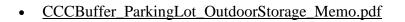
Policy Committee Government Center Complex Large Conference Room, Building A

June 16, 2011 - 7:00 p.m.

- A. Roll Call
- **B. Old Business**
- C. New Business
 - a. Private Streets
 - <u>PrivateStreet_DraftOrdinance.pdf</u>
 - PrivateStreets_Memo.pdf
 - b. Highways, Streets, Parking, and Loading
 - Parking_DraftOrdinance.pdf
 - Parking_Memo.pdf
 - c. Sound Walls
 - SoundWalls_Attachment_1_Design_Guidelines.pdf
 - SoundWalls_Memo.pdf
 - d. Lighting
 - OutdoorLighting_Memo.pdf
 - OutdoorLighting Ordinance.pdf
 - e. Tree Preservation
 - <u>TreePreservation_Attachment1_DraftOrdinance.pdf</u>
 - TreePreservation_Attachment2_SpecimenTreeOptionGuidelines.pdf
 - TreePreservation Attachment3 SpecimentTree requestform.pdf
 - TreePreservation_Attachment4_StreetscapePolicy.pdf
 - TreePreservation_SpecimenTree_Streetscape_Memo.pdf
 - f. Community Character Corridor Buffers, Parkling Lot Landscaping, Outdoor Operations and Storage
 - CCCBuffer_ParkingLot_OutdoorStorage_Attachment1_DraftOrdinance.pdf
 - <u>CCCBuffer_ParkingLot_OutdoorStorage_Attachment2_CCCBufferGuidelines.pdf</u>
 - CCCBuffer ParkingLot OutdoorStorage Attachment3 DesignationMap.pdf
 - CCCBuffer_ParkingLot_OutdoorStorage_Attachment4_ParkingLotDesign.pdf



D. Adjournment

All agendas are posted on this web site the Friday before each meeting. Copies of DRC minutes and staff reports may be obtained by contacting the Planning office.

POLICY COMMITTEE MEETING

June 16, 2011 7:00 p.m. County Complex, Building A

1) Roll Call

PresentStaff PresentMr. Reese Peck, ChairMr. Allen MurphyMr. Al WoodsMs. Tammy RosarioMr. Jack FraleyMr. Scott WhyteMr. Tim O'ConnorMr. Luke VinciguerraMr. Brian Elmore

Mr. Reese Peck called the meeting to order at 7:00 p.m.

2) New Business

A) Tree Preservation

Mr. Jack Fraley requested moving the Tree Preservation and Landscaping topics to the beginning of the agenda to accommodate members of the public.

- Mr. Scott Whyte stated that staff moved the tree preservation ordinances into the landscaping ordinance due to technical issues related to numbering and order.
 - Mr. Al Woods asked why staff did not bring forward tree canopy percentage regulations.
- Mr. Whyte stated tree canopy regulations, using the Fairfax County ordinance as a guide, fall short of current ordinance requirements. He stated single-family lot landscaping has never been regulated, and staff did not feel there was Board support to make such a major change at this time.
- Mr. Fraley stated Fairfax was the first county to implement tree canopy ordinances after the state gave localities the authority to adopt them.
- Mr. Tim O'Connor asked if the ordinance could allow latitude on general standards, including changing the ratio of five average trees replacing one specimen tree.
- Mr. Whyte stated the ordinance allows flexibility. He stated applicants get five credits for saving an outstanding specimen tree, for example, to use elsewhere on the property to remove other trees.
- Mr. Allen Murphy stated the ordinance also allows latitude when the applicant exceeds the minimum tree preservation requirements.
- Mr. Fraley asked staff to review language on site balance achieved by moving dirt excavated onsite to fill other parts of the development.
 - Mr. Murphy stated that type of language should be included.

- Mr. Fraley questioned the ordinance's 25-acre threshold for clear cutting regulations.
- Mr. Murphy stated staff views 25 acres as the correct threshold.
- Mr. Whyte stated during his research, the only similar ordinance he found included a 30-acre threshold.
- Mr. Fraley stated agreement with public comments he had heard, that the ordinance should address impacts on neighboring properties. He stated site work could harm trees on adjacent property.
- Mr. Woods stated roots lie nearer the surface in local soil conditions. He stated heavy equipment could cause root compression, killing the tree in a few years. It could prove difficult to determine exactly how the tree died. He asked how staff would establish cause of tree death and enforce this type of ordinance.
- Mr. Whyte stated disputes between developers and adjacent properties are normally civil cases. He stated if tree preservation measures are taken correctly, that situation should not happen.
- Mr. Fraley stated the language's goal was to put developers on notice regarding adjacent property impacts rather than providing enforcement.
- Mr. Murphy stated the ordinance narrative could be amended in Section 24-88(7) to require developers to list in their tree preservation and clearing plan how adjacent property landscaping and buffers will be protected.
- Mr. Whyte stated staff would review the plans with an eye for potential adjacent property impacts, including those areas with heavy grading near the property line.
- Ms. Tammy Rosario stated staff may suggest the developer install additional fencing to more clearly delineate clearing limits.
- Mr. Peck asked staff to address the concerns stated in the public comments attachment in the packet. He asked staff to send a response to the Committee on how they addressed citizen comments.
- Mr. Murphy stated staff could provide responses to citizen comments if they were received early enough. He stated Mr. Whyte would meet with the citizens after the meeting.
 - Mr. Whyte stated most of the comments received had already been addressed by staff.
- Mr. Fraley asked about the 10-acre threshold for waiving tree tagging in Section 24-92. He stated a site like Courthouse Commons, just under 10 acres, should be tagged.

Mr. Murphy stated staff was comfortable with the 10-acre waiver threshold. He stated as Planning Director, he can waive the requirement for sites under 10-acres, depending on the circumstances.

Mr. Fraley stated he dislikes ordinances being written with modifications and waivers. He stated the public doesn't like the practice either.

Mr. Murphy stated there are circumstances where a waiver makes sense, including sites with no trees, a development parcel so small the trees must be removed, or an urban corridor parcel where staff wants the building closer to the road. He stated a universal standard is difficult to apply.

Mr. Peck stated when waivers are granted, a letter citing reasons for the waiver should be included.

Mr. Fraley stated he would be comfortable with the 10-acre threshold if staff included illustrations of waivers in the ordinance. He stated there should be some flexibility in the ordinance.

Mr. Fraley asked about specimen trees being visible from "publically accessible locations".

Mr. Whyte stated if the county was giving tree credit for saved specimen trees, it would preferable for them to be seen. He stated if not, the environmental benefits would still exist.

Mr. Fraley stated saving specimen trees was more about environmental and stormwater benefits than aesthetics.

Mr. Whyte stated the phrase on public locations could be removed.

Mr. Murphy stated the preserved specimen tree could be viewed and appreciated. He stated environmental benefits would occur regardless of the age of trees onsite. Developers should be credited for their efforts and expenses to preserve specimen trees.

Ms. Sarah Kadec, representing the J4C, stated she preferred Landscaping and Tree Preservation as separate ordinances, due to trees' differences and additional benefits. She stated the J4C did not like the waiver system, as it gives developers bonuses to continue. Developers can cause tree damage and loss to adjacent property owners, and construction can block public views of preserved trees. The J4C would also like language included in the tree preservation ordinance describing the value of trees.

Mr. Peck stated he was fine with that statement in the beginning of the ordinance. He asked staff to draft a response to submitted J4C comments.

B) Community Character Buffers

- Mr. Fraley stated he was pleased with staff's progress on the Urban/Suburban, Wooded, and Open/Agricultural Community Character Corridor buffers work.
- Mr. Whyte stated Chris Basic with Greensprings Landscape Architecture had recently drawn illustrations *pro bono* for the County, which will be included in future versions.
 - Mr. Peck asked if the buffer guidelines would be classified as ordinances, guidelines, or policies.
- Mr. Murphy stated they will have the status of an endorsed policy cross-referenced in the ordinance.
- Mr. Fraley stated the Planning Commission will consider at its July meeting four options for timbering in areas with open/agricultural corridor buffering: no buffers, buffers with forms submitted, forms and buffers, and Mr. Peck's suggestion of buffering everywhere.
- Mr. Whyte stated the open/agricultural corridors designation would only apply to existing agricultural areas.
 - Mr. O'Connor stated he wanted to ensure consistency and avoid conflict within the ordinance.

C) Private Streets

- Mr. Luke Vinciguerra stated although there have been no problems with the private street ordinance, it lacks clarity regarding when private streets are permitted and the related approval process. The new ordinance section shows when and where they are permitted and their approval process.
- Mr. Peck asked staff to number handout items and assemble Committee materials to always include the topic memo first.
- Mr. Vinciguerra stated the ordinance language has not been changed, but clarified. He stated a chart has been added for additional clarity. A standardized waiver provision based on the waiver language in the R-4 and Mixed Use districts has been added. The new language also clarifies that the County will enforce VDOT's geometric standards for private street construction.
- Mr. Rich Costello stated even if private streets are constructed to VDOT standards initially, they become more unacceptable as potential public roads over time, due to VDOT constantly evolving standards.
 - Mr. Fraley stated he was pleased with staff work on the topic.

D) Highways, Streets, Parking, and Loading

Mr. Vinciguerra stated the updated language gives the Planning Director discretion to allow a minimum parking standards waiver if the applicant demonstrates the minimum standards are too high. He stated a parking cap of 120% of the minimum requirement has been drafted, with waiver requests going to the Planning Director and appeals going to the Development Review Committee (DRC). Certain uses currently rated as high-demand parking have been redesignated as moderate-demand parking. The draft ordinance incentivizes side and rear parking for Urban/Suburban Community Character Corridors.

- Mr. Fraley asked why there were different parking standards for outlet malls versus other shopping centers. He asked why the Pottery was not classified as an outlet mall.
- Mr. Woods stated the data supports different requirements since traffic counts at outlet malls are greater than regular shopping centers.
- Mr. Costello stated the Pottery is not defined as an outlet mall because it doesn't sell the goods of a single manufacturer, overstock, discontinued, or similar goods.
- Mr. Murphy stated it was difficult to apply a universal standard to parking requirements. Generally, there has been too much parking in general shopping centers, which has led to staff designing the parking cap. The parking standard is acceptable for most outlet malls, with the exception being Premium Outlets.
- Mr. Fraley asked staff about any major uses being reclassified from high-demand to medium-demand parking.
 - Ms. Rosario stated retail parking was the biggest change.
- Mr. Woods asked if side and rear parking incentives had been successful in communities where they were tested.
- Ms. Rosario stated the concept was new to the County and specially crafted for our circumstances. She stated the county was experimenting with using incentives instead of requirements for this matter.
 - Mr. Woods asked if the Community Character Corridors were mostly developed.
- Ms. Rosario stated Community Character Areas such as Norge and Toano could be redeveloped and put this provision to use.

Mr. Woods asked whether the County would allow frontal parking for a new Community Character Corridor development.

Mr. O'Connor stated new developments in those corridors could have front parking if the lot had enough depth.

Mr. Woods asked why the County would not simply require side and rear parking, where practical.

Mr. Murphy stated the County is in an evolutionary stage, moving incrementally toward various sustainability items.

E) Sound Walls

Mr. Woods stated that even with someone from the County attempting to influence it, VDOT would still do want it wants.

Mr. Whyte stated the sound wall design guidelines are based on the federal sound wall standards, which VDOT should be following already.

Mr. Murphy stated the County cannot regulate state agencies. He stated VDOT does listen to communities, has participated in Board meetings, and tries to cooperate with County standards.

Mr. Fraley stated he liked the sound wall illustrations.

F) Lighting

Mr. Costello requested changing the ordinance language in Section 24-57(C)3 to replace "public right of way" with "pavement in public right of way" in the first sentence to allow light to reach sidewalks. He stated sidewalks along the roads that would be safer with some light spilling onto them.

Mr. Peck asked staff to try to incorporate those comments.

3) Adjournment

Mr. Fraley moved to adjourn. The meeting was adjourned at 8:50 p.m.

Reese Peck, Chair of the Policy Committee

MEMORANDUM

DATE: June 16, 2011

TO: Policy Committee

FROM: Luke Vinciguerra, Planner

SUBJECT: Development Standards – Private Streets

Staff presented a framework for changes to the private streets regulations to the Policy Committee in February during Stage I of the Zoning Ordinance update process. As a reminder, topics discussed were the inconsistencies in the Zoning Ordinance as to when private streets are permitted and the provision of an option for a construction standard waiver when an unusual street feature is proposed that would not be generally permissible by VDOT (staff enforces VDOT construction standards for private streets). The Policy Committee was supportive of staff's proposed ordinance revisions and suggested investigating minimum geometric standards for private streets. To date, the Board of Supervisors has not commented on this issue.

Attached find staff's proposed new ordinance section that clarifies when and where private streets may be permitted and standardizes the construction standard waiver provision. The proposal is similar to the Mixed Use/R-4's district's private streets requirements. Instead of creating minimum geometric standards, staff proposes ordinance language that clarifies that private streets shall meet VDOT construction <u>and</u> geometric standards. Should an applicant propose a design inconsistent with VDOT guidelines, the applicant would need to apply to the Development Manager for the proposed modifications.

Staff requests that the Policy Committee offer comments on these draft ordinance amendments prior to the Board of Supervisors work session later this summer.

Attachments

1. Draft ordinance language

Chapter 24

ARTICLE II. SPECIAL REGULATIONS

DIVISION 1. IN GENERAL

Sec. 24-42. Special provisions for townhouse and condominium development.

Pavement for roadways shall meet the design and construction requirements of the Virginia Department of Transportation's standards or Sec. 24-62 if streets are to be private. and pParking areas to serve townhouse and condominium development shall be constructed and certified in accordance with the Administrative Guidelines For certification of Private Street Construction—prepared by the county engineer. Criteria to be considered under this requirement shall be strength of foundation soils and type and depth of pavement components. Until such time as the development manager county engineer or his designee has accepted and approved such certification, surety required to assure proper pavement construction shall not be released. Production and installation of base aggregate and wearing surface, or equivalent pavement design approved by the development manager county engineer—or designee, shall be certified as complying with ordinance requirements and approved plans.

Chapter 24

ARTICLE II. SPECIAL REGULATIONS

DIVISION 2. HIGHWAYS, STREETS, PARKING AND LOADING

Sec. 24-62. Provisions for private streets in qualifying industrial parks. Special provisions for private streets

(a) Approval process:

(1) Generally. Private streets may be permitted for the uses listed in Table 1 below upon approval of the board of supervisors unless otherwise specified and shall be coordinated with existing or planned streets of approved master plans and the county Comprehensive Plan. Such approval shall be requested in writing through the planning division.

(*Note: This is not a new requirement. It is being relocated from existing language in individual zoning districts, such as Sec.24-290(b) in R-4, to create a standardized set of private road requirements.)

Table 1: Zoning districts and uses where private streets may be permitted

Zoning District	A-1, General Agriculture R-1, Limited Residential R-1, with cluster overlay R-2, General Residential R-2 with cluster overlay	Qualified Industrial Park per Sec. 24- 62(a)(2) X X X X	Manufactured Home Park per Sec. 24- 181 ✓ x x x	Single Family Residential x x x x	Multi- Family Residential X X	All uses permitted in zoning district x x x x
Distr		X	x x	x x	×	x
ng D		X	X ✓	X ✓	✓ ✓	X
Zoni	R-4, Residential Planned Community R-5,Multi-Family Residential	x	x	В	В	B
	R-5, with cluster overlay	x	×	В	В	В
	R-6, Low Density Residential	X	x	х	х	X
	R-8, Rural Residential	X	\checkmark	X	X	X
	LB, Limited Business	X	X	Х	Х	x
	B-1, General Business	X	x	Х	Х	x
	M-1, Limited Business/Industrial	✓	x	х	X	х
	RT, Research & Technology	✓	x	х	x	х
	M-2, General Industrial	✓	x	х	х	x
	PUD, Planned Unit Development	✓	✓	✓	✓	\checkmark
	MU, Mixed Use	✓	✓	✓	✓	\checkmark
	PL, Public Land	X	x	X	X	x
	EO, Economic Opportunity	✓	✓ D. D. vi d	✓	\checkmark	\checkmark

✓ : permitted with board approval

x: not permitted B: By-right

(*Note: This table is a consolidation of current ordinance requirements and does not create any new requirements. Private streets in the R-5 district are by-right.)

(a) Private streets may be permitted within qualifying industrial parks upon approval of the board of supervisors. Such approval shall be requested in writing through the planning division. The request shall include a traffic impact study and square footage estimates for the proposed industrial park. The traffic impact study shall be prepared by an individual or firm qualified to conduct traffic engineering studies in a manner and form acceptable to the planning director. The traffic impact study shall address projected traffic generation; internal road needs including, but not limited to, circulation and capacity; external traffic; turning movements and distribution at each access point; traffic distribution; capacity of surrounding roads; and road and access improvements. Private streets shall be coordinated with existing or planned streets on the approved master plan of development and the county comprehensive plan. Private streets shown on the final plan shall meet the requirements of the Virginia Department of Transportation, except as specified in paragraph (d) below.

The construction of streets, whether public or private, shall be guaranteed prior to construction by appropriate surety, letter of credit, cash escrow, or other form of guarantee approved by the county attorney.

(2) Qualifying Industrial Parks

(b)(i) A "qualifying industrial park" shall be defined as an industrial and/or business park that has an actual or planned size of at least 1,000,000 square feet. The "Qualifying Industrial Park Square Footage Adjustments" shall be applied, to determine the qualifying industrial park square footage in order to determine whether the qualifying threshold can or would be reached. Qualifying square footage is computed by multiplying the existing or planned total square footage by the square footage credit listed in the following chart.

Qualifying Industrial Park Square Footage Adjustments				
Use	Square Footage Credit			
Existing industrial/office/warehouse development	1			
Other Permitted Development	0.75			
Planned industrial/office/warehouse development	0.75			
Other Permitted Development	0.5			

The planned development adjustments listed above shall be applied to undeveloped property zoned Mixed-Use, MU; Limited Business/Industrial District, M-1; General Industrial District, M-2; Research and Technology District, RT; and Planned Unit Development and allows nonindustrial/office and/or nonwarehouse activity to occur based on master plan projections which have been approved by the board of supervisors. For undeveloped property not subject to a binding master plan the square footage shall be determined by multiplying 0.75 by 25 percent of the net-developable area of the project.

If an industrial/office/warehouse development is proffered exclusively, the existing development adjustments listed above may be applied upon examination of the proffers.

- (ii) Requests for board approval of private streets in qualifying industrial parks shall include a traffic impact study and square footage estimates for the proposed industrial park. The traffic impact study shall be prepared by an individual or firm qualified to conduct traffic engineering studies in a manner and form acceptable to the planning director. The traffic impact study shall address projected traffic generation; internal road needs including, but not limited to, circulation and capacity; external traffic; turning movements and distribution at each access point; traffic distribution; capacity of surrounding roads; and road and access improvements.
- (3) Guarantees. The construction of streets whether public or private shall be guaranteed by appropriate surety, letter of credit, cash escrow or other form of guarantee approved by the county attorney and the development manager or his designee.

(e)(4) To the extent streets are private rather than public, the applicant shall also submit assurances satisfactory to the county attorney that a property owner's community association or similar organization has been legally established under which the lots within the area of the final development plan shall will be assessed for the cost of maintaining the private streets, and that if such assessments are not paid, it shall constitute a pro rata lien upon the individual lots shown on the final development plan.

(*Note: This is not new language, this section has been moved from Sec. 24-62 of the ordinance.)

(b) Minimum Standards:

- (1) Private streets shown on the development plan shall meet the construction and geometric requirements of the Virginia Department of Transportation and the Administrative Guidelines For Certifications of Private Street Construction, except as specified in paragraph (2) below.
- (d) The uniqueness of each proposal for a qualifying industrial park requires that the specifications for the width, surfacing, construction and geometric design of streets, alleys, ways for public utilities and the specifications for curbs, entrances, gutters, sidewalks, street lights and stormwater drainage be subject to modification from the specifications established in chapter 19. The planning commission may, therefore, within the limits hereinafter specified, waive or modify the specifications otherwise applicable for a particular facility when the planning commission finds that such specifications are not required in the best interests of the occupants, workers or customers of the businesses located within a qualifying industrial park and that the modifications of such specifications are not inconsistent with the interests of the county.
- (2) If the uniqueness of a proposal requires that the specifications for the width, surfacing, construction and geometric design of streets, alleys, ways for public utilities, with associated drainage and specifications for curbs and gutters be subject to modification from the specifications established in chapter 19, the development manager or his designee, within the limits hereinafter specified, may waive or modify the specifications otherwise applicable for a particular facility when the development manager or designee finds the specifications are not required in the interests of the residents, occupants, workers, customers of businesses and property owners of the development and that the modifications of such specifications are not inconsistent with the interests of the entire county.

It shall be the responsibility of the applicant to demonstrate to the satisfaction of the planning commission development manager or his designee with respect to any requested waiver or modification that:

- (1)(i) The waiver or modification shall result in design and construction that is in accordance with accepted engineering standards;
- (2)(ii) The waiver or modification is reasonable because of the uniqueness of the qualifying industrial park development or because of the development large area of the qualifying industrial park within which the nature and excellence of design and construction will be coordinated, preplanned and controlled;

- (3)(iii) Any waiver or modification pertaining to streets is reasonable with respect to the generation of vehicular traffic that is estimated to will occur within the area of the qualifying industrial park with the area of development;
- (4) Any waiver or modification pertaining to sidewalks is justified on the basis of anticipated pedestrian traffic or because other provisions are made for pedestrian traffic; and
- (5)(iv) Traffic lanes of streets are sufficiently wide *enough* to carry the anticipated volume and speed of traffic and in no case shall two lane roadways be less than 20 ten feet wide; and
- (v) Waivers or modifications as to base and surface construction of streets and as to the condition of ditches or drainage ways be based upon the soil tests for California Bearing Ratio value and erosion characteristics of the particular subgrade support soils in the area.

The applicant may appeal the decision of the development manager or designee to the development review committee.

(*Note: These standards are based on the requirements from MU and R-4 districts. The current ordinance gives the planning commission authority to review waivers, this has been changed to the development manager or designee.)

Chapter 24

ARTICLE IV. Manufactured Home Parks

Sec. 24-181. Streets required.

Each manufactured home lot shall front on a public or private street. All dedicated public streets shown on the development plan shall meet the design and construction standards requirements of the Virginia Department of Transportation's standards or the county's subdivision ordinance, whichever is greater. Such public streets shall be coordinated with the major transportation network shown in the county Comprehensive Plan. The construction and maintenance of private streets shall be guaranteed by a surety bond, letter of credit, cash escrow or other form of surety approved by the county attorney and the environmental director. Public streets shall be part of the Virginia Department of Transportation road system. Private streets may be permitted per Sec. 24-62.

Chapter 24

ARTICLE V. Districts

DIVISION 5: RESIDENTIAL PLANNED COMMUNITY DISTRICT, R-4

Sec. 24-290. Street improvements.

- (a) All dedicated public streets shown on the final development plan shall meet the design and construction requirements of the Virginia Department of Transportation's standards or the county subdivision ordinance, whichever is greater. Such public streets shall be coordinated with the major transportation network shown in the county Comprehensive Plan.
- (b) Private streets may be permitted in accordance with the provisions of Sec. 24-63. upon approval of the board of supervisors and shall be coordinated with existing or planned streets of both the master plan and the county Comprehensive Plan. Private streets shown on the final plan shall meet the requirements of the Virginia Department of Transportation, except as specified in paragraph (d) below.

The construction of streets whether public or private shall be guaranteed by appropriate surety, letter of credit, cash escrow or other form of guarantee approved by the county attorney and director of code compliance.

- (c) To the extent streets are private rather than public, the applicant must also submit assurances satisfactory to the planning commission that a property owner's community association or similar organization has been legally established under which the lots within the area of the final plan will be assessed for the cost of maintaining private streets and that such assessments shall constitute a pro rata lien upon the individual lots shown on the final plan.
- (d) The uniqueness of each proposal for a residential planned community requires that the specifications for the width, surfacing, construction and geometric design of streets, alleys, ways for public utilities and the specifications for curbs, gutters, sidewalks, street lights and storm water drainage be subject to modification from the specifications established in Chapter 19. The planning commission may, therefore, within the limits hereinafter specified, waive or modify the specifications otherwise applicable for a particular facility where the planning commission finds that such specifications are not required in the interests of the residents of the residential planned community and that the modifications of such specifications are not inconsistent with the interests of the entire county.

It shall be the responsibility of the applicant to demonstrate to the satisfaction of the planning commission with respect to any requested waiver or modification:

- (1) That the waiver or modification will result in design and construction that is in accordance with accepted engineering standards;
- (2) That the waiver or modification is reasonable because of the uniqueness of the residential planned community or because of the large area of the residential planned community within which the nature and excellence of design and construction will be coordinated, preplanned and controlled;
- (3) That any waiver or modification as to streets is reasonable with respect to the generation of vehicular traffic that is estimated will occur within the area of the master plan;

- (4) That any waiver or modification as to sidewalks in AB@, AC@, AD@, or AE@ density areas be justified on the basis of anticipated pedestrian traffic or because other provisions are made for pedestrian traffic.
- (5) That traffic lanes of streets are sufficiently wide to carry the anticipated volume and speed of traffic and in no case less than ten feet wide; and
- (6) That waivers or modifications as to base and surface construction of streets and as to the condition of ditches or drainage ways be based upon soil tests for CBR value and erosion characteristics of the particular subgrade support soils in the area.

Chapter 24

ARTICLE V. Districts

DIVISION 6. MULTIFAMILY RESIDENTIAL DISTRICT, R-5

Sec. 24-314. Requirements for improvements and design.

(f) Streets. All dedicated public streets shown on the development plan shall meet the design and construction requirements of the Virginia Department of Transportation's standards or the requirements of the county subdivision ordinance, regulations, whichever is greater. Such public All-streets shall be coordinated consistent with the major transportation network—thoroughfare plan of shown in the county Comprehensive Plan. Private streets may be permitted in accordance with the provisions of Sec. 24-62. The traffic generated by a Multifamily Residential District, R-5, shall not exceed the capacity of adjoining thoroughfares. The daily traffic shall be determined by multiplying the number of proposed dwelling units by the appropriate trip generation rate as listed in the latest edition of a book entitled Trip Generation published by the Institute of Transportation Engineers and compared to the existing traffic and road capacity as determined by the highway engineer. The construction of private streets shall be guaranteed by appropriate surety, letter of credit, cash escrow or other form of guarantee approved by the county attorney and director of code compliance.

Chapter 24

ARTICLE V. Districts

DIVISION 14. PLANNED UNIT DEVELOPMENT DISTRICTS

Sec. 24-497. Requirements for improvements and design.

(d) Street. All dedicated public streets shown on the development plan shall meet the design and construction requirements of the Virginia Department of Transportation's standards or the

requirements of the county subdivision *ordinance*, regulations, whichever is greater. Such *public* streets shall be coordinated with the major transportation network shown in the county Comprehensive Plan. The construction of streets, whether public or private, shall be guaranteed by appropriate surety, letter of credit, cash escrow or other form of guarantee approved by the county attorney and environmental director. Private streets may be permitted upon the approval of the board of supervisors *in accordance with the provisions of Sec 24-62*.

Chapter 24

ARTICLE V. Districts

DIVISION 15. MIXED USE, MU

Sec. 24-528. Street improvements.

- (a) All dedicated public streets shown on the development plan shall meet the design and construction requirements of the Virginia Department of Transportation's standards or the county subdivision ordinance, whichever is greater. Such public streets shall be coordinated with the major transportation network shown in the county Comprehensive Plan.
- (b) Private streets may be permitted upon the approval of the board of supervisors in accordance with the provisions of Sec. 24-62. and shall be coordinated with existing or planned streets of both the master plan and the county Comprehensive Plan. Private streets shown on the development plan shall meet the requirements of the Virginia Department of Transportation, except as specified in paragraph (d) below.
- The construction of streets whether public or private shall be guaranteed by appropriate surety, letter of credit, cash escrow or other form of guarantee approved by the county attorney and environmental director.
- (c) To the extent streets are private rather than public, the applicant must also submit assurances satisfactory to the planning commission that a property owner's community association or similar organization has been legally established under which the lots within the area of the development plan will be assessed for the cost of maintaining private streets and that such assessments shall constitute a pro rata lien upon the individual lots shown on the development plan.
- (d) The uniqueness of each proposal for a mixed use development requires that the specifications for the width, surfacing, construction and geometric design of streets with associated drainage and the specifications for curbs and gutters be subject to modification from the specifications established in chapter 19. The planning commission may, therefore, within the limits hereinafter specified, waive or modify the specifications otherwise applicable for these facilities where the planning commission finds that such specifications are not required in the interests of the residents and property owners of the mixed use development and that the modifications of such specifications are not inconsistent with the interests of the entire county.

It shall be the responsibility of the applicant to demonstrate to the satisfaction of the planning commission with respect to any requested waiver or modification:

- (1) That the waiver or modification will result in design and construction that is in accordance with accepted engineering standards;
- (2) That the waiver or modification is reasonable because of the uniqueness of the mixed use development or because of the large area of the mixed use development within which the nature and excellence of design and construction will be coordinated, preplanned and controlled;
- (3) That any waiver or modification as to streets is reasonable with respect to the generation of vehicular traffic that is estimated will occur with the area of the master plan;
- (4) That traffic lanes of streets are sufficiently wide enough to carry the anticipated volume and speed of traffic and in no case less than ten feet wide; and
- (5) That waivers or modifications as to base and surface construction of streets and as to the condition of ditches or drainage ways be based upon the soil tests for California Bearing Ratio value and erosion characteristics of the particular subgrade support soils in the area.

MEMORANDUM

DATE: June 16, 2011

TO: Policy Committee

FROM: Luke Vinciguerra, Planner

SUBJECT: Development Standards – Draft Parking Ordinance

Staff presented a framework for the parking ordinance revisions to the Policy Committee in February. As a reminder, topics discussed during Stage I included:

 an administrative waiver process by which applicants can propose an alternative number of spaces less than the ordinance requirement if it can be demonstrated to the Planning Director why the ordinance requirements are not applicable;

- establishing a parking cap at 120% of the minimum parking requirement;
- reevaluating uses in high demand (category A) parking;
- an attempt to internally connect commercial development in Community Commercial and Neighborhood Commercial designated land; and
- reducing the maximum parking bay size requirement to be consistent with the landscape ordinance.

The Policy Committee was supportive of staff recommendations but requested an examination of medical and restaurant parking requirements and a more aggressive approach to shared parking. This topic was presented at the February and March Board work sessions where there were no comments.

Due to the legal complexities of shared parking (such as easements), there is difficulty in requiring it; however, the concept will be promoted through language in Section 24-59(g)(2), waivers, and staff's creation of a model shared parking agreement. Regarding medical parking, the ordinance currently requires 7 spaces per practitioner or one space per every 250 square feet (whichever is greater). The industry standard is 4.5 spaces per 1,000 square feet. Staff finds the County's current standard is similar to the national average and does not recommend any changes. For restaurants, staff has reviewed past applications and has not noted any parking-related problems.

Attached are the proposed Stage II revisions to the parking ordinance which codify the topics discussed during Stage I discussions. Staff requests that the Policy Committee offer comments on this draft ordinance prior to the Board of Supervisors work session later this summer.

Attachments

1. Draft ordinance language

Chapter 24

ARTICLE II. SPECIAL REGULATIONS

DIVISION 2. HIGHWAYS, STREETS, PARKING AND LOADING

Sec. 24-55. General provisions.

- (a) Certificate of occupancy required and exemptions. No certificate of occupancy shall be issued for any structure which does not comply with these requirements; however, structures already in use are exempted; provided that:
 - (1) Such structure at the time of its erection complied with the provisions of all applicable ordinances of James City County;
 - (2) Exempted buildings remain in continuous use and at no time remain vacant or unused for a continuous period of one year; and
 - (3) No parking lot for any exempted property is enlarged or materially altered. If such a parking lot is to be enlarged or materially altered, the existing parking area as well as the new parking area shall be brought into conformance with this chapter; provided, however, the planning commission development review committee may waive the setbacks and geometric design requirements found in sections 24-57 (a), (b), and (f) as they apply to existing parking areas, upon finding that the costs of complying with these standards would impose a severe hardship or that insufficient area exists to allow such revision.

For purposes of this section, "enlarged or materially altered" shall mean expansion or change in the parking lot which either increases the number of parking spaces by more than 15 percent or reduces the landscaped areas of the parking lot by more than 15 percent. Nothing in this section is intended to prohibit paving or surfacing of parking lots, the installation of curbs or bumpers, or other improvements which do not affect the number of spaces or the areas of the site dedicated to landscaped open space.

- (b) Location of off-street parking.
- (1) Required off-street parking spaces shall be located on the same lot as the structure or use to which they are accessory or on a lot adjacent thereto which has the same zoning classification or a zoning classification that would allow the use that the parking will serve. The rights of use of any such adjacent property shall be secured by ownership, easement or similar recorded covenant or agreement approved as to form and content by the county attorney, in order to assure the permanent availability of such parking.
- (2) Off-site parking spaces shall be permitted by the *planning director* Development Review Committee (DRC) which are not located on the same property or use they serve, provided they meet the criteria specified in this section. All such parking shall be easily and safely accessible to pedestrians. The rights of use of any such property and pedestrian walkways shall be provided for by ownership, easement or similar recorded covenant or agreement, approved as to form and content by the county attorney, in order to assure the permanent availability of such parking.
- (3) An incentive for developments that provide off-street parking only to the side or rear of a site that:
 (i) is located along an urban/suburban Community Character Corridor as designated on the James City County Community Character Corridors Type Designation and Buffer Treatment Map; and

(ii) provides parking that is screened by landscaping or a building; and (iii)the development plan complements the design standards of the corridor or area to the satisfaction of the planning director;

the planning director may grant one of the following incentives as chosen by the applicant:

- (i) front building setback reduction; or
- (ii) front landscape area width reduction; or
- (iii) minimum parking lot landscaping requirement reduction.

In no case shall a reduction be more than 20% of the ordinance requirement.

Appeals of the planning director's decision shall be made to the development review committee.

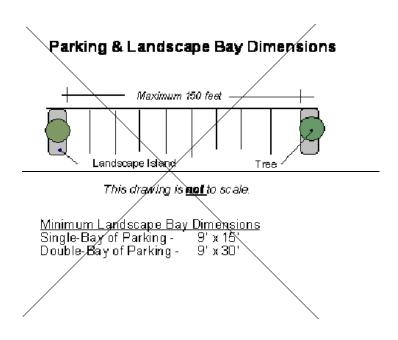
- (c) Types of vehicles permitted in parking spaces. Off-street parking spaces shall be used solely for the parking of vehicles in operating condition by patrons, occupants or employees of the use to which such parking is accessory. Permanent storage of vehicles shall not be allowed. Storage of vehicles for sale shall not be allowed.
- (d) Parking of vehicles for sale/rent permitted and prohibited.
- (1) The following provisions shall apply to the parking or placement of automobiles, trucks, trailers, recreational vehicles, motorcycles, boats (a boat displayed for sale with a trailer shall be construed as a single vehicle), tractors, heavy construction equipment or other types of motorized vehicles or equipment with the intent to offer such vehicles or equipment for sale or rent. For the purposes of this section, the presence of signs, lettering, papers, flyers or other visible advertisement or information on or within the vehicle or the use of internet or print media indicating it to be for sale or rent shall be deemed evidence of such intent.
- (2) The owner or occupant of a parcel on which an occupied residential, commercial or industrial structure is located may park a legally inspected and tagged automobile, light-duty truck, recreational vehicle or trailer, boat or cargo trailer on the property for the purpose of selling or offering the vehicle for rent, provided that:
 - a. The vehicle is owned by the owner or occupant of the property, or a member of the owner/occupant's immediate family living on the property. For the purposes of this section, the term "immediate family" shall be deemed to include spouse, natural or legally defined offspring or parents or grandparents of the owner or occupant of the premises. The owner must produce proof of ownership in the form of title or current registration if requested by inspection staff.
 - b. The vehicle is parked on a cleared area on the property, and shall not be parked on forested or landscaped portions of the property.
 - c. Any signs or lettering advertising the vehicle to be for sale or rent shall be attached to or applied to the vehicle and shall not exceed six square feet in area.
 - d. Not more than two vehicles shall be parked or displayed for sale or rent at any time and not more than five vehicles may be parked or displayed for sale or rent on any property within the same calendar year.
 - e. In the event the commercial or industrial use occupying the property is authorized to include the on-premises parking or storage of heavy construction equipment, large trucks, and similar vehicles/equipment, the above-noted limitation to "light-duty trucks" shall be waived.

- f. Parking of vehicles or equipment for sale or rent on undeveloped or vacant property, or on property on which the principal structure(s) are unoccupied, shall be prohibited.
- (3) Violations of the terms of this section shall be enforceable against the owner of the property and/or the owner of the vehicle.
- (4) The provisions of this section shall not be deemed to prohibit the sale or rental of vehicles or equipment when conducted from a site which has been authorized, pursuant to the terms of this chapter, for the conduct of vehicle or equipment sales/rental as a principal use of the property.
- (5) Violation of any of these terms may result in court action in accordance with section 24-22 in addition to having the vehicle towed from the property at the owner's expense.
- (6) The provisions of this section are not intended to prevent temporary parking related to day-to-day use and operation of the vehicle (i.e. shopping, normal road use) and should not be construed as such.

Sec. 24-57. Parking lot design.

Parking areas shall be arranged for functional efficiency and safety for both vehicles and pedestrians and shall be designed to be amenable to surrounding property. Parking areas, accessory or otherwise, shall comply with the following:

(a) Dimensions of parking bays and required islands. The parking lot shall be constructed so that spaces are grouped into bays. At the end of each bay, a landscape island of at least nine feet in width and 15 feet in length shall be built to separate the bays from each other or from traffic lanes. When the parking bays contain double rows of parking spaces, the landscape island shall be increased to nine feet in width and 30 feet in length. A parking bay may not be constructed to a length of more than 150 90 feet without constructing a landscape island. The planning director may approve islands which vary from nine-foot by 15-foot or nine-foot by 30-foot rectangles in order to provide desirable geometric design features such as rounded corners and angles to facilitate maneuvering of automobile traffic. However, in no case shall the total area of an island be decreased as a result of such design change.



Landscape islands with plantings

Maximum 90 feet

Single Bay of Parking= 9 feet x 15 feet

Double Bay of Parking= 9 feet x 30 feet

Drawing not to scale

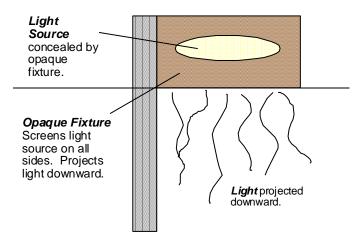
Figure 01-Parking Bays and Landscape Islands Dimensions

(b) Protection of landscape areas and location of parking areas and drive aisles. All landscape areas contiguous to parking bays shall be protected from intrusion by vehicles by curbs or bumpers. Parking areas shall not be located within five feet of any building. Driveways shall not be located within five feet of any building except where vehicular access is necessary. The above-mentioned five-foot setback for parking areas and drives shall not be required for vehicle parking areas and drives (including those serving the parking area) located underneath a building or within a parking garage.

(c) Required lighting.

- (1) Adequate lighting shall be provided if the uses which are served by the parking lot will be in operation at night.
- (2) No lighting fixture shall exceed a height of 30 feet. Height of the light fixture shall be the distance from ground or finished grade level to the highest point of a luminary.
- (3) The lighting in parking lots shall be directed so as not to produce glare on any adjacent property or public right of way. Luminaries shall be mounted on light poles horizontally and shall be recessed fixtures with no bulb, lens or globe extending below the casing. The casing shall be opaque and shall completely surround the entire light fixture and light source in such a manner that all light will be directed downward and the light source is not visible from the side (refer to the following graphic). Plans detailing the illumination patterns (Iso footcandle diagrams) and specific design of all lighting fixtures shall be submitted for review along with the site plan.

Opaque fixture shields light source on all sides, so light is directed downward and not outward to the sides.



- (4) Upon application to the planning director, the applicant may request a waiver to allow for the height of the luminaries to be raised to a height in excess of 30 feet up to the height of the main structure on the property or a maximum of 60 feet above grade which ever is less. Such a waiver shall only be granted if the following conditions are met:
 - a. The horizontal distance of the luminary from any public right of way or adjacent residential or agricultural property shall be at least four times the height of the luminary.
 - b. The applicant shall demonstrate to the planning director that no glare will be shed upon adjacent properties and roadways by the placement of higher poles.

(*This language will be moved to the new lighting ordinance)

(c) Connections to adjacent parcels. Commercial development designated as community commercial or neighborhood commercial on the county's comprehensive plan shall connect to similarly designated adjoining parcel(s) via a stub-out to the property line(s) with the objective of providing internal vehicular and pedestrian access between neighboring commercial parcels. The planning director may waive the connection requirement upon finding that such connection is found to be illogical, infeasible, or opposed by the adjacent property owner.

- (d) Geometric standards.
- (1) The design of the parking lot shall meet the minimum geometric standards presented in the following table:

Minimum Off-Street Parking Area Dimensions							
Angle of Parking (Degrees)	Direction of Traffic	Dimension of Stall (in feet)	Width of Aisle (in feet)				
Parallel	One-Way	8 x 22	12				
30	One-Way	9 x 18	14				
45	One-Way	9 x 18	14				
60	One-Way	9 x 18	18				
90	Two-Way	9 x 18	24				

- (2) Other parking angle and aisle dimensions other than those listed in the chart contained in (d) (1) above may be permitted by the planning director or his designee upon finding that they conform to commonly accepted engineer design standards and do not compromise the safety, appearance, or function of the parking area. In no case shall the stall dimensions for angle parking be less than nine feet by 18 feet.
- (3) The minimum aisle dimension of any parking lot designed to accommodate at least 500 vehicles and intended for long-term parking may be reduced by four feet, provided the lot is designed and marked for one-way traffic, the parking spaces form an angle of 80 degrees to 90 degrees with the aisle, each vehicle is individually guided to a parking space by an attendant, and the safety and effective operation of the lot has been clearly demonstrated.

For the purpose of this section, the phrase "long-term parking" shall mean parking the duration of which is on the average six hours or more.

(e) *Surface and drainage of parking areas*. Parking areas, driveways and entrances shall be surfaced with gravel, stone, asphalt or concrete and shall be maintained in good repair. Adequate drainage shall be provided in all parking areas for the removal of stormwater and a drainage plan shall be submitted with the site plan and approved by the environmental director.

The use of grass pavers may be permitted in low-traffic areas (i.e. overflow parking for churches, special events, etc.) upon approval from the planning director, where it can be demonstrated that the vegetation will survive the amount of expected traffic.

(f) Entrances to parking areas from public or private roads. The location, size, and number of entrances from parking areas onto public or private roads shall be shown on the site plan. Upon finding that on-site traffic circulation, offsite traffic flow or public safety would be impaired or improved, the planning commission may require the location, number, and/or size of proposed entrances to be modified, limited, or increased.

Sec. 24-59. Minimum off-street parking requirements.

- (a) Residential uses.
- (1) *Minimum number of resident parking spaces*. The minimum number of off-street parking spaces required for residential uses is provided in the following table.

Type of Residential Unit	Minimum Number of Spaces Required
Single-Family Unit	2
Single-Family Unit with an accessory apartment	3
Townhouse Unit	2.5
1-Bedroom Apartment	1.5
2 or more Bedroom Apartment	2.2
Manufactured Home	2
Other Residential Units	1.5

Spaces in garages shall be counted towards the required minimum number of parking spaces for each dwelling. The parking space within the garage shall be large enough to provide an adequate parking space for a full size automobile and necessary space for ingress and egress out of the vehicle as determined by the zoning administrator. Building plans shall be submitted that demonstrate the adequacy of the garage(s) for accommodating parking, adequate ingress and egress out of the vehicle, and interior access to the residential unit.

(b) *Commercial uses*. Commercial and institutional uses shall be divided into various categories according to the parking demand which they generate, as follows:

Category A - High demand. High parking demand generators shall provide a minimum of one parking space per 200 square feet of retail and/or office floor area but not more than 120% of the minimum requirement, to include:

- All other commercial uses not specified in Category B or C below.
- Arcades.
- Dance Halls/Clubs.
- Drug stores.
- Laundries and dry cleaners.
- Libraries
- Lodges, civic clubs, fraternal organizations, service clubs, and private clubs.
- Post offices.
- Public billiard parlors and pool rooms.
- Retail stores, general.
- **Retail food stores, bakeries and fish markets.**
- Retail and service stores, including: antiques, arts and crafts, books, candy, coin, dressmaking, duplicating services, florist, furrier, garden supply, gift shops, greeting card, handicrafts, hardware, home appliance sales and service, ice cream, jewelry sales and service, locksmith, music and records, novelty, office supply, paint, pet, picture framing, plant supply, shoe, sporting goods, stamp, tailor, tobacco and pipes, toys, travel bureau, upholstery, wearing apparel, and yard goods.

- Convenience stores
- Liquor stores
- Truck stops

Category B - Moderate demand. Moderate parking demand generators shall provide a minimum of one parking space per 250 square feet of retail and/or office floor area but not more than 120% of the minimum requirement, to include:

- _ Arcades.
- All other commercial uses not specified in Category A or C.
- Banks and financial institutions.
- Corporate, business, and professional offices.
- Laundries and dry cleaners.
- Lumber and building supply.
- Machinery sales and service.
- Photography studios and sales and artist and sculptor studios.
- Plumbing and electrical supply.
- Public billiard parlors and pool rooms.
- Retail and service stores, including: antiques, arts and crafts, books, coin, dressmaking, duplicating services, florist, furrier, garden supply, gift shops, greeting card, handicrafts, hardware, home appliance sales and service, jewelry sales and service, locksmith, music and records, novelty, office supply, paint, pet, picture framing, plant supply, shoe, sporting goods, stamp, tailor, tobacco and pipes, toys, travel bureau, upholstery, wearing apparel, and yard goods.
- Retail stores, general.
- Tire, transmission, glass, body and fender, and other automotive product sales and service.

Category C - Uses with unique requirements._Category C uses shall provide minimum parking as stated below but not more than 120% of the minimum requirement:

- (1) *Bowling alleys*. Three spaces per alley plus one space for every 200 square feet of accessory business use.
- (2) Barber shops and beauty shops. At least three spaces plus two spaces for every barber or beautician chair.
- (3) Furniture and carpet stores and/or show rooms. One space for every 400 square feet of retail floor area.
- (4) *Hospitals*. Two parking spaces for every bed.
- (5) Indoor vehicular sales show rooms. One space for every 400 square feet of retail floor area.
- (6) *Medical office/clinic (reference (18) below for Veterinary Hospitals)*. Seven spaces per practitioner, or one space per 250 square feet, whichever is greater.
- (7) *Mini-storage warehouses*. One space per 100 units, plus two spaces per on-site caretaker residence.
- (8) Mortuaries and funeral homes. The applicant shall provide a rationale justifying the number of parking spaces provided. The rationale should cite commonly accepted industry standards, provide information on peak parking demands, shared parking opportunities, hours of operation, and other variables which would influence the number of parking spaces provided on-site. The

- planning director shall review and approve the number of parking spaces provided prior to final site plan approval.
- (9) *Motels, hotels, and tourist homes.* One space per rental unit plus four parking spaces for every 50 rental units plus one space per five persons to the maximum capacity of each public meeting and/or banquet room. Accessory uses (restaurants, bars, etc.) shall provide the number of parking spaces required for those uses individually.
- (10) *Nursing homes or convalescent homes*. One space for every four residents, plus one parking space for each employee on the largest shift.
- (11) Outdoor retail sales/display areas. At least one space per 500 square feet of area.
- (12) Outlet malls. Five spaces per 1,000 square feet of retail floor area. For the purposes of this provision, an "outlet mall" shall be defined as four or more stores which (1) are physically connected or are otherwise arranged in an integrated manner, (2) share a common parking area, and (3) the majority of the individual stores primarily sell the goods of a single manufacturer or sell returned, discontinued, overstock, and/or similar goods..
- (13) *Planned shopping centers, excluding outlet malls*, with four or more stores using a common parking lot, shall provide parking spaces according to the following schedule:

Total Retail Floor Area per 1,000 square feet	Number of Spaces per 1,000 square feet
1 to 300,000	4
Over 300,000	4.5

Where a theater is proposed in conjunction with any shopping center which contains at least 60,000-square feet of retail floor area, the number of parking spaces required for the theater may be reduced by 25 percent of what would have been required under subsection (17) below.

- (14) Recreation facilities. For recreation facilities not listed herein, the applicant shall provide a rationale justifying the number of parking spaces provided. The rationale should cite commonly accepted national park and recreation standards, provide information on peak parking demands, shared parking opportunities, hours of operation, and other variables which would influence the number of parking spaces provided on-site. The planning director shall review and approve the number of parking spaces provided prior to final site plan approval.
- (15) *Rental of rooms.* Rental of rooms to a maximum of three rooms shall provide off-street parking totaling one more parking space than the total number of rooms to be rented.
- (16) Restaurants. One space for every four seats based upon the maximum seating capacity allowed.
- (17) Theaters, auditoriums, and places of public assembly. One parking space per five seats based upon the planned seating capacity. For uses with bench seating, each 24 inches of bench shall be counted as one seat. In calculating the number of seats, all resulting fractions shall be rounded up to the nearest whole number.
- (18) *Veterinary hospital*. Three spaces per examination or treatment room, plus one space per employee on the largest shift.

- (c) *Industrial uses*. Industries, warehouses and wholesale establishments not selling directly to the public shall provide a minimum of one parking space per two employees on the largest shift.
- (d) All other uses planning director determination. Where the required number of parking spaces is not set forth for a particular use in the preceding subsections, where the applicant is uncertain as to final use or size of the structure or where there is no similar general type of use listed, the planning director shall determine the number of spaces to be provided.
- (e) *Shared parking*. Shared use of required parking spaces may be permitted where two or more uses on the same or separate sites are able to share the same parking spaces because their parking demands occur at different times. The location of such shared parking area(s) shall also be in compliance with section 24-55 (b). Shared use of required nonresidential parking spaces is allowed if the following documentation is submitted in writing to the planning director as part of the site plan review:
 - (1) The names and addresses of the uses and of the owners or tenants that are sharing the parking;
 - (2) The location and number of parking spaces that are being shared;
 - (3) An analysis showing that the peak parking times of the uses occur at different times and that the parking area will be large enough for the anticipated demands of both uses; and
 - (4) A legal instrument such as an easement or deed restriction that guarantees access to the parking for both uses and perpetual maintenance of the shared parking facilities. The rights of use of any such lots and pedestrian walkways shall be provided for by ownership, easement or similar recorded covenant or agreement, approved as to form and content by the county attorney, in order to assure the permanent availability of such parking.
 - (f) Mass or alternate transportation plans.
 - (1) The minimum number of required parking spaces may be reduced upon the approval of a mass transportation or alternate transportation plan, which details arrangements for the mass or alternate transit of potential visitors to the site, including residents, employees, and customers. The plan shall also demonstrate that facilities exist or will be provided to accommodate the safe loading and unloading of mass transit passengers. A facility which provides a safe and comfortable waiting area for passengers shall also be provided.
 - Such plans shall be subject to the review and approval of the planning director and transit manager prior to the reduction of the number of required parking spaces.
 - (2) Each lot for which the minimum number of parking spaces has been reduced shall show a reserve area sufficient in size to accommodate the number of parking spaces which were not required to be constructed.
 - (3) Every approved mass transportation or alternate transportation plan shall be reviewed by the planning director and transit manager every two years. The purpose of the review is to ascertain whether the plan has the effect of significantly reducing the automobile traffic to and from the site, and whether the reduced number of parking spaces is sufficient to accommodate the automobile traffic to the site. The planning director and the transit manager shall make a determination to this effect.
 - (4) In the event that the planning director and transit manager determine that an approved mass transportation plan or alternate transportation plan has not had the effect of significantly reducing automobile traffic to a site, and that the reduced number of parking spaces is not sufficient to

accommodate the automobile traffic to a site, the owner shall construct the number of parking spaces necessary to meet the minimum required under this ordinance.

- (g) Structured Parking. The maximum parking requirement shall not be applicable for uses utilizing structured parking.
- (g) (h)Appeals and waivers:
- (1) Appeals. A property owner may appeal for a change of a commercial use from Category A to Category B or a less restrictive requirement within Category C; however, the burden of proof shall be upon the applicant to show that the particular activity will not reasonably generate parking demand sufficient to justify the parking requirement of its present classification. Appeals for changes to different parking classifications shall be made to the planning director planning commission.
- (2) Waivers. A property owner may be granted a waiver by the planning commission planning director from the minimum 120 % maximum off-street parking cap requirements if it can be shown that due to unique circumstances a particular activity would not reasonably be expected to generate more parking demand sufficient to justify the than that allowed by the maximum parking requirement cap. Any waiver granted by the planning commission shall apply only to the number of spaces required and shall not allow a greater building area than would have been possible had the original parking requirement been enforced. The planning commission planning director shall make a determination if the requested additional parking is necessary. The applicant shall demonstrate efforts toward utilizing a shared parking agreement or implementing a parking management plan to meet demand. At its discretion, the planning director may place conditions upon the granting of a waiver and may require that the parking area not required upon the granting of the waiver be landscaped in addition to the minimum landscaping requirements. Appeals of the planning director's decision shall be made to the development review committee.

MEMORANDUM

DATE: June 16, 2011

TO: Policy Committee

FROM: Scott Whyte, Senior Planner

SUBJECTS: Development Standards - Draft Sound Wall Design Guidelines

Staff presented a proposal for creating a set of design guidelines for sound wall design to the Policy Committee during Stage I of the Zoning Ordinance Update process. The Committee endorsed staff's proposals and suggested that several design elements be incorporated into the guidelines.

Following that meeting, the Board of Supervisors held a work session in March 2011 to discuss a number of proposed ordinance amendments for development standards. The Board reviewed the recommendations for creating a set of design guidelines for sound walls.

For Stage II of the process staff has drafted a set of design guidelines for sound walls which address the topics discussed at both the February Policy Committee meeting as well as the March Board work session. The new guidelines are intended to assist the County in communicating its desires for sound wall design to VDOT during the planning stages to ensure design and installation of quality aesthetically pleasing sound walls that blend into their surroundings.

Staff requests the Policy Committee offer comment on these draft guidelines prior to the Board of Supervisors work session in July.

Attachment:

1. James City County Sound Wall Design Guidelines

James City County Sound Wall Design Guidelines

Highway noise barriers tend to dominate their surroundings since they must be placed close to the roadway, frequently extend for thousands of feet along the right-of-way, and often must be over eight feet in height to be effective. The potential for adverse impact should be minimized by utilizing design principles in the planning process, and by a thorough analysis of the site and existing conditions prior to design.

James City County has created these guidelines in order to work closely with the Virginia Department of Transportation (VDOT) to establish a set of consistent specifications expected for building sound walls within the County. It is the County's intention to streamline the procedure, ensure that sound walls within the County are both effective sound barriers and aesthetically pleasing.

Principles of Line and Form

The line and form of a noise barrier are its two most dominant features. The line of a noise barrier is expressed as its outline in plan view, and as its top surface in elevation. Both are equally important visually to the motorist and highway neighbor. Long straight lines are monotonous and make a wall seem longer than it actually is. The effect on the motorist is that of being enclosed, as in a tunnel. High walls adjacent to a roadway tend to create anxiety in motorists - they slow down and unconsciously attempt to move away from the wall. The effect of a high, straight wall on the highway neighbor is that of forced enclosure. Corresponding negative attitudes about the wall may develop particularly if the wall is bare and without visual interest. Therefore the designer should consider the line of the noise barrier as a possible adverse visual impact and examine alternatives for reducing this impact.

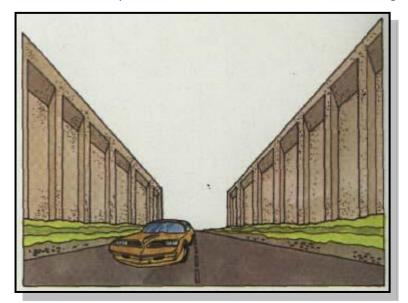


Figure 1-Tunnel effect of high walls

The line of a noise barrier should reflect similar lines of the surrounding environment. In rolling terrain, a straight line seems out of place and attention is drawn to that line. However, in flat terrain, where the horizon is visible as a straight line and the highway is straight, a straight line in a noise wall may be appropriate. A uniform top line of a wall would be appropriate in this case.

Where horizontal lines are evident in nearby structures, a horizontal line would be suitable in a noise wall. In a situation where the horizon is composed of alternating heights of buildings, an appropriate top line of a wall might vary in height as a reflection of the lines on the horizon.

Horizontal lines within the wall tend to make an object appear longer and lower. Vertical lines with in the wall have the effect of added height and tend to make an object appear narrower. Sound walls tend to be long and high; therefore, both horizontal and vertical lines, if used improperly, may emphasize undesirable features in a wall. Horizontal lines are difficult to utilize in rolling terrain and should be avoided in this situation. Vertical lines should be avoided on extremely high walls. Combinations of horizontal and vertical lines may be effective where extreme height is a visual problem. The introduction of a vertical element is the key to proper visual balance. A vertical line should be distinct and massive enough to register as such. Noise barriers, as strong horizontals, need a correspondingly strong vertical for asymmetrical balance. Strong verticals may be designed into a wall through the use of pilasters, which further serve as structural support.

Plantings can be effective means of emphasizing vertical lines in a noise barrier. Columnar trees can be used even where space is limited. The use of vertical lines in the form of trees or through wall design should be as an accent, a balance with the horizontal. One should not replace predominantly horizontal with predominantly vertical lines. Care should be taken to achieve a balance between the vertical and the horizontal lines in noise barriers.

Sound walls which begin and end abruptly and consist of straight, unbroken lines often appear

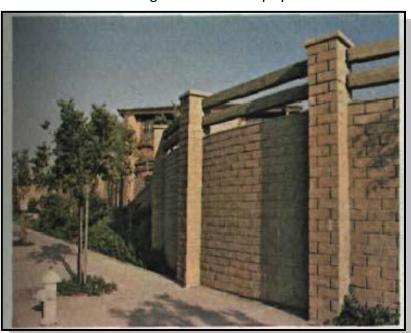
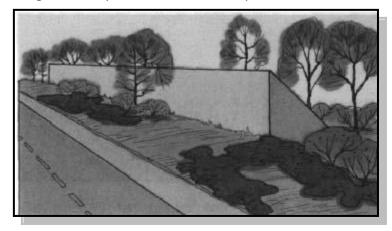


Figure 2-Pilasters serve as vertical elements in the wall

to be discordant elements in the landscape. These should appear to be a part of the highway scene wherever possible, and not give the impression of being placed as an afterthought. Walls should begin and end in a natural transition from ground plane to the desired height. Where allows, the space best transition is through the use of an earth berm or by tying the wall into the natural hillside. The line of the wall then appears to originate from the landscape.

This may further be avoided by either a gradual tapering of the wall to a point near the ground or by stepping the wall in even increments until a point is reached where the wall is no longer visually dominant. Where possible, walls should tie into existing structures such as



bridge abutments, retaining walls, etc., in order to achieve continuity of line.

The line of a wall may vary in plan view in order to reduce the straight line effect. A series of jogs in a wall serve to break the monotony of a straight wall and create pockets which may be used for plantings.

Figure 3-Lines appear to be part of the landscape

The breaks may further be used as transition points for change in texture, color, or wall height. The line may vary in a curvilinear manner to produce a serpentine wall, which likewise creates visual interest in a wall, and provides the opportunity for planting pockets.

Plantings also may be used to break an undesirable line in a wall. Trees in front of a wall soften the harsh lines; the eye perceives the form and outline of the trees as one with the line of the wall. Vines allowed to grow over a wall will likewise soften an otherwise highly visible hard line. Tree groupings should alternate on both sides of a wall - the viewer becomes less aware of the line of the wall since it becomes part of a composition of forms, rather than a



Figure 4- Plant Materials to help soften the wall

separate element.

Guidelines for the use of Line and Form

The lines and form designed into sound walls within James City County should mimic the lines and forms in the natural surrounding. If the terrain is rolling hills, then the lines and form of the wall should have horizontal and vertical elements and if the terrain is primarily flat then the design should incorporate predominantly horizontal lines.

Principles of Color

Harmonious colors tend to soothe, contrasting colors tend to attract the eye, and clashing colors irritate. A sound wall placed along the highway may evoke similar responses in the motorist, depending upon the colors chosen. The motorist should be directed past a barrier with as little visual disruption as possible, because the primary attention of the driver should be on the road ahead and local traffic conditions. The colors chosen for the barrier should reflect and harmonize with the predominant colors of the highway environment in which it is placed. They should not attempt to match the color of trees, grass, or shrubbery because they are not related to such natural features by form. Rather, harmonious colors should be utilized. When used on structures in the landscape, earth colors (browns and grays of various tones) help to blend the structures into their environment. Structures which utilize these colors seem to belong to the landscape - they appear to be part of the landscape, rather than an unharmonious element added as an afterthought.

Color interest and variety may be achieved through the use of plant materials instead of by direct application on barriers. The added advantage of plantings is in seasonal variation of color. Plants which change color in spring, summer, and fall, when used in conjunction with a barrier, will impart a seasonal variation in the barrier as well. In most cases, the barrier should be of a neutral color which blends with the environment, rather than attracting attention.

Guidelines for the use of Color

The color of sound walls within James
City County should be a natural earth
tone that blends into the color of the
existing terrain but does not match the
color of plant materials that are to be
placed in front of the wall. The wall
should be a neutral color that will help
the plant materials placed in front
stand out. Walls that are over ten feet
in height and one thousand feet in
length should incorporate two colors to
break up monotony and give the wall
some added interest. Incorporating
more than two colors should only be
applied to walls that are extremely

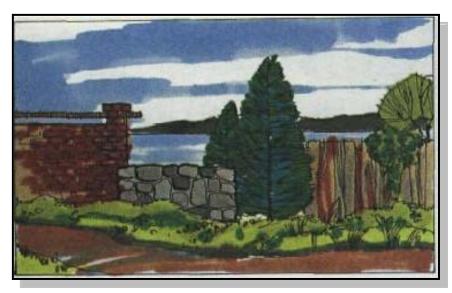


Figure 5-Tone colors blend the walls with the landscape

large, and is not recommended for the smaller applications found in James City County.



The color of the plant materials selected to go in front of the walls should compliment but not match the color of the wall. The color of the plants should vary so as the motorist drives along it creates a progression of colors.

Figure 6-A mixture of texture adds interest to the wall

Texture in Walls

The use of texture on sound walls helps to create a pleasant variety for both the motorist and the resident. A motorist views a barrier at speeds up to 55 mph and has little opportunity to examine details. Most details flash by in a blur. Walls present good opportunities for textural treatment. Texture should be used wherever possible for maximum visual potential. Cast-in-place and precast concrete has flexibility for variations in surface texture. Texture may be created during the casting process or applied afterward.

Exposed aggregate finishes create interesting textures, particularly where coarse aggregate is used in the mix. This is also effective when used alternately with other textures. The added advantage of exposed aggregate is low light-reflectance which helps to reduce the visual impact of the barrier. Wall colors can be varied, depending on the color of the aggregate.

Shadows created in the forming process help to create texture and break up the visual monotony of a plain wall. These may be created through the use of rustication strips placed in the forms, or by variation in the form itself. Horizontal overhangs or vertical jogs in a wall should be deep enough to cast a discernable shadow visible from a distance.

Perhaps the most visually effective method of creating texture in concrete is by using a combination of methods and textures, particularly for long and high barrier walls. Interesting effects may be obtained by varying the texture of a long section of wall; however, textures should be compatible and similar in contrast. Rarely should more than two textures be used on the same wall; the designer should avoid alternating textures in even, repetitive patterns. By varying the textures of the wall and textures of the plant materials the designer can create interest and break up monotony. Sound walls within James City County should be designed so that the texture on the motorist side of the wall is

a course texture that can be seen at high speeds and the residential side of the walls should have a fine texture that is easily seen by slow moving pedestrians.

The texture between the plants and the wall should differ slightly and offer some contrast so the plants will stand out and not blend into the wall. Applying too many textures to the same wall can result in cluttered appearance that is not easily ignored by passing motorists. James City County does not recommend using more than two textures on sound walls and using even, repetitive treatment of textures on long walls.

Creating Texture with Plants

Each type of noise barrier presents the opportunity for textural variation, which will aid in public acceptance of the barrier. Textural variation in earth berms can, perhaps, be best accomplished through the use of plantings. Plantings on the highway side should be arranged in large groupings or masses of a single plant type, size, or color. Plants with large leaves represent the coarsest textures and should be used "en masse" where this texture is desired. Massing should be in irregular, free-form patterns of varying size, rather than equally spaced and repetitive. There should be a contrast between the texture of the wall and the texture of the plants.

Principles of Contrast

A noise barrier may contrast with its surroundings by its line, form, texture, or color. In residential areas, the barrier should be unobtrusive and, therefore, low in contrast. On the highway side, a barrier should blend rather than contrast with the surroundings since high contrast is distracting to the driver. Plantings can either increase or decrease contrast of a noise barrier. Plantings that are similar in form, color and texture to other native plants present in the area help to reduce the contrast of a noise barrier. Plantings that are unique in form or color or that are dissimilar to native plants in an area tend to increase contrast. Likewise, to decrease contrast, plantings should be arranged in informal, natural groupings rather than in obvious, equally spaced, patterns.

Contrast may also be increased or decreased via color of the barrier itself. Where high contrast is desired, lighter colors or wall graphics may be used effectively. Darker, earth colors tend to reduce contrast. The designer should examine the site and surroundings in order to determine the predominant natural colors and choose similar or harmonious colors for the noise barrier where low contrast is desired.



Guidelines for the use of Contrast

The design of sound walls in James City County should incorporate construction materials and plants that contrast slightly to their surroundings, helping to make the wall seem to be part of the landscape while contrasting enough to make the planting in front of the walls stand out. Line, form, color, and texture all contribute to contrast and each should be considered when choosing construction materials and plants.

Figure 7-Less contrast would have helped blend this wall into its surrounding

Principles of Sequence

Travel on a highway is a continuous, ever-changing experience of vision and motion. A planned sequence of events creates interest for the moving observer; a static event creates monotony. A sound wall can create a pleasant visual experience for the motorist through a progression or planned sequence. The transition from ground plane to maximum barrier height should be a sequence of gradually increasing steps or a continuous sweