft

Berries: Females have bright red berries throughout winter.

Foliage: Glossy green, evergreen.

Native to U.S.

*Photos courtesy of John M. Hagstrom, on Flickr.com*

**Virginia Sweetspire**

*Itea virginica* 'Henry's Garnet'

Height: 3-4 ft

Spread: 5-8 ft

Bloom: White flowers, June-July

Foliage: Very good fall color, often holds on to red leaves late into Autumn or even Winter.

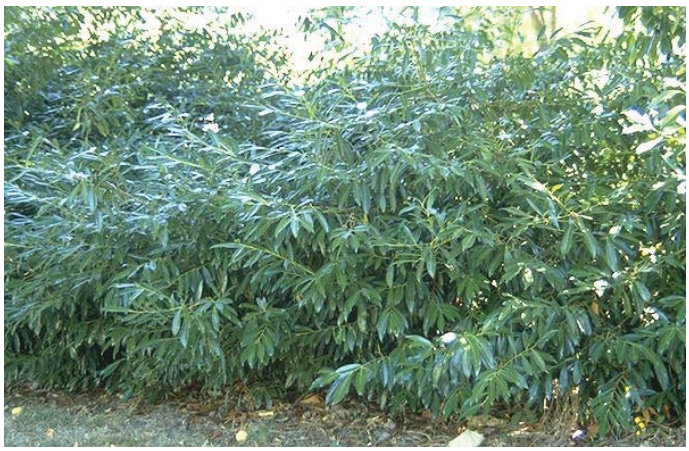


*Photo courtesy of Oregonstate.edu*

**Zabeliana Cherry Laurel**

*Prunus laurocerasus* 'Zabeliana'

Height: 3-4 ft

Spread: 8-12 ft

Foliage: Glossy green, evergreen

*Photo courtesy of Jim-AR, on Flickr.com*

**Flowering Dogwood**

*Cornus florida*

Height: 20-30 ft

Spread: 25-30 ft

Bloom: White or pink flowers in early spring.

Foliage: Often good fall color.

*Photo courtesy of Flowerbeauty.info*

**Evergreen Azalea**

*Rhododendron* species & hybrids

Height: varies, depends on species and cultivar of azalea.

Spread: varies, depends on species and cultivar of azalea.

Bloom: Spring flowers.

Foliage: Evergreen.

*Photo courtesy of Snailnail, on Flickr.com*

*Photo courtesy of Herbal Gerbil, on Flickr.com*

**Fothergilla**

*Fothergilla major*

Height: 6-10 ft

Spread: 6-10 ft

Bloom: White, bottle-brush flowers in early Spring.

Foliage: Excellent Fall color.

*Photo courtesy of Groundcover.com*

**Lilyturf**

*Liriope muscari*

Height:  6-12”

Spread: 12-18”

Bloom: Light purple flowers in late Summer/early Fall.

Foliage: Evergreen, grass-like.

*Photo courtesy of antonychammond, on Flickr.com*

**Daffodils**

*Narcissus* species & hybrids

Bloom: Early spring flowers. Usually yellow or white.

Foliage: Strap-like green foliage that yellows in late Spring/early Summer.

*Photo courtesy of Cactiphobia, on Flickr.com*

**Green Spice Coral Bells**

*Heuchera americana* ‘Green Spice’

Height: 6-12”

Spread: 12-18”

Bloom: Late Spring/early Summer, but really grown for foliage.

Foliage: Silver and green leaves with maroon veins.

*Photo courtesy of Flowergardeningtips.net*

**Daylily**

*Hemerocallis* species & hybrids

Bloom: Usually in Spring or Summer, depending on the species/cultivar chosen.

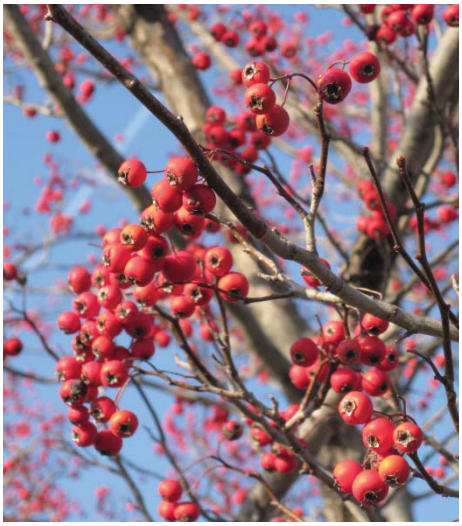


*Photo courtesy of Greengardenista.com*

*Photo courtesy of Treefarmusa.com*

**Washington Hawthorn**

*Crataegus phaenopyrum*

Height: 25 -30 ft

Spread: 20-25 ft

Bloom: White flowers in June, for about a week.

Berries: Red and glossy, remain on tree through winter.

Foliage: Glossy green in the summer. Often good fall color.

# *Street Tree Plant Palette*

*Photo courtesy of Thesupernursery.com*

*Photo courtesy of Neal1960, on Flickr.com*

**Serviceberry 'Autumn Brilliance'**

*Amelanchier x grandiflora '*Autumn Brilliance'

Height: 15-25'

Width: 15-25'

*Photo courtesy of Drosera-x, on Flickr.com*

*Photo courtesy of Monrovia*

**American Fringetree**

*Chionanthus virginicus*

Height: 12-20’

Width: 12-20’

*Photo courtesy of Georgeweigel.net*

*Photo courtesy of Finegardening.com*

*Photo courtesy of Shadetrees.tripod.com*

*Photo courtesy of Cnr.vt.edu*

**American Smoketree**

*Cotinus obovatus*

Height: 20-30’

Width: 15-25’

*Photo courtesy of Gardenseeker.com*

*Photo courtesy of Summerhillnursery.com*

**Longstalk Holly**

*Ilex pedunculosa*

Height: 10-15’

Width: 10-15’

*Photo courtesy of W. Dale Huff*

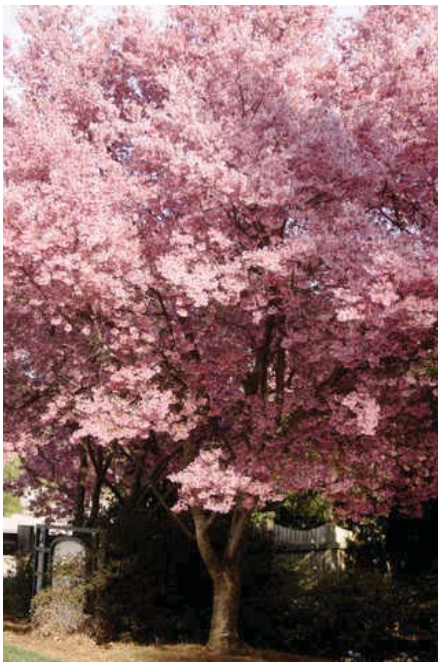


*Photo courtesy of Media2.newsobserver.com*

*Photo courtesy of Dehort.org*

**Okame Cherry**

*Prunus x incamp* 'Okame'

Height: 20-30'

Width: 20-30'

*Photo courtesy of Calendar Garden, on Flickr.com*

# Appendix B: Plant Maintenance Recommendations

Appendix B contains general maintenance suggestions for the proposed planting areas related to soil amendments, watering, deadheading, pruning, and mulching. Additional information and volunteer resources are also identified, such as Virginia Cooperative Extension and their numerous publications, and the Tree Stewards program.

## *General Maintenance Suggestions:*

**Soil Amendments**: Structure, pH, and nutrient levels are all important aspects of the soil. Some plants prefer a low pH (acidic) and some prefer a higher pH (basic). Most of the plants chosen for this project should tolerate a soil pH if it is near neutral (7.0) or slightly acidic. Most plants prefer a soil that is well-drained but moist, which can be hard to come by. Plants for this project should, however, be able to tolerate well-drained but dry soils, once fully established. One of the best ways to improve soil structure and to increase the nutrient level, is the addition of organic matter. Organic matter could be manure compost, leaf litter compost, or even a natural mulch. Compost is a fantastic amendment and can be mixed in with the existing soil when installing plants to the ground.

**Watering:** One of the most crucial steps to helping plants survive tough roadside conditions, is watering. It is especially important to have a good watering plan for the first two years (especially summers) to get the plants well-established. Once the plants are settled in (after at least two years of adjusting) they will still require some watering during times of drought, but should not require nearly as much water-related attention and care. Deep watering once a week is better than daily shallow watering. A shallow watering each day creates shallow-rooted plants that will be less drought-tolerant. Deep watering once a week encourages root systems that are deeper and more prepared for the less pampered future.

**Deadheading:** Many flowering plants (including the germander, orange coneflower, and dwarf coreopsis) look tidier if spent flowers are removed. It also often encourages more flowering from those plants. Deadheading is the process of removing those spent flowers and it's quite simple! When deadheading a lot of plants, it's probably easiest to do so with hand pruners. For some flowers, it's all about personal preference. Echinacea, for example, will keep its spent flowers around until you cut them off or they fall over. They can look either cute or "ratty" in the winter, depending on who you ask.

**Pruning:** Plants for these designs were chosen to need minimal pruning. While it can often be tempting to hedge every bush into a "well-behaved meatball," this is unnecessary and counter-productive. Shrubs should be allowed to grow as wide as they can until they cover all the ground between each other. This greatly helps to reduce weeds in this area. Unless visibility is becoming a concern, shrubs should not need pruning to keep down their height. If a dead or dying branch is observed, that should be pruned (then be sure to clean the blades before using on a healthy branch.) It is essential to maintain trees with good pruning techniques. "Topping" is not healthy for trees, and quite unattractive. A strong central leader should be encouraged in trees that will eventually be very large. Dead or diseased branches should be removed. "Painting" the pruned branches is unnecessary and can slow its healing process. For any major pruning of trees, it would be best to consult a certified arborist.

Some good shrub and tree-care tips can be found at: http://pubs.ext.vt.edu/category/trees-shrubs-groundcovers.html

**Mulching:** Mulch is applied to the surface of the soil, often on an annual basis. Fall can be a good time to apply mulch as it helps protect the roots of plants from a harsh winter. Mulch also helps to suppress weeds and to maintain soil-moisture. Mulch should not be applied too deeply at the trunk of a tree or base of a shrub. Be sure to soak soil before applying mulch. More information on types of mulch and their benefits can be found at: http://pubs.ext.vt.edu/426/426-724/426-724.html

**Weeding:** While often one of the more time-consuming parts of gardening or maintaining a landscape, weeding is essential. Mulch can be used to make an area less attractive for weeds to grow. Another great way to keep weeds from taking over, is by encouraging the health and spread of the plants you do want. The more your perennials and shrubs are allowed to cover the ground, the less space there is for weeds!

## Additional Assistance:

***Virginia Cooperative Extension***: The Virginia Cooperative Extension is an excellent resource related to plant material and planting. The Pittsylvania County office is located in Chatham and the local extension agent should be a good point of contact. Virginia Cooperative Extension also has numerous educational publications available for free on online: http://offices.ext.vt.edu/pittsylvania/

***Tree Stewards***: Tree Stewards are volunteers dedicated to improving the health of trees by providing educational programs, tree planting and tree care demonstrations and tree maintenance assistance throughout their communities. Through classroom training and hands-on practice, Tree Stewards learn the basics of tree biology and physiology, tree identification and planting and maintenance techniques. Tree Stewards make a commitment to improving and protecting their community forest. Starting a Tree Stewards group in Chatham may be an excellent means of forming a group of volunteers to assist with basic maintenance for proposed Main Street trees. For more information about Tree Stewards visit. http://www.treesvirginia.org/Tree_Steward.htm

Some additional links with great information include:

*On the care of perennials:* http://pubs.ext.vt.edu/426/426-203/426-203.html

*On pruning:* http://pubs.ext.vt.edu/430/430-455/430-455.html

*On pruning crape myrtles, specifically:* http://pubs.ext.vt.edu/430/430-451/430-451.html

*11x17 pullouts with information specific to each proposed planting area can be found on the following pages.*

| US 29 South, Southern Entry | | | | | |
|---|---|---|---|---|---|
| **Scientific Name** | **Common Name** | **Quantity** | **Height** | **Spacing** | **Culture** |
| *Abelia x grandiflora* | Glossy Abelia | aprx. 131 | 3-6' | 4' on center | Purchase balled & burlapped or container-grown. Prefers moist, well-drained, acid soil. |
| *Calocedrus decurrens* | California Incense-cedar | 6 | 30-50' | 10' | If available, a container-grown plant may respond better to transplanting. Prefers well-drained, fertile soil. |
| *Coreopsis auriculata* 'Nana' | Dwarf Coreopsis | aprx. 50 | 9-12" | 9" on center | Full sun to light shade |
| *Cornus mas* | Cornelian Cherry Dogwood | 10 | 20-25' | 15-20' | Purchase balled & burlapped. Prefers rich, well-drained soil but is adaptable. |
| *Crataegus phaenopyrum* | Washington Hawthorn | 7 | 25-30' | 20-25' | Full sun. Adaptable to many soil types. |
| *Echinacea purpurea* 'Kim's Knee High' | Dwarf Purple Coneflower | aprx. 15-20 | 1-2' | 1' on center | Full sun to light shade. |
| *Fothergilla major* | Fothergilla | aprx. 31 | 6-10' | 7' | Prefers more acidic soils, be sure to amend. |
| *Hemerocallis* species | Daylily | | | | Buttered popcorn' is a popular cultivar |
| *Ilex opaca* 'Jersey Knight' | American Holly (male) | 5 | 15-30' | 15' | Purchase balled & burlapped or container-grown. Prefers moist, well-drained, acid soil. |
| *Ilex opaca* 'Jersey Princess' | American Holly (female) | 10 | 15-30' | 15' | Purchase balled & burlapped or container-grown. Prefers moist, well-drained, acid soil. |
| *Juniperus virginiana* 'Canaertii' | Eastern Redcedar | 9 | 20-35' | 10-15' | Full sun. Purchase balled & burlapped. |
| *Lagerstroemia* 'Natchez' | Crape Myrtle | 9 | 21' | 20' | Purchase balled & burlapped or container-grown. Prefers moist, well-drained soil. |
| *Lagerstroemia* 'Sioux' | Crape Myrtle | 3 | 14' | 10' | Purchase balled & burlapped or container-grown. Prefers moist, well-drained soil. |
| *Narcissus* species & hybrids | Daffodil | | | | |
| *Prunus laurocerasus 'Zabeliana'* | Cherry Laurel | aprx. 15 | 3' | 8' | Purchase balled & burlapped or container-grown. Prefers moist, well-drained soil. |
| *Quercus coccinea* | Scarlet Oak | 4 | 70-75' | 50' | Full sun. Prefers well-drained acidic soil. |
| *Rudbeckia fulgida* var. *sullivantii* 'Goldsturm' | Orange Coneflower | aprx. 10 | 18-24" | 18" on center | Full sun. |
| Wildflower mix | Virginia Gentleman's Mix #174 | 15 lbs/acre | | | |
| Native Grass Mix | | | | | Will be taller than wildflower mix, be sure to keep in area behind wildflowers, if used. |

| US 29 South, Southern Entry | | | |
|---|---|---|---|
| **Maintenance** | **Seasonal interest/other attributes** | **Native to U.S.** | **Alternatives** |
| Prune any dead/diseased branches. Avoid hedging, if possible. | Small pinkish flowers often spring through fall. Green leaves in summer, turn purplish in autumn and may persist in mild winters. | no | Virginia Sweetspire (Itea virginica) is a native option. It has good, red color in the fall and white flowers in June-July. |
| Prune any dead/diseased branches | Dark green foliage, evergreen. Unique form. | yes | |
| Cut back spent blooms to encourage more flowering. | Golden yellow flowers from early spring to early summer. | yes | |
| Prune any dead/diseased branches | Yellow flowers for 3 weeks in early spring (late Feb/Early March). Edible berries enjoyed by birds. | no | White Fringe Tree (*Chionanthus retusus*) is a native spring-flowering tree. White flowers in spring. May need a few more, as they are a little smaller. Sargent Cherry (*Prunus sargentii*) is a larger non-native option with pink blossoms in the spring and good fall color. |
| Prune any dead/diseased branches. Train for central leader. If distinct tree-form is preferred, remove lower branches as tree grows. | Dark green glossy leaves in summer. White flowers in early June. Often good orange-red color in fall. Persistent showy berries in winter. | yes | Winter King Hawthorn (*Crataegus viridis* 'Winter King'.) Larger berries. Another excellent Hawthorn. |
| Cut back spent blooms to encourage more flowering. | Pinkish-purple flowers with bronze/orange center cones from midsummer-early fall. | yes | |
| Prune any dead/diseased branches. | Bottle-brush, white, fragrant flowers in early spring. Brilliant fall color. | yes | Little Magnus' is another dwarf cultivar, if 'Kim's Knee High' is unavailable. |
| Interplant with daffodils. | | no | |
| Prune any dead/diseased branches. | Evergreen. Pollinator that increases berry production of female hollies. | yes | |
| Prune any dead/diseased branches. | Evergreen. Glossy red berries all winter. | yes | |
| Prune any dead/diseased branches. | Evergreen. Blueish berries. | yes | Idyllwild' is another possible cultivar. |
| Only prune dead/diseased branches and any suckers that may come from the base. | White flowers from late spring-early fall. Often has good fall color. Lovely dark bark is showy in the winter. | no | Sourwood (*Oxydendrum arboreum*) is a native summer-flowering tree (although more subtle than the Crape Myrtle.) Slower growing, and prefers acidic soil. Great fall color. |
| Only prune dead/diseased branches and any suckers that may come from the base. | Pink flowers summer-September. Often has good fall color. Attractive bark. | no | 'Catawba' is a cultivar with dark purple flowers and good fall color. |
| Interplant with daylilies. | | no | |
| Prune any dead/diseased branches. Avoid hedging. | Dark, glossy leaves. Evergreen. White flowers April-May. | no | |
| Be sure to train tree to have a strong central leader. | Dark, glossy leaves. Evergreen. White flowers April-May. | yes | Shumard Oak (*Quercus shumardii)* and Pin Oak (*Quercus palustris*) are alternatives if the Scarlet Oak proves too difficult to find. A lower pH is essential for the health of the Pin oak. |
| Cut back spent blooms to encourage more flowering. | Bright golden-yellow flowers from midsummer-early fall. | yes | |
| Will need a once-a-year mowing, between late December through March. It should be mowed to a height of no less than 6". | http://www.turfjim.com/Grass_Seed_Mixes_files/Virginia%20Gentleman%27s%20Mix%20-%20%23174.pdf | yes | |
| Will need a once-a-year mowing, between late December through March. It should be mowed to a height of no less than 6". | www.Ernstseed.com and Shootingstarnursery.com are two companies that sell native grass mixes. | yes | |

| Main Street Southern Median | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Scientific Name** | **Common Name** | **Quantity (aprx.)** | **Height** | **Spacing** | **Culture** | **Maintenance** | **Seasonal interest/other attributes** | **Native to U.S.** | **Alternatives** |
| *Coreopsis auriculata* 'Nana' | Dwarf Coreopsis | 85 | 9-12" | 9" on center | Full sun to light shade | Cut back spent blooms to encourage more flowering. | Golden yellow flowers from early spring to early summer. | yes | |
| *Echinacea purpurea* 'Kim's Knee High' | Dwarf Purple Coneflower | 205 | 1-2' | 1' on center | Full sun to light shade. | Cut back spent blooms to encourage more flowering. | Pinkish-purple flowers with bronze/orange center cones from midsummer-early fall. | yes | |
| *Quercus coccinea* | Scarlet Oak | 1 | 70-75' | 50' | Full sun. Prefers well-drained, acidic soil. | Be sure to train tree to have a strong central leader. All major pruning should be performed by a certifed arborist. | Dark, glossy leaves in summer. Red, sometimes brilliant fall color. | yes | Shumard oak (*Quercus shumardii* ) and Pin oak *(Quercus palustris)* are alternatives if the Scarlet Oak proves too difficult to find. A lower pH is essential for the health of the Pin oak, should it be used. |
| *Rudbeckia fulgida* var. *sullivantii* 'Goldsturm' | Orange Coneflower | 115 | 18-24" | 18" on center | Full sun. | Cut back spent blooms to encourage more flowering. | Bright golden-yellow flowers from midsummer-early fall. | yes | |
| *Teucrium chamaedrys* | Wall Germander | 119 | 12-15" | 10" on center | Full sun. | If foliage is looking unattractive by the end of winter, it can be cut back. Spent blooms can be cut back to encourage more flowering. | Evergreen foliage. Purple blooms, sometimes all summer. | no | |
| *Teucrium chamaedrys* var. *prostratum* | Creeping Germander | 300 | 6-10" | 1' on center | Full sun. Desired bulbs (tulips, daffodils, etc.) can be planted underneath this, as long as the spend foliage of the bulbs is removed. | If foliage is looking unattractive by the end of winter, it can be cut back. Spent blooms can be cut back to encourage more flowering. | Evergreen foliage. Purple blooms, sometimes all summer. | no | More *Liriope muscari* could be used. |

| Crewes Corner Median | | | | | | |
|---|---|---|---|---|---|---|
| **Scientific Name** | **Common Name** | **Quantity** | **Height** | **Spacing** | **Culture** | **Maintenance** |
| *Coreopsis auriculata* 'Nana' | Dwarf Coreopsis | | 9-12" | 9" on center | Full sun to light shade | Cut back spent blooms to encourage more flowering. |
| *Echinacea purpurea* 'Kim's Knee High' | Dwarf Purple Coneflower | 194 | 1-2' | 1' on center | Full sun to light shade. | Cut back spent blooms to encourage more flowering. |
| *Fothergilla gardenii* 'Jane Platt' | Dwarf Fothergilla | 18 | 2-3' | 3' on center | Balled & burlapped or container-grown plants. Amend soil around plat with organic matter. Prefers acid, peaty, well-drained soil. | Should not require pruning unless there are any dead/dying branches that need removal. |
| *Heuchera americana* 'Green Spice' | Green Spice Coral Bells | | 6-12" + flowers | 16" on center | Full sun-shade. | |
| *Lagerstroemia* | Crape Myrtle | 1 | | n/a | Select a single-trunk specimen. Balled & burlapped or container-grown. Full sun. | Do not make heading cuts on the branches, it creates weaker branching and is unsightly in the winter. Prune back any suckers. Keep limbed up to increase visibility. |
| *Liriope muscari* | Lilyturf | | 6-12" | 1' on center | Full sun-shade. | Cut back foliage in late winter before new growth begins. Plants can be divided and moved readily to fill any gaps, once established. |
| *Rudbeckia fulgida* var. *sullivantii* 'Goldsturm' | Orange Coneflower | 137 | 18-24" | 18" on center | Full sun. | Cut back spent blooms to encourage more flowering. |
| *Sedum* 'Autumn Joy' | Autumn Joy Sedum | 74 | 18-24" | 18"on center | Full sun. | |
| *Teucrium chamaedrys* | Wall Germander | | 12-15" | 10" on center | Full sun. | If foliage is looking unattractive by the end of winter, it can be cut back. Spent blooms can be cut back to encourage more flowering. |
| *Teucrium chamaedrys* var. *prostratum* | Creeping Germander | | 6-10" | 1' on center | Full sun. | If foliage is looking unattractive by the end of winter, it can be cut back. Spent blooms can be cut back to encourage more flowering. |

| Crewes Corner Median | | |
|---|---|---|
| **Seasonal interest/other attributes** | **Native to U.S.** | **Alternatives** |
| Golden yellow flowers from early spring to early summer. | yes | |
| Pinkish-purple flowers with bronze/orange center cones from midsummer-early fall. | yes | |
| Brilliant red/orange fall color. Fragrant white, bottle-brush flowers in early spring. This cultivar has a nice, low, mounding form. | yes | *Prunus laurocerasus* 'Zabeliana' would be a good substitute if needed. It would provide winter interest, and only a few would be needed, as they have a spreading habit. |
| Blooms in late spring early summer but is mostly grown for attractive silver/green/red foliage. Can have nice fall color. | yes | More liriope would also be an option, probably less expensive |
| Blooms all summer. Attractive bark. Can have nice fall color. | no | |
| Evergreen foliage. Purple blooms in late summer/early fall, but grown more for foliage. | no | |
| Bright golden-yellow flowers from midsummer-early fall. | yes | |
| Bluish-green foliage with pink flowers from midsummer-early fall. | no | Another cultivar option would be 'Autumn Fire.' It is supposed to be less likely to "flop." May be more expensive. |
| Evergreen foliage. Purple blooms, sometimes all summer. | no | |
| Evergreen foliage. Purple blooms, sometimes all summer. | no | More liriope is an option, but could take longer to fill in spaces and could require more maintenance as the foliage should be cut back each year. |

| **Main Street Northern Median** | | | | | |
|---|---|---|---|---|---|
| **Scientific Name** | **Common Name** | **Quantity** | **Height** | **Spacing** | **Culture** |
| *Coreopsis auriculata* 'Nana' | Dwarf Coreopsis | | 9-12" | 9" on center | Full sun to light shade |
| **Cornus florida** | Dogwood | | | | |
| *Echinacea purpurea* 'Kim's Knee High' | Dwarf Purple Coneflower | | 1-2' | 1' on center | Full sun to light shade. |
| **Lagerstroemia* species & hybrids* | Crape Myrtle | | | | |
| **Rhododendron* species & hybrids* | Azalea | | | | |
| *Rudbeckia fulgida* var. *sullivantii* 'Goldsturm' | Orange Coneflower | | 18-24" | 18" on center | Full sun. |
| *Teucrium chamaedrys* var. *prostratum* | Creeping Germander | | 6-10" | 1' on center | Full sun. |
| | | | | | |
| | | | | | |
| *Asterisks denote existing species* | | | | | |

| **Main Street Northern Median** | | | |
|---|---|---|---|
| **Maintenance** | **Seasonal interest/other attributes** | **Native to U.S.** | **Alternatives** |
| Cut back spent blooms to encourage more flowering. | Golden yellow flowers from early spring to early summer. | yes | |
| After new curbs are installed, consult an arborist to monitor the health of existing trees. If in decline, replace with the same species. | | | |
| Cut back spent blooms to encourage more flowering. | Pinkish-purple flowers with bronze/orange center cones from midsummer-early fall. | yes | |
| After new curbs are installed, consult an arborist to monitor the health of existing trees. If in decline, replace with the same species. | | | |
| After new curbs are installed, monitor the health of existing shrubs. If in decline, replace with the same species. | | | |
| Cut back spent blooms to encourage more flowering. | Bright golden-yellow flowers from midsummer-early fall. | yes | |
| If foliage is looking unattractive by the end of winter, it can be cut back. Spent blooms can be cut back to encourage more flowering. | Evergreen foliage. Purple blooms, sometimes all summer. | no | *Liriope muscari* is another option. |
| | | | |
| | | | |
| | | | |

| US 29 South, Northern Entry | | | | | |
|---|---|---|---|---|---|
| **Scientific Name** | **Common Name** | **Quantity** | **Height** | **Spacing** | **Culture** |
| *Calocedrus decurrens* | California Incense-cedar | 8 | 30-50' | 10' | If available, a container-grown plant may respond better to transplanting. Prefers well-drained, fertile soil. |
| *Crataegus phaenopyrum* | Washington Hawthorn | 7 | 25-30' | 20-25' | Full sun. Adaptable to many soil types. |
| *Fothergilla major* | Fothergilla | aprx. 60 | 6-10' | 7' | Prefers more acidic soils, be sure to amend. |
| *Hemerocallis* species and hybrids | Daylily | | | | 'Buttered popcorn' is a commonly used cultivar that is tough enough to withstand conditions near roads. |
| *Ilex opaca* 'Jersey Knight' | American Holly (male) | 4 | 15-30' | 15' | Purchase balled & burlapped or container-grown. Prefers moist, well-drained, acid soil. |
| *Ilex opaca* 'Jersey Princess' | American Holly (female) | 8 | 15-30' | 15' | Purchase balled & burlapped or container-grown. Prefers moist, well-drained, acid soil. |
| *Itea virginica 'Henry's Garnet'* | Virginia sweetspire | aprx. 110 | 3-4' | 5' | Prefers moist, fertile, well-drained soil, but is adaptable. |
| *Lagerstroemia* 'Natchez' | Crape Myrtle | 3 | 21' | 20' | Purchase balled & burlapped or container-grown. Prefers moist, well-drained soil. |
| *Narcissus* species & hybrids | Daffodil | | | | Daffodil mixes are available, as are bulbs in bulk. |
| *Prunus laurocerasus 'Zabeliana'* | Cherry Laurel | aprx. 50 | 3' | 8' | Purchase balled & burlapped or container-grown. Prefers moist, well-drained soil. |

| US 29 South, Northern Entry | | | |
|---|---|---|---|
| **Maintenance** | **Seasonal interest/other attributes** | **Native to U.S.** | **Alternatives** |
| Prune any dead/diseased branches | Dark green foliage, evergreen. Unique form. | western U.S. | |
| Prune any dead/diseased branches. Train for central leader. If distinct tree-form is preferred, remove lower branches as tree grows. | Dark green glossy leaves in summer. Often good orange-red color in fall. Persistent showy berries in winter. | yes | Winter King Hawthorn (*Crataegus viridis* 'Winter King'.) Larger berries. Another excellent Hawthorn. |
| Prune any dead/diseased branches. | Bottle-brush, white, fragrant flowers in early spring. Brilliant fall color. | yes | |
| Interplant with daffodils. | Golden-yellow flowers in late spring/early summer. | no | |
| Prune any dead/diseased branches. | Evergreen. Needed for female hollies to produce berries. | yes | |
| Prune any dead/diseased branches. | Evergreen. Glossy red berries all winter. | yes | |
| Should require little maintenance, unless it spreads too far. | White flowers June-July. Leaves turn red in fall, often remain on shrub until winter. | yes | |
| Only prune dead/diseased branches and any suckers that may come from the base. | White flowers from late spring-early fall. Sometimes has good fall color. Lovely dark bark is showy in the winter. | no | Sourwood (Oxydendrum arboreum) is a native summer-flowering tree (although more subtle than the Crape Myrtle.) Slower growing, and prefers acidic soil. Great fall color. |
| Interplant with daylilies. | Cheerful yellow or white flowers in early Spring. | no | |
| Prune any dead/diseased branches. Avoid hedging. | Dark, glossy leaves. Evergreen. White flowers April-May. | no | |

| Main Street Tree Options | | | | | | |
|---|---|---|---|---|---|---|
| **Scientific Name** | **Common Name** | **Height** | **Width** | **Culture** | **Seasonal characteristics/other attributes** | **Native to U.S.** |
| *Amelanchier x grandiflora* ‘Autumn Brilliance’ | Serviceberry | 20-25' | 15-25' | Transplant balled & burlapped. Prefers moist, well-drained, acid soil. Full sun-part shade | White flowers briefly in April; Edible berries in May/June; Lovely red foliage in Autumn; Light-grey, attractive bark in Winter. | yes |
| *Chionanthus virginicus* | American Fringe Tree | 12-20' | 12-20' | Transplant balled & burlapped in Spring. Prefers deep, moist, fertile, acid soil, but is very adaptable. Full sun. Pollution-tolerant. | Lovely white flowers late May-early June. Dark green leaves in summer. Dark blue berries August- September, enjoyed by birds. Yellowish, sometimes golden-yellow foliage in Autumn. | yes |
| *Cotinus obovatus* | American Smoke Tree | 20-30' | 15-20' | May be best to buy container-grown plants. Prefers well-drained loamy soil but tolerant of most soil types. Possibly less tolerant of road-salt. Full sun is best. | Smokey-pinkish/white flowers in spring. Bluish- dark green leaves in summer. Magnificent fall color, particularly with cultivars. Attractive bark. Cultivars with excellent fall color include 'Grace' and 'Red Leaf.' | yes |
| *Ilex pedunculosa* | Longstalk Holly | 10-15' | 10-15' | Prefers acidic, well-drained soils. Full sun-part shade. Male and Female plants should be planted if berry production is desired. | Evergreen with unique foliage and habit. Red berries hang on tree October-November, often enjoyed by birds. | no |
| *Prunus x incamp* ‘Okame’ | Okame Cherry | 15-20' | 15-20' | Prefers acidic, well-drained soils. Tolerates slightly alkaline soils. May need a slightly larger tree pit, for good root expansion. | Lovely pink flowers March-April. Dark green leaves in summer. Bronze to orange-red fall color. Attractive bark. | no |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| For any of these trees, avoid "topping." All major pruning should be performed by a certified arborist. Watering will be neccesary to establish and maintain a healthy tree. | | | | | | |

# Appendix C: VDOT Planting Guidelines

VDOT's *Guidelines for Planting Along Virginia's Roadways* is an excellent resource to guide any community through the process of designing and implementing roadside plantings. The following appendix contains reduced page sizes for chapters one through four, which highlight the planning process, landscape design principles, clear zones, and sight lines. The entire document can be found on the CD of final products delivered to the client by the CDAC team.

Guidelines for Planting
Along Virginia's Roadways

*Commonwealth of Virginia*
*Department of Transportation – Asset Management Division*

VDOT Virginia Department of Transportation

March, 2007

## INTRODUCTION

The Guidelines for Planting along Virginia's Roadways provide policy statements for landscaping within road rights of ways. The Guideline's purpose is to ensure safety, quality, and consistency that conform to accepted traffic engineering and landscape architectural principles and practices. These Guidelines are to be used by the public, professionals, and the Virginia Department of Transportation as a general technical reference on roadside plantings.

The Virginia Department of Transportation (VDOT) encourages and supports the enhancement and preservation of scenic beauty along the Commonwealth's highways. This document addresses the use of specific landscape elements as a way to preserve and enhance this beauty. The VDOT believes that landscape elements should contribute to the aesthetics and the general environmental quality of a corridor while maintaining the functional integrity of the roadway and the safety of the public. Generally, landscape elements should be used to create aesthetically pleasing and visually stimulating environments. Good landscape aesthetics can create a pleasing and harmonious environment while enhancing a sense of pride and ownership in the community. Landscape elements serve many essential functions such as improving aesthetics, soil retention, erosion control, improving water quality, improving air quality, reducing runoff quantity, reducing heat gain, reducing roadway glare, reducing maintenance, buffering views, enhancing views, separating land uses, traffic calming, reduce driver fatigue and providing visual cues. The roadway landscape can serve to provide context and character and can serve to connect the road environment to the surrounding landscape. Landscape elements may consist of plantings, landforms, lighting, community enhancements, mitigation, and maintenance measures.

VDOT provides statewide guidance to the public in the use of this manual and in achieving project goals in the following areas:

**Contracted Consultants:** Consultants providing Landscape Architectural Services to the Department on State and/or Federally funded projects may contact the VDOT, Location and Design Division, Landscape Architecture Services Section, 1401 E. Broad Street, Richmond, VA 23219 for matters relating to the application of these guidelines.

• For consultant projects in the Richmond, Fredericksburg, and Hampton Roads Districts, please phone (804) 371-6737.

• For consultant projects in the Bristol, Salem, Staunton, Culpeper and Lynchburg Districts, please phone (804) 786-0861

• For consultant projects in the Northern Virginia District, please phone (703) 383-2359

Road enhancement projects may be funded by a combination of Federal and State dollars, from enhancement grant sources such as SAFETEA-LU or by the local community. The funding source will have impact upon the design and approval process followed. The project will need to be reviewed and approved by VDOT.

Guidelines for Planting Along Virginia Roadways - March 2007

**Local and/or Community Funded Projects:** Designers involved with local and/or community funded design projects requiring a VDOT Land Use Permit are encouraged to contact the nearest VDOT District Roadside Management Section for more information regarding specific site circumstances.

Bristol District Office
P. O. Box 1768
Bristol, Virginia 24203-1768
(276) 645-1672

Richmond District Office
P. O. Box 3402
Colonial Heights, Virginia
23834-9002
(804) 524-6347

Culpeper District Office
1601 Orange Road
Culpeper, Virginia 22701-3819
(540) 829-7657

Salem District Office
P. O. Box 3071
Salem, Virginia 24153
(540) 387-5313

Fredericksburg District Office
87 Deacon Road
Fredericksburg, Virginia 22405
(540) 899-4235

Staunton District Office
Route 11 Bypass
P. O. Box 2249
22402-2249
(540) 332-9891

Lynchburg District Office
P. O. Box 11649
Lynchburg, Virginia 24506
(434) 856-8292

Hampton Roads District Office
1700 North Main Street
Suffolk, Virginia 23439-1070
(757) 925-2630

Northern Virginia District Office
14685 Avion Parkway
Chantilly, Virginia 20151
(703) 383-2105

For additional information or guidance, please contact the VDOT Central Office Asset Management Division, Roadside Operations Section, 1401 E. Broad Street, Richmond, VA 23219 at (804) 662-9375 / 662-9011.

Guidelines for Planting Along Virginia Roadways - March 2007

# CHAPTER ONE
# PROJECT PLANNING

Following a design process when planning landscape improvements within the environment of a roadway will ensure that the project is coordinated successfully. A typical design process will involve several steps arranged in order to synthesize broad-brush ideas, concepts and statements into more definite plans that satisfy the needs of many users. In most cases the design process will include gathering base information, site inventory of existing conditions, site analysis, user/owner input, program development, diagrammatic planning, evaluation, conceptual design, final design, construction drawings, construction and use. The design and approval process for VDOT landscape projects has been modeled after this basic approach. VDOT projects often involve many technical design issues and require the involvement of local governments and many representatives of VDOT.

Road enhancement projects may be funded by a combination of Federal and State dollars, from enhancement grant sources such as TEA-21 or by the local community. The funding source will have impact upon the design and approval process followed. The project will need to be reviewed and approved by VDOT.

Guidelines for Planting Along Virginia Roadways - March 2007

Landscape enhancement projects may be initiated, managed and implemented by a local community or by the VDOT. This creates two distinct design, review and approval processes. In the case of a community project, the project may be funded through various combinations of Federal or State grant money and "matching" community money. This type of project is generally, administered by representatives of the community, who will submit plans and applications to VDOT for approval. Plans and applications will typically be submitted only for the improvements that fall within or affect the VDOT right of way. Projects managed by VDOT are typically administered "in house" using staff or consultant forces. VDOT funded projects may be designed and installed as part of a comprehensive highway project or occasionally as a separate "stand alone" project. In most cases it is critical that close coordination be maintained between the highway designers and the landscape designers.

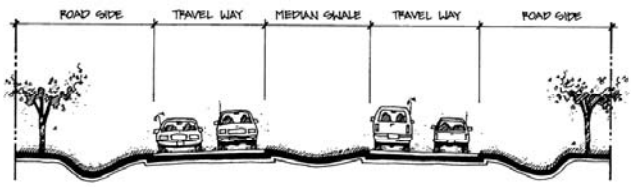
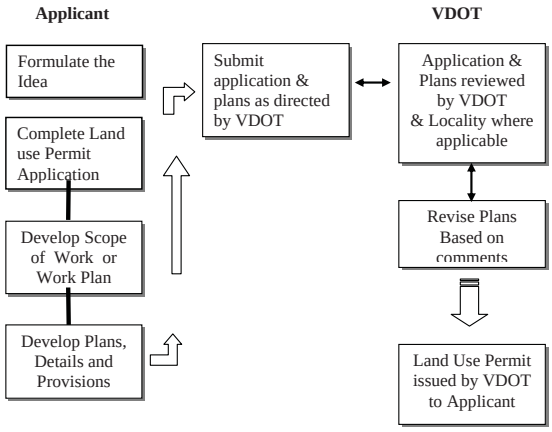



*Figure 1.1 - The VDOT Right of Way*

**Local and/or Community Funded Projects**

Local and/or Community funded projects on VDOT Right-of-Way require a specific review process which includes a Land Use Permit as detailed below.

**Community Funded Projects Review & Approval Process**




Please see the appendix for examples of a land use permit application.

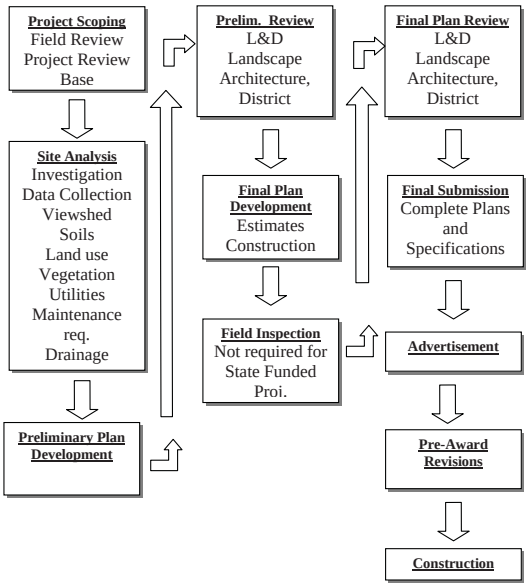
Guidelines for Planting Along Virginia Roadways - March 2007

**VDOT Funded Projects**

VDOT funded projects may be designed and installed as part of a comprehensive highway project or as a separate "stand alone" project. In most cases it is critical that close coordination be maintained between the highway designers and the landscape designers so that the road environment meets the public desire for safe, and aesthetically pleasing roadways.

The following outline will generally illustrate the design and approval process required for VDOT funded projects. The landscape designer should consult with the VDOT Location and Design Project Manager for more detailed information.

**VDOT Funded Projects Design Review & Approval Process**




Guidelines for Planting Along Virginia Roadways - March 2007

When considering planning improvements within the roadway environment, the first step should be to contact the VDOT Roadside Management Section at the local District office. VDOT personnel will advise the designer of the proper procedures to follow.

Once a landscape improvement project proposal has been cleared by VDOT, there are several design issues that need to be considered in the development of plans. Among the most important technical issues are those of "Clear Zones" and "Sight Distances". The application of these standards, as outlined in the following chapters, will affect the placement of all landscape elements within the right of way. The standards are intended to maintain highway safety while allowing for aesthetic improvements. The designer will need to consider the standards carefully in order to implement a successful improvement project.

Guidelines for Planting Along Virginia Roadways - March 2007

# CHAPTER TWO
# LANDSCAPE DESIGN

Quality landscape design contributes to attractive, safe, efficient, and maintainable installations. The designer must strive for a balance of functional and aesthetically pleasing effects. A well-designed project has the potential to enhance a sense of pride and ownership in the community. The Landscape Architect/Designer assists in the integration of transportation facilities with the surrounding environment, mitigates environmental effects, improves aesthetics, and preserves the safety of the public.

The basic steps a landscape designer should follow are inventory and analysis, programming, concept design and final design.

Landscape design incorporates the basic principals of design including proportion and scale, unity, harmony, contrast, repetition, form, texture and color. Clever use of these principals, by the designer, can create a pleasing and harmonious environment.

**Proportion & Scale**
The harmonious relationship of object sizes in a designed landscape

**Unity**
The result of fitting together elements of a design to create a harmonious and pleasing composition as a whole

**Harmony**
An effect resulting from the recurrence of similar and complementary elements in a composition

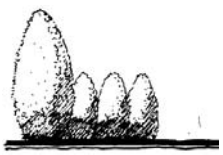


*Figure 2.1 – Proportion & Scale*

*Figure 2.2 – Unity & Harmony*

**Texture**
The appearance of the structure and detail of an objects surface

**Contrast**
The diversity of objects in a composition in relation to one another (e.g.; form, texture, and color).

**Repetition**
The result of using similar, or the same, forms and elements in a recurring manner

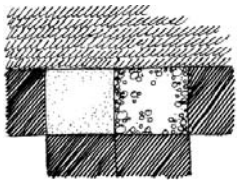


*Figure 2.3 - Texture & Contrast*

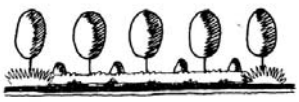


*Figure 2.4 - Repetition*

**Color**
A harmonious color balance can be achieved in a composition by using similar and complementary colors. Color contrast can also be used to emphasize certain elements.

**Form**
The general shape or outline of a landscape element (e.g.; columnar, pyramidal, rounded, vase, weeping, and spreading).

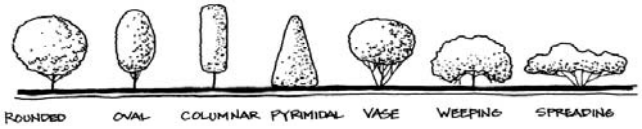



*Figure 2.5 - Landscape forms*

**Water Quality**
Plants have an amazing capacity to absorb nutrients and pollutants from soil and water. Plant materials can be used in vegetated swales, bio-retention facilities and storm water facilities to improve the water quality. Refer to Department of Conservation and Recreation (DCR) minimum standards 3.11, Bio-retention Basin Practices.

**Air Quality**
Plants process atmospheric gases and produce oxygen as a byproduct. As a result plants help cleanse the air of urban pollutants. Plants also transpire large quantities of water into the atmosphere. This process humidifies the air and produces a noticeable cooling effect in urban environments.

*Figure 2.7 – Water Quality*

*Figure 2.8 – Air Quality*

**Heat gain**
Plant materials block sunlight, absorb heat and provide shade. These actions can significantly reduce heat gain in urban areas with high concentrations of pavements and buildings.

*Figure 2.9 - Heat gain*

Guidelines for Planting Along Virginia Roadways - March 2007

Plants have many functional uses and types. Plants can be categorized as;

- Trees
- Shrubs
- Groundcovers
- Vines
- Annuals
- Perennials
- Grasses

In roadway design landscape elements serve many essential functions. The ultimate uses of landscape materials will depend on the creativity of the designer. Some of the typical uses for landscape materials in roadway projects include soil retention, erosion control, improving water quality, improving air quality, enhancing aesthetics, reducing runoff, reducing heat gain, reducing wind speeds and wind blown particles, reducing roadway glare, buffering views, enhancing views, separating land uses, noise abatement, traffic calming, and providing visual cues.

**Soil Retention & Erosion Control**

Wind and water erode valuable topsoil. Cut and fill slopes on road projects can be very steep and often require stabilization. Plant materials can control erosion by absorbing the energy of wind and rain and by holding unstable soils and slopes in place with their root systems. Care should be taken on steep cut slopes as tree roots can also break down rocky substrates, causing the rock to break up. Plants can be placed using specific methods in combination with engineering techniques for stabilization. This practice is known as "Bio-engineering". Bio-engineering can include many methods, some of which are live staking, live fascines, brush layering, geogrids, branch packing, vegetated cribwalls and live slope grating. This can be a very useful tool in mitigating the environmental damage caused by many road projects. A qualified individual should be consulted when considering bioengineering for a project. Please see the reference section for source materials.

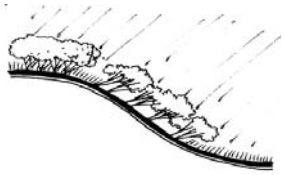


*Figure 2.6 – Erosion control*

**Wind**
Properly placed berms, trees, and shrubs will reduce wind velocities and can control drifting sand and snow.

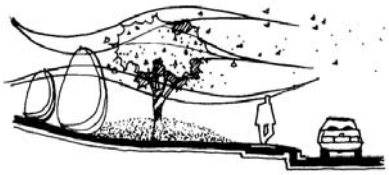


*Figure 2.10 - Wind control*

**Glare control**
Trees and shrubs can absorb or block reflected light from the roadway. This can be useful in mitigating the effects of headlights in residential and other developed areas.

**Noise abatement**
Earthen berms and masonry walls can be effective in absorbing and reflecting sound waves. Berms, walls and plantings can be used in combination to create an effective and aesthetically pleasing noise buffer.

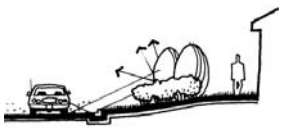


*Figure 2.11 – Glare Control*

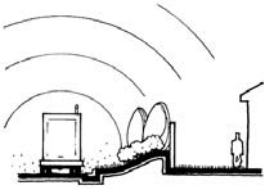


*Figure 2.12 – Noise Abatement*

**Buffering views**
Trees and shrubs can buffer views when strategically placed between the viewer and the undesirable object or view. Views may be enhanced when material is strategically placed to compliment, buffer, and frame the subject. Evergreen material is typically the most effective for screening views.

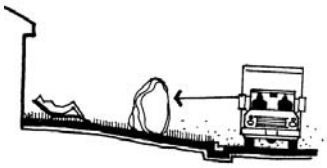


*Figure 2.13 - Views*

**Traffic Calming**
Landscape elements such as pavers, architectural accents and plantings can be used in areas where slower and more attentive drivers are desired. For example, a pedestrian crossing or an intersection could be highlighted by a change in street trees, the use of accent or flowering trees, pavement changes, lighting, and other elements. The change in structure and detail can effectively reduce traffic speeds by visually signaling drivers of the special area.

**Aesthetic benefits**
Landscape elements can be used to create aesthetically pleasing and visually stimulating environments.

**Visual cues**
Changes in landscape structure, detail, and the inclusion of special elements can be used to visually signal drivers of important and unique areas of the road corridor.

**Rhythm**
A composed environment can make the experience of driving both interesting and enjoyable. The proper use of repetition and accents in the linear spaces of a road corridor can create rhythm, while the manipulation and accenting of this rhythm can create a visually pleasing linear composition.

**Grass meadows**
Grass meadows can be used where trees and mowed grass are not desired. The meadow is typically placed in front of forested or reforested zones as a transition from mowed turf to naturalized or forested areas. Meadows provide diversity, wildlife habitat, erosion control, and reduce maintenance.

**Wildflower meadows**
*Figure 2.15 – Grass meadow*

These areas are used much the same as grass meadows while providing seasonal interest and color.

*Figure 2.16 – Wildflower meadow*

**No-Mow or naturalizing areas**
The use of this landscape type is useful for large areas where planting and maintenance would be too costly. Over time the area will mature through a natural succession of landscape types as volunteer and successional plants grow. The rate and species of growth is influenced by the seed source. The designer can influence the seed source by planting
the desired species at the perimeter of naturalized areas.

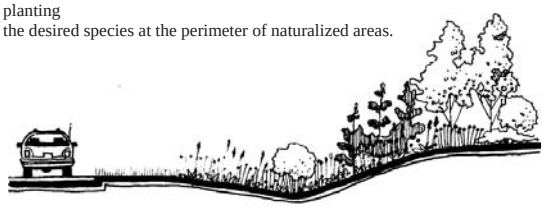


*Figure 2.17 – Naturalized area (5 – 10 years growth)*

Guidelines for Planting Along Virginia Roadways - March 2007

**Continuity**
The use of structured and similar landscape elements can stitch the visual landscape together. Disorganized and chaotic corridors can be linked together and the adjacent landscape can be blended with the roadway.

**Structure**
Trees and other plant material can be placed in ways to provide linear and vertical definition to spaces and corridors. Trees spaced uniformly and in lines of one species can create a formal appearance. A variety of species and spacing can create an informal or more passive experience.

**Theme**
The use of similar landscape elements can create visual unity or theme.
The theme can interpret a person, place, time, event, or style. Theme can provide context to a space or area.

**Landscape Types**
Landscape design for road projects typically involves a composition of spaces and landscape areas or types. The proper use of these areas in conjunction with good design practices will create desirable environmental, functional, and aesthetic benefits.

**Mowed areas**
Edges of mowed grass are used to provide transition from the road edge to planted areas.

*Figure 2.14 – Mowed Grass*

**Reforested areas**
Reforestation is typically used in barren, open areas to accelerate the natural succession of desired plant species. This often involves a mix of native trees, shrubs, meadow grasses and wildflowers.

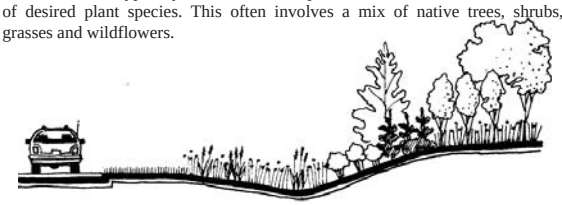
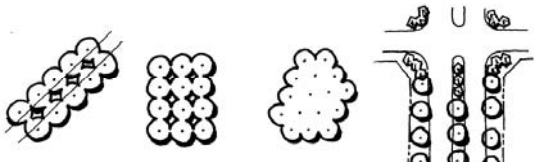


*Figure2.18 – Reforestation (1 year after planting)*

**Street trees**
The placement of different types and spacing of trees along a roadway is an effective way to soften, compliment and define a road system hierarchy. Street trees can provide structure, theme, continuity, rhythm and visual cues. Trees can be placed in a variety of ways, such as groves, bosques, copse and allees creating a variety of effects.



*Allee* *Bosque or Copse* *Grove* *Street trees*

*Figure 2.19 – Street trees*

**Plant Masses**
Trees and shrubs may be used in large masses to accomplish aesthetic and functional effects. Large masses of plant materials have a greater visual impact on large scale and higher speed roadway projects. Massing covers larger areas and creates edges that mowers can easily follow reducing mowing time.

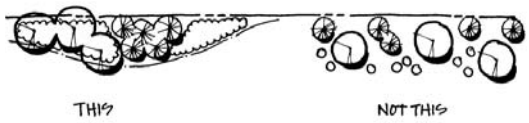



*Figure 2.20 – Plant masses*

**Shrub & groundcover beds**

These areas are typically limited to special areas such as major intersection, urban interchanges, medians and urban areas where a higher level of maintenance is available. Landscape beds can be used where a greater level of design detail will be appreciated.

When considering meadows, wildflowers or reforestation, the designer should consult the Central Office Asset Management Division, Roadside Operations Section. The Department has adopted details and specifications for the implementation of these landscape types and should also consult the Central Office Location and Design, Landscape Architecture Services Section when developing contract special provisions. The designer should seriously consider the appropriateness of the landscape type to the area or space. Misleading applications can lead to compromised aesthetics, undue cost, maintenance problems, and poor public opinion.

**General Landscape Design Guidelines**

- Where appropriate use regionally native and naturalized plant materials, particularly those tolerant of salt, heat and drought conditions.
- Use integrated pest management techniques, recycle green waste and minimize runoff.
- Use low maintenance landscape material.
- Use water efficient plant materials.
- Minimize impacts on natural habitat.
- Preserve and enhance natural vegetation and landforms.

Guidelines for Planting Along Virginia Roadways - March 2007

- Use mass plantings, berms and/or fencing.
- Enhance desirable views by massing plantings in order to compliment and frame the view.
- Signify intersections, pedestrian areas and special zones with a change in landscape type, character and detail.
- Maintain horizontal and vertical clear zones.
- Maintain sight lines.
- Use a combination of tree and shrub massing, berms and walls to mitigate the effects of undesirable road impacts on adjacent land uses.
- Reduce mowed turf areas where possible.
- Limit the use of landscape beds to visually prominent areas.

**Plant materials**

Plant materials should be selected to perform specific functions for specific situations. Plants placed along Virginia's roads must be able to withstand salt, salt spray, drought, heat, pollution, dust, wind exposure, sun exposure, poor soils, abuse and neglect. A plants level of tolerance to these elements will determine its place in the landscape.

The physiological characteristics of plants should also be considered carefully. The designer must consider mature size, growth rate, life span, canopy habit, rooting characteristics, messiness (e.g.; fruiting, leaves, and brittleness), and appearance.

Plant selection also needs to be appropriate to the geographic province or region in which it is placed. The provinces of Virginia can be classified as Mountain, Piedmont and Coastal Plain. Within these provinces are sub-areas, which are based on the soils, topography, latitude and microclimate. Plants will occur in associations that are naturally adapted to areas such as ridge tops, north facing slopes, south facing slopes, valleys, plains, riparian zones, flood plains, wetlands and dune systems. Understanding the physiographic provinces, sub-areas, and natural plant associations will help the designer to choose plant materials wisely.

# CHAPTER THREE
# CLEAR ZONES

**The Clear zone is a traversable recovery area for errant vehicles provided beyond the edge of the traveled way (edge of mainline pavement). The clear zone must be kept clear of fixed obstacles and must be considered for the entire length of the project.**

The clear zone's width is determined by design speed, traffic volume and embankment slope**.** On marked pavement it is measured from the edge of the travel lane. On unmarked pavement it is measured from the edge of pavement. The clear zone must be free of fixed obstacles such as unyielding signs and utility poles, structures and major trees. Major trees are trees with a mature caliper size of four inches or more. They are classified as a fixed object. This type of tree is not allowed in the clear zone. Trees and landscape materials less than four inches in caliper at maturity may be placed within the clear zone where sight lines permit. Caution should be taken when selecting plant materials for these areas. The designer must understand the mature sizes and habits of the plant materials.

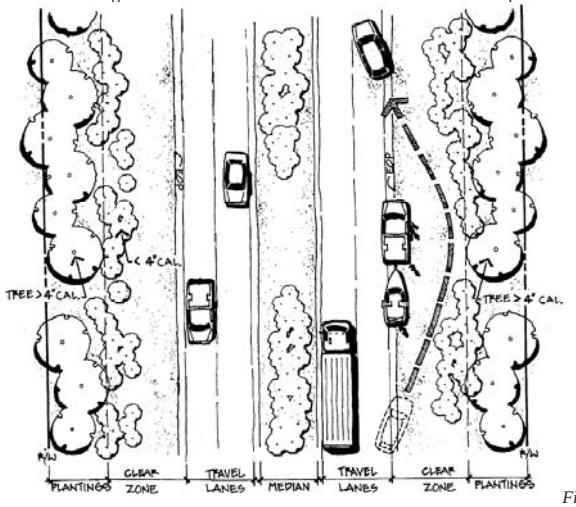



*Figure 3.1 - Clear zone*

Guidelines for Planting Along Virginia Roadways - March 2007

The designer must provide the proper clear zones on all roads. These may include rural and urban freeways, arterial and collectors. Refer to Table 3.1.

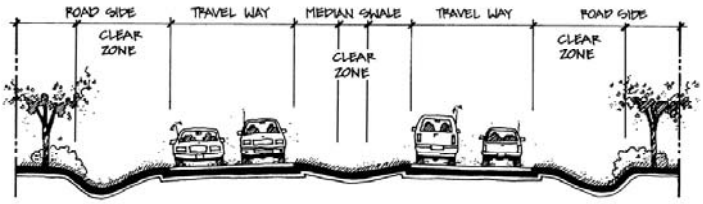



*Figure 3.2 – Road Section with Shoulders*

Clear zones will vary based on the type of roadway. Roads with non- mountable curbs will require a different clear zone than roads with no curb or a shoulder. Refer to figure 3.6.

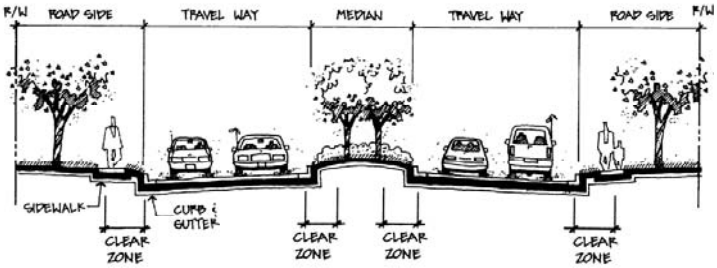



*Figure 3.3 – Road section with curb & gutter*

**Non-recoverable Slopes**

The recommended clear zone is sometimes split by a non-recoverable slope. A non-recoverable slope is a slope greater than 4:1, this being the ratio of the horizontal distance of the slope to its vertical rise. The remainder of the clear zone must be provided beyond the toe of that slope. The toe of the slope is where the slope breaks and becomes a recoverable slope. In all cases a clear run-out area (Clear Zone C) should be provided beyond the toe of the unrecoverable slope. This area, at a minimum, should equal the difference between the Clear Zone A and the width of recoverable shoulder slope according to AASSHTO Guidelines. Fixed objects or trees greater than four inches in caliper should not be placed in these areas.

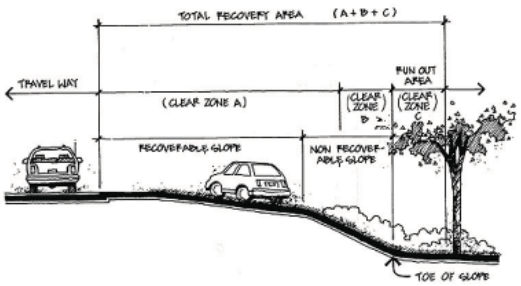



*Figure 3.4 Non- recoverable slope*

**Curbs and Barriers**

Where a standard clear zone cannot be achieved, barriers such as curbs or guardrails are used. Plantings may be placed behind the barriers. Curb types may be mountable or barrier type. The standard VDOT barrier curbs are types CG-2 and CG-6. Standard VDOT mountable curbs are types CG-3 and CG-7.

Non-mountable

CG-2 CG-6

Mountable curbs

CG-3 CG-7

*Figure 3.5 - Curb types*

In urban and suburban areas where non-mountable curb is utilized with a design speed of 45 mph or less, a 7.5 foot desirable and 6 foot minimum clear zone is to be provided. Clear zone is measured from the face of the curb. However, when a bike lane or parking lane exists between the curb and the travel way, the clear zone is measured from the edge of the travel way.

Non-mountable curbed roads with speeds of more than 45 mph will require the use of the same clear zone that would be provided for a rural section without curb, refer to Table 3.1.

**Mountable Curbs in urban areas require the use of the same clear zone that would be provided for a rural section without curb, refer to Table 3.1.**

Guidelines for Planting Along Virginia Roadways - March 2007

**Table 3.1 Required Clear zones**

| | | Foreslope Ratio | | | Backslope Ratio | | |
|---|---|---|---|---|---|---|---|
| Design Speed | Design ADT | Recoverable < 6:1 or Flatter | 5:1-4:1 | Recoverable < 6:1 5:1-4:1 | 3:1 | 5:1-4:1 | < 6:1 or Flatter |
| | | Required Clear Zone (feet) | | | Required Clear Zone (feet) | | |
| **40 MPH or less** | **Under 750** | 7-10 | 7-10 | ** | 7-10 | 7-10 | 7-10 |
| | **750-1500** | 10-12 | 12-14 | ** | 10-12 | 10-12 | 10-12 |
| | **1500-6000** | 12-14 | 14-16 | ** | 12-14 | 12-14 | 12-14 |
| | **Over 6000** | 14-16 | 16-18 | ** | 14-16 | 14-16 | 14-16 |
| | | | | | | | |
| **45-50 MPH** | **Under 750** | 10-12 | 12-14 | ** | 8-10 | 8-10 | 10-12 |
| | **750-1500** | 12-14 | 16-20 | ** | 10-12 | 12-14 | 14-16 |
| | **1500-6000** | 16-18 | 20-26 | ** | 12-14 | 14-16 | 16-18 |
| | **Over 6000** | 18-20 | 24-28 | ** | 14-16 | 18-20 | 20-22 |
| | | | | | | | |
| **55 MPH** | **Under 750** | 12-14 | 14-18 | ** | 8-10 | 10-12 | 10-12 |
| | **750-1500** | 16-18 | 20-24 | ** | 10-12 | 14-16 | 16-18 |
| | **1500-6000** | 20-22 | 24-30 | ** | 20-22 | 24-30 | 20-22 |
| | **Over 6000** | 22-24 | 26-32 | ** | 16-18 | 20-22 | 22-24 |
| | | | | | | | |
| **60 MPH** | **Under 750** | 16-18 | 20-24 | ** | 10-12 | 12-14 | 14-16 |
| | **750-1500** | 20-24 | 26-32 | ** | 12-14 | 16-18 | 20-22 |
| | **1500-6000** | 26-30 | 32-40 | ** | 14-18 | 18-22 | 24-26 |
| | **Over 6000** | 30-32 | 36-44 | ** | 20-22 | 24-26 | 26-28 |
| | | | | | | | |
| **65-70 MPH** | **Under 750** | 18-20 | 20-26 | ** | 10-12 | 14-16 | 14-16 |
| | **750-1500** | 24-26 | 28-36 | ** | 12-16 | 18-20 | 20-22 |
| | **1500-6000** | 28-32 | 34-42 | ** | 16-20 | 22-24 | 26-28 |
| | **Over 6000** | 30-34 | 38-46 | ** | 22-24 | 26-30 | 28-30 |

** Remainder of the clear zone must be provided beyond this slope

Source: American Association of State Highway and Transportation Officials (2002) *Roadside Design Guide*. Washington, DC.

Roadway designations, average daily traffic counts, and design speeds are determined by VDOT. Contact your District Traffic Engineer for this information.

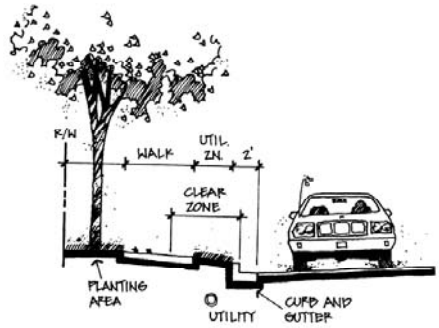



*Figure 3.6 - Clear zone from curb in an urban situation*

Where guardrails or other barriers are used the designer must allow for a clear zone behind the barrier. The required clear zone is based on the deflection properties of the specific barrier as an object collides with it. The distances shown in Table 3.2 are minimum distances required for placement of fixed objects or trees greater than four inches in caliper behind various types of barriers. Generally a clear zone that may be greater than the minimum distance is desired behind all barriers for mowing and maintenance purposes. The designer should consult with the local VDOT District to determine if a maintenance area is desired.

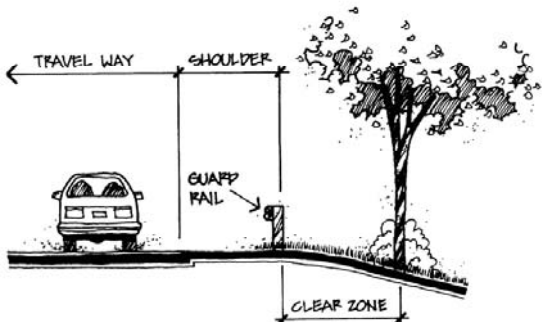


**Table 3.2 - Required Set backs from Barriers**

| GUARDRAIL SYSTEM | STANDARD | MINIMUM OFFSET OF FIXED OBJECT FROM THE BACK OF THE GUARDRAIL |
|---|---|---|
| FLEXIBLE | GR-3 | 12' |
| (WEAK POST OR CABLE | GR-8 | 9' |
| | GR-8A | 7' |
| | GR-8B | 5'-6" |
| | GR-8C | 6' |
| | MB-5 | 5'-6" (3'-1-1/2" post spacing, offset will vary with post spacing) |
| SEMI-RIGID | GR-2 | 4' 6' |
| (STRONG POST) | GR-2A | <4' 3' |
| | MB-3 | 5' |
| RIGID (CONCRETE BARRIER) | MB-7A, 7B & 7C | 0 |

Guidelines for Planting Along Virginia Roadways - March 2007

**Vertical Clearance**

Always consider the proper vertical clearance required for a roadway. When trees are placed next to the roadway the designer must consider the habit of the tree as it matures. Trees with ascending habit are desired so that vertical clearance can be easily maintained. Trees with low branching or descending habit are considered undesirable when planted close to the road edge.

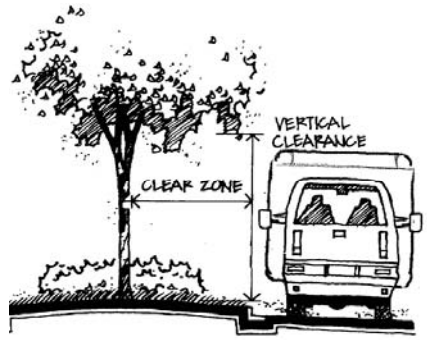



*Figure 3.7 – Vertical clearance*

**General Guidelines for clear zones**

- Do not plant trees that will be larger than 4 inches in diameter at maturity within the clear zone or on unrecoverable slopes (fill slopes greater than 4:1).
- A clear zone should be provided behind guardrails for safety and maintenance purposes.
- Do not place fixed objects within the clear zone.
- Fixed objects such as: benches, trash receptacles, or directional signs that can not practically be located outside of the clear zones should be equipped with break away features.

Guidelines for Planting Along Virginia Roadways - March 2007

# CHAPTER FOUR
# SIGHT DISTANCE

**Sight Distance is the distance at a given speed required for perception, reaction and braking time. Sight distance must be considered for signs, and for vehicles at intersections, signalized intersections, entrance ramps, exit ramps, crossovers, and horizontal curves. Sight distance is always measured as a straight line from the driver's eye of the approaching vehicle to the fixed object, sign or to the driver's eye of the stopped vehicle. Objects that would obstruct the driver's sight, such as tall shrubs and groundcovers, trees, light poles, etc... may not be placed inside the sight triangle.**

**Signs**

The designer shall maintain clear sight lines to road signs. Vegetation that encroaches within the sight line must be trimmed to the proper heights, see figure 4.1. For the required sight distances to signs please refer to table 4.1.

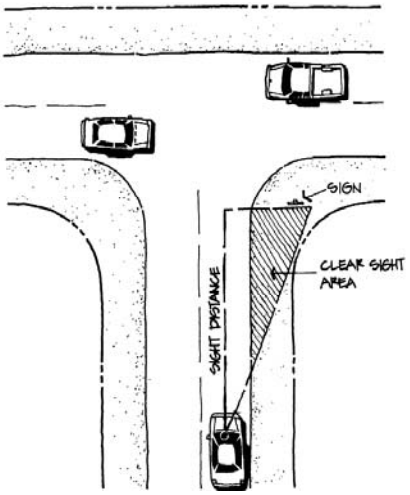



*Figure 4.1 – Sight distance for signs*

**Table 4.1 Recommended Clear Sight Distances for Sign Visibility**

| Speed Limit mph +/- | Regulatory Signs Sight Distance Required | Non-Regulatory Signs Sight Distance Required |
|---|---|---|
| 30 mph | 263 ft. | 164 ft. |
| 40 mph | 361 ft. | 230 ft. |
| 50 mph | 460 ft. | 295 ft. |
| 60 mph | 591 ft. | 361 ft. |
| 1. Regulatory signs include STOP, YIELD, and DO NOT ENTER, ONEWAY, WRONG WAY and others critical to vehicle control. | | |
| 2. Non-regulatory signs include guide, advance warning and similar warning or information signs. | | |

**Intersections**

Intersections may be T-type, Y-type, or may involve a crossover with median. Intersections include commercial and residential access roads as well as other roadways and may be signalized or non-signalized. Intersections involve a decision point where a stopped vehicle must make a movement across or onto a separate roadway. The driver of the stopped vehicle may turn right, cross approaching lanes to turn left or cross the entire road. The decision to make the turning or crossing movement is always based on the driver's ability to see approaching vehicles. The approaching drivers must also be able to see the stopped vehicle so that it's movements may be anticipated. This situation requires that the proper stopping distance and clear sight areas be provided between the drivers.

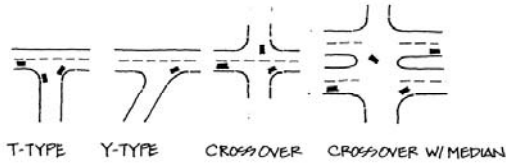



*Figure 4.2- intersection types*

**Triangle Analysis for Non-Signalized Intersections**

All design work encompassing non-signalized intersections that adjoin a mainline roadway require a triangle analysis. The triangle analysis will determine the clear sight areas and sight lines required. The triangle dimensions are based on the required stopping sight distance 'D' and the positions of the stopped and approaching vehicle (see table 4.2, table 4.3 and figure 4.4). The position of the stopped vehicle is typically measured from the stop bar or tangent point (see figure 4.5). The position of the approaching vehicle is always placed in the center of the lane closest to the stopped vehicle. If the stopped vehicle is on the left side of the road then the approaching vehicle is placed in the far left-hand lane. The approaching vehicles position is located by measuring the required stopping distance 'D' from the intersection of the straight paths of the two vehicles (see figure 4.3).

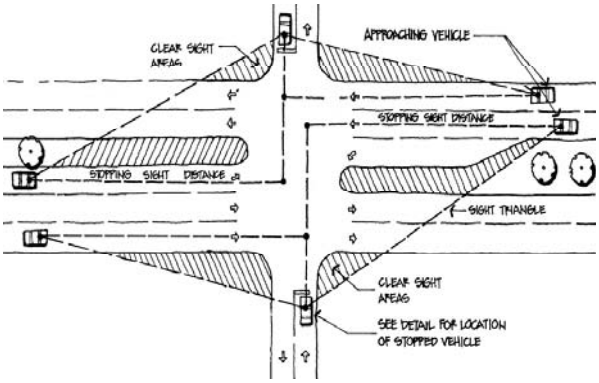



*Figure 4.3 - triangle analysis*

Guidelines for Planting Along Virginia Roadways - March 2007

**Signalized Intersections**

In certain cases where transitioning from rural to suburban, or suburban to urbanized roadway conditions, a triangle analysis for signalized intersections is advisable due to the higher speed traffic approaching an intersection at a lower speed condition. This would also apply to roadways with design or posted speeds of greater than 45 MPH and/or where mountable curb is utilized, and where higher than 45 MPH traveling speeds may occur. Specific traffic patterns or accident history may also warrant achieving the highest degree of visibility as deemed necessary by the local VDOT Traffic and Safety Engineer. In general, however, AASHTO criteria may be followed for the purpose of developing planting and streetscape plans within urbanized "All-Way Stop Control" conditions as follows:

"At intersections with all-way stop control, the first stopped vehicle on one approach should be visible to the drivers of the first stopped vehicles on each of the other approaches. There are no other sight distance criteria applicable to intersections with all-way stop control and, indeed all-way stop control criteria may be the best option at a limited number of intersections where sight distance for other control types cannot be attained." (A Policy of Geometric Design of Highways and Streets, AASHTO 2001, Pg. 678)

**Median Crossovers**

Vehicles traveling on roads with medians must be able to see vehicles entering the mainline from median breaks or crossovers. Non-signalized median crossovers are treated the same as non-signalized intersections in the main line road. The sight line will be drawn from the driver's eye of the vehicle stopped in the median break to the driver's eye of the approaching vehicle. The driver' eye of the stopped vehicle should be located using the same method for intersections. (see figure 4.4 and 4.5).

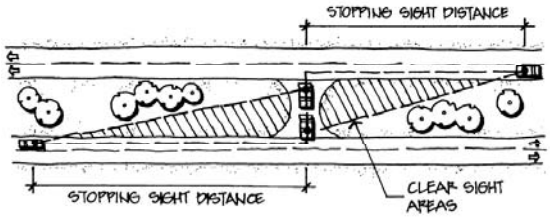



*Figure 4.4 – Sight lines for medians wider than 60'*
*Source: VDOT Road Design Manual, Appendix C-12*

Guidelines for Planting Along Virginia Roadways - March 2007

**Table 4.2 Stopping Sight distances for intersections and Crossovers**
Source: VDOT 2003 Minimum Standards of Entrances to State Highways, Pg. 13

| Design Speed /Speed Limit (mph) | *25* | *30* | *35* | *40* | *45* | *50* | *55* |
|---|---|---|---|---|---|---|---|
| Stopping sight distance 'D' for two & three lane major roads with no crossover (measured in feet). | **280** | **335** | **390** | **445** | **500** | **555** | **610** |
| Stopping sight distance 'D' for four lane major road undivided (measured in feet). | **295** | **355** | **415** | **475** | **530** | **590** | **650** |
| Stopping sight distance 'D' for four lane divided highways with crossover (measured in feet). | **325** | **390** | **455** | **520** | **580** | **645** | **710** |

**Table 4.3 Stopping Sight distances for Local Urban Streets**
Source: AASHTO - A Policy on Geometric Design of Highways and Streets, 2004, Page 112

| Design Speed / Speed Limit mph | *15* | *20* | *25* | *30* |
|---|---|---|---|---|
| Stopping sight distance 'D' for local urban streets (measured in feet) | **80** | **115** | **155** | **200** |

Guidelines for Planting Along Virginia Roadways - March 2007

**Location of the Driver's Eye**

Locating the driver's eye for a stopped and approaching vehicle is the first step in the triangle analysis. When a stop sign and painted stop bar exist, the driver's eye is located eight feet back from the bar. If the stop bar cannot be located then the driver's eye will be located eight feet back from the tangent point. The tangent point is where the road edge begins to curve so that a turn can be made. Commercial and suburban driveways intersections often do not have stop bars and vehicles often pull closer to the intersecting road edge. The designer should use the method explained in Figure 4.5 when the drive has defined curves and tangent points. When this information is not available it is recommended that the driver's eye be located 14.4 feet from the outside edge of pavement or curb.

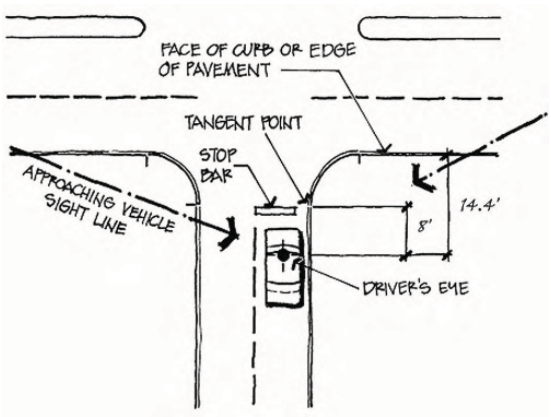



*Figure 4.5 - Location of driver's eye*

**Maintenance and Planting in Clear Sight Areas**

Most trees are considered visual obstructions and should not be planted within clear sight areas. Large shrubs may also obstruct visibility and should not be placed in these areas. Other shrubs and groundcovers may be placed in these areas as long as they can be maintained to appropriate heights. Limbs of trees and vegetation that encroaches into clear sight areas must be trimmed and limbed up for unobstructed visibility. Shrubs within sight lines must be maintained at a height of approximately 30 inches above pavement (this should remain constant across medians within sightlines). Where possible, tree species should be selected that mature in an upward vase shape form, thus reducing the need to trim up limbs that might become a visual obstruction. As trees mature along a roadway or streetscape and begin to branch outward, a 10 foot clear sight area beneath the canopy should be maintained. (See figure 4.6). The designer must also consider the height of the median above pavement when selecting plant materials.

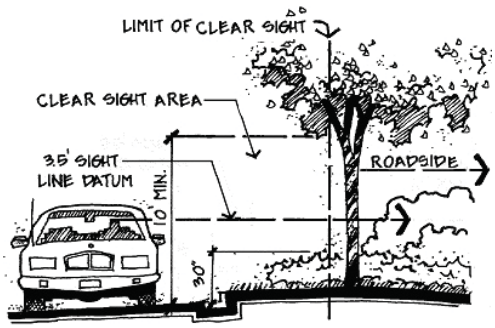



*Figure 4.6 - trimming within clear sight areas*

Guidelines for Planting Along Virginia Roadways - March 2007

**Table 4.4 Stopping Distance 'd' for Ramps**
Source: AASHTO - A Policy on Geometric Design of Highways and Streets, 2004, Page 112. Note – Specific site conditions for vertical and horizontal curvature and grade separation must also be taken into account in determining Stopping Sight Distance.

| Ramp Design Speed (MPH) | Stopping sight distance 'desirable' |
|---|---|
| 65 | 645' |
| 60 | 570' |
| 55 | 495' |
| 50 | 425' |
| 45 | 360' |
| 40 | 305' |
| 35 | 250' |
| 30 | 200' |
| 25 | 155' |
| 20 | 115' |

Guidelines for Planting Along Virginia Roadways - March 2007

**Stopping distances and Clear sight areas for ramps and merge lanes**

Interchange ramps and merge lanes create a situation where a vehicle is traveling through a curve in order to merge with a main line of traffic. The merging vehicle and the main line traffic are typically traveling at different speeds. The main line vehicle must be able to see the merging vehicle and the merging vehicle must be able to see oncoming traffic. This creates a clear sight triangle. The dimensions of this site triangle are based on the required stopping distances for the merging and approaching vehicles (see tables 4.2, 4.3, & 4.4). The stopping distance for both vehicles is measured from the intersection of the edge of travel lane of both lanes (see figure 4.7 below).

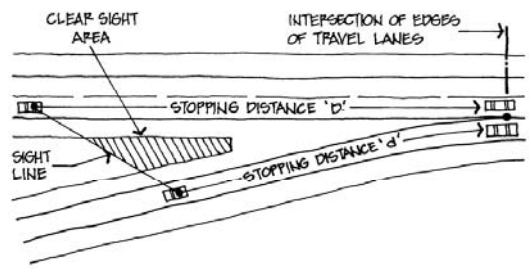



*Figure 4.7 – Recommended Minimum Sight lines for interchange ramps*

# Appendix D: Soil Sample Results

The CDAC team took soil samples at the North Main Street, South Main Street, and Crewes Corner medians. The results are as follows:

09 Apr 2010

**VIRGINIA COOPERATIVE EXTENSION**
**SOIL TESTING LABORATORY**

Person Submitting Samples: STEIKA KIM
COUMMNUNITY DESIGN
ASSISTANCE CENTER
0450

911
Unit: VPI & SU CAMPUS

**LABORATORY RESULTS**

| Sample ID | Lab ID | pH | BpH | P (ppm in soil (mg/kg)) | K | Ca | Mg | Zn | Mn | Cu | Fe | B | Est. CEC (meq/100g) | Acidity (%) | Base Sat | Ca Sat | Mg Sat | K Sat | OM (ppm) | SS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Crewes Corner | 24555 | 7.30 | N/A | 10 | 56 | 564 | 125 | 1.8 | 11.4 | 0.5 | 9.0 | 0.3 | 4.0 | N/A | 100.0 | 70.6 | 25.8 | 3.6 | | |
| North Main | 24557 | 6.74 | 6.30 | 17 | 133 | 731 | 115 | 11.9 | 17.2 | 0.6 | 5.3 | 0.7 | 5.5 | 10.7 | 89.3 | 66.0 | 17.1 | 6.1 | | |
| South Main | 24556 | 6.94 | 6.39 | 4 | 66 | 721 | 72 | 2.3 | 10.4 | 0.4 | 4.0 | 0.4 | 4.4 | 1.4 | 98.6 | 81.4 | 13.4 | 3.8 | | |

# Appendix E: Trail Types and Surfacing

As the Town of Chatham moves forward with the Chatham Perimeter Trail concept, desired trail uses and correspondingly trail surfacing will need to be decided. The Virginia Department of Conservation and Recreation has an excellent resource called the *Virginia Greenways and Trails Toolbox*. The 2000 version of the toolbox is available online at: http://www.dcr.virginia.gov/recreational_planning/documents/toolbox.pdf

An updated version of the Virginia Greenways and Trails Toolbox should be available in 2011. Another good resource, particularly related to trail types and surfacing, is the *Trail Design Guidelines for Portland's Park System* which serves as a guide for those who design and build trails in Portland. This can also be accessed online at http://www.portlandonline.com/parks/index.cfm?a=250105&c=38306 . Excerpts from the Portland Trail Design Guidelines can be found on the following pages.

## *Trail Design Guidelines for Portland's Park System*



that build trails, whether designing a narrow footpath through a woodland, an exercise circuit in a lawn area or a waterfront promenade. Although not intended as a maintenance guide, it should also be useful for volunteer trail building projects.

### Design Philosophy

Siting and design of every trail requires consideration of four main goals: safety, connectivity, response to location, and diversity of users.

1. **Safety** is the top concern. Ideally, cars and trucks alongside or crossing a trail should be minimized. If the trail parallels a roadway, separate bicycle and pedestrian space is preferred unless there are few vehicles and low travel speed. Higher speed and traffic volumes decrease users' perception of safety and tend to discourage less experienced users. Although parked cars sometimes slow traffic by making the street seem more narrow, there is danger of opening doors into bicyclists. Visibility is particularly important at intersections with roads and in natural areas, but design principles for crime prevention should be applied to all projects. Different trail users also travel at differing speeds, which can cause conflicts and accidents. In some sites, trail markers designate trails for use by hikers, bikers and/or equestrians; in others we urge everyone to 'share the path.' In corridors of high density (such as the Willamette Greenway in South Waterfront) a biking trail can be used in combination with a walking trail to form a dual trail to separate slower speed "feet" from higher speed "wheels." Additional education and enforcement are needed.

2. **Connectivity** is important because trail length makes longer trips possible, increasing usefulness for commuting and exercise. Trails also connect gaps in the on-street pedestrian network. Trails should have multiple access points from the surrounding system of sidewalks, other

**FOUR MAIN GOALS FOR TRAIL DESIGN**

1. SAFETY
   - 1st Choice - Separate trail from vehicles
   - 2nd Choice - Minimize vehicle crossings of trail
   - 3rd Choice - If trail co-exists with road then choose route with lower speed and volume
   - Design for visibility and crime prevention in all settings
2. CONNECTIVITY
   - Connected lengths of trails make longer trips possible, increasing usefulness for commuting and exercise
   - Provide trail access points and connect trails to bicycle and pedestrian network in City rights-of-way
3. CONTEXT
   - Trail changes to meet opportunities and constraints of its surroundings
4. DIVERSITY
   - Provide range of trails to meet needs of all ages and abilities so everyone benefits, including those with disabilities

*Vera Katz Eastbank Esplanade - stairs near Riverwalk on Steel Bridge*

*Vera Katz Eastbank Esplanade - accessible ramp near Riverwalk on Steel Bridge*

*Marine Drive Trail - rollerblader*

*Springwater Corridor - scooters*

*Springwater Corridor - Hood-to-Coast runners*

*Vera Katz Eastbank Esplanade - near plaza just north of Firehouse*

trails, and bikeways to make short trips and loops possible. However, these access points will be less frequent than in a typical street network in order to make fewer interruptions to flow of users along the trail.

3. **Response to location** means that trail design responds to opportunities, constraints, and character of the surroundings. In some locations, impacts to environmentally sensitive areas and wildlife can be avoided or minimized by relocating the trail or adjusting trail size and material to limit types of users. However, providing periodic views of water may avoid damaging user-made trails to reach the water. Metro's *Green Trails: Guidelines for environmentally friendly trails* discusses practices for minimizing natural resource impacts. Trail width, slope, and material of trails may also change to fit neighboring development, vegetation, drainage needs, vehicle circulation patterns, and so forth. Impacts to private property should be avoided or minimized. Although trails may be less consistent over their length, the adaptations enliven the overall trail experience and fit different neighborhoods and settings.

4. **Diversity of users** refers to activity, age, and ability. Although the overall recreational trail system includes challenging segments for the most fit and expert, the general aim is to provide challenge levels suitable for all ages and abilities. Trails provide potential health benefits for all, including those with disabilities and a growing number of seniors. Where possible, trail design should accommodate diverse modes and mobility devices – walkers and runners, bicyclists and rollerbladers, wheelchairs and baby strollers. However, in many locations, not all users may be accommodated. Although trail facilities can often be successfully shared, it is also important to have some locations where hikers need not fear being overtaken by mountain bikes, places where mountain bikers know there aren't supposed to be hikers, and trails where horses won't need to shy away from cyclists.

## Accessibility

The Americans with Disabilities Act (ADA) is a comprehensive civil rights law which prohibits discrimination on the basis of disability. It requires, among other things, that newly constructed and altered "places of public accommodation" be readily accessible to and usable by individuals with disabilities. Accessibility guidelines are developed by the Architectural and Transportation Barriers Compliance Board (Access Board). Most accessibility standards (ADAAG, Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities) are not readily applicable to the natural environment. The most pertinent to trails is the *Recommendations for Accessibility Guidelines: Outdoor Developed Areas Final Report*. The United States Department of Agriculture Forest Service (USFS) has developed Forest Service Trail Accessibility Guidelines (FSTG) based on the guidelines on outdoor developed areas. Although the USFS trail design parameters do not apply to the range of trails provided by PP&R, the FSTG are helpful because they "provide guidance for maximizing accessibility of trails... while recognizing and protecting the unique characteristics of their natural setting."

Although there is a substantial amount of technical information regarding accessibility and trails, PP&R seeks to provide a range of challenge levels for outdoor facilities such as trails. These guidelines encourage design for increased accessibility but do not require unreasonable efforts to provide an accessible route in hiking trails in steep terrain without added surfacing. Where terrain allows accessible slopes, a range of surfacing choices from pavement to fine gravel to engineered wood fiber can create levels of accessibility that respond to the character and desired use of the trail. In an early review of some standard construction details for the *Trail Design Guidelines* by

*Kelley Point Park - some of the 40-Mile Loop Trail at the confluence of the Willamette and Columbia Rivers was once inaccessible gravel road*

*Kelley Point Park - accessible asphalt replaces gravel and sand*

*Forest Park Ridge Trail*

*Oaks Bottom Connector - existing dirt road was paved, some slopes greater than 5%*

*Forest Park - accessible trail along Balch Creek in Lower Macleay*

the Portland Citizens' Disability Advisory Committee (PCDAC), the committee noted that trail users, including the disabled community, value diversity of experience.

The PCDAC agreed that there should be varying levels of physical challenge. Everyone would be able to use the level esplanade next to a major river; fewer could make the steep scramble up a 'wilderness' site. Steep hillsides in the west hills and east buttes are particularly challenging because the long lengths of trail (at 5%, 1:20 accessible slope) and multiple switchbacks may destroy the natural character of the site. The most challenging constraints to providing accessibility are:

- Steep slopes and landslide potential
- Sensitive vegetation or wildlife species
- Wetlands and waterways
- Desired character of minimal development

Public process and PCDAC review help determine what type and amount of use is likely and appropriate to each site. Most trails are fully accessible, although there is little signage indicating accessibility status. Examples of fully accessible trails include Springwater Corridor, Kelley Point Park, and Terwilliger Parkway. Some sites have higher challenge or no accessible features, such as Forest Park Ridge Trail, Woods Memorial Natural Area, Oaks Bottom Connector, and OHSU Trails #13 (Connor Trail) and #24 (proposed). In some locations PP&R made more site impacts by providing accessible features at one site so that other similar sites could avoid those impacts. Examples include the Lower Macleay paved accessible path along lower portion of Balch Creek, Stephens Creek Nature Park's boardwalk across part of the creek that also serves as a detention basin, and Johnson Creek Park's porous pavement to confluence with Crystal Springs Creek. Other creeks and other portions of Balch, Stephens, and Johnson Creeks are not fully

accessible. Unfortunately, nearly every trail in the PP&R system needs improvements in edge protection, wayfinding, and accessible signage.

The Technical Provisions for Access Routes, Outdoor Access Routes, and Accessible Trails table (page 8) gives the technical details of ADAAG and the Outdoor Developed Areas guidelines. 'Access routes' (ADAAG) relate to the built environment where all routes must meet accessibility requirements. 'Outdoor access routes' are in outdoor environments, e.g., parks where reasonable access is required, such as between a parking lot and a playground. 'Accessible trails' are those trails that meet the USFS guidelines. All refer to newly constructed or altered trails, not retroactively to existing trails. 'Alteration' differs from 'maintenance' by changing the trail from its original condition. Exceptions to the technical provisions can be made in certain situations.

Technical provisions for outdoor access routes and accessible trails may not apply if it cannot be provided because compliance would:

- cause substantial harm to cultural, historic, religious or significant natural features or characteristics;
- substantially alter the nature of the setting or purpose of the facility;
- require construction methods or materials that are prohibited by Federal, state or local regulations or statutes; or
- be infeasible due to terrain or prevailing construction practices

## Street Rights-of-Way

The Portland Bureau of Transportation (PBOT) manages the public street right-of-way in Portland. Many park sidewalks and/or edges of parks and natural areas are within the right-of-way; PBOT should be consulted regarding design standards and permits for development in rights-of-way adjacent to PP&R property. The most current guidance regarding accessibility that pertains to public right-of-way (*Revised DRAFT Public Rights-of-Way Accessibility Guidelines* (*PROWAG*)) permits the grade of a pedestrian access route within a sidewalk to be as steep as the grade of the adjoining roadway. In some areas of steep terrain, this allows 'accessible' sidewalks to be steeper than accessible trails.

## Trail Type Matrix Introduction

PP&R trail types (page 11 and 12) are based on trail user activity. The first section outlines trail types with single users. The second section outlines trail types shared by different types of trail users. Some basic design features (surface, width, longitudinal and cross-slope, accessibility) and notes are included. Individual sheets on each trail type provide a definition, describe users and materials, and show photograph(s) and typical detail. Some trail types can be built of several materials so other details are also referenced. Ranges of width or longitudinal and cross-slope allow flexibility to respond to site conditions and expected intensity of use.

## Trail Design, Construction, and Maintenance

Descriptions, charts, photographs, and construction details cannot convey the complete reality of selecting, designing, and building a trail that is appropriate for a site and its intended users. Trained designers and experience are essential for success. The following information

| TECHNICAL PROVISION FOR ACCESS ROUTES, OUTDOOR ACCESS ROUTES AND ACCESSIBLE TRAILS | | | |
|---|---|---|---|
| | **Access Route (ADAAG)** | **Outdoor Access Route** | **Accessible Trail** |
| **Surface** | stable, firm, and slip resistant | firm and stable | firm and stable (exception:*) |
| **Maximum Running Slope** | 1:12 [8.33%] | 1: 20 [5%] (for any distance)<br>1: 12 [8.33%] (for max. 50 ft)<br>1:10 [10%] (for max. 30 ft) | 1: 20 [5%] (for any distance)<br>1: 12 [8.33] (for max. 50 ft)<br>1:10 [10%] (for max. 30 ft)<br>1: 8 [12.5%] (for max. 10 ft)<br>(*Exception: 1: 7 [14.3%] for 5 ft maximum for open drainage structures or when * applies*) |
| **Maximum Cross Slope** | 1:50 [2%] | 1: 33 [3.03%]<br>(Exception: 1: 20 [5%] for drainage purposes | 1: 20 [5%]<br>(Exception: 1: 10 [10%] at the bottom of an open drain where clear tread width is a minimum of 42 inches |
| **Minimum Clear Tread Width** | 36 inches<br>32 inches for no more than 24 inches | 36 inches<br>(*Exception: 32 inches when * applies*) | 36 inches<br>(*Exception: 32 inches when * applies*) |
| **Tread Obstacles** | Changes in level: 1/4 inch with no beveled edge, 1/4 - 1/2 inch must have a beveled edge with a max slope of 1: 2 [50%] (over 1/2 inch = ramp) | 1 inch high maximum<br>*Exception: 2 inches high maximum where beveled with a slope no greater than 1: 2 [50%] and where * applies.* | 2 inches high maximum Exception: 3 inches maximum where running and cross slopes are 1: 20 [5%] or less.<br>(*Exception: **) |
| **Passing Space** | Every 200 feet where clear tread width is less than 60 inches, a minimum 60 x 60 inch space, or a T-shaped intersection of two walks or coridors with arms and stem extending minimum of 48 inches. | Every 200 feet where clear tread width is less than 60 inches, a minimum 60 x 60 inch space, or a T-shaped intersection of two walks or coridors with arms and stem extending minimum of 48 inches.<br>(*Exception: Every 300 feet where * applies*.) | Every 1000 feet where clear tread width is less than 60 inches, a minimum 60 x 60 inch space, or a T-shaped intersection of two walks or coridors with arms and stem extending minimum of 48 inches.<br>(*Exception: **) |
| **Resting Intervals** | Landings: 60 inch min length, minimum width as wide as the ramp run leading to it, if change in direction occcurs, must have 60 x 60 inch space | 60 inches minimum length, width at least as wide as the widest portion of the trail segment leading to the resting interval and a max slope of 1: 33 [3.03%] (Exception: A max slope of 1: 20 [5%] is allowed for drainage purpose.) | 60 inches minimum length, width at least as wide as the widest portion of the trail segment leading to the resting interval and a max slope of 1: 20 [5%]<br>(*Exception: **) |
| ** The provision may not apply if it cannot be provided because compliance would cause substantial harm to cultural, historic, religious, or significant natural features or characteristics; substantially alter the nature of the setting or purpose of the facility; require construction methods or materials that are prohibited by Federal, state, or local regulations or statues; or be infeasible due to terrain or the prevailing construction practices.* | | | |

Based on table in *Trail Planning, Design, and Development Guidelines: Shared Use Paved Trails, Natural Surface Trails, Winter-Use Trails, Bikeways* by Minnesota Department of Natural Resources Trails and Waterways, 2006

## TRAIL TYPE MATRIX

May 2009

| | Trail Type | Nature | Local Access | Community | Regional | | facility name | Design Features: surface | width | longitudinal slope | cross slope | ADA | Users: walker | runner | dog walker | equestrian | wheelchair or electricmobility device | skateboarder | rollerblader | cyclocross rider | mtn biker | road biker | gator | maintenance vehicle | police car | firetruck | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SINGLE USE | A | ✓ | ✓ | | ✓ | | hiking (high challenge) | soil / stairs | 18" - 30" | 0 - 15% (short segments steeper than 15%) | 2% min 4% max | steepest (steps, rocks, roots) | ◆ | ❍ | ❍ | | | | | | | | | | | | |
| | B | ✓ | ✓ | | ✓ | | hiking (moderate challenge) | soil / stairs | 18" - 30" | 0 - 8% | 2% min 4% max | ❍ steep | ◆ | ❍ | ❍ | | limited | | | | | | | | | | landings of 60" x 60" every 1000 feet |
| | C | ✓ | ✓ | | ✓ | | hiking (accessible) | soil / gravel / engineered wood fiber or wood chips | 4' (with passing areas) - 10' | 0 - 5% (8% for max. 50') | 2% | ◆ | ◆ | ◆ | ◆ | ❍ | ◆ | | | | | | | | | | Columbia Slough ADA segments require 6' Fibar (or equivalent engineered wood fiber) and are closed to dogs and bicycles; use gravel causeway for poorly drained sites |
| | D | | ✓ | ✓ | ✓ | | walking **** | engineered wood fiber or chips / gravel / pavers asphalt / concrete / wood or plastic lumber | 6' - 12' (8' min if paved for vehicles) | 0 - 8% | 1 - 2% | ◆ | ◆ | ❍ | ❍ | | ❍ | ❍ | ❍ | | | | ❍ | ❍ | ❍ | | sidewalks, boardwalks and trails in developed parks, sometimes include stairways; pave if used for maintenance (8' min. - 10' pref.), phase out chipseal; avoid wood fiber except for 10' wide walking loops in developed parks; landings of 60" x 60" every 1000 feet on accessible trails |
| | E | | ✓ | | | | exercise / fitness (resilient track) | synthetic rubber | 2-4' / lane | 0 - 1% | 1% | ❍ | ❍ | ◆ | | | | | | | | | | | | | discourage use of wheelchairs and baby strollers to protect resilient surface |
| | F | ✓ | ✓ | ✓ | ✓ | | biking **** | asphalt / concrete | 6' one-way, 10' min. - 12' pref. two-way | 0 - 3% pref. (to 5% if needed, up to 10% for 500', up to 12% for 50' and ramps) | 2% | | | | | | *❍ | ❍ | ❍ | | ❍ | ◆ | ❍ | ❍ | ❍ | ❍ | to 12% for short segments & ramps; porous paving may be too rough for skateboarders and rollerbladers; 12' asphalt for bikes is sometimes paired with 10' concrete or paver "walking" for dual trail in high use areas |
| | G | ✓ | ✓ | | | | mountain biking | soil / gravel / wood | 18" - 4' | 0 - 12% | 2 - 5% | | | | | | | | | | ◆ | | | | | | 18" one-way single track; add width & banking (superelevation) at turns; harden surface with compacted soil/gravel to prevent erosion |

*Recreational Trail Strategy* Trail Types

Nature Community
Local Access Regional

◆ Major use
❍ Minor use

* Mobility devices that can equal bicycle speed
** Sometimes specialized shoulder on multi-use trail
*** Some limitations in parks or congested areas
**** Trail type unlikely to meet environmental zone standards due to width and/or paving material; will need environmental review if in e-zones.

PORTLAND PARKS & RECREATION
Healthy Parks, Healthy Portland

| | Trail Type | Nature | Local Access | Community | Regional | | facilityname | Design Features: surface | width | longitudinal slope | cross slope | ADA | Users: walker | runner | dog walker | equestrian | wheelchair or electricmobility device | skateboarder | rollerblader | cyclocross rider | mtn biker | road biker | gator | maintenance vehicle | police car | firetruck | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SINGLE USE | H | | | | | | cyclocross **** | soil / wood / grass / concrete / asphalt | 6' - 12' | varies | varies | | | | | | | | | ◆ | | | | | | | site specific loops with variety of challenges (& mud) |
| SINGLE USE | I | ✓ | | | ✓ | | equestrian** | soil / gravel / wood chips | 3' - 6' (pair of riders) | 0-12% (prefer 5% max.) | 2% | | | | | ◆ | | | | | | | | | | | wood chips difficult to maintain |
| MULTIPLE USE | J | ✓ | | | ✓ | | hiking and mountain biking | soil / gravel | 4' (with passing areas) - 10' | 0-5% (to 12% if needed) | 2% | ◆ | ◆ | ◆ | ❍ | ❍ | ❍ | | | | ◆ | | ❍ | ❍ | | | adjust width for user volume & vehicular use; 6' gravel allows wheelchairs to pass |
| MULTIPLE USE | K | ✓ | ✓ | ✓ | ✓ | | hiking and equestrian | soil / gravel / wood fiber | 4' - 6' (pair of riders) - 10' | 0-12% (prefer 5% max.) | 2% | ◆ | ◆ | ◆ | | ◆ | ❍ | | | | | | ❍ | | | | adjust width for user volume & shared use; use gravel causeway for poorly drained sites; wood chips difficult to maintain |
| MULTIPLE USE | L | ✓ | ✓ | ✓ | ✓ | | walking and biking **** | gravel / asphalt / concrete | 8' - 25' (10' - 12' pref. maint. vehicles) | 0-3% (5% as needed) (8% max.) | 1% | ◆ | ◆ | ◆ | ◆ | | ◆ | ◆ | ◆ | | *** | *** | ❍ | ◆ | ❍ | ❍ | 8' asphalt for minor park paths; 12' asphalt (8' min - 14' max) for major park path or lengthy multi-use trail; add fencing for rail-with-trail; 10' asphalt with 1' gravel shoulders used on narrow levees; 12' - 25' concrete for riverfront esplanades |
| MULTIPLE USE | M | | | | | | walking, biking and equestrian **** | gravel / asphalt / concrete | 8' - 25' (10' - 12' pref. maint. vehicles) | 0-3% (5% max) | 2% | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | | ❍ | ◆ | ❍ | ◆ | ❍ | ❍ | 6' asphalt for minor park paths; 12' asphalt (8' min - 14' max) for major park path or lengthy multi-use trail; add fencing for rail-with-trail; 10' asphalt with 1' gravel shoulders used on narrow levees; 12' - 25' concrete for riverfront esplanades |
| MULTIPLE USE | N | ✓ | | ✓ | | | fire and maintenance **** | gravel / turf block | 10 - 14' | 0-5% (to 12% as needed) | 2% | ◆ | ❍ | ❍ | ❍ | ❍ | ❍ | | | | ❍ | ❍ | ◆ | ◆ | ◆ | ◆ | Forest Park "fire lanes" often function as trails for hiking and/or mountain biking |

*Recreational Trail Strategy* Trail Types

Nature
Local Access
Community
Regional

◆ Major use
❍ Minor use

* Mobility devices that can equal bicycle speed
** Sometimes specialized shoulder on multi-use trail
*** Some limitations in parks or congested areas
**** Trail type unlikely to meet environmental zone standards due to width and/or paving material; will need environmental review if in e-zones.

PORTLAND PARKS & RECREATION
Healthy Parks, Healthy Portland

# Trail Type C – Hiking (accessible)

## DEFINITION

PP&R's accessible hiking trails have surface, slopes, and width that meet or exceed the dimensions of the *Forest Service Trail Accesssibility Guidelines (FSTG)*. Trails with a longitudinal slope of less than 1 vertical to 20 horizontal and cross-slope that is less than or equal to 2% can be traversed by wheelchairs. Trail surfaces are firm and stable. Barriers such as steps, rocks or roots do not exist although the natural surface may have some irregularities, not to exceed 2" high. The goal is to provide access to natural settings without adding pavement. Path width is minimized unless high use is expected. Landings or wider portions of the trail are provided for resting and passing other trail users. [See Technical Provisions table on page 8.]

## USERS

The accessible hiking trail requires fair balance and fitness. Single-file walking and (sometimes) running are desired use at minimum width. Wheelchairs (motorized or human-powered) and mobility scooters may be used, but surface is not as reliably firm and slip-resistant as a paved walking trail.

## MATERIALS

Native soil and rock are most common although crushed rock or wood fiber are used as needed. Hand or guard railings and boardwalks may be added if necessary. Excellent drainage and gravel may be necessary at wet sites to provide slip-resistant surface through winter. Fibar is the brand name of an engineered, interlocking wood fiber that is accessible to wheeled modes. Equivalent products produced locally may be substituted. Wood chips biodegrade and are difficult to maintain so provide width for hauling additional material. [See Trail Detail 13 for signs regarding accessibility.]

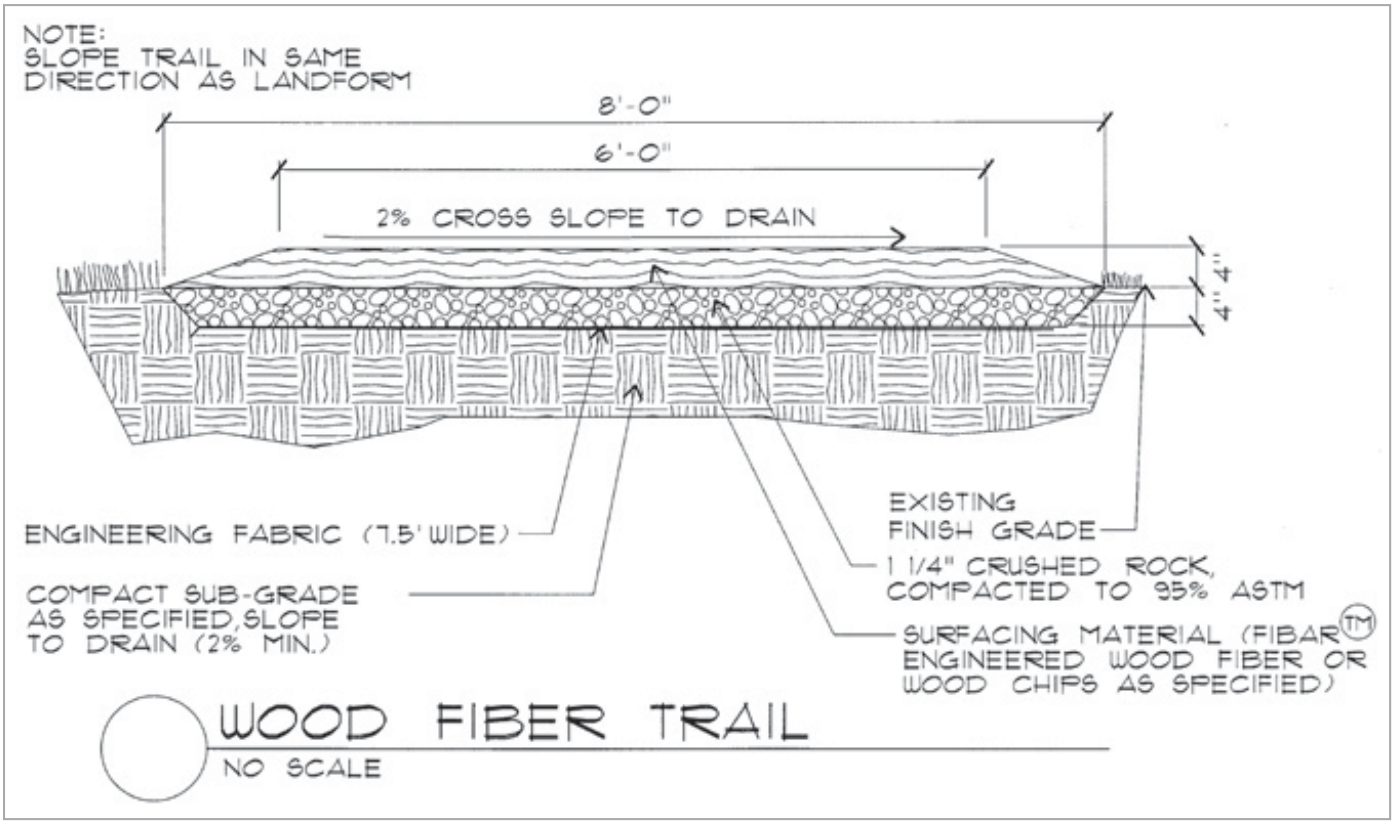
*Hoyt Arboretum - Wildwood Trail*

*40-Mile Loop Trail at base of Forest Park's Ridge Trail, next to Bridge Access Road for St Johns Bridge*

*Oaks Bottom - interpretive loop*

| | |
|---|---|
| Width | 4' (with passing areas) - 10' |
| Surface | Soil, gravel, Fibar (or engineered wood fiber equivalent), wood chips |
| Longitudinal Slope | 0 - 5% (8% for max. 50') |
| Cross-Slope | 2% |
| Radius | Aesthetic consideration |
| Sight Distance | N/A except road crossings |
| Easement Width | Tread + 10' min. |
| Side Slope | Varies |
| Vertical Clearance | 8' |
| Horizontal Clearance | 2' from side of tread |

Trail Type D – Walking




Also see Trail Types B, C and M and Trail Details: 01-Cribbed Steps, 02-Timber Steps, 03-Boardwalk, 04-Wood Bridge, 05-Wood Bridge with Railing, 11-Soft Surface Switchback on Levee, 13-Signs, 14-Alignment Tread Crests, 15-Alignment Tread Dips

# Trail Type D – Walking

## DEFINITION

*Lents Park - wood chip exercise loop path*

Walking trails are typically fully accessible with a maximum longitudinal slope of 5%. Some short segments of up to 8% longitudinal slope are used with slip-resistant paving. They offer a shorter, less vigorous "walk in a park" than the hiking trails. Sidewalks are in the public right-of-way and managed by PBOT. [See *Portland Pedestrian Design Guide*] In some locations, PBOT has allowed walking trails that meander farther into the park and away from the curb, instead of sidewalks, in order to improve the walking environment. These walking trails still need curb ramps and connections to sidewalks or road crossings in order to connect to the adjoining sidewalk system.

## USERS

Walking trails serve all pedestrians, including those with fitness and balance limitations. These routes are the main circulation system in, around, and/or through developed parks. People of all ages walk and run to enjoy the environment, socialize, exercise, and access other parts of the community. Walking trails also serve wheelchairs and electric mobility devices used by persons who need assistance to be mobile. Bicycles are not allowed due to trail surface, width, adjacent uses, sight distance or desired environment. The walking trail is also used in combination with a bike trail to form a dual trail system to separate slower speed 'feet' from higher speed 'wheels' (bicycles, scooters, skateboards, rollerbladers) in corridors of high density, such as the South Waterfront neighborhood.

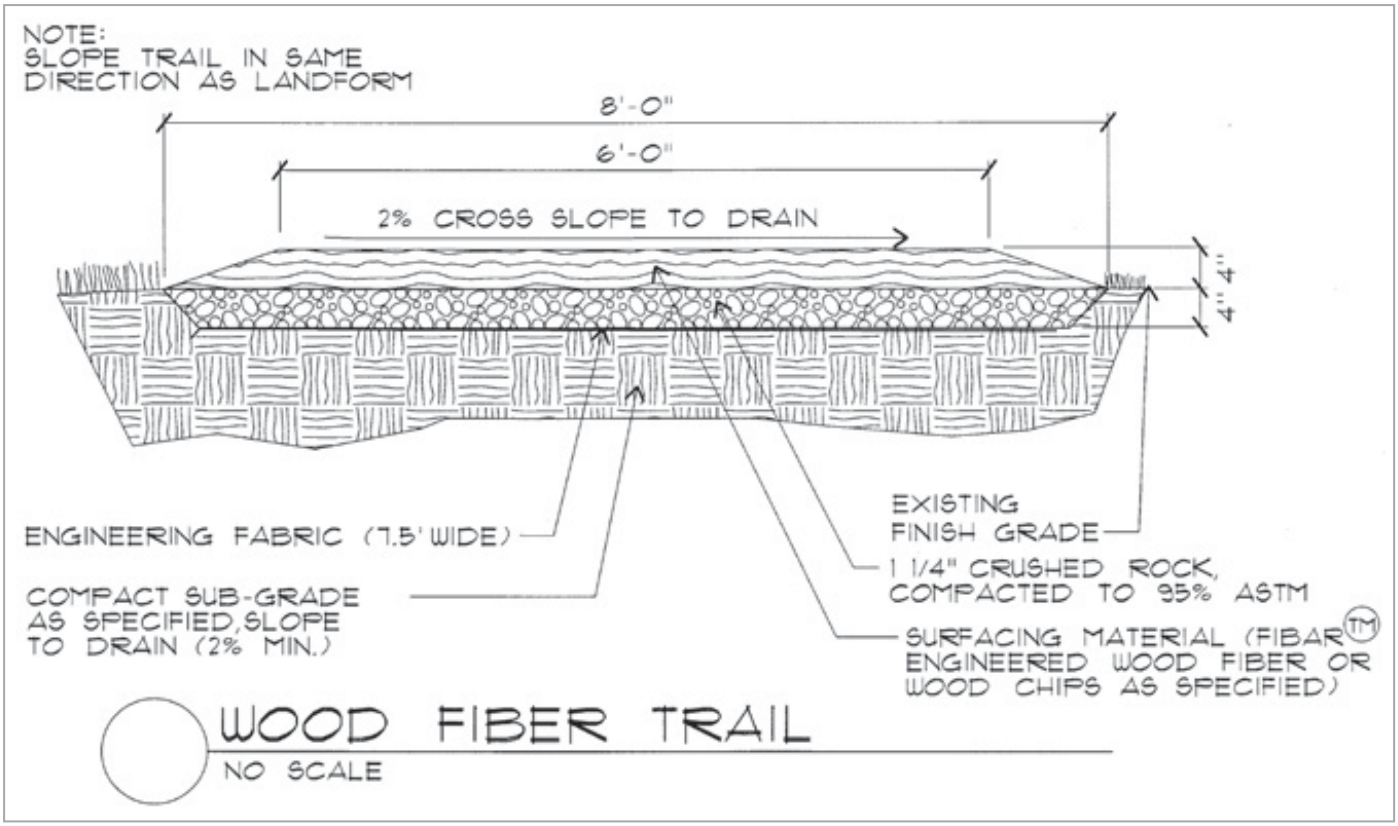
## MATERIALS

Walking trails are generally paved with unit pavers, asphalt or concrete. Trail width is based on projected use with a minimum expectation that two adults can walk side-by-side, or one user can pass another. Additional width is provided where the walking trail is also used for maintenance access.

Wood chips are used where desired for exercise loops or required by *33.515 Columbia South Shore Plan District* (based on the *Columbia South Shore Slough Trail Masterplan)*. Code requires Fibar (or engineered wood fiber equivalent) for accessible segment between I-205 and NE 122 Avenue and wood chips between NE 122 and 185 Avenues (to discourage bicycles). Wood chips should not be used where flooding is likely.

| | |
|---|---|
| Width | 6' - 12' |
| Surface | Engineered wood fiber or wood chips, gravel, a.c., concrete, pavers, wood or plastic lumber |
| Longitudinal Slope | 0 - 8% |
| Cross-Slope | 1% - 2% |
| Radius | Aesthetic consideration |
| Sight Distance | N/A except road crossings |
| Easement Width | Tread + 10' min. |
| Side Slope | Varies |
| Vertical Clearance | 8' |
| Horizontal Clearance | 1' from side of tread |

Trail Type D – Walking




Also see Trail Types B, C and M and Trail Details: 01-Cribbed Steps, 02-Timber Steps, 03-Boardwalk, 04-Wood Bridge, 05-Wood Bridge with Railing, 11-Soft Surface Switchback on Levee, 13-Signs, 14-Alignment Tread Crests, 15-Alignment Tread Dips

# Trail Type F – Biking

## DEFINITION

Biking trails have width, slope, cross-slope, and curve radii to enable one-way or two-way bicycle travel at various speeds. Bike lanes and bicycle boulevards are in right-of-way, subject to PBOT guidelines.

## USERS

Biking trails serve all cyclists, particularly those using road bikes. When there are no slower users, bicycle speed can be approximately 20 mph on flat trails and 30 mph on downgrade of 4%. Other higher speed wheeled users (scooters, skateboards, rollerbladers) use the bike portion of a dual (parallel, but separated) bike and walking trail system if their speeds are similar to cyclists. Motorized wheelchairs might use biking trails if they can match the speed of cyclists. Non-motorized or slower motorized wheelchairs would be more appropriate on adjacent walking paths.

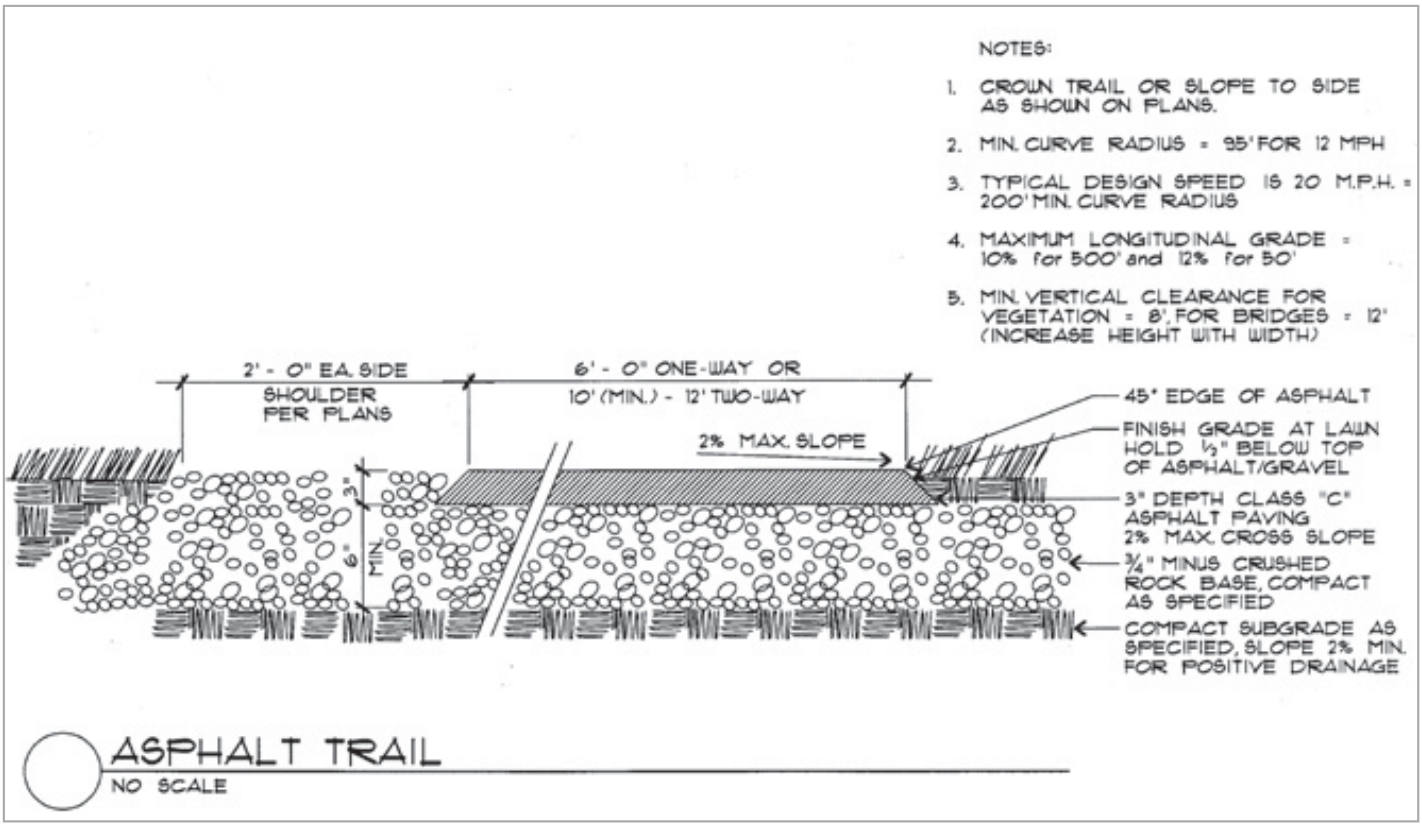
## MATERIALS

Biking trails are generally paved asphalt or concrete. Trail width is determined based on projected use. Constrained sites may mean that bicyclists travel single-file with no passing. Additional width is provided for passing or where the biking trail is used for two-way travel and/or maintenance access. The biking trail is also used in combination with walking trail to form a dual trail to separate slower speed 'feet' from higher speed 'wheels' in corridors of high density, as planned for the Willamette Greenway in South Waterfront. Some of the public perceives asphalt as too 'road-like' when new, but it weathers to less black color over time. Porous asphalt (Trail Detail 12) should be used where a more rough surface is acceptable and infiltration through trail is desired.

*Marine Drive Trail - looking west at Columbia River*

| | |
|---|---|
| Width | 6' one-way, 10' min. - 12' preferred two-way |
| Surface | Asphalt (porous or not), concrete |
| Longitudinal Slope | 0 - 3% (preferred) (to 5% if needed, up to 10% for 500', up to 12% for 50' and ramps) |
| Cross-Slope | 2% |
| Radius | Varies with design speed: 12 mph = 36'(95' preferred); 20 mph = 200' |
| Sight Distance | 150' |
| Easement Width | Tread + 10' or code requirement |
| Side Slope | Varies |
| Vertical Clearance | 8' (12' + under bridges) |
| Horizontal Clearance | 2' from side of tread |

Trail Type F – Biking




Also see Trail Types F and M and Trail Details: 12-Open-Graded Asphalt Trail and 13-Signs

# Trail Type J – Hiking & Mountain Biking

## DEFINITION

Shared hiking and biking trails have surface and slope for both mountain bike and hiker. Additional width allows side-by-side hiking or riding or room for on-coming or overtaking trail users. There are no barriers such as steps, rocks or roots although the natural surface may have some irregularities. The goal is to provide access to natural settings without adding paving.

## USERS

The hiking and biking trail requires moderate balance and fitness. Walkers, mountain bikers, and runners are desired users. Since this trail does not have the obstacles desired by expert riders, it is more suitable for beginning and less experienced mountain bikers. Wheelchairs (motorized or human-powered) and mobility scooters may be used, but the surface is not as reliably firm and slip-resistant as on a paved walking trail.

## MATERIALS

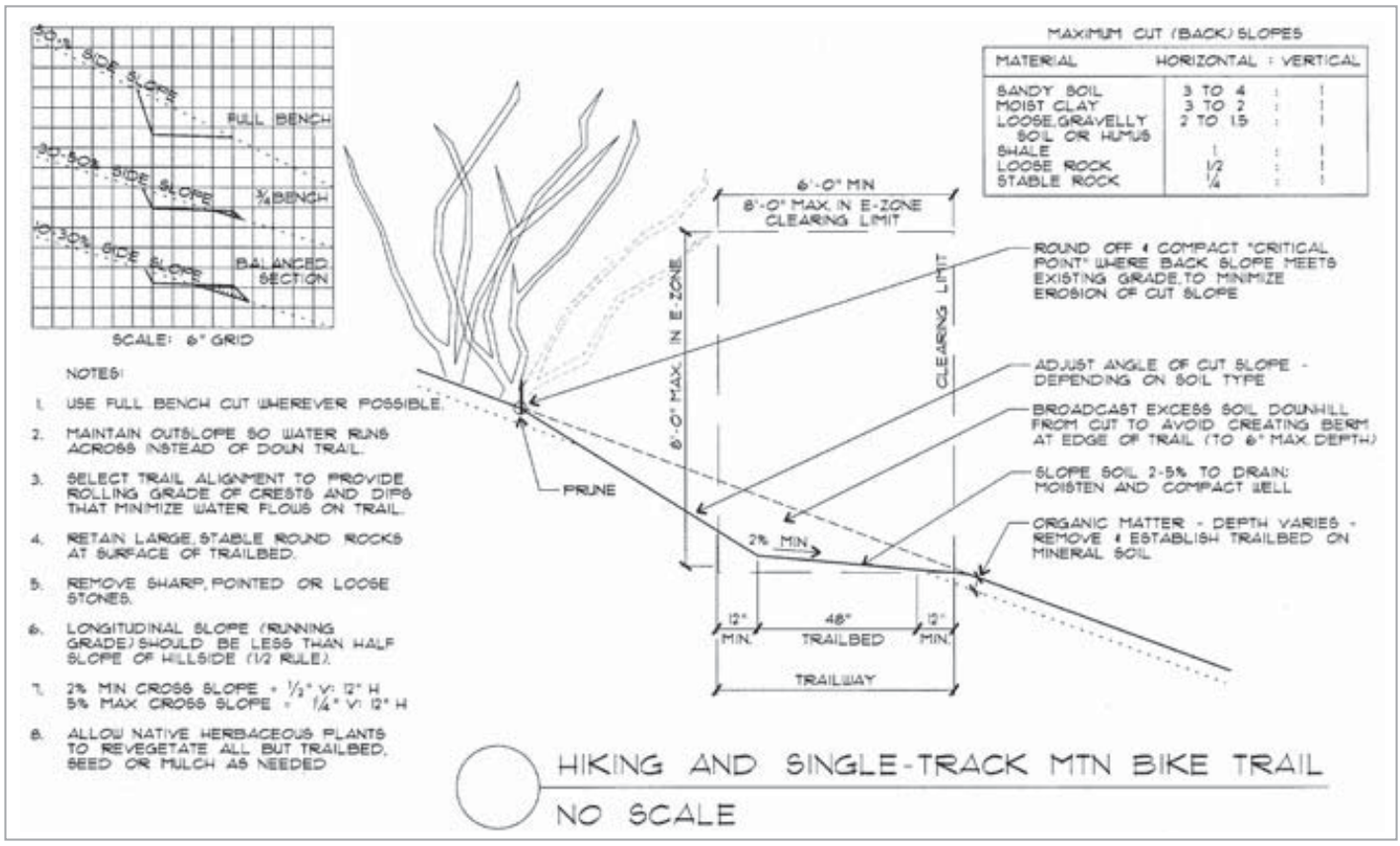
Native soil and rock are most common although crushed rock and boardwalks are used as needed. Curves may need to be superelevated (banked) and reinforced to resist soil displacement. Trail beds can also be armored with larger rocks in braking sections to reduce formation of brake bumps. Curve radii and sight lines should be adequate to serve two-way travel. Path width is minimized unless high use is expected or maintenance vehicle access is needed. Hand or guard railing may be added in some areas for safety. Seasonal trail closures to mountain bikes may be needed to prevent erosion.

*Pioneer Orchard Trail - one of the Powell Butte Nature Park trails reserved for biking and biking*

*Kelley Point Park - gravel trail*

| | |
|---|---|
| Width | 4’ (with passing areas) - 10’ |
| Surface | Soil, gravel |
| Longitudinal Slope | 0 - 5% (to 12% if needed) |
| Cross-Slope | 2% |
| Radius | 10’ min. |
| Sight Distance | 40 - 100’ depending on speed / flow |
| Easement Width | Tread + 10’ min. |
| Side Slope | Varies |
| Vertical Clearance | 8’ (avoids e-zone review) |
| Horizontal Clearance | 1’ from side of tread |

Trail Type J – Hiking & Biking




Also see Trail Type C and Trail Details: 03-Boardwalk, 04-Wood Bridge, 05-Wood Bridge with Railing, 08-Causeway, 13-Signs, 14-Alignment Tread Crests, 15-Alignment Tread Dips

# Trail Type L – Walking & Biking

## DEFINITION

Shared walking and biking trails are paved with asphalt or concrete and are generally fully accessible. They are often developed to connect parks and natural areas as part of the regional trail system. These multi-modal, multi-use paths (MUPs) have width, slope, cross-slope, and curve radii to enable two-way pedestrian and bicycle travel at various speeds.

## USERS

Walking and biking trails serve the greatest diversity of users: pedestrians, including those with fitness and balance limitations; cyclists, particularly those using road bikes; scooters; skateboards; rollerbladers; wheelchairs; and electronic mobility devices used by persons who need assistance to be mobile. People of all ages walk, run, ride, and roll to enjoy the environment, socialize, exercise, and access other parts of the community. Since user speeds can vary substantially, this trail type requires extra courtesy in sharing the trail.

Many existing park trail systems were not designed for bicycles, although cyclists often ride to parks and young riders may come to develop bicycling skills in the park. If a city bikeway is allowed to connect to existing park paths, it is important that commuting cyclists slow down. In some sites, park character, sight distance, trail width or pre-existing uses (playgrounds, playing fields, natural resource protection, off-leash dog areas) may be negatively impacted and the bikeway system should not connect to park trails. In other sites, adding new bike trails or widening existing walking trail may be needed.

## MATERIALS

Walking and biking trails are generally paved asphalt or concrete. Trail width is based on projected use with a minimum expectation that two adults can walk side-by-side, or that a runner or cyclist can pass a walker.

*Marine Drive Trail*

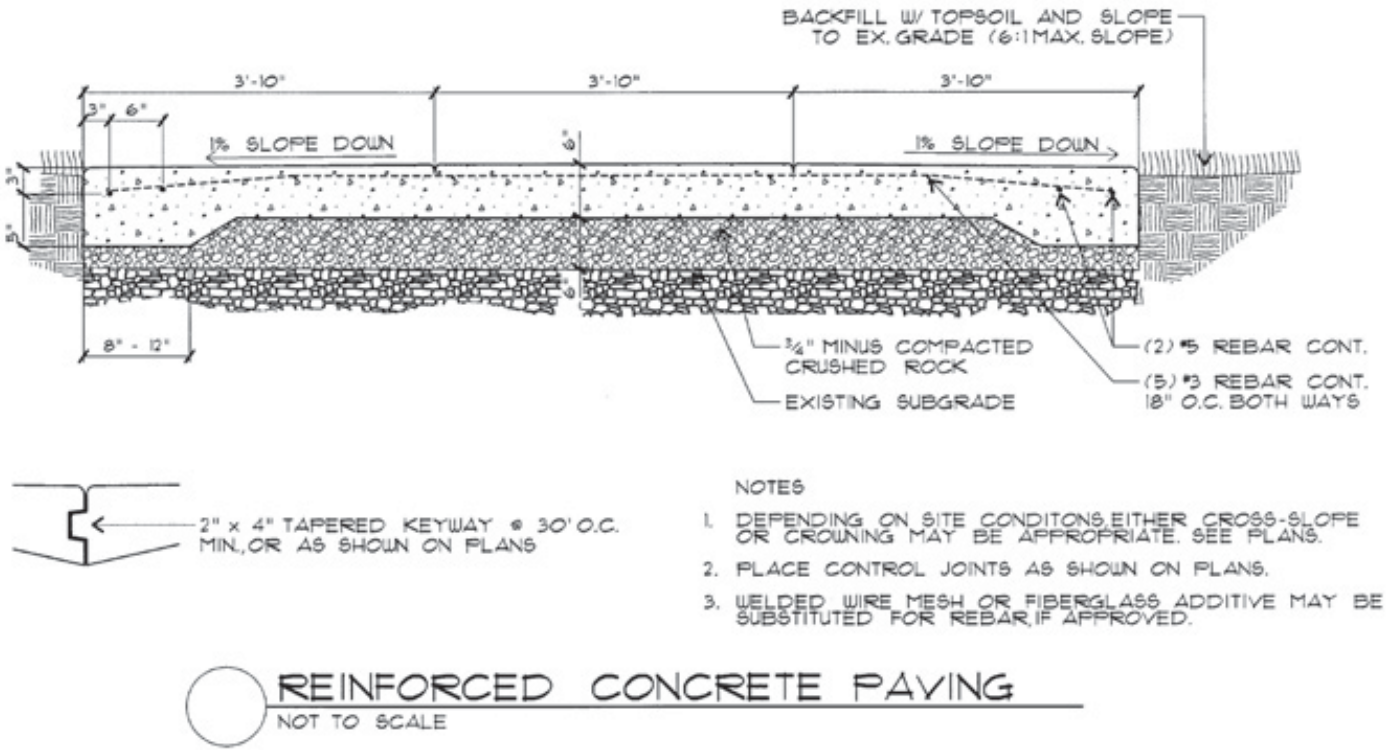
*NW Willamette Greenway at Riverscape*

Additional width is provided where the walking and biking trail is also used for maintenance access.

Sidewalks, bike lanes, and bicycle boulevards are in right-of-way, subject to PBOT guidelines (*Portland Pedestrian Design Guide* and City Engineer review). In some locations, PBOT has allowed trails in the park and away from the curb in order to improve the walking and cycling environment. These trails still need curb ramps and connections to sidewalks or road crossings in order to connect to the adjoining sidewalk and bikeway system.

| | |
|---|---|
| Width | 8' - 25' (Willamette Greenway esplanade) (prefer 10 - 12' for maintenance vehicles) |
| Surface | Gravel, asphalt, concrete |
| Longitudinal Slope | 0 - 3% (to 5% if needed, 8% max.) |
| Cross-Slope | 1% |
| Radius | Varies with design speed: prefer 12mph speed = 95'; 20 mph = 200' (if pedestrians use allows) |
| Sight Distance | 150' |
| Easement Width | Tread + 10' min. or code requirement |
| Side Slope | Varies |
| Vertical Clearance | 8' min (12' + under bridges) |
| Horizontal Clearance | 1' from side of tread |

Trail Type L – Walking & Biking




Also see Trail Types C, F and M and Trail Details: 03-Boardwalk, 04-Wood Bridge, 05-Wood Bridge with Railing, 07-Trail with Swale & Culvert, 08-Causeway, 09-Trail with Infiltration Trench, 10-Trail on Levee, 11-Soft-Surface Switchback on Levee, 13-Signs

# Appendix F: Design Guidelines Template

Creating design guidelines for Chatham's historic district would be a profitable endeavor and possible next step as Town Council considers the idea of adopting a local historic district, creating a corresponding ordinance, and forming a historic design review panel. Design guidelines should provide "clear and objective recommendations for the preservation, restoration or rehabilitation of structures, as well as for new construction on vacant parcels or additions to existing buildings" within Chatham's historic district (Handbook & Design Guidelines, Old & Historic Districts of Richmond, VA, p. 1).

The following is a potential template that can be used in creating design guidelines for the Town of Chatham. While the specific content for each section is not provided, the template outlines what information could be gathered or developed for the design guidelines.

## *Design Guidelines Template for Chatham, Virginia*

### Section 1: Introduction

- 1.1 Design Guidelines and the Comprehensive Plan
- 1.2 Virginia Code 15.2
- 1.3 Architectural Review Board
  - 1.3.1 Advisory Design Review
  - 1.3.2 Mandatory Design Review
  - 1.3.3 Process Overview

### Section 2: Background

- 2.1 History of Chatham (brief overview)
  - 2.1.1 Started (date)
  - 2.1.2 Surrounding towns
  - 2.1.3 Development of town -> streets
  - 2.1.4 Characteristics & Identity
    - 2.1.4.1 Farmland
    - 2.1.4.2 Highway corridor/strip development
    - 2.1.4.3 Suburban neighborhood
    - 2.1.4.4 River edge/Forest
    - 2.1.4.5 Traditional neighborhood
    - 2.1.4.6 Downtown
    - 2.1.4.7 Walking loop
    - 2.1.4.8 Train depot
    - 2.1.4.9 Historic buildings/locations
- 2.2 Evolution of Chatham's Form (architectural)
  - 2.2.1 Context
    - 2.2.2.1 Map
    - 2.2.2.2 Location
  - 2.2.2 Timeline of development

2.2.3 Characteristics and features
2.2.3.1 Map with character areas
2.2.3.2 Character board images
2.3 Architectural styles
2.3.1 Federal
2.3.2 Greek Revival
2.3.3 Gothic Revival
2.3.4 Italian Style
2.3.5 Romanesque
2.3.6 Queen Anne
2.3.7 Princess Anne
2.3.8 Neo-Colonial
2.4 Downtown Chatham
2.4.1 Context
2.4.1.1 Map
2.4.1.2 Location
2.4.2 Description of downtown- characteristics and features
2.4.3 Platting Main Street
2.4.3.1 Layout
2.4.3.2 Lots
2.4.4 Main Street buildings
2.4.4.1 Relative dimensions
2.4.4.2 Basic style
2.4.4.3 Construction materials
2.4.4.3.1 Wood Frame Construction
- Characteristics
- Modifications
2.4.4.3.2 Brick Construction
- Types of brick
- Modifications
2.4.5 Streetscape
2.451 Landscape
2.452 Sidewalks
2.4.6 Social life of downtown Chatham today
2.4.6.1 Events
2.4.6.2 Activities
2.4.6.3 Social groups
2.4.7 Current Conditions
2.4.7.1 Current commercial outlets downtown
2.4.7.2 Table of property ownership
2.4.7.3 Primary resources of commercial district
2.4.7.3.1 Pedestrian scale
2.4.7.3.2 Historic structures
2.4.7.3.3 Historic sites
2.4.7.3.4 Events
2.4.7.3.5 Resource vulnerability
- Continued loss of historic architecture
- Loss of historic sites
- Decline of commercial services

- Disappearance of unique community settlement patterns
- A decline/loss of community and neighborhood identity
- Deterioration and loss of recreation/community facilities

## Section 3: Design Guidelines

3.1 Introduction
- 3.1.1 Necessity of guidelines
- 3.1.2 Intentions

3.2 What Design Guidelines Can and Cannot do for Chatham

3.3 Design Goals

3.3.1 Safeguard the heritage of the town of Chatham by preserving sites and structures which reflect elements of the town's cultural, social, economic, political, archaeological history or architectural history.

3.3.2 Stabilize and improve property values.

3.3.3 Protect and enhance the town's attractions to residents, tourists and visitors, and to serve as a support and stimulus to business and industry.

3.3.4 Enhance the visual and aesthetic character, diversity and interest of the town of Chatham.

3.3.5 Foster civic pride in the beauty and notable accomplishments of the past.

3.3.6 Promote the use and preservation of historic and archaeological sites and structures for the education and general welfare of the people of the Town of Chatham to strengthen the economy of the town of Chatham.

3.3.7 Take whatever steps as may be necessary to safeguard the property rights of the owners whose property is declared to be a landmark or is located in the area designated as a Chatham Landmark District, and act in an advisory role to Architectural Review Boar and Planning Commission and to other officials and departments of Chatham's governmental system.

3.4 Construction and Rehabilitation of Built Form

3.5 Guidelines for Rehabilitation (Secretary of Interiors Standards)

## Section 4: Chatham Historic District Design Guidelines

4.1 Streetfront Façades and Storefront
- 4.1.1 Typical building façade components
- 4.1.2 Relative to overall Architectural Character
- 4.1.3 Relative to Materials
- 4.1.4 Relative to Scale
- 4.1.5 Relative to Building Components

4.2 Doors and Entrances

4.3 Roofs, Gutters, and Downspouts

4.4 Cornices and Parapets

4.5 Upper Floors/Windows

4.6 Canopies and Awnings

4.7 Side and Rear Elevations

4.8 Signage

4.9 Access for People with Disabilities

## Section 5: Guidelines for New Construction

5.1 Relationship to Street

5.2 Height

5.3 Width and proportion

5.4 Roof Forms

5.5 Solids and Voids Within a Façade
5.6 Street Level Vitality
5.7 Mixed Land Uses
5.8 Architectural Details
5.9 Materials and Textures
5.10 Color
5.11 Signage
5.12 Awnings

**Section 6: Guidelines for Streetscape Elements**

6.1 Street Paving
6.2 Pedestrian Walks and Curbs
6.3 Street Trees and Planting
6.4 Lighting
6.5 Street Furniture
6.6 Utilities
6.7 Public Signs
6.8 Parking

**Section 7: Financial Incentives**

7.1 Introduction
7.2 Sources of Initial Cost Funding
7.3 Loan Pools
7.4 Revolving Loan Funds
7.5 Tax Credits

**Section 8: The Main Street Approach**

8.1 Problems that lead/led to neglect of small towns
8.2 Main Street approach- Established by National Trust for Historic Preservation
8.2.1 Organization
8.2.2 Promotion
8.2.3 Economic restructuring
8.2.4 Design

**Section 9: Conclusion & Bibliography**

# Appendix G: Historic Review Board Comparison

The Town of Blacksburg conducted a comparative study of five historic districts in Virginia: Abingdon, Blacksburg, Lynchburg, Roanoke, and Staunton. The study asks the following questions:

- What is the historic district and how large is it?
- What building efforts in the historic district are subject to review?
- What building efforts in the historic district are not subject to review?
- What principles should guide all constructions and repairs in the historic district?
- What are the different kinds of ways in which an applicant can get a Certificate of Appropriateness?
- What decisions are binding, and what decisions are not?
- What is the process for decisions being made?
- What is the thought process behind relocation and demolition?

Tables with answers to these questions for each of the aforementioned communities can be found on the following pages. This information may prove useful to the Town of Chatham as they consider forming anhistoric design review board.

| TOWN OF ABINGDON HISTORIC DISTRICT | |
|---|---|
| What is the Abingdon Historic District, and how large is it? | The Abingdon Historic District is called the Old and Historic District, and it is a 20 block area. It contains hotels, museums, and other landmarks which date back to and document pre-Civil war history |
| What building efforts in the Abingdon Historic District are subject to review? | Nothing in the Abingdon Historic District may be demolished or relocated, nor can external appearances be changed (like roofs, chimneys, fences, and color changes), nor can any building be erected, constructed, reconstructed, altered, or restored without a Certificate of Appropriateness. Architectural Style, Building Materials, Color, Landscaping, and all other aesthetic considerations will be under review |
| What building efforts in the Abingdon Historic District are not subject to review? | The Zoning Administrator for Abingdon may decide that certain minor actions and restorations have no effect on the districts character and may give the party wishing to cause the change a written waiver. Mainly, this will consist of interior changes and routine maintenance that would not have a large effect on the historical district. If the administrator does not grant a waiver, an appeal can be made to the Review Board |
| What principles should guide all constructions and repairs in the Abingdon Historic District? | Similar to Blacksburg, there is a great concern in Abingdon for maintaining the historic nature of the two districts. For this reason, demolition/relocation is frowned upon as an absolute last option, and it is absolutely necessary for any changes to be approved that they don't conflict with the district aesthetic. |
| What are the different kinds of ways in which an applicant can get a Certificate of Approval? | If the administrator grants a waiver, then the applicant may proceed with their minor restoration. In cases where this does not occur, the only way to get a Certificate of Approval is to meet the Review Board |
| What decisions are binding, and what decisions aren't? | All decisions made by a majority of the Review Board (which requires 3 out of 5 votes) are binding; however, either an applicant upset at a negative verdict or another party upset at a positive verdict may appeal to the Town Council |
| What is the process for decisions being made? | The applicant submits the application provided by the administrator along with supporting materials. If the request is to erect a new structure, the applicant must include scale drawings depicting the new structure and how it would relate to the district. Photographs may also be requested by the review board, which may also ask the applicant to alter some aspect of the application before considering it. Unlike Blacksburg and Roanoke, the Abingdon Review Board meets irregularly (at minimum 4 times a year, and within 30 days of receiving an application). Prior to the meeting, other parties involved (such as neighbors) will be notified as well in case their perspective is important. Decisions of the Review Board will be rendered at maximum 14 days after the hearing. If affirmative, the applicant is given a Certificate of Approval (if the COA is not used within a year, it is voided). If either the applicant or the other parties are unhappy, they may appeal to the Town Council. If the Town Council's decisions is also met with displeasure, the unhappy party may appeal to the Circuit Court. |
| What is the thought process behind relocation and demolition? | Like other processes in Abingdon, demolition/relocation must be approved by the Review Board. The board may require post-demolition/post-moving plans for the affected site. If the applicant is rejected, they may appeal to the Town Council as normal. Additionally, however, the applicant may proceed with their plans to demolish/relocate if they apply to the Town Council for the ability to do so. After this occurs, the property is for sale at a fair market value for one year and can be bought by the town or other individuals. If after a year no one has purchased, the individual may proceed with demolition. |

| TOWN OF BLACKSBURG HISTORIC DISTRICT | |
|---|---|
| What is the Blacksburg Historic District, and how large is it? | The Blacksburg Historic District is composed of the original 16 squares of 38 acres plus surrounding areas. |
| What building efforts in the Blacksburg Historic District are subject to review? | Most major building efforts are subject to review in the Blacksburg Historic District. Construction, Reconstruction, Alteration, Restoration, or Erection of any building or structure within the district requires review by the Historic or Design Review Board (HDRB). More minor changes to the district, such as exterior alterations for noncontributing structures (fences, decks, side/rear stairs, stoops/porches) or windows/doors where different material is to be used, will be reviewed by town staff. |
| What building efforts in the Blacksburg Historic District are not subject to review? | Painting, Minor Repairs, Roofs, Windows, Doors, Fences, Other Property Features where no change in design/material used. Planting grass/trees/ shrubs. All of this is conditional on the fact that the new aesthetic matches up with the already existing aesthetic of the Historic District. Additionally, all interior alterations are exempt from any sort of review. |
| What principles should guide all constructions and repairs in the Blacksburg Historic District? | Of most importance is that all exterior alterations (both to the buildings and the property surrounding them) should reinforce and conserve the aesthetic of the district. Innovative new architectural ideas that still respects and pays homage to the district's tradition can also be acceptable. The wholeness of the district must be maintained, so all new changes must be compatible with the already existing scheme of things. |
| What are the different kinds of ways in which an applicant can get a permit? | There are two different ways in which an applicant may receive a permit. The first way is to decide whether or not it is a project that can be handled by town staff under Administrative Review (for more minor changes). In that case, the staff simply makes a decision. For more major changes, the applicant must come before the Historic or Design Review Board and argue their case. After meeting before the HDRB, the town staff gives the applicant a permit |
| What decisions are binding, and what decisions aren't? | Only decisions having to do with Demolition or Relocation are binding; other decisions made by town staff or the Review Board are only advisory in nature |
| What is the process for decisions being made? | The applicant submits an application of their project along with any contributing materials, such as photographs or descriptions of the property which might help the Review Board or Town Staff make a decision, such as site context photos, site plans, and building elements. Then, a decision is made about whether Administrative Review or a review from the HDRB is needed. If Administrative Review is chosen, the staff decides. If a decision from the Review Board is needed, the request is placed on the agenda for the next meeting of the HDRB. If the applicant so chooses, they may meet informally with members of the board to get a sense for what the meeting will entail. At the meeting the applicant and any other concerned citizens potentially affected by the change meet and plead their case to the board. The review board then makes a decision. If the board approves of the project, the applicant gets a permit issued by the Town Staff. If the board does not approve and the decision is advisory in nature, the applicant may go ahead with his plan or may decide to heed the board's wishes. Either way, the applicant gets a permit. |

| TOWN OF BLACKSBURG HISTORIC DISTRICT cont. | |
|---|---|
| What is the thought process behind relocation and demolition? | Relocation involves moving the property out of the historic district, while Demolition simply demolishes the property. Both are not desirable, and should be used only as a last resort when all else fails. They cannot be undertaken without plans to redevelop the area in the district where the property once was. Decisions about these types of projects are the only matters are the only mandatory ones the Review Board makes, and an unsatisfied applicant who has not received permission can appeal to the town council. If the town council does not grant their request, the applicant must attempt to sell the property. If they are unable to do so in a given period of time (one year at "fair market value"), they may proceed with the demolition/relocation. |

| CITY OF LYNCHBURG HISTORIC DISTRICT | |
|---|---|
| What is the Lynchburg Historic District, and how large is it? | The Lynchburg Historic District is different than many in that it actually consists of many different landmarks, buildings, and structures, both residential and non-residential. It is also interesting to note that groups of citizens may petition the Historic Preservation Committee (HPC) and ask them to designate a certain landmark, building, or structure as “historic” in this sense. |
| What building efforts in the Lynchburg Historic District are subject to review? | No building or structure (including signs), may be erected, restored, demolished, or altered in any way which affects the external appearance of the building in the historic district. This includes roofs, chimneys, fences, and color changes without being issued a Certificate of Appropriateness (a COA) from the HPC (in most cases) the HPC secretary (in minor cases) or the City Council (through appeal). |
| What building efforts in the Lynchburg Historic District are not subject to review? | Only minor changes do not need to be reviewed by the HPC. These changes include repainting resulting in a color scheme that is either the same as before or one that is acceptable according to previous HPC approval, addition or deletion of storm windows and doors, window gardens, awnings, temporary canopies, television antennas, satellite dishes, or skylights. All of these, however, may be reviewed by the HPC secretary, and forwarded to the HPC itself in certain cases. |
| What principles should guide all constructions and repairs in the Lynchburg Historic District? | Similar to Blacksburg, there is a great concern in Lynchburg for maintaining the historic nature of the two districts. For this reason, demolition/relocation is frowned upon as an absolute last option, and it is absolutely necessary for any changes to be approved that they don’t conflict with the district aesthetic. |
| What are the different kinds of ways in which an applicant can get a Certificate of Appropriateness? | For minor changes, one may proceed with approval simply from the HPC secretary. In all cases other than those listed, the applicant must get approval by the HPC. |
| What decisions are binding, and what decisions aren’t? | All decisions are binding. However, appeals can be made to the City Council, and in the case of demolitions and relocations, a special rule applies |
| What is the process for decisions being made? | The applicant submits an application of their project to the HPC along with Legible photographs of all sides of a structure to be reviewed for repair, alteration, or additions, and potentially preliminary drawings and outline specifications, including color samples and photographs. The seven member HPC will meet within 30 days of receiving the application, and the applicant will be allowed to come to the meeting and speak. Then, a decision will be reached within 30 days of that. If the applicant is given a COA, they may proceed (the COA being valid for six months). If the applicant is not given a COA and is dissatisfied, they may file an appeal within 15 days to the City Council and have their case heard there. If they City Council rejects their proposal, they may appeal to the Circuit Court. |

| | CITY OF LYNCHBURG HISTORIC DISTRICT cont. |
|---|---|
| What is the thought process behind relocation and demolition? | The policy for Demolition and Relocation is similar to that utilized by Blacksburg and Abingdon. If the owner of the property has applied to the City Council for the right to demolish/relocate their property and has not received a COA, they put their property on the market for a period of time proportional to the value of the property. Three months when the offering price is less than twenty-five thousand dollars ($25,000); four months when the offering price is twenty-five thousand dollars ($25,000) or more but less than forty thousand dollars ($40,000); five months when the offering price is forty thousand dollars ($40,000) or more but less than fifty-five thousand dollars ($55,000); six months when the offering price is fifty-five thousand dollars ($55,000) or more but less than seventy-five thousand dollars ($75,000); seven months when the offering price is seventy-five thousand dollars ($75,000) or more but less than ninety thousand dollars ($90,000); and twelve months when the offering price is ninety thousand dollars ($90,000) or more. If no deal has been made and the property has not been repurchased during this period of time, the owner may proceed with their demolition/relocation project. As with elsewhere, however, it is of course a last resort. |

| CITY OF ROANOKE HISTORIC DISTRICT | |
|---|---|
| What is the Roanoke Historic District, and how large is it? | There are actually two different historic district areas in Roanoke. The H-1 District exists in downtown Roanoke and consists of The City Market and Warehouse Historic Districts. This is the one that is likely most similar to Blacksburg's. The H-2 district, one of the largest historic districts in Virginia, spans four of Roanoke's neighborhoods and consists mainly of residential buildings. |
| What building efforts in the Roanoke Historic Districts are subject to review? | In the H-1 District, three types of generalized activities exist which require review: Preservation (repair, maintenance, etc.), Rehabilitation (accommodating change), and New Construction (must be in keeping with the already existing buildings). More specifically, all exterior changes to existing buildings, painting buildings a new color, new buildings/structures (including fences, awnings, signs, light fixtures, parking lots), additions to buildings, and demolition/relocation of structures<br><br>In the H-2 District, any major changes to the property that might change the overall aesthetic of the building, any new construction, and any attempt to demolish/relocate property must get approval.<br><br>For both districts, more minor changes, as determined by the town staff, will be reviewed not by the Architectural Review Board (ARB) but by the staff. |
| What building efforts in the Roanoke Historic Districts are not subject to review? | This is the same for both the H-1 and H-2 districts in Roanoke. Under Roanoke guidelines, there is an alternative to getting a Certificate of Appropriateness. Repair and replacement of materials in kind (like replacing wooden floorboards with other wood of the same type/color) do not require a certificate. However, unlike in Blacksburg (where to my understanding someone in such a situation may simply proceed), an In-Kind Replacement and Repair application must be filled out. |
| What principles should guide all constructions and repairs in the Roanoke Historic District? | Similar to Blacksburg, there is a great concern in Roanoke for maintaining the historic nature of the two districts. For this reason, demolition/relocation is frowned upon as an absolute last option, and it is absolutely necessary for any changes to be approved that they don't conflict with the district aesthetic. |
| What are the different kinds of ways in which an applicant can get a Certificate of Approval? | There are two different ways in which an applicant may receive a permit, as in Roanoke. If the city staff designates the construction as "minor", then the staff can review the project and provide a yes or no answer in 5-10 days. If the project needs to be seen by the ARB, then the request will be discussed at the next meeting of the ARB (which occurs monthly). The ARB has seven members and the applicant needs four votes to get a COA. |
| What decisions are binding, and what decisions aren't? | Unlike Blacksburg, a majority vote on from the ARB is needed in order for a person to proceed with their project, regardless of its nature |

| CITY OF ROANOKE HISTORIC DISTRICT cont. | |
|---|---|
| What is the process for decisions being made? | The applicant submits an application of their request along with the following contributing materials: a drawing of the construction to be undertaken, photographs of the property, an intended design, dimensions, materials, and placement. Then, a decision is made about whether the staff can decide or a decision from the ARB is needed. If the staff makes a decision, the applicant will hear back in writing in 5-10 days If a decision from the ARB is needed, the request is placed on the agenda for the next meeting of the ARB. If the applicant so chooses, they may meet informally with members of the board to get a sense for what the meeting will entail (this is recommended as a trait of most successful applicants). At the meeting the applicant and any other concerned citizens potentially affected by the change meet and plead their case to the board. The review board then makes a decision. If the board approves of the project, the applicant gets a COA. If not, the applicant may appeal to the city council. In other words, the process is very similar to the process used in Blacksburg. |
| What is the thought process behind relocation and demolition? | Relocation involves moving the property out of the historic district, while Demolition simply destroys the property. Both are not desirable, and should be applied for only as a last resort when all else fails. The ARB makes sure that the demolition/relocation is in accordance with the district, and the lack of the building will not adversely affect the character of the district. If the board decides the demolition/relocation is unwarranted, it will not approve it. Unlike Blacksburg, where demolition/relocation is a special case (The only mandatory case), it is simply another matter to be voted on by the ARB in Roanoke |

| CITY OF STAUNTON HISTORIC DISTRICT | |
|---|---|
| What is the Staunton Historic District, and how large is it? | The city of Staunton, in regards to historic districts, actually has five separate National Register Historic Districts which are protected by the ordinance. The properties within the district span from Greek Revival era to Folk Victorian and Colonial Revival. |
| What building efforts in the Staunton Historic District are subject to review? | Any alterations, additions, new constructions, demolition, or relocation requires review by the Historic Preservation Commission (HRC). Significant changes like fences, walls, driveways, parking areas, or other new outbuildings also require view. All work on new buildings and revision of old buildings like new paint schemes, roofing, and materials used in building must be approved and match the pre-existing aesthetic. Staunton specifies that even in instances where a building permit would not be needed in the historic districts, a Certificate of Appropriateness may still be required. |
| What building efforts in the Staunton Historic District are not subject to review? | Minor actions like painting (providing that the painting is not a new color that goes against the aesthetic of the district) and average, small repairs and maintenance in the existing style of the district do not require review by the HRC. However, these projects may independently require building permits |
| What principles should guide all constructions and repairs in the Staunton Historic District? | Similar to Blacksburg, there is a great concern in Staunton for maintaining the historic nature of the two districts. For this reason, demolition/relocation is frowned upon as an absolute last option, and it is absolutely necessary for any changes to be approved that they don't conflict with the district aesthetic. |
| What are the different kinds of ways in which an applicant can get a Certificate of Appropriateness? | If the project is something small like listed above, there isn't any need to apply for a COA. Otherwise, every project must be reviewed by the HRC… there is no staff review. |
| What decisions are binding, and what decisions aren't? | All decisions made by the HRC are binding. Approval from them is the only way to get a Certificate of Appropriateness, which is necessary to proceed with the project |
| What is the process for decisions being made? | The applicant fills out the application provided by the Staunton Planning Department. After receiving the application, the application is discussed at the next public meeting (held once a month). The property owner, as well as other citizens, may explain plans, answer questions, or express concerns here. The applicant may be required, in addition to filling out the application, provide photographs, drawings, or plans, at the request of the HRC. Then a decision is made by a majority of the five members of the HRC which vote. Approval or rejection must be reached within 10 days so as not to inconvenience the applicant. If a Certificate of Appropriateness is rendered, the applicant may proceed with their project (a COA is valid for 12 months). |
| What is the thought process behind relocation and demolition? | Staunton claims that demolition/relocation follow the same rules as all other projects requiring approval by the HRC. There is no special set of rules for this type of project |

# Appendix H: Model Ordinances

Within Appendix H, there are sample outlines for a Historic District Ordinance, Board of Architectural Review Ordinance, Historic District Permit Ordinance, and Historic District Sign Ordinance. The outline headings are from the ordinances in Leesburg, VA, while examples of verbiage are included from Leesburg, VA (Blue); Altavista, VA (Red); and Front Royal, VA (Green). While these model ordinances are a great reference, any ordinance drafted for the Town of Chatham should take into consideration the needs and goals specific to Chatham's Historical Preservation and Architectural Design Control Overlay District.

## *Sample Historic District Ordinance Outline*

**I. Description**

The purpose of these H-1 Overlay District regulations is to carry out the *Town Plan* goal of protecting the Old and Historic District and individual historic landmarks, not only for their own value as community resources, but also because of their contribution to the town's unique character; to encourage the protective maintenance of historic structures; to protect, enhance and perpetuate such buildings, structures, and landscape features which represent elements of the town's cultural, social, economic, political and architectural history; to stabilize and improve property values; to foster civic pride in the town's past; to protect and enhance the town's attractions to tourists and visitors and the support and stimulus to business and industry thereby provided; to strengthen the economy of the town; and to promote the use of historic districts and historic resources for the education, pleasure and welfare of the people of the town.

(a) The DR-O, Downtown Revitalization Overlay District (hereinafter referred to as "the district") seeks to fulfill the comprehensive plan's goal of recognizing Altavista's unique character and promoting the revitalization of the town's downtown area, as well as promoting tourism as a viable economic development strategy. The district regulations are adopted pursuant to authority granted to the town under Code of Virginia §§ 15.2-2280 et seq. and 15.2-2306.

(b) The district is established to promote the health, safety and general welfare; to bring harmony and cohesiveness to the visual appearance and uses of the district; to protect and promote compatibility in the appearance, character and uses; and to prevent intense automobile-oriented uses within the district.

(c) The area contained within the district has recently been designated by the Governor as a Virginia Main Street Community. The district has been established to support and complement the town's designation as a Virginia Main Street Community by the Virginia Department of Housing and Community Development in 2007. The purpose of the Virginia Main Street designation is to encourage and enable the revitalization and preservation of Virginia's historic downtown districts. The district is supported by the town's comprehensive plan (adopted September 9, 2003), particularly by objectives 3 and 6 of chapter 4. The portions of Main Street (U.S. 29 Business), Bedford Avenue (State Route 43), Broad Street, and Seventh Street that lie within the district serve as key access routes by tourists traveling through the district en route to the Central Business District, English Park and the Staunton River, Leesville Lake, the Altavista Trade Lot, and to the Historic Avoca Museum.

(d) Main Street and contiguous streets are significant routes of tourist access to the town and the core components of the town's rehabilitation, redevelopment, and economic revitalization of the town.

(e) The district is intended to promote architecturally responsible commercial development; to emphasize historic development techniques; to reduce vacant, dilapidated, and empty lots in the district; to encourage designs that integrate the relationship between individual sites, multiple modes of transportation, and adjacent areas; and to promote the district as an appealing and vibrant commercial hub of the town.

A. The intent of this Article is to promote and protect the health, safety, comfort, recreation, prosperity and general welfare of the community through the identification, preservation and enhancement of buildings, structures, neighborhoods, landscapes, places and areas which have special historical, cultural, artistic, architectural or archaeological significance as provided by Section 15.1-503.2 of the Code of Virginia, as amended.

B. It is hereby recognized that the deterioration, destruction or alteration of said buildings, structures, places and areas may cause the permanent loss of unique resources which are of great value to the people of Front Royal, Warren County, the State of Virginia and the nation and that the special controls and incentives are warranted to ensure that such losses are avoided when possible.

C. The purposes of establishing historic resource overlay areas are:

1. To preserve and improve the quality of life for residents of the Town of Front Royal by protecting familiar and treasured visual elements in the area.

2. To promote tourism by protecting historical and cultural resources attractive to visitors and thereby supporting local business and industry.

3. To stabilize and improve property values by providing incentive for the upkeep and rehabilitation of older structures and by encouraging desirable uses and forms of economic development.

4. To educate residents on the local cultural and historic heritage as embodied in the Historic District Overlay Areas and to foster a sense of pride in this heritage.

5. To promote local historic preservation efforts and to encourage the identification and nomination of qualified historic properties to the National Register of Historic Places and the Virginia Landmarks Register.

6. To prevent the encroachment of additions or new buildings and structures that are architecturally incongruous with their environs within areas of architectural harmony and historic character.

## II. Applicability

These regulations shall apply to the H-1 Overlay District established by the Town Council in 1963 and to all areas or places designated by the Town Council as historic districts or landmarks. The restrictions and requirements of this section shall be in addition to other restrictions and requirements provided in this Zoning Ordinance.

## III. Created and Established

*A historic conservation district is hereby created within the town as an overlay on the Official Zoning Map under authority of Section 15.2-2306 of the Code of Virginia, 1950 as amended, to be known as the H-1, Old and Historic Overlay District which includes the original boundaries shown on a map designated "Gray's New*

*Map of Leesburg" drawn from the special surveys in the year 1878 as hereby amended and described as follows:*

*Beginning on the east at the intersection of Loudoun and Market Streets and running northeast parallel to Church Street to the intersection of a line in projection of North Street; thence northwest in a straight line to and along North Street to the intersection of Church Street; thence northeast in a straight line parallel to King Street to the intersection of a line in projection of Union Street; thence in a straight line northwest to and along Union Street to the intersection of a line in extension of Liberty Street; thence southwest in a straight line to the intersection of Liberty and North Streets; thence northwest in a straight line in extension of North Street until intersecting a line in projection of Ayr Street; thence southwest to and along Ayr Street to a point on the east right-of-way of Dry Mill Road; thence right along the curb of said right-of-way having a radius of 225.43 feet to the center of the Town Branch; thence along the Town Branch S 41o 10' 41" E to the projection of Ayr Street, thence southwest along the projection of Ayr Street 100 feet; thence in a straight line in extension of South Street southeast to Town Branch; thence S 36o 10' 42" E along Town Branch to the Washington and Old Dominion Trail; thence paralleling the trail and Town Branch 594.12 feet along a curve to the right having a radius of 3646.36 feet to the extension of the western right-of-way of Liberty Street; thence N 22o 45' 00" E to the intersection of a projection of South Street; thence in a straight line in extension of South Street southeast to a point 200 feet west of King Street, still on an extension of South Street; thence in a straight line southwest parallel to King Street to a point 500 feet south of the railroad; thence east across King Street in a straight line parallel to South Street for 1700 feet; thence northeast in a straight line parallel to King Street to the intersection of Loudoun and Market Streets, to also include properties at 406 through 418 South King Street and 420, 422, 423, 424 and 426 through 432 South King Street; 216 and 226 Edwards Ferry Road ; 305 through 430 West Market Street; 6 Wilson Avenue, N.W., 10, 14, 18 and 102 Morven Park Road, N.W. and 9 and 21 Ayr Street, N.W. and 302-334 Loudoun Street, S.W. (inclusive of even numbered addresses only), 106 Morven Park Road, N.W., 380 Rock Spring Drive, S.W., 329 Loudoun Street, S.W., the 8.05-acre Allman tract on South King Street, Dodona Manor at 217 Edwards Ferry Road, N.E., and the 16.24-acre Paxton Property (Carlheim) at 420 Wildman Street, N.E.*

(a) To enable the district to operate in harmony with the plan for land use and population density embodied in these regulations, an overlay district, the DR-O district, has been created to provide special regulations that are to be in addition to, and shall overlap and overlay all other districts regulations contained in the zoning ordinance (the "ordinance").

(b) The boundaries of the district have been drawn and adopted by the town council to include all lands closely related to and bearing upon the character and function of the downtown area, thus composing a landscape unit and affording transitional regulations needed to control potentially adverse and conflicting uses and structures.

(c) The district boundaries shall be delineated as an overlay district on the zoning map or a separate Downtown Revitalization Project Area map incorporated by reference into the zoning map.

(1) The boundaries of the district are: A section of the Town of Altavista beginning at a point being the intersection of Pittsylvania Avenue and Fifth Street, thence following the northeast side of Pittsylvania Avenue, crossing Main Street and Seventh Street to a point on the northwest side of a 20-foot alley that parallels Seventh Street, thence running southwest in a straight line approximately 1,000 feet, crossing Lynch Creek and Campbell Avenue, to a point on the northeast side of a 20-foot alley, thence running

parallel to Broad Street and in a northwest direction, crossing Eighth Street to the point of intersection with the Norfolk Southern Railroad right-of-way, thence following said right-of-way southwest, crossing Broad Street and Bedford Avenue (Route 43) to the southwest side of Bedford Avenue, thence following the southwest side of Bedford Avenue, crossing Main Street (U.S. Route 29 Business) to a point 36 feet north of the center of the main line of the Norfolk Southern Railroad (formerly Norfolk & Western) and thence east, parallel to and 36 feet north of the center line of said main rail line, crossing Pittsylvania Avenue to the northeast side of the said right-of-way, thereof, thence following the east side of the right-of-way of Pittsylvania Avenue in a northwest direction to the point of beginning.

## IV. Public Meetings Required

The Board of Architectural Review shall meet at least once monthly to consider applications for Historic District Permits. The meeting of the Board of Architectural Review shall be open to the public and a full and impartial hearing shall be granted to the applicant and to any other interested parties.

D. No application for a certificate of appropriateness to demolish a building in any historic district shall be considered by the BAR until a public hearing has been held thereon, pursuant to the notice of public hearing as required in Section 15.1-431, Code of Virginia, as amended.

## V. Historic District Permits

Within the H-1 Overlay District, no building or structure (defined for the purposes of this section as anything man-made, including but not limited to outbuildings, fences, walls, lamp posts, light fixtures, signs, signposts, driveways, walkways and paving) shall be altered in any of the following ways unless a Historic District Permit has been issued by the Board of Architectural Review in accordance with the procedures of Sec. 3.10), or by the Preservation Planner in accordance with Sec. 7.5.6. The regulations below apply to both public and private structures and facilities.

**A.** Change in the exterior appearance of existing buildings or structures;

**B.** Demolition of any building or structure, in whole or in part;

**C.** Movement of any building or structure;

**D.** Any new construction;

**E.** Reconstruction of existing walls and fences, or construction of new walls and fences; and

**F.** Signs.

**G.** Change in the exterior color of a structure.

A. No building or structure within the Chester Street and downtown business areas of the Historic Front Royal District shall be erected, reconstructed, altered or restored unless and until an application for a certificate of appropriateness shall have been approved under the provisions of this Article.

B. No building or structure within the downtown residential area of the Historic Front Royal District or property designated as a local historic landmark shall be erected, reconstructed or undergo substantial exterior alteration unless and until an application for a certificate of appropriateness shall have been approved under the provisions of this ordinance.

C. No building existing in any designated historic district shall be demolished or removed, in whole or in part, unless and until an application or a certificate of appropriateness shall have been approved by the Board of Architectural Review.

## VI. Administrative Approval of Historic District Permits

**A. Lighting, Fences, Paving and Color.** The Preservation Planner shall have the authority to issue a Historic District Zoning Permit for alterations to existing or installation of new lampposts, light fixtures, fences, driveways, residential walkways or changes in existing exterior color schemes. If the Preservation Planner determines the application may not be in conformance with the Old and Historic District Design Guidelines, the application shall be forwarded to the Board for consideration at the applicant's request.

**B. Signs.** The Preservation Planner shall have authority to issue a Historic District Permit for applications that request approval for signs that conform to the criteria as established in the in the Old and Historic District Sign Guidelines in the section titled "Administrative Approval Criteria for Signs in the Old and Historic District". In the event the Preservation Planner determines that the sign does not conform to said guidelines the application shall be forwarded to the Board for consideration at the applicant's request.

**A.** The following actions will require administrative review by the Zoning Administrator:

1. The razing, demolishing, or moving of a non-contributing structure or a structure which is substantially damaged to the point of being completely uninhabitable.

2. Construction of a new accessory structure less than five hundred (500) square feet in size within a designated historic district or on a site adjacent to a designated landmark site that is generally in keeping with the character of the historic district and its surroundings.

3. Substantial alteration of a non-contributing structure.

4. Any addition to a non-contributing structure, which increases the size (square footage and/or volume) of the structure by less than one hundred percent (100%) of the original structure.

5. Landscaping, fences and signs in conformance with the design guidelines adopted in accordance with this Article.

**B.** The Zoning Administrator shall be guided in his decisions by the standards and guidelines adopted by the Board of Architectural Review and shall have authority to request modifications of specific proposal in order that the proposal may comply with said standards and guidelines. In any case where the Administrator is uncertain of his authority to act on a particular application under this section or in any case where the Administrator and the applicant cannot agree on changes in the proposal, the application shall be referred to the Board of Architectural Review for action by said Board. In case of disapproval by the Administrator,

the applicant may appeal the Administrator's decision within thirty (30) days thereof to the Board of Architectural Review. The Administrator shall keep a record of his decisions under this section and shall report such decisions to the Board of Architectural Review at its next regular meeting.

## VII. Demolition Applications

**A. Board's Authority to Review Demolition Permit Applications**. No historic landmark, building or structure subject to the provisions of this section shall be demolished until its owner has applied for and received a Historic District Demolition Permit from the Board of Architectural Review pursuant to the procedures of Sec. 3.10, except as otherwise expressly provided in Sec. 7.5.8D.

**B. Demolition Defined**. Any removal of forty percent (40%) or more of the total exterior wall or roof surface of any building shall require a Historic District Demolition Permit approved in accordance with the requirements of this section. Any removal of less than forty percent (40%) of the exterior wall or roof surface of a building shall be considered an alteration and requires a Historic District Permit in accordance with the provisions of Sec. 7.5.5.

**C. Consideration of Post-Demolition Plans**. The Board of Architectural Review shall consider, and applicants shall be required to provide, for all principal structures to be demolished, post-demolition plans for any site governed by this article and the appropriateness of such plans to the architectural character of the district.

**D. Demolition Delay Period**. The owner of a building or structure, the demolition of which is subject to the provisions of this section, shall, as a matter of right, be entitled to demolish such building or structure provided that:

**1.** The owner has applied to the Board of Architectural Review for such a right.

**2.** The owner has for a period of time set forth in the time schedule set forth in Sec.

7.5.8D.3, and at a price reasonably related to its fair market value, made a bona fide offer to sell such building or structure, and the land pertaining thereto, to any person, firm, corporation, government or agency thereof, or political subdivision or agency thereof, which gives reasonable assurance that it will preserve and restore the building or structure and the land pertaining thereto.

**3.** No bona fide contract, binding upon all parties thereto, shall have been executed for the sale of any such building or structure, and the land pertaining thereto, prior to the expiration of the applicable time period as set forth in the time schedule below. Any appeal which may be taken to the court from the decision of the Town Council shall not affect the right of the owner to make a bona fide offer to sell. Offers to sell as provided in subsection 7.5.8D.2 shall be made within one (1) year of the date of a final decision by the Town Council. The time schedule for offers to sell shall be as follows:

**Property Valued At Minimum Offer To Sell Period**

Less than $25,000 - 3 months

$25,000 but less than $40,000 - 4 months

$40,000- but less than $55,000 - 5 months

$55,000- but less than $75,000 - 6 months

$75,000- but less than $90,000 - 7 months

$90,000 or more - 12 months

**E. Board of Architectural Review Activities While Action on Demolition Permit Suspended**. During the demolition delay period set forth above in Sec. 7.5.8D., the Board of Architectural Review may take such steps as it deems necessary to preserve the buildings or structures concerned, in accordance with the purposes of these regulations. Such steps may include, but are not limited to, consultation with civic groups, public agencies and interested citizens, recommendations for acquisition of property by public or private bodies or agencies, and exploration of the possibility of moving one or more structures or other features.

**F. Owner Required to Make Bona Fide Offer to Sell During Delay Period**. Before making a bona fide offer to sell, the owner shall first file a statement with the Town Council. That statement shall identify the property, state the offering price, the date the offer of sale is to begin and name and addresses of listing real estate agents, if any. The statement shall provide assurances that the building or structure shall be preserved and/or restored, as appropriate. No time period set forth in the time schedule contained in Sec.7.5.8 shall begin to run until the statement has been filed.

(a) The owner of a building or structure within the district shall not raze or demolish such building or structure unless such owner has first complied with the provisions of this section 86-430.

(1) The owner or applicant shall apply to the Town of Altavista Planning Commission for permission to raze or demolish a building or structure within the district and the planning commission shall render a decision within 30 days either granting the request or requiring the applicant to offer the property for sale pursuant to subparagraph (2) below.

(2) Upon such a finding by the planning committee, the applicant shall for the period of time set forth in the time schedule set forth in subparagraph (b) below and at a price reasonably related to its fair market value as reflected in an appraisal by a licensed appraiser, make a bona fide offer to sell such building, or structure and the land pertaining thereto, to the town or to any person, firm, corporation, government or agency thereof, which gives reasonable assurance that it is willing to preserve and rehabilitate the building or structure and the land pertaining thereto.

(3) Should no offer to purchase the property for such price by such purchaser be received with in the said period then the property may be demolished.

(4) No offer to sell other than pursuant to subparagraph (2) above shall be made less than one year after an unfavorable decision by the planning commission, but thereafter the owner may renew his request to the town council to approve the razing or demolition of the building or structure.

(b) The time schedule for offers to sell shall be as follows:

(1) Three months when the offering price is less than $25,000.00.

(2) Four months when the offering price is $25,000.00 or more but less than $40,000.00.

(3) Five months when the offering price is $40,000.00 or more but less than $55,000.00.

(4) Six months when the offering price is $55,000.00 or more but less than $75,000.00.

(5) Seven months when the offering price is $75,000.00 or more but less than $90,000.00.

(6) Twelve months when the offering price is $90,000.00 or more.

A. No historic landmark, building or structure within any historic district shall be razed, demolished or moved until the razing, demolition or movement thereof is approved by the Board of Architectural Review or approved on appeal as provided herein.

B. Notwithstanding the provisions of Subsection A, the owner of a historic landmark, building or structure shall, as a matter of right, be entitled to raze or demolish such a building or structure, provided that:

1. He has applied to the Town Council for such right;

2. The owner has, for the period of time set forth in the time schedule hereinafter contained and at a price reasonably related to its fair market value, made a bona fide offer to sell such building or structure and the land pertaining thereto to any person, firm, corporation, government or agency thereof or political subdivision or agency thereof which gives reasonable assurance that it is willing to preserve and restore the building or structure and the land pertaining thereto. In order to demonstrate the making of a bona fide offer to sell, the owner shall file a notice with the Zoning Administrator identifying the property and stating the offering price and the name of the real estate agent, if any. No time period set forth herein shall begin to run until said notice has been filed. Within five (5) days of receipt, copies of the notice shall be delivered by the Zoning Administrator to the members of the Town Council, the members of the Planning Commission and the Town Manager; and

3. No bona fide contract, binding upon all parties thereto, shall have been executed for the sale of any such building or structure and the land pertaining thereto prior to the expiration of the applicable time period set forth in the time schedule hereinafter contained. Any appeal from the decision of the BAR, whether instituted by the owner or by any other proper party, notwithstanding the provisions herein pertaining to a stay on appeal, shall not affect the right of the owner to make the bona fide offer to sell. No offer to sell shall be made more than one (1) year after the final decision of the BAR, but thereafter the owner may renew his request to the BAR to approve the razing or demolition of the historic landmark, building or structure. The time schedule for offers to sell shall be as follows:

| OFFERING PRICE | MINIMUM Offer-to-Sell Period (Months) |
|---|---|
| Less than $25,000.00 | 3 |
| $25,000.00 to $39,999.99 | 4 |
| $40,000.00 to $54,999.99 | 5 |

| | |
|---|---|
| $55,000.00 to $74,999.99 | 6 |
| $75,000.00 to $89,999.99 | 7 |
| $90,000.00 or more | 12 |

4. For the purpose of this Article, a bona fide offer to sell shall be defined as a selling price not greater than ten percent (10%) more than the fair market value appraisal of a certified land appraiser employing appropriate, recognized appraisal criteria for the area in question. The town shall retain the right to contest the bona fide nature of the offer as follows: the reasonable relationship of the offering price to the fair market value of the historic landmark, building or structure, by filing injunctive proceedings in the Warren County Circuit Court, whenever the town obtains an appraisal of the property in question by a certified land appraiser at a value at least ten percent (10%) below the offering price asked by the owner, regardless of any conflicting appraisal obtained by the property owner.

## VIII. Maintenance of Historic Properties

**A. Routine Maintenance Exclusion**. Nothing in this article shall be construed to prevent the routine maintenance or repair of any exterior elements of any building or structure so long as there is no change in design or materials.

**B. Protective Maintenance Requirement**.

**1. Purpose**. Pursuant to Section 15.2-2306 of the Code of Virginia, 1950, as amended, the purpose of this section is to prevent the demolition by neglect of any building or structure by permitting permanent damage by weather or vandalism.

**2. Intent**. The intent of this section is to ensure that the owner of any building or structure subject to the provisions of this section shall keep such building or structure properly maintained and repaired in accordance with this section, the provisions of the state building code and housing code and the provisions of Article I Section 11-38 of the Town Code.

**3. Degree of Maintenance Required**. The degree of maintenance and repair hereby required is that degree sufficient to prevent damage to the structural components and/or the exterior that would cause the collapse of the structure or that would cause the building to become so deteriorated as to prevent its repair and preservation. Acts which the owner may be required to perform pursuant to this paragraph shall include the following: securing the building or structure by boarding up doors and windows; stabilizing walls, roofs and other parts of the building or structure; providing positive drainage from the structure; and termite treatment.

**4. Enforcement**. The Board of Architectural Review shall request a meeting with an owner when a property is in a seriously deteriorated condition and the Board of Architectural Review shall discuss with the owner ways to improve the condition of the building or structure. After this step the Board of Architectural Review may request the Zoning Administrator to investigate further the condition of such building or structure and to make a determination within fourteen (14) days of violations of this Zoning Ordinance. Upon finding that a building is in a seriously deteriorated condition which threatens its preservation, the Zoning Administrator shall notify the owner in writing and shall identify specific repairs

and work necessary to comply with the provisions of this section. The owner shall have ninety (90) days from written notification to complete necessary repairs and work identified by the Zoning Administrator. Failure to complete the necessary repairs and work within ninety (90) days shall constitute a violation of this Zoning Ordinance.

**A.** Nothing in this Article shall allow the BAR to prevent the routine maintenance or repair of any exterior elements of any building or structure so long as there is no change in form or materials; nor shall anything in this Article be construed to prevent the construction, reconstruction, alteration or demolition of any exterior elements that the authorized municipal officers shall certify as required by public safety.

**B.** Nothing in this Article shall be construed to prevent any use of any land, building or structure permitted by the regulations prescribed in this Chapter for the district in which such land, building or structure is otherwise located. Due to peculiar conditions of design and construction in historic neighborhoods where buildings and structures are often built close to the lot lines, it is in the public interest to retain a neighborhood's historic appearance by granting variances to normal yard requirements, where appropriate and where it is deemed that such a variance will not adversely affect neighboring properties. The BAR may recommend to the Board of Zoning Appeals that such variance to standard yard requirements be made.

## IX. Designation of Historic Districts and Landmarks

The H-1 Overlay District may be enlarged and new historic districts and individual landmarks may be established pursuant to Section 15.2-2306 of the Code of Virginia as amended, upon recommendation of the Board of Architectural Review and adoption by the Town Council.

**A. Preliminary Research**. The Board of Architectural Review shall undertake to establish and maintain a list of structures, sites and areas having a special historical, architectural or aesthetic interest or value.

**B. Recommendation of Historic Districts and Landmarks**. The Board of Architectural Review may recommend to the Town Council the initiation of a Zoning Ordinance amendment in accordance with Sections 15.2-2204 and 15.2-2286.6 of the Code of Virginia, 1950, as amended, to designate landmarks and historic districts from the list established under Sec. 7.5.10A for preservation and protection. Upon making such a recommendation, the Board of Architectural Review shall submit a report giving the reasons for its recommendation.

**1. Criteria for Selection**. A structure, group of structures, site or district may be recommended for designation as a landmark or landmark district if it:

**a.** Has significant character, interest or value, as part of the town's development or heritage; or

**b.** Portrays the environment in an era of history characterized by a distinctive architectural style; or

**c.** Is the work of a designer whose individual work has significantly influenced the development of Leesburg; or

**d.** Contains elements of design, detail, materials or craftsmanship which represent a significant innovation; or

**e.** By being part of or related to a square, park or other distinctive area, should be developed or preserved according to a plan based on a historic, cultural or architectural motif; or

**f.** Owing to its unique location or singular physical characteristic, represents an established and familiar visual feature of the neighborhood, community or town.

**2. Boundaries**. In the Board of Architectural Review's recommendation to the Town Council, historic districts or individual landmarks must be precisely described by legal boundaries.

**3. Application for Designation**. Designations may be initiated by resolution of the Town Council upon recommendation of the Board of Architectural Review or on the application of the owner(s) of the property to be designated or their authorized agents, or on the application of any organization with a recognized interest in historic preservation. When the application has not been made by the owner, the owner shall be given written notice of the designation under consideration.

**4. Moratorium on Alteration or Demolition While Designation Pending**. No applications for a zoning permit to construct, alter or demolish any structure or other feature on a landmark site or in a historic district, filed subsequent to the day that an application has been filed or a resolution adopted to initiate designation of the said landmark site or historic district, shall be approved by the Zoning Administrator while proceedings are pending on such designation; provided, however, that after ninety (90) days have elapsed from the date of initiation of said designation, if final action on such designation has not been completed, the permit application may be approved.

**A.** The Board of Architectural Review shall prepare and recommend for adoption as part of this Article a district boundary map and an inventory map covering the area or areas to be considered for inclusion in an historic district overlay area. These maps, when adopted in accordance with the provisions of the Code of Virginia Section 15.1-493, shall be as much a part of this Article as if fully described herein and shall be filed as a part of this Article by the Clerk of the Town of Front Royal. The inventory map shall delineate local historic landmarks, contributing properties and noncontributing properties. The inventory and district boundary maps may be amended, from time to time, in the same manner as the Zoning District Map.

**B.** The Board of Architectural Review may propose to the Planning Commission and the Town Council such amendments as deemed appropriate, including the establishment of historic districts or revision to existing historic districts. Upon receipt of said proposal, the Council may initiate such amendment pursuant to Section 175-146. The Board of Architectural Review shall prepare and submit simultaneously with said proposal a report to substantiate establishment of a historic district or a proposed amendment. Such report shall establish and define the historic district boundaries, as delineated upon an appropriate map, as well as describe the historic and/or architectural significance of the buildings, structures or sites to be protected, and the special characteristic, qualities and/or fabric to be preserved, and shall describe present trends and conditions, current and long-range planning and desirable public objectives for preservation. The report may also include plans for public action in or adjoining a district that is likely to affect its character or development.

**C.** Applications for the creation or expansion of an historic district or for the designation of landmarks or landmark sites may also be filed by the Planning Commission, the Town Council, the owner, the contract purchaser with the owner's written consent or the owner's agent or sixty percent (60%) of the owners of all buildings within a proposed historic district. All requests shall be made in the same manner as other zoning amendments, as provided for in Section 175-146.

**D.** Any historic district and any historic district map which have been created and adopted by the Front Royal Town Council prior to the amendment of this Article shall not be repealed but shall remain intact and in effect, subject now to the provisions of this amended Article.

**E.** Any historic district created and adopted by the Front Royal Town Council after February 1, 1993, shall

remain in effect, except as amended or modified pursuant to the regulations herein, for an initial maximum period of ten (10) years from the date of its adoption. Subsequent action by the Front Royal Town Council shall be made to continue the district beyond the initial ten-year period.

**F.** Upon the presentation of a request to withdraw from an adopted subarea within the historic district overlay area, with such request having been duly executed by at least sixty-seven percent (67%) of the owners of taxable parcels (with a vote for each separate tax parcel) within the designated historic subarea, the Town Council, at its next meeting, shall take appropriate action to remove the historic district designation. This provision shall be applicable only where the historic resource overlay area shall have been in place for a period of not less than two (2) years.

## X. Violations

The enforcement of the provisions of this section shall be the responsibility of the Zoning Administrator or the Zoning Administrator's designee. The Zoning Administrator shall take the necessary legal steps to stop work that is being performed without a Historic District Permit. Any violation of these regulations is a civil violation as provided in Sec. 17.2.2.

For the administration and enforcement of this chapter, the zoning administrator shall have all necessary authority on behalf of the town specifically including the authority to:

(1) Order in writing that any condition found in violation of this chapter be remedied forthwith and to prescribe a timetable or deadline for such compliance.

(2) Bring all legal actions necessary to ensure compliance with this chapter including injunction, abatement or other proceeding.

(a) Notwithstanding and in addition to any penalties or remedies provided elsewhere in this chapter, it shall be unlawful for any owner of property subject to this chapter or any other person to willfully violate any of its provisions. Failure by any person to cease and desist from, or to correct, a violation within the time limits prescribed by the zoning administrator in a written notice served upon such person shall constitute prima facie evidence of a willful intent to violate this chapter. Any such willful violation shall be deemed a misdemeanor, and any such person convicted of such a violation shall be punished by a fine of not less than $10.00 nor more than $1,000.00. Each day that a violation continues after the expiration of the time limit set in such written notice of such violation served on such person shall constitute a separate offense.

(b) In addition to the penalties described in subsection (a) of this section, all other actions are hereby reserved, including an action in equity for the proper enforcement of this chapter. The imposition of a fine or penalty for any violation of, or noncompliance with, this chapter shall not excuse the violation or noncompliance to permit it to continue; and all such persons shall be required to correct or remedy such violations or non-compliances within a reasonable time. Any structure constructed, reconstructed, enlarged, altered, or relocated in noncompliance with this chapter may be declared by the town council to be a public nuisance and abatable as such. Flood insurance may be withheld from structures constructed in violation of this chapter.

The Zoning Administrator shall have authority to order that work be stopped and that an appropriate application be filed or reviewed in any case where, in his opinion, the action may produce arresting and spectacular effects, violent contrasts or materials or colors and intense and lurid colors or patterns or a multiplicity of incongruous details clearly inconsistent with the character of the present structures or with the prevailing character of the surroundings and the historic district or when it appears that the work does not conform to the list of administrative review or exempted actions stated herein and, in fact, is more extensive than originally represented.

A. All departments, officials and public employees of this jurisdiction which are vested with the duty or authority to issue permits or licenses shall conform to the provisions of this chapter. They shall issue permits for uses, buildings or purposes only when they are in harmony with the provisions of this chapter. Any such permit, if issued in conflict with the provisions of this chapter, shall be null and void.

B. Any person, firm or corporation, whether as principal, agent, employed or otherwise, violating, causing or permitting the violation of any of the provisions of this chapter shall be guilty of a misdemeanor and, upon conviction thereof, may be fined up to one thousand dollars ($1,000.). Such person, firm or corporation shall be deemed to be guilty of a separate offense for each and every day during which any portion of any violation of this chapter is committed, continued or permitted by such person, firm or corporation and shall be punishable as herein provided.

# *Sample Board of Architectural Review Ordinance Outline*

I. **Purpose**

The purpose of the Board of Architectural Review shall be to administer the provisions of this Zoning Ordinance relating to Historic Districts and to advise the Town Council in its efforts to preserve and protect historic structures and sites within the town.

II. **Authority and Establishment**

The Board of Architectural Review heretofore established pursuant to the Section15.2-2306 of the Code of Virginia, 1950, as amended, and as authorized in Section 7A-2 of the Town Charter shall continue as the Board of Architectural Review for the purposes of this Zoning Ordinance.

III. **Members, Compositions and Terms**

The Board of Architectural Review shall consist of the following:

**A.** Nine (9) members appointed by the Town Council. One non-voting board member shall be appointed from the Town Council and one non-voting member shall be appointed from the Planning Commission.

**B.** The term of office for members shall be three (3) years, except that the term of the Town Council member and Planning Commission member shall correspond to their official tenure of office.

**C.** Members may be reappointed to serve consecutive terms.

**D.** A member whose term has expired shall continue to serve until a successor is appointed.

1. A Board to be known as the "Board of Architectural Review (BAR)" is hereby established and shall consist of five (5) voting members who shall be appointed by the Town Council. These members shall serve terms of four (4) years each.

2. BAR members may be reappointed for consecutive terms.

IV. **Required Qualifications**

Qualified and acceptable candidates shall demonstrate an interest in historic preservation, and a majority of Board of Architectural Review members shall have professional training or equivalent experience in history, architectural history, archaeology, or planning. At least one member of the Board of Architectural Review shall be an architect. All persons appointed to the Board of Architectural Review shall be bona fide residents of the Town of Leesburg and shall have a demonstrated interest in and knowledge of the history of the community.

All members shall have a demonstrated interest competence or knowledge in historic preservation. One (1) member shall be a property owner/resident of an historic district overlay area and one (1) shall have professional training or equivalent experience in architecture, history, American studies, architectural history, archaeology or planning. All members shall be residents of Warren County, with knowledge of and demonstrated interest in the historic character of the Town.

V. **Election of Officers**

The Board of Architectural Review shall elect its Chairman and Vice-Chairman from its membership, and the Director of Planning, Zoning and Development or the Director's designee, shall be its recording secretary.

3. The BAR shall elect from its own membership a Chairman and Vice Chairman, who shall serve annual terms as such and who may succeed themselves. The Board shall appoint a Secretary who shall serve at its pleasure.

4. When a vacancy occurs, a new appointment shall be made by the Town Council for the unexpired terms within sixty (60) days after the vacancy occurs. The Town Council shall publicly announce and solicit qualified candidates for Board of Architectural Review vacancies.

5. Any appointed member of the BAR may be removed from office by the Town Council for inefficiency, neglect of duties or malfeasance. An appointment to fill a vacancy shall be only for the unexpired term on the vacancy.

6. Members shall make every effort to attend at least one (1) training session annually sponsored by the Department of Historic Resources, the Preservation Alliance of Virginia or other organizations that are involved with historic preservation issues, design and review standards or other work of the BAR.

VI. **Procedure for Meeting**

The Chairman shall conduct the meeting of the Board of Architectural Review. In the absence of the Chairman, the Vice-chairman shall preside. The recording secretary shall keep minutes of the meetings and a permanent record of all resolutions, motions, transactions and determinations. All members of the Board of Architectural Review shall be entitled to vote except the non-voting members appointed from the Planning Commission and the Town Council. Decisions of the Board of Architectural Review shall be determined by a majority vote of those members present and voting. A quorum of four voting members present is required before the Board of Architectural Review may take any official action.

C. Organization and meetings.

1. The Chairman shall conduct the meetings of the BAR.

2. The Secretary shall keep the minutes of the meetings and a permanent record of all resolutions, motions, transactions and determinations.

3. All members of the BAR, except for advisory members, shall be entitled to vote; and the decisions of the BAR shall be determined by a majority vote.

4. A quorum of three (3) voting members present is required before the BAR may take any official action.

**(Ord. No. Z-02-04 Amended (C)(4) 6-14-04-Effective Upon Passage)**

5. The BAR shall meet within twenty (20) days after notification by the Zoning Administrator of an application for a certificate of appropriateness or a permit requiring action by the BAR.

6. The Board of Architectural Review shall have regularly scheduled meetings at least four (4) times a year. The meetings of the BAR shall be open to the public, and a full and impartial hearing shall be granted. All regularly scheduled meetings shall be conducted in the evening hours for the convenience of the public.

7. The BAR shall vote and announce its decision on any matter properly before it not later than forty-five (45) days after the conclusion of the hearing on the matter, unless the time is extended with the written consent of the applicant.

8. In matters covering the procedures for meetings not covered by this document, the BAR may establish its own rules, provided that they are not contrary to town policy or the intent of this Article.

## VII. Powers and Duties

The powers and duties of the Board of Architectural Review shall be as follows:

**A. Exterior Alterations**. Review and decide upon exterior alterations to all structures

(including buildings, bridges, signs, fences, walls, and monuments) or sites within the

boundaries established by this Zoning Ordinance.

**B. Demolition.** Review and decide upon any proposed demolition within the boundaries of

the H-1 and H-2 Overlay Districts.

**C. New Construction.** Review and decide upon all proposed new construction within the boundaries established by this Zoning Ordinance.

**D. Relocation.** Review and decide upon any proposed relocation of a structure (including buildings, bridges, signs, fences, walls, and monuments) within the boundaries established by this Zoning Ordinance.

**E. List.** Establish and maintain a list of structures, sites and areas having a special historical, architectural or aesthetic interest or value.

**F. Recommend Designations.** Make recommendations to the Town Council regarding the designation of individual sites for inclusion in the H-1 Overlay District, or establishment of a new district or landmark site.

**G. Comprehensive Sign Plans.** Review and make recommendations to the Town Council regarding comprehensive sign plans in accordance with Sec. 15.14 (Comprehensive Signage Plans).

**H. H-1 and H-2 District Signs.** Review and decide upon signs located in the H-1 and H-2 Overlay Districts in accordance with Sec. 15.11 (Signs in the H-1 Overlay District) and Sec. 15.12 (Signs in the H-2 Overlay District).

**I. Annual Report.** Submit an annual report of its activities and decisions to the Town Council. **J. Buffer-yard Modifications.** Review and decide upon modifications of buffer-yards in the H-1 Overlay District, in accordance with Sec. 12.8.5 (Modification of Screening and Buffer-yard Requirements).

A. The following major actions and any other actions not specifically exempted by the terms of this ordinance or which, in the opinion of the Administrator, may constitute a major permanent and detrimental change to the character of an historic district shall be approved only after a public meeting and favorable action by a majority vote of the Board of Architectural Review:

1. The razing, demolishing or moving of a designated landmark or contributing structure.

2. Construction of any new main building, or an accessory building which exceeds five hundred (500) square feet in size within a designated historic district or on a site adjacent to a designated landmark site.

3. Any addition to or substantial alteration of a designated landmark or structure on a contributing property, which increases the square footage of the structure or otherwise alters substantially its size, height, contour or outline.

4. Any significant change or alteration of the exterior architectural style of a designated landmark or contributing property.

5. Any addition to a non-contributing structure, which alters substantially the size height, contour or outline by increasing the square footage and/or volume of the structure by one hundred percent (100%) or more of the original structure.

6. Any fence or sign that is not in conformance with the design guidelines adopted in accordance with this Article.

7. Any other major actions not specifically covered by the terms of this section but which would have a substantial effect on the character of the Historic District.

B. Duties, powers and responsibilities. The Board of Architectural Review shall have the power and authority for issuing or denying certificates of appropriateness for construction, reconstruction, substantial exterior alteration, razing or relocation within the historic district overlay area. In addition, the Board shall have the following duties:

1. To assist and advise the Town Council, the Planning Commission and other town departments, agencies and property owners in matters involving historically significant sites and buildings or other properties in historic districts, such as but not limited to appropriate land usage, parking facilities and signs.

2. To continuously evaluate conditions and to advise owners of historic landmarks or contributing structures or other properties in historic districts on problems of preservation.

3. To conduct studies deemed necessary by the Town Council or the Planning Commission concerning location of historic districts and means of preservation, utilization, improvement and maintenance of historic assets in the town.

4. To propose additional historic districts or additions or deletions to districts.

5. To adopt standards for review to supplement the standards set forth in this Article.

6. To establish an appropriate system of markers for selected historic sites and buildings, including

proposals for the installation and care of such historic markers, and to invite each owner of a building of historical significance to display the marker thereon.

7. To cooperate with and enlist assistance from the Virginia Department of Historic Resources, the National Trust for Historic Preservation and other interested parties, both public and private, in its efforts to preserve, restore and conserve local historic landmarks, buildings, sites or areas within the town.

8. To prepare and adopt specific guidelines, illustrated as necessary, for those historic districts which have special characteristics and architectural features that are peculiar to the district and which should be preserved and to make these guidelines available to property owners within each historic district and to the general public. After these historic districts are approved, specific guidelines shall be adopted for such historic districts as may require specific guidelines.

9. To sponsor public information activities, when deemed appropriate, publicizing historic preservation efforts, which activities may include, but not be limited to, speaking engagements, handouts, press releases and films.

10. To hold public meetings as often as necessary to fulfill the responsibilities assigned by this Article.

## VIII. Rules of Procedure

In matters covering the procedure for meetings not covered by this article (e.g., schedules for regular periodic meetings), the Board of Architectural Review may establish its own rules, provided they are not contrary to the spirit of this section.

## IX. Record of Meetings

A record shall be kept of pertinent information presented at all public meetings and of all decisions by the Board of Architectural Review.

## X. Authority to Request Information

In accordance with the powers, duties, and responsibilities imposed on the Board of Architectural Review by this Zoning Ordinance, the Board of Architectural Review shall have the power and authority to request and receive any appropriate information, cooperation, assistance, or studies from any town departments, board, agencies, or commissions.

D. Authority to receive funding and advisory services.

1. All persons interested in the preservation of historic buildings or historic sites in the town are invited to make gifts, devises and bequests to the town to be used for that purpose. All such donations, other than money, shall be subject to acceptance by the Town Council. All donations of money shall be made through the Department of Finance, and it is hereby authorized and directed to receive such donations and to deposit them in a special fund to be known as the “Historic Buildings and Sites Trust Fund, “ and shall be used only for the purpose of preserving and promoting the preservation of historic buildings and sites in the town. Expenditures from such fund shall be made by the Town Manager as authorized, from time to time, by the Town Council.

2. The BAR may seek federal, state or private grants or funding to assist in the performance of its duties as herein defined.

3. Within the limits of funds that may be made available to the BAR for the performance of its work, the BAR may obtain services of qualified persons to advise and assist the BAR as required.

4. Upon request of the BAR, with approval by the Town Manager, the departments, boards, commissions, offices and agencies of the town government shall furnish to the Board such available information and render such service as may be required for the exercise of the powers and performance of the duties of the BAR.

# *Sample Historic District Permits Ordinance Outline*

I. **Applicability**

A Historic District Permit shall be required prior to the alteration of any building or structure (defined for the purposes of this section as anything man-made, including but not limited to outbuildings, fences, walls, lamp posts, light fixtures, signs, signposts, driveways, walkways and paving) located in the H-1 Overlay District and specifically including any of the following activities:

**A.** Change in the exterior appearance of existing buildings or structures;

**B.** Demolition of any building or structure, in whole or in part;

**C.** Movement of any building or structure;

**D.** Any new construction;

**E.** Reconstruction of existing walls and fences, or construction of new walls and fences;

**F.** Signs.

**G.** Change in the exterior color scheme of structures.

(a) No buildings or structures shall be started, reconstructed, enlarged, altered, and no change in the use of a building shall occur, until a zoning permit has been obtained from the administrator.

A. No buildings, structures or uses shall be started, repaired, reconstructed, enlarged or altered until after a zoning permit has been obtained from the Administrator.

II. **Required Contents of Applications**

**A. General.** When making application for a Historic District Permit, applicants must submit information for consideration by the Board of Architectural Review, including the following:

**1.** All architectural elevations drawn to scale;

**2.** Site plans;

**3.** Complete materials list;

**4.** Photographs or drawings relating the proposed project to the surrounding streetscape;

**5.** Proposed colors;

**6.** Lighting; and

**7.** Landscaping, when required by Article 12 .

**B. Sign Permits.** When making application for a Historic District Sign Permit, applicants must submit the following information:

**1.** A scale drawing of the proposed sign;

**2.** Proposed materials for the sign and its support and the lighting method to be used;

**3.** The proposed sign message;

**4.** The style and size of lettering; and

**5.** A sketch or photograph showing the proposed location of the sign on the building or site.

**C. Waiver of Certain Requirements.** Upon written request from the applicant, the Preservation Planner may tentatively waive any of the above requirements deemed not to be necessary for review of the application. These waivers may be over-ruled by the Board of Architectural Review if additional information is determined to be required at the Board of Architectural Review's meeting to consider the application. The Preservation Planner is the staff liaison to the Board of Architectural review and is responsible for the processing and review of applications within the Town's historic districts.

(c) Each application for a zoning permit shall include a copy of a drawing or sketch. The drawing or sketch shall show the size and shape of the parcel of land on which the proposed building is to be constructed or altered, the nature of the proposed use of the building or land, and the location of such building or use with respect to the property lines of such parcel of land and to the right-of-way of any street or highway adjoining such parcel of land. Any other information which the administrator may deem necessary for consideration of the application may be required. If the proposed building or use is in conformity with the provisions of this chapter and the building ordinance, a permit shall be issued to the applicant by the administrator.

B. Each application for a zoning permit shall be accompanied by three (3) copies of an adequately dimensioned drawing unless as otherwise specified. The drawing shall show the size, shape and dimensions of the parcel of land on which the building is to be constructed, as surveyed and prepared by a licensed surveyor or registered architect, the nature of the proposed use of the building or land, the location and arrangement of off-street parking, the location of such building or use with respect to the property line of said parcel of land and to the right-of-way of any street or highway adjoining said parcel of land, the developers drainage plan for properly distributing surface water and additional information as required by this chapter. Such site plan shall be prepared by a licensed surveyor or a registered engineer or architect. Any other information which the Administrator may deem necessary for the consideration of the application may be required. If the proposed building or use is in conformity with the provisions of this chapter, a permit shall be issued to the applicant by the Administrator. One (1) copy of the drawing shall be returned to the applicant with the permit. This drawing is not required for applicants who have submitted site plans in accordance with Article XIII.

## III. Application Filing Deadline and Fee

Applications for Historic District Permits must be made on forms provided by the Zoning Administrator and must be accompanied by a filing fee in accordance with the latest Schedule of Fees adopted by the Town Council. Complete applications must be submitted at least seventeen (17) days before the scheduled monthly meeting at which the applicant is requesting consideration.

IV. **Public Hearing Notice**

Written and Placard notice of public hearings before the Board of Architectural Review shall be provided in accordance with the requirements of Sec. 3.1.9A and Sec. 3.1.9B. Newspaper notice is not required.

V. **Review of Plans in a Timely Manner**

The Board of Architectural Review shall vote and announce its decision on any matter properly before it at the conclusion of the public meeting on the matter, unless the time is extended by mutual agreement between the Board of Architectural Review and the applicant, or unless the Board of Architectural Review postpones the matter to its next public meeting due to lack of representation on the part of the applicant.

VI. **Board Action on Applications; Review and Approval Criteria**

In response to applications for Historic District Permits, the Board of Architectural Review shall be authorized to approve the application, deny the application or approve the application in modified form. See Sec. 7.5.6 for the Preservation Planner's administrative review authority.

(b) The administrator may request a review by the commission of the zoning permit application in order to determine if the contemplated use is in accordance with the district in which the construction lies.

**a. General Review and Approval Criteria**

**i. General Criteria**

**General Criteria**. In considering the appropriateness of any application, the Board of Architectural Review shall consider the architectural significance and appearance, historic significance, and appropriateness of the proposed use of the property.

Criteria for evaluating the merits of a given structure or space shall be based on architectural features as well as historic factors. Certain buildings or areas, although not associated with an historic personage or event, may be valuable examples of the town's physical and cultural heritage. Structures of local significance shall be evaluated, as well as those of state and national significance, and any structures individually listed upon the National Register of Historic Places or the Virginia Landmarks Register shall be designated upon the Town Register. In addition, such evaluation shall be based on the following specific matters:

A. Architectural and landscape style. The evaluation shall respect the qualities of each architectural and landscape style and shall judge a structure's merit on how well it exemplifies the distinguishing characteristics of said style. Consideration will be given to:

1. The significance of the architectural design.

2. The scale and/or interrelationships of the structures and/or environmental features.

3. The significant patterns of development.

4. The quality of workmanship.

5. The amount of surviving original fabric.

6. The original location and use.

7. The remaining outbuildings or dependencies.

8. The surrounding environment; gardens, landscaping and walks.

9. The aesthetic quality.

10. The original integrity of the structure and its details.

B. Historical and/or cultural significance. Structures or spaces relating to one (1) or more of the following criteria will be considered historically or culturally valuable:

1. Association with an historic personage.

2. Association with an historic event.

3. Work of the leading architect or master craftsman.

4. Site or structure of cultural significance.

C. In addition, sole or infrequent surviving building types and structures not historic in themselves but adding to the character of an historic district need to be looked at as potentially deserving preservation.

### ii. Criteria for Existing Buildings and Structures

**Criteria for Existing Buildings and Structures.** In deciding upon applications to alter buildings or structures subject to the provisions of this section, the Board of Architectural Review shall consider the Certified Local Government Grant Building Survey designations as well as the criteria listed in the H-1 Overlay District Design Guidelines and shall consider criteria set forth in the Secretary of the Interior's Standards for Rehabilitation Revised 1990, as amended. The Standards for Rehabilitation are as follows:

**a.** A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.

**b.** The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

**c.** Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.

**d.** Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.

**e.** Distinctive features, finishes and construction techniques or examples of craftsmanship that characterize a property shall be preserved.

**f.** Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.

**g.** Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.

**h.** Significant archaeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.

**i.** New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.

**j.** New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

**k.** In addition to the standards listed above, the application of artificial siding, including aluminum and vinyl sidings, on existing buildings shall not be permitted for any structure designated as historic by the Certified Local Government Grant Building Survey , or for any individual historic landmark due to its inappropriateness, its potential to damage wood frame buildings and its destruction of the unique character of wood materials and craftsmanship.

### iii. Criteria for New Construction

**Criteria for New Construction.** In deciding upon applications for new construction, the Board of Architectural Review shall take into account the extent to which the building or structure would be appropriate or incongruous to the H-1 Overlay District as well as its immediate surroundings; and the Board of Architectural Review shall consider major design elements, including site planning; massing, proportion and scale; roof, windows and doorways; and all exterior architectural elements, including materials, colors, trim and other details. More specific criteria for appropriate new construction can be found in the H-1 Overlay Design Guidelines. The Board of Architectural Review shall amend the H-1 Overlay Design Guidelines for new construction as it deems appropriate.

iv. **Demolition Permit Review and Approval Criteria**

**Demolition Permit Review and Approval Criteria.** In reviewing demolition applications, the Board of Architectural Review shall consider the following:

**a.** The designation of the particular structure as historic or non-historic in the Certified Local Government Grant Building Surveys.

**b.** The criteria listed in the H-1 Overlay District Design Guidelines including the extent to which loss of the buildings or structures would affect the historic and architectural character of surrounding properties and of the entire H-1 Overlay District; and

a. The ability of the owner to put the subject property to reasonable beneficial use.

A. All reviewing bodies shall be guided by the following guidelines and criteria:

1. The historic archaeological or architectural value and significance of a structure and its relationship to the historic value of the surrounding area.

2. The age and character of the historic structure, its condition, and its probable life expectancy and the appropriateness of the proposed changes to the period or periods during which the structure was built.

3. The general compatibility of the site plan and the exterior design arrangement, texture and materials proposed to be used.

4. The view of the structure or area from a public street or road, present or future.

5. The present character of the setting of the structure or area and its surroundings.

6. The probable effect of proposed construction on trees, wooded areas or historic sites.

7. Any other factors, including aesthetic factors, which the reviewing bodies deem to be pertinent.

8. The appropriateness of the exterior architectural features of such building or structure to the compatibility with the exterior architectural features of landmarks, buildings or structures in the district, taking into consideration the following:

a. General design.

b. Character and appropriateness of design.

c. Form.

d. Proportion and scale.

e. Mass.

f. Configuration.

g. Arrangement.

h. Texture.

i. Material

j. The permanent color of exterior materials (excluding paint).

k. The relationship of such elements to similar features of structures in the immediate surroundings.

l. Congruity with the character of the Historic District.

B. The reviewing bodies shall not adopt or impose any specific architectural style in the administration of this Article.

C. The reviewing bodies shall also be guided by the purposes for which landmarks, landmark sites and historic districts are designated and by the particular standards and considerations contained in the Secretary of the Interior's Standards for Rehabilitation.

## VII. **Board Authority to Seek Outside Advice**

The Board of Architectural Review may seek technical advice from outside its members on any application. If the Board of Architectural Review seeks outside advice, the Board of Architectural Review shall provide a copy of the consultant's report to the applicant and shall render a decision on the application within ninety (90) days from the date that the complete application was filed.

## VIII. **Explanation of Disapproval**

In the case of denial of a Historic District Permit, the Board of Architectural Review shall state the reasons for such denial in writing and transmit the written statement to the applicant. In the statement, the Board of Architectural Review may make suggestions that would help the applicant in the resubmission of an application.

C. The Board of Architectural Review shall not disapprove an application except with respect to the criteria and guidelines set forth in Section 175-91. The BAR shall give reasons for its decisions, shall act promptly on applications before it and shall coordinate its procedures with those of other agencies and individuals charged with the administration of this Article. The BAR shall be strict in its judgment of plans for those structures designated as landmarks and contributing properties but shall be lenient in its judgment of plans for non-contributing properties. For plans involving new construction the Board's concern shall focus on whether such plans are compatible with and enhance the historic or architectural value of surrounding structures or the surrounding area.

D. In all final decisions rendered pursuant to this Article, the BAR shall briefly state its findings in writing, and in the case of disapproval, it may make recommendations to the applicant with respect to the design, texture, material, color, line, mass, dimension or lighting of the alteration or the improvement involved. The requirements of this section shall be deemed to have been satisfied if such findings and recommendations, if any, are set forth in the regularly maintained minutes of the BAR.

## IX. Zoning Permits; Accurate Drawings of Approved Plans

Before issuing zoning permits for any work that has been approved by the Board of Architectural Review, the Zoning Administrator shall require applicants to submit plans that accurately reflect any changes or conditions imposed by the Board of Architectural Review in its approval of projects.

## X. Conformance with Plans Required

All work performed pursuant to issuance of a Historic District Permit shall conform to the approved plans and specifications and to any modifications required by the permit. In the event work is performed not in conformance with the permit, the Zoning Administrator shall notify the responsible person or firm in writing of the violation and shall take the necessary legal steps to ensure that the work is performed in conformance with the permit.

## XI. Lapse of Approval

A Historic District Permit shall lapse and become void unless construction is commenced within twelve (12) months from the date the permit was issued.

(d) Zoning permits are issued for a period of six months from the date of approval. Zoning permits shall automatically expire if the applicant cannot demonstrate that the permit is being exercised for the purpose for which it was issued, or if the work authorized in the permit is suspended or discontinued for a period of two years.

B. Any certificate of appropriateness issued pursuant to 175-88 shall expire of its own limitations twelve (12) months from the date of issuance if the work authorized by said certificate has not commenced and, further, if any such work is suspended or abandoned for a period of twelve (12) months after being commenced. Any period or periods of time during which the right to use any such certificate is stayed pursuant to this Article shall be excluded from the computation of the twelve- month period.

## XII. Change of Plans after Issuance of Permit

Any change in the work plan subsequent to the issuance of a Historic District Permit shall require submittal of a new application and issuance of a new permit.

## XIII. Appeals

### a. Reconsideration by the Board of Architectural Review

The Board of Architectural Review shall not reconsider any application that has been denied except in cases where an applicant submits an application that has been amended to substantially address the Board of Architectural Review's reasons for denial of the original application.

### b. Appeals to Town Council

Appeals to the Town Council from any final decision of the Board of Architectural Review may be made by any person by filing a petition with the Clerk of Council, setting forth the basis for the appeal, within thirty (30) days after the final decision is rendered. The filing of the petition shall stay the decision of the Board of Architectural Review pending the outcome of the appeal to the Town Council, except that the filing of such petition shall not stay the decision of the Board of Architectural Review if such decision denies the right to raze, demolish or move any structure or building subject to the provisions of this section. The Town Council may reverse or modify the decision of the Board of Architectural Review in whole or in part, if it finds upon review that the decision of the Board of Architectural Review is contrary to the law or that its decision is arbitrary and constitutes an abuse of discretion, or it may affirm the decision of the Board of Architectural Review.

(a) Any person aggrieved by the decision of the planning commission relating to the demolition, razing, or moving of a building or structure in the District may demand a review of the request by the town council. Such demand shall be made by filing a request therefore in writing with the clerk of the town council within 30 days after the date of the decision of the planning commission. In so doing, the town council shall give due consideration to the recommendation of the planning commission together with such other evidence as it deems necessary for a proper review of the application.

(b) The town council shall fix a date for a public appeal hearing and give public notice thereof as provided in subsection 86-782(b). Town council shall issue a written decision within 60 days of the date of the appeal hearing.

(c) Any party may appear in person or be represented by an agent or by an attorney at the appeal before the town council.

(d) The town council may, in conformity with the provisions of this division, and giving due consideration to the decision of the planning commission, reverse or affirm, wholly or in part, or may modify, any order, requirement, decision or determination appealed from and make such order, requirement, decision or determination as it deems proper.

A. Any applicant aggrieved by a final decision of the Board of Architectural Review may appeal said decision to the Front Royal Town Council, provided that such appeal is filed, in writing, with the Town Clerk within ten (10) days after the final decision is rendered by the BAR. The Town Council will hear the matter at its next regularly scheduled meeting and will render its decision on the appeal at the following regularly scheduled meeting. The Council, in its discretion, may consider additional evidence and submissions during the period between meetings and at the second regularly scheduled meeting prior to rendering its decision.

### c. Appeals to the Circuit Court

Appeals to the Circuit Court of Loudoun County from any decision of the Town Council may be made by any person by filing a petition at law, setting forth the alleged illegality of the action of the Town Council within thirty (30) days from the final decision rendered by the Town Council. The filing of the said petition shall stay the decision of the Town Council pending the outcome of the appeal to the Court, except that the filing of such petition shall not stay the decision of the Town Council if such decision denies the right to raze or

demolish a historic landmark, building or structure. The court may reverse or modify the decision of the Town Council in whole or in part, if it finds upon review that the decision of the Town Council is contrary to law or that its decision is arbitrary and constitutes an abuse or discretion or it may affirm the decision of the Town Council.

(a) Any person or persons jointly or severally aggrieved by any decision of the town council may appeal such decision to the circuit court of Campbell County for review by filing a petition for such review within 30 days after the date of a final decision is rendered by the town council. The filing of a petition shall stay the decision of the town council pending the outcome of the appeal to the circuit court.

(b) The court may reverse or modify the decision of the town council, in whole or part, if it finds upon review that the decision of the governing body is contrary to law or that its decision is arbitrary and constitutes an abuse of discretion. It may affirm the decision of the town council.

(c) For the purposes of this division, the term "person aggrieved" shall be limited to the applicant, the planning commission, the town council, or any person having an immediate pecuniary and substantial interest in the subject matter at issue and not a remote or indirect interest. Such person, in order to be "aggrieved", must exhibit a substantial grievance and show a denial of some personal or property right, legal or equitable, or imposition of a burden or obligation upon himself or herself different from that suffered by the public generally.

B. Any applicant aggrieved by a final decision of the Board of Architectural Review following the decision rendered on appeal to the Front Royal Town Council, may appeal said decision to the Circuit Court of Warren County, Virginia, by filing a petition at law setting forth the alleged illegality of the BAR's action, provided that such petition is filed with the Circuit Court within thirty (30) days after the appealed decision of the Front Royal Town Council. The filing of said petition with the Circuit Court shall stay the decision of the BAR pending the outcome of the appeal, except that the filing of such petition shall not stay the decision of the BAR if such decision denies the right to raze or demolish an historic landmark, building or structure. The Circuit Court may reverse or modify the decision of the BAR, in whole or in part, if the Court finds, upon review, that the decision is arbitrary and constitutes an abuse of discretion. The Circuit Court may also affirm the decision of the BAR.

# *Sample Historic District Signs Ordinance Outline*

I. **Area, Height, Number and Location of Signs**

The area, height, number and location standards for all signs erected in the H-1 Overlay District shall be determined by the Board of Architectural Review in accordance with the Old and Historic District Design Guidelines during the Historic District Sign Permit review process. In making determinations that differ from the design standards contained in Sec. 15.7, Sec. 15.8, and Sec. 15.9, the Board shall be guided by the Old and Historic District Design Guidelines.

Unless otherwise specified below, all signage within the district must comply with the regulations set forth in chapter 86, article V of this zoning ordinance.

(a) *Maximum size and number of signs.*

(1) Three signs maximum per business per street or opened alley facing. Where buildings only face one street, but signs can be seen from passing traffic, wall signs (only) may be used on side walls, but all sign sizes and numbers apply as if they were placed at the building front. Number and size of all signs will be limited to a maximum of three regardless of where they are placed.

(2) Thirty square feet maximum per sign, regardless of the number.

(3) Sixty square feet maximum aggregate.

(4) No sign shall exceed 15 feet in height measured from the base of the sign or the grade of the nearest street, whichever is higher.

(b) *Signs for multiple businesses on a single zoning lot.*

(1) Maximum size of signs per business.

a. Thirty square feet maximum per sign, regardless of the number.

b. Sixty square feet maximum aggregate.

8. General Sign Standards.

a. Determination of Sign Height and Setback. The height of a sign shall be measured from the average elevation of the street to which the sign is oriented. The setback shall be measured from the property boundary to the closest point of the sign.

b. Number of Sign Faces. No sign shall have more than two (2) sign faces.

c. Determination of Sign Area. The area of signs shall include the area enclosing the face of the sign, including all frames or other components not otherwise used for support.

d. Area of Signs with Two (2) Sign Faces. The area of a sign with two (2) sign faces shall be computed according to the following:

[1] Sign faces separated by an interior angle of forty-five degrees (45 ° ) or greater, both sign faces shall be included.

[2] Sign faces separated by an interior angle of less than forty-five degrees (45 ° ), one (1) sign face shall be included; provided, however, that the area of the largest sign face shall be used when two (2) faces are unequal in area.

b. Area, Height and Location of Signs. The area, height and location standards for the underlying zoning district shall be applicable to signs erected in the Historic District.

e. Projection Over the Sidewalk. Perpendicular signs may be allowed to project over the sidewalk or public right-of-way, provided that a minimum vertical clearance of nine (9) feet is maintained and installation is made to ensure public safety.

II. **Sign Modifications**

The Board of Architectural Review may authorize an alternative signage plan that does not strictly adhere to the area, number, height and location criteria within the H-1 Overlay District if it is determined that the design is more consistent with the architectural character of the building to which it relates and other surrounding properties.

e. Inspections. A final inspection shall be completed after installation of approved signs. Any discrepancies between the approved sign and the sign as constructed shall be identified and may result in the halt of construction or sign removal, if so ordered by the Zoning Administrator.

III. **Historic District Zoning Permit Required**

New signs or changes in text, color or composition to an existing permanent sign within the H-1 Historic District require the approval of a Historic District Zoning Permit by either the Board of Architectural Review in accordance with Sec. 7.5.5. Historic District Permits or the Preservation Planner in accordance with Sec. 7.5.6 Administrative Approval of Historic District Permits and the issuance of a sign permit by the Zoning Administrator.

3. Sign Permit Required. Except as provided herein, no sign shall be erected, installed, used, altered, relocated, replaced or reconstructed until a sign permit has been issued (and a certificate of appropriateness, if applicable). For the purpose of this Ordinance, all signs are considered accessory uses and accessory structures. Unless specifically qualified, all signs shall be located on the same lot with the principal use to which they pertain.

a. Certificate of Appropriateness Required. Signs within the Historic District require the approval of a Certificate of Appropriateness by the Board of Architectural Review prior to the issuance of a sign permit by the Zoning Administrator.

IV. **Additional Review Criteria**

Any sign erected within the H-1 Overlay District shall also satisfy all applicable criteria established in Sec. 7.5.

c. Sign Requirements May Be Waived. The Zoning Administrator may authorize the waiver of the sign requirements for setback, spacing, number, frontage, height, area and type of signs within the Historic District if the Board of Architectural Review approves a specific sign proposal consistent with the character of the building to which it relates and other surrounding properties. In no case, however, may a sign exceed a maximum of sixty (60) square feet.

d. Additional Review Criteria. Any sign erected within the Historic District shall also satisfy all applicable standards and guidelines adopted by the Board of Architectural Review.

# Appendix I: Virginia Landowner Liability Law

Virginia's Landowner Liability Law (29.1-509) offers landowners who allow recreational easements or no-fee activities on their property some protection from liability barring gross negligance. The law and details of its requirements and provision can be found below.

§ 29.1-509. Duty of care and liability for damages of landowners to hunters, fishermen, sightseers, etc.

A. For the purpose of this section:

"Fee" means any payment or payments of money to a landowner for use of the premises or in order to engage in any activity described in subsections B and C of this section, but does not include rentals or similar fees received by a landowner from governmental sources or payments received by a landowner from incidental sales of forest products to an individual for his personal use, or any action taken by another to improve the land or access to the land for the purposes set forth in subsections B and C of this section or remedying damage caused by such uses.

"Land" or "premises" means real property, whether rural or urban, waters, boats, private ways, natural growth, trees and any building or structure which might be located on such real property, waters, boats, private ways and natural growth.

"Landowner" means the legal title holder, lessee, occupant or any other person in control of land or premises.

"Low-head dam" means a dam that is built across a river or stream for the purpose of impounding water where the impoundment, at normal flow levels, is completely within the banks, and all flow passes directly over the entire dam structure within the banks, excluding abutments, to a natural channel downstream.

B. A landowner shall owe no duty of care to keep land or premises safe for entry or use by others for hunting, fishing, trapping, camping, participation in water sports, boating, hiking, rock climbing, sightseeing, hang gliding, skydiving, horseback riding, foxhunting, racing, bicycle riding or collecting, gathering, cutting or removing firewood, for any other **recreational use**, or for use of an easement granted to the Commonwealth or any agency thereof to permit public passage across such land for access to a public park, historic site, or other public recreational area. No landowner shall be required to give any warning of hazardous conditions or uses of, structures on, or activities on such land or premises to any person entering on the land or premises for such purposes, except as provided in subsection D.

C. Any landowner who gives permission, express or implied, to another person to hunt, fish, launch and retrieve boats, swim, ride, foxhunt, trap, camp, hike, rock climb, hang glide, skydive, sightsee, engage in races, to collect, gather, cut or remove forest products upon land or premises for the personal use of such person, or for the use of an easement as set forth in subsection B does not thereby:

1. Impliedly or expressly represent that the premises are safe for such purposes; or

2. Constitute the person to whom such permission has been granted an invitee to whom a duty of care is owed; or

3. Assume responsibility for or incur liability for any intentional or negligent acts of such person or any other person, except as provided in subsection D.

D. Nothing contained in this section, except as provided in subsection E, shall limit the liability of a landowner which may otherwise arise or exist by reason of his gross negligence or willful or malicious failure to guard or warn against a dangerous condition, use, structure, or activity. The provisions of this section shall not limit the liability of a landowner which may otherwise arise or exist when the landowner receives a fee for use of the premises or to engage in any activity described in subsections B and C of this section. Nothing contained in this section shall relieve any sponsor or operator of any sporting event or competition including but not limited to a race or triathlon of the duty to exercise ordinary care in such events. Nothing contained in this section shall limit the liability of an owner of a low-head dam who fails to implement safety measures described in subsection F.

E. For purposes of this section, whenever any person enters into an agreement with, or grants an easement to, the Commonwealth or any agency thereof, any county, city, or town, or with any local or regional authority created by law for public park, historic site or recreational purposes, concerning the use of, or access over, his land by the public for any of the purposes enumerated in subsections B and C of this section, the government, agency, county, city, town, or authority with which the agreement is made shall hold a person harmless from all liability and be responsible for providing, or for paying the cost of, all reasonable legal services required by any person entitled to the benefit of this section as the result of a claim or suit attempting to impose liability. Any action against the Commonwealth, or any agency, thereof, for negligence arising out of a use of land covered by this section shall be subject to the provisions of the Virginia Tort Claims Act (§ 8.01-195.1 et seq.). Any provisions in a lease or other agreement which purports to waive the benefits of this section shall be invalid, and any action against any county, city, town, or local or regional authority shall be subject to the provisions of § 15.2-1809, where applicable.

F. Any owner of a low-head dam may mark the areas above and below the dam and on the banks immediately adjacent to the dam with signs and buoys of a design and content, in accordance with the regulations of the Board, to warn the swimming, fishing, and boating public of the hazards posed by the dam. Any owner of a low-head dam who marks a low-head dam in accordance with this subsection shall be deemed to have met the duty of care for warning the public of the hazards posed by the dam. Any owner of a low-head dam who fails to mark a low-head dam in accordance with this subsection shall be presumed not to have met the duty of care for warning the public of the hazards posed by the dam.

(Code 1950, §§ 8-654.2, 29-130.2; 1962, c. 545; 1964, c. 435; 1977, c. 624; 1979, c. 276; 1980, c. 560; 1982, c. 29; 1983, c. 283; 1987, c. 488; 1988, c. 191; 1989, cc. 26, 500, 505; 1990, cc. 799, 808; 1991, c. 305; 1992, c. 285; 1994, c. 544; 2007, c. 664.)

Legislative Information System - http://leg1.state.va.us/

# Appendix J: Sample Easements

## *Sample Virginia Recreational Easement*

### Sample Conservation Easement Language

As natural-resource agencies in Virginia consider how best to protect the types of land that are important to each agency's mission, they are expanding their repertoire of conservation methods to include more than traditional ownership in fee simple. Agencies within the Secretariat of Natural Resources and the Secretariat of Agriculture and Forestry are increasingly turning to conservation easements as one of the tools they can use to achieve their land-conservation goals.

The first, vital steps in writing a conservation easement are to accurately identify the conservation purposes of the property by ascertaining the known resources of all kinds that are present on the site, and to find a way to combine those conservation purposes with the desires of the landowner who is granting the easement. Since the property's resources will define the conservation purpose of the easement, they should generally reflect the mission and focus of the agency that is working with the landowner to protect the land. However, important natural and cultural resources often exist on the land that go beyond the focus of the agency that will hold the conservation easement. The purpose of gathering examples of sample language that can be included in conservation easement documents is to provide Virginia's land-conservation agencies with conservation-easement language to protect resources that are not usually within the purview of that agency. Conceivably, other organizations may find these to be useful examples for crafting protective conservation easement language as well.

The language used in conservation easements is crucial to establish long-term protection of the property and the continuation of those uses and attributes that represent the land's conservation values. These documents must be crafted carefully and unambiguously to ensure rock-solid land conservation in perpetuity. These examples are presented with that in mind, in order to further land conservation in Virginia.

The first type of sample language presented is suggested provisions for conservation easements where the donation of the easement will produce land preservation tax credits of $1 million or more. All the other sample language types are presented with two kinds of "modules" that correspond to the usual sections of a conservation easement. In each section, examples of conservation purpose language are provided first as recitals beginning with "Whereas," and then examples of protective language are provided that can be used to protect the conservation purposes recited in the "Whereas" clauses.

The craft of conservation easement writing is always evolving, and the intent for this document is to keep it alive by continuing to revise it with new samples of language that will serve to protect the land and landmarks of Virginia.

## Sample Language for Recreational Uses

### Conservation Purpose Language

WHEREAS, it is the intent of this Easement to maintain the rural, agricultural and natural scenic qualities of the area by the retention of significant open space for a variety of uses including recreation, wildlife habitat, and *[other desired use]*; and,

WHEREAS, it is the intent of this Easement to maintain, enhance and develop water resources on the Property in accordance with applicable state and federal regulations, for fish and wildlife uses, domestic needs, and private recreation;

WHEREAS, it is the intent of Grantor that this Easement will limit the use of the Property to such activities as are consistent with its Conservation Values, including hunting, fishing, hiking, and other recreational uses;

### Protective Language

**Recreational Uses**. Grantor shall have the right to engage in and permit others to engage in recreational uses of the Property, including, without limitations, hunting and fishing, that require no surface alteration or other development of the land. Motorized vehicles are prohibited on all trails and off-road terrain. Pursuit of wildlife by any form of motorized transportation is not allowed. Furthermore, Grantor shall not be allowed to conduct recreational activities that impair the conservation values of the Property, especially with regards to erosion and sedimentation issues associated with overuse or misuse of the Property's landscape. Lastly, in order to qualify this easement for treatment under Internal Revenue Code Section 2031(c)(8)(B), any use of the Property for more than a *de minimis* use for a commercial recreational activity is prohibited..

**Water resources and recreation**. Permitted uses include, but are not limited to, the following: the right to restore, enhance and develop water resources, including ponds; and to locate, construct, repair, and maintain a private fishing pier with Grantor's prior approval.

**Public Access to Riparian Corridor**. The Grantor agrees to allow public access to _____ (the "Waterway") and its banks for recreational fishing and boating, to preserve vegetative cover in a riparian buffer so as to protect water quality and riparian habitat, and to allow the holder to provide sites for fishery and habitat management, research and educational programs. The easement granted to Holder includes the rights described below in this Section.

(i) *Public Access.* Subject to Access Restrictions, public use of the Riparian Corridor for recreational fishing and boating together with accessory use of any Accessory Facilities (defined below in this Section) identified for public use by the Holder. The term "Access

Restrictions" means the rules, regulations and/or limitations established by Holder to regulate fishing and boating activities.

(ii) *Management Activities*. Use of the Easement Area by or under the auspices of the Holder for stocking fish, improving stream habitat, stabilizing stream banks and other educational, scientific and resource management activities in furtherance of the Conservation Purpose.

(iii) *Accessory Facilities*. Installation, construction, maintenance, repair and replacement of Accessory Facilities either within the Riparian Corridor or, if outside the Riparian Corridor, in the locations identified on the Easement Plan or such other locations as are mutually agreeable to Grantor and Holder. The phrase "Accessory Facilities" means temporary or permanent structures and improvements used or usable in connection with Easement Objectives; for example, a driveway, trail, footpath, boardwalk or other access way connecting the Riparian Corridor with the public right-of-way; parking area; dock, boat launch, structures that enhance fishing opportunities or fish habitat, and signage to mark the Easement Area and provide information regarding applicable time, place and manner restrictions.

(iv) *Access.* Reasonable means of access (both vehicular and pedestrian) to and from the public right-of-way for the purposes described in (b) and (c) above. As to the public use described in (a) above, access to the Riparian Corridor is via the Waterway unless and to the extent (i) the Riparian Corridor is accessible directly from the public right-of-way; or (ii) a footpath, trail or drive providing access to the Riparian Corridor has been identified by Holder on the Easement Plan for public use purposes.

**Charge.** No charge or fee is permitted for access to the Easement Area for fishing, boating and other water-related activities or uses or for use of any Accessory Facilities.

**Grantor's Enforcement Rights in Riparian Corridor.** Grantor reserves the right to take any action permitted under law to remove from the Property persons entering the Easement Area for purposes other than set forth in the grant of public access under this Article.

# *Sample Easement from Fairfax County*

**RECORDATION COVER SHEET**

| | |
|---|---|
| TYPE OF INSTRUMENT: | DEED OF EASEMENT |
| DATE OF INSTRUMENT: | February _____, 2003 |
| NAME OF GRANTOR: | THE NATURE CONSERVANCY |
| NAME OF GRANTEE: | NORTHERN VIRGINIA REGIONAL PARK AUTHORITY |
| COUNTY WHERE PROPERTY LOCATED: | FAIRFAX [TAX MAP 3-2-((1))-1] |
| DEED BOOK AND PAGE NO. WHERE PROPERTY ACQUIRED: | DEED BOOK 3958, PAGE 699 |
| THIS INSTRUMENT PREPARED BY: | NORTHERN VIRGINIA REGIONAL PARK AUTHORITY<br>5400 Ox Road<br>Fairfax Station, Virginia 22039-1022 |
| RETURN TO: | NORTHERN VIRGINIA REGIONAL PARK AUTHORITY<br>5400 Ox Road<br>Fairfax Station, Virginia 22039-1022<br>Attention: K.H. Rudacille |

**RECORDATION COVER SHEET**

| | |
|---|---|
| TYPE OF INSTRUMENT: | DEED OF EASEMENT |
| DATE OF INSTRUMENT: | February _____, 2003 |
| NAME OF GRANTOR: | THE NATURE CONSERVANCY |
| NAME OF GRANTEE: | NORTHERN VIRGINIA REGIONAL PARK AUTHORITY |
| COUNTY WHERE PROPERTY LOCATED: | FAIRFAX [TAX MAP 3-2-((1))-1] |
| DEED BOOK AND PAGE NO. WHERE PROPERTY ACQUIRED: | DEED BOOK 3958, PAGE 699 |
| THIS INSTRUMENT PREPARED BY: | NORTHERN VIRGINIA REGIONAL PARK AUTHORITY<br>5400 Ox Road<br>Fairfax Station, Virginia 22039-1022 |
| RETURN TO: | NORTHERN VIRGINIA REGIONAL PARK AUTHORITY<br>5400 Ox Road<br>Fairfax Station, Virginia 22039-1022<br>Attention: K.H. Rudacille |

# Northern Virginia Recreation Park Authority Sample Easement 1

BK5848 1586

83-091095

THIS DEED OF EASEMENT is made this 11th day of October, 1983, by and between REYNOLDS BECKWITH and MARY ELIZABETH BECKWITH, husband and wife, parties of the first part; and the NORTHERN VIRGINIA REGIONAL PARK AUTHORITY, a body corporate and politic, party of the second part.

WHEREAS, the parties of the first part are the sole owners and proprietors of the hereinafter described property, as shown on the plat attached hereto, having acquired said property by Deed recorded in Deed Book 5412, at page 800, among the land records of Fairfax County, Virginia; and

WHEREAS, it is the desire and intent of the parties of the first part to donate and give a public trail easement to the party of the second part as shown on the plat attached hereto and in accordance with the terms provided herein.

NOW THEREFORE, the parties of the first part do hereby give, donate, grant, and convey unto the party of the second part a public recreation trail easement fifteen feet (15') in width, over and across the property of the parties of the first part, as more particularly bounded and described on the plat dated September 9, 1983, and prepared by Bengtson, DeBell, Elkins & Titus of Centreville, Virginia, Certified Land Surveyors, which is attached hereto as Exhibit A and made a part hereof, subject to the following terms and conditions:

1. The easement shall be used exclusively for pedestrian and non-motorized vehicular use, and for use by maintenance and construction vehicles of the party of the second part.

2. The party of the second part shall have the right to construct, reconstruct, use, operate, and maintain the public recreation trail, and shall have full and free use of the easement for the purposes named, and shall have all rights and privileges reasonably necessary to the exercise of the easement, including the right to use abutting land adjoining the easement, not to exceed fifteen feet (15') from the centerline of the easement, where necessary; provided, however, that this right to use abutting land shall be exercised only during periods of actual construction or maintenance, and then only to the

eturn to:

(LCS)
HAZEL,
BECKHORN & HANES
Attorneys at Law
P. O. Box 547
airfax, Virginia 22030

STATE TAX
COUNTY TAX
TRANSFER FEE
CLERK'S FEE 16.00
GRANTOR TAX
CONS

minimum extent necessary for such construction or maintenance, and provided that the party of the second part shall restore, as nearly as possible, the abutting land to its original condition; and provided further, that this right shall not be construed to allow the party of the second part to erect any building or structure of a permanent nature on such abutting land.

3. The party of the second part shall have the use of the easement free from any obstructions and shall have the right to trim, cut, and remove trees, shrubbery, fences, structures, or other obstructions or facilities that interfere with the proper and efficient construction, reconstruction, use, operation, and maintenance of the easement.

4. The party of the second part shall have the right to grade and gravel and/or pave the easement, or portions thereof, to install bridges and similar structures, to install guardrails and fences, to construct and maintain drainage ditches and structures, and to plant trees and shrubbery within the easement, which shall remain the property of the party of the second part, its successors and assigns.

5. Upon establishment of the public recreation trail, and before opening the easement for use by the general public, the party of the second part shall construct, and thereafter maintain, a fence of at least four feet (4') in height along the eastern and northern boundary lines of the easement.

6. Upon establishment of the public recreation trail, and before opening the easement for use by to the general public, the party of the second part shall construct, and thereafter maintain, a barricade across the northern property line of the parties of the first part to restrict unauthorized entry onto the easement by motorized vehicles.

HAZEL,
BECKHORN & HANES
Attorneys at Law
P. O. Box 547
airfax, Virginia 22030

7. In the event that the parties of the first part desire to construct a pond on the herein described property which would interfere with the use and maintenance of the easement, the party of the second part shall consider, in good faith, the realignent or relocation of the easement; provided,

however, that such realignment or relocation does not impede or interfere with the intended use of the easement by the party of the second part.

WITNESS the following signatures and seals:

Reynolds Beckwith (SEAL)
REYNOLDS BECKWITH

Mary Elizabeth Beckwith (SEAL)
MARY ELIZABETH BECKWITH

ACCEPTED by the NORTHERN VIRGINIA REGIONAL PARK AUTHORITY on this 12th day of October, 1983.

NORTHERN VIRGINIA REGIONAL PARK AUTHORITY

By: David C. Hobson

STATE OF VIRGINIA
COUNTY OF FAIRFAX, to-wit:

I, the undersigned Notary Public, in and for the State and County aforesaid, whose commission expires on the 6th day of February, 1984, do hereby certify that REYNOLDS BECKWITH, whose name is signed to the foregoing Deed of Easement bearing date on the 11th day of October, 1983, appeared before me and personally acknowledged the same in my jurisdiction aforesaid.

GIVEN under my hand and seal this 11th day of October 1983.

Linda C. Stokely
Notary Public

STATE OF VIRGINIA
COUNTY OF FAIRFAX, to-wit:

I, the undersigned Notary Public, in and for the State and County aforesaid, whose commission expires on the 6th day of February, 1984, do hereby certify that MARY ELIZABETH BECKWITH, whose name is signed to the foregoing Deed of Easement bearing date on the 11th day of October, 1983, appeared before me and personally acknowledged the same in my jurisdiction aforesaid.

GIVEN under my hand and seal this 11th day of October, 1983.

Linda C. Stokely
Notary Public

HAZEL,
BECKHORN & HANES
Attorneys at Law
P. O. Box 547
airfax, Virginia 22030

STATE OF VIRGINIA
COUNTY OF FAIRFAX, to-wit:

I, the undersigned Notary Public, in and for the State and County aforesaid, whose commission expires on the 4th day of February, 1984, do hereby certify that David C. Hobson as a Director of the NORTHERN VIRGINIA REGIONAL PARK AUTHORITY, whose name is signed to the foregoing Deed of Easement bearing date on the 11th day of October, 1983, appeared before me and personally acknowledged the same in my jurisdiction aforesaid.

GIVEN under my hand and seal this 12th day of October, 1983.

Linda C. Stokely
Notary Public

HAZEL,
BECKHORN & HANES
Attorneys at Law
P. O. Box 547
airfax, Virginia 22030

RECORDED W/CERTIFICATE ANNEXED
1983 OCT 19 PM 12:28
FAIRFAX COUNTY, VA.
TESTE: Fanne E. Hoofnagle
CLERK

with plat attached

4

# *Northern Virginia Recreation Park Authority Sample Trail Easment 2*

## GRANT OF TRAIL EASEMENT

KNOW ALL PERSONS BY THESE PRESENTS that The Nature Conservancy, of Virginia, on behalf of their heirs, executors, administrators, successors and assigns (hereinafter "Owners"), pursuant to the authority granted in Title _ Chapter _ and in consideration of the payment of Ten Dollars and other valuable consideration paid to its full satisfaction, do freely give, grant, sell, convey and confirm unto the Northern Virginia Regional Park Authority a body corporate and politic organized under the laws of the Commonwealth of Virginia with offices in Fairfax Station, Virginia (hereinafter "Holder") forever, a perpetual, non-exclusive, and assignable easement for a right-of-way all as more particularly set forth below, over a certain parcel of land located in the Fairfax County, Virginia (hereinafter the "Property"). The Property is more particularly described in Schedule A attached hereto and incorporated herein. The location of the right-of-way easement conveyed hereby is more particularly described in Schedule B attached hereto and incorporated herein (hereinafter the "Corridor"). A trail shall be located within the Corridor and may be improved as provided below (hereinafter the "Trail"). This Easement also contains covenants on the part of Owners and the Holder to do or refrain from doing various acts as set forth below. It is hereby acknowledged that this Easement constitutes a servitude upon the land and runs with the land. Holder accepts this Easement in order to provide public access to recreational opportunities and activities throughout the Corridor.

**I. PURPOSES.** The purposes of this Easement as set forth below in this Section I are hereinafter collectively referred to as the "Purposes of this Easement" and Owners and Holder acknowledge that the Purposes of this Easement are: The purposes of this Easement as set forth below in this Section I are hereinafter collectively referred to as the "Purposes of this Easement" and Owners and Holder acknowledge that the Purposes of this Easement are:

1. The primary purpose is to provide permanent and perpetual public, recreational use of the Corridor, and to locate the Corridor so that it provides public recreational access [ADDITIONAL EXAMPLES: "four-season public recreational use", "situated principally on the road bed of the District of Columbia's Potomac Interceptor sewer", "of which this Easement is intended to be a part", "that has been recognized, pursuant to 10 V.S.A. §443, by the Vermont Agency of Natural Resources as a component of the Vermont Trails System" or "seasonal, pedestrian, non-motorized, wilderness-type recreation".] across the Property in a manner that enhances the outdoor experience, to establish a Trail without undue expense, and to implement these purposes while limiting the adverse impact on Owners' [if relevant: residential use,] agricultural use and forestry use of the Property.

2. The secondary purposes are to preserve the scenic beauty and natural qualities of the Corridor, in particular (INSERT HERE ANY PARTICULAR PHYSICAL ATTRIBUTES OF NOTE), to limit erosion caused by public use of the Corridor, consistent with public recreational and other uses specifically permitted by this Easement, and to protect and maintain any private or public investment made in obtaining this Easement, in establishing the Corridor, and in constructing and managing the Trail. [OPTIONAL PROVISION: "In addition the Property is conserved by a Grant of Development Rights and Conservation Restrictions dated _____ and held by _____"].

## II. USES AND OBLIGATIONS.

1. **Public Access:** Holder may permit, in its sole discretion, public access to the Corridor for four-season, pedestrian or mechanized, non-motorized recreational activities, [CHOOSE FROM THE FOLLOWING LIST TO MATCH THE PURPOSES: such as walking, skiing, bicycling, in-line skating, or riding horses or other pack animals.] Except as provided below, motor vehicles are not permitted. Overnight camping and campfires are not permitted. Holder shall have the right, in its sole discretion, to restrict or limit public use of and access to the Corridor. If use of the Corridor materially interferes with Owners' quiet enjoyment of the Property on a frequent, continuous basis, and measures taken by Holder do not, in Owners' reasonable opinion, sufficiently abate the interference, Owners may close the Corridor for a period not to exceed two weeks to enable Holder to take corrective action. Owners shall provide written notice to Holder of such Corridor closure.

2. **Corridor Location:** While the location of the Corridor is generally described in Schedule B attached hereto and incorporated herein and is depicted on a map entitled _____ Public Recreation Corridor held by Holder, the precise location shall be fixed on the ground by mutual agreement of Holder and Owners, and marked by blazing, signs or otherwise along the perimeter of the Corridor by Holder. The Corridor location may be altered from time to time by mutual consent of Holder and Owners. Owners and Holder shall locate the Corridor in a manner consistent with the Purposes of this Easement. If Owners and Holder are unable to agree on the Corridor location, said matter shall be submitted for binding arbitration as provided in Section IV, below.

3. **Trail Construction:** Holder shall have the right, but not the obligation, at Holder's expense, to construct, manage, use, repair and maintain [OPTIONAL PROVISION: insert the words ", including paving," if this would be consistent with the Purposes] a Trail, including the right to install, maintain, repair and replace waterbars, steps and other trail surface structures, as well as bridges and/or culverts as necessary to traverse surface waters within the Corridor. Prior to initial Trail installation, Trail relocation within the Corridor, and major maintenance activity, Holder shall give at least two weeks notice to Owners by certified mail, Return Receipt Requested. The Trail shall not exceed __ feet in width within the __ foot wide Corridor. The Trail may be relocated within the Corridor at the Holder's sole discretion after giving notice to Owners as provided above.

4. **Vegetation Management:** Holder shall not cut or remove any vegetation from the Property until the Corridor has been located on the ground as provided above. Holder may clear brush as required to maintain the Trail [OPTIONAL IF USED BELOW: "and the additional cleared areas required to turn grooming equipment"] and may remove dead, dying or diseased vegetation within the Corridor which poses a safety risk to Trail users after the Trail has been constructed; otherwise Holder may cut or remove additional vegetation only with the prior written consent of Owners. Holder shall not employ herbicides, pesticides, growth inhibitors or other chemicals within the Corridor without the prior written consent of Owners. Owners shall not harvest any trees in the Corridor without the prior written consent of Holder, except that Owners may remove dead, diseased or dying trees without prior permission of Holder, provided that Owners have given Holder notice of the proposed activity so that Holder can divert public use of the Trail if necessary.

5. **Fencing, Barriers and Signs:** Holder, or Owners with Holder's prior written consent, may erect and maintain such fencing and barriers within the Corridor as may be reasonably necessary to prevent access to the Trail by motor vehicles. Holder shall have the right to erect reasonable signs, blazing or other markings within the Corridor to inform the public of the Trail location or other Trail features. Owners shall not erect fences, barriers or signs that impede access to or use of the Trail.

6. **Motor Vehicles:** Holder may use motorized vehicles and equipment within the Corridor to construct, relocate, maintain, repair and patrol the Trail, and for medical emergencies. Owners and Holder shall not use or permit the use of motor vehicles within the Corridor, except as specifically provided in this Section II. [OPTIONS: "Snowmobiles may be permitted within the Corridor by mutual agreement of Holder and Owners. If permitted, then Holder shall have the right to operate snow grooming equipment within the Corridor and the right to establish and maintain a cleared zone of ___ feet within the Corridor as necessary to permit turning on and navigation of the Trail by grooming equipment." Note: the minimum distances are an 8 foot trail, within a 25 foot Corridor, allowing a total of 15 feet of clearing with a 5 foot vegetated buffer on either side].

7. **Handicapped Access:** Holder may permit motor-driven wheelchairs or all terrain vehicles for the use of handicapped persons within the Corridor if consistent with the Purposes of this Easement.

8. **Driveways and Other Access:** Except as specifically permitted under this Easement, no rights-of-way, easements of ingress or egress, driveways, roads, utility lines or other easements shall be constructed, developed or maintained into, on, over, under, or across the Corridor, without the prior written permission of the Holder. [CHOOSE ONE DISCRETIONARY STANDARD, based on volume of trail use, physical attributes of the Corridor, trail location(rural or suburban). For an unimpaired wilderness experience, CHOOSE: "Holder may grant, condition or deny permission in its sole discretion." For a suburban location, CHOOSE: "Holder shall not unreasonably withhold or condition Holder's permission, provided that granting permission would not materially impair the recreational use of the Corridor and is otherwise not inconsistent with the Purposes of this Easement."]

9. **Buildings and other Non-Recreational Uses:** Owners shall use the Corridor exclusively for recreation and open space purposes, as well as for the limited commercial purposes described below. No residential or industrial activities shall be permitted, and no building or structure shall be constructed, created, erected or moved into the Corridor, other than the Trail surface structures mentioned in Section II(2). [OPTIONAL PROVISION: "and one or more lean-tos or other open-air shelters, each not to exceed 150 square feet; provided, however, that said structures shall be erected only with the prior written consent of both Owners and Holder"].

10. **Agriculture and Forestry:** Owners may mow and remove hay crops within the Corridor, but shall not engage in other agricultural activities within the Corridor without the prior written permission of Holder, who may permit certain agricultural uses that, in Holder's sole discretion, do not materially interfere with the recreational use of the Corridor, in which event, Holder and Owners shall agree upon reasonable locations for agricultural and forestry equipment to cross the Corridor so that agricultural, forestry and other open space uses of the Property, exclusive of the Corridor, can be conducted in the customary manner. Owners may cross or use the Corridor for the purpose of transporting timber and other wood products, and agricultural products from adjacent lands to a public road, provided that: (a) there is no reasonable alternative access outside the Corridor to transport the products; (b) Owners provide not fewer than thirty (30) days written notice to Holder prior to the commencement of the use of the Corridor for such purposes; (c) such use is limited to a period of __ days annually, unless extended by mutual agreement of the parties; (d) Owners use reasonable means to limit damage to the Trail caused by the transportation of timber and agricultural products; (e) Owners employ sufficient signs to warn Trail users of the presence of machinery associated with transporting timber and agricultural products during times of such activity; (f) no equipment, materials, or timber or agricultural products are stored, parked, or piled on the Corridor; (g) Owners establish a practical temporary alternative trail outside the Corridor for the duration of the operation; [OPTIONAL PROVISION: in the event that Owners must retain the right to temporarily close the Corridor for the frequent, safe transportation of timber products produced during a timber harvest, then items e, f, and g should be deleted, and should be replaced with the clause: "(e) Owners may close

the Corridor to public access for a period not to exceed __ days annually in order to allow the safe transportation of timber and other wood products on the Corridor, and must employ clear and sufficient signs stating that the Trail is closed, the reason for such closure and the scheduled date of its reopening."]; and (h) Owners restore the Trail to its original condition within __ days of completion of the such uses.

11. **Excavation, Mining and Trash:** Except as provided in Section II(3), there shall be no disturbance of the surface of the Property, including but not limited to filling, excavation, removal of topsoil, sand, gravel, rocks or minerals, or change of the topography of the Corridor in any manner. In no case shall surface mining of subsurface oil, gas, or other minerals be permitted. Further, there shall be no placement, collection, or storage of trash, human waste, ashes, chemicals, hazardous or toxic substances, or any other unsightly or offensive material within the Corridor.

12. **Liability:** Owners may, in Owners' discretion, close the Corridor to public use in the event the landowner liability protection afforded by 10 V.S.A. §5212 [if "Vermont Trail System", add 10 V.S.A. §448] is repealed or altered in a manner which materially increases, in Owners' reasonable opinion, Owners' potential liability to public users of the Corridor, and (a) no other statute or law affords Owners, in Owners' reasonable opinion, liability protection which is substantially similar to that now afforded by 10 V.S.A. §5212 [and 448]; and (b) no Holder or Manager elects to provide reasonable insurance coverage or otherwise agrees to hold Owners harmless against potential liability to public users of the Corridor.

13. **Miscellaneous:** No use shall be made of the Corridor, and no activity shall be permitted in the Corridor which, in the reasonable opinion of Holder, is or may possess the potential to become inconsistent with the Purposes of this Easement.

## III. MANAGER AND MANAGEMENT PLAN.

Holder may assign its rights and obligations under this instrument with regard to construction re-location and management of the Trail to an individual or entity (the "Manager"), first provided that Manager (1) is qualified and has the capacity to perform the Trail management functions of Holder; (2) Manager undertakes in writing to fulfill the management obligations of the Holder; and (3) Holder first provides written notice to Owners of the name, address and other means of contacting Manager.

Manager shall prepare a Management Plan for the Trail, to provide direction and guidance to Trail users, to Owners and Holder regarding Trail construction, use, maintenance, and problem solving. The Management Plan shall be consistent with and shall not replace this Easement. The Management Plan shall be reviewed by Holder and Owner, in order to ensure consistency with this Easement. If Holder does not assign its rights to a Manager, all references to Manager shall mean Holder.

## IV. COMPLIANCE WITH EASEMENT AND BINDING ARBITRATION.

Owners and Holder shall take reasonable steps to periodically inspect the Corridor to assure compliance with this Easement. In the event that Owners or Holder becomes aware of an event or circumstance of non-compliance with this Easement, that party shall give notice to the other of such event or circumstance of non-compliance via certified mail, return receipt requested, and demand corrective action sufficient to abate such event or circumstance of non-compliance and restore the Corridor to its previous condition. Any event or circumstance of non-compliance with this Easement not corrected voluntarily shall be submitted to binding arbitration.

The arbitrator's authority shall include the right to determine whether a violation of this Easement by either Owners or Holder has or continues to occur, and what corrective action is appropriate. Further, the arbitrator's authority shall include the right to determine whether public use of the Corridor materially interferes with Owners' quiet enjoyment of the Property on a frequent basis, whether Holder's corrective action is sufficient, and what additional corrective action should be implemented to achieve the objectives of permitting reasonable public recreational access without materially interfering with Owners' quiet enjoyment of the Property. The arbitrator's authority shall include the right to temporarily close the Corridor to public use but shall not include the right to permanently close the Corridor.

The arbitrator shall be selected by the parties or by the American Arbitration Association if the parties cannot agree on an arbitrator. The costs of arbitration shall be shared equally by the parties, unless otherwise determined by the arbitrator due to one party being unreasonable or otherwise dilatory. The decision of the arbitrator shall be binding on the parties. The parties shall select an arbitrator within two weeks of the submission of an issue to arbitration, and every reasonable effort shall be made to complete arbitration of any dispute within thirty (30) days of the selection of an arbitrator.

Notwithstanding the foregoing, Owners and Holder reserve the right to bring an action in a court of competent jurisdiction to (1) secure a temporary restraining order or preliminary injunction to maintain the status quo pending the arbitration of a dispute; (2) enforce a directive issued by an arbitrator to maintain the status quo pending disposition of the arbitration proceeding; or (3) enforce a final order issued by the arbitrator. The prevailing party shall be reimbursed the reasonable costs of enforcement, including staff time, court costs and reasonable attorneys' fees, in addition to any other payments ordered by such Court. The remedies described herein are in addition to, and not in limitation of, any other remedies available to Holder at law, in equity, or through administrative proceedings.

No delay or omission by Holder or Owner in the exercise of any right or remedy shall impair Holder's or Owner's rights or remedies or be construed as a waiver. Nothing in this Section IV shall be construed as imposing a liability upon a prior Owner of the Property or Holder of the Easement, where the event or circumstance of non-compliance shall has occurred after said prior Owner's ownership or control of the Property or said prior Holder's rights in the Easement have terminated.

**V. MISCELLANEOUS PROVISIONS.**

1. The Holder shall transfer this Easement only to a State agency, municipality, or qualified organization, as defined in Title 10 V.S.A. Section 6301a, in accordance with the laws of the State of Vermont and the regulations established by the Internal Revenue Service governing such transfers.

2. In the event this Easement is extinguished by eminent domain or other legal proceedings, Holder shall be entitled to any proceeds which pertain to the extinguishment of Holder's rights and interests in this Easement.

3. In any deed conveying an interest in all or part of the Corridor, Owners shall make reference to this Easement and shall indicate that this Easement is binding upon all successors in interest in the Corridor in perpetuity. Owners shall also notify the Holder of the name(s) and address(es) of Owners' successor(s) in interest.

4. Holder shall be entitled to rerecord this Easement, or to record a notice making reference to the existence of this Easement, in the Town of _____ Land Records as may be necessary to satisfy the requirements of the Record Marketable Title Act, 27 V.S.A., Chapter 5, Subchapter 7, including 27 V.S.A. 603 and 605.

5. The term "Owners" shall include the heirs, successors and assigns of the original Owners, _____

and _____. The term “Holder” shall include the successors and assigns of the original Holder _____.

**USE #6 ONLY IF VLT IS A BACKUP HOLDER:**

6. Owners hereby give, grant and convey to _____<insert name of backup holder> an executory interest so that in the event that Holder ceases to exist as a legal entity or fails to perform its obligations under this Easement or fails to locate a Corridor or construct a Trail, and no successor organization is created or assigned this Easement, then the rights, obligations and interests hereby conveyed to Holder through this Easement shall shift to and be vested in _____. The rights, obligations and interests held by Holder shall shift to and vest in _____ upon the recording in the Town of _____ Land Records a notice (“Notice”) which has been mailed to Holder, Manager and Owner and their respective successors and assigns, if any, by certified mail, together with copies of the signed return receipts. Holder shall have a period of sixty (60) days from the date of receipt of said Notice to appoint a qualified organization as a successor. If a qualified organization is not appointed as a successor within said sixty (60) day period, the Notice shall be recorded in the Town of _____ Land Records and thereupon Holder’s rights, obligations and interests under this Easement shall shift to and be immediately vested in _____. If _____ (1) is no longer in existence at the time the rights, obligations and interests under this Easement would otherwise vest in it, or (2) is not qualified or authorized to hold easements as provided for in an assignment pursuant to Section ____, or (3) refuses such rights, obligations and interests or (4) fails to mail or to record the Notice or (5) fails for some other reason to be vested of the rights, obligations and interests under this Easement, then the rights, obligations and interests under this Easement shall vest in such qualified organization as a court of competent jurisdiction shall direct pursuant to the applicable law of the State of Vermont and with due regard to the requirements for an assignment pursuant to Section _____, above.

7. Invalidation of any provision hereof shall not affect any other provision of this Easement.

TO HAVE AND TO HOLD said granted Easement, with all the privileges and appurtenances thereof, to the said Holder _____, and its successors and assigns, to its own use and behoof forever, and the said Owners, _____ and_____, for themselves and their heirs, successors and assigns, do covenant with the said Holder, its successors and assigns, that until the ensealing of these presents, they are the sole Owners of the Property, and have good right and title to convey the same in the manner aforesaid, that the Property is free from every encumbrance, except those of record, and they hereby engage to warrant and defend the same against all lawful claims whatever.

IN WITNESS WHEREOF, we set our hands and seals this _____ day of _____, 199_.

Signed, sealed and delivered
In The Presence Of: Owners

_____ _____
Witness to

_____ _____
Witness to

STATE OF _____ _____ COUNTY, ss.

At _____, this _____ day of _____, 19__, _____

and _____ personally appeared and they acknowledged this instrument, by them sealed and subscribed, to be their free act and deed, before me,

_____
Notary Public
My commission expires:

**ACKNOWLEDGMENT OF ARBITRATION**

We understand that Section IV of this instrument contains an agreement to arbitrate. After signing this document we understand that we will not be able to bring a lawsuit concerning any dispute that may arise which is covered by the arbitration agreement set forth in Section IV, unless it involves a question of constitutional or civil rights. Instead, we agree to submit any such dispute to an impartial arbitrator. We understand that the arbitration provisions of this instrument are limited exclusively to matters set forth in said Section IV.

_____ Dated:_____
Owner

_____ Dated:_____
Owner

_____ Dated:_____
Holder

**SCHEDULE A**
**DESCRIPTION OF PROPERTY**

**SCHEDULE B**
**DESCRIPTION OF CORRIDOR LOCATION**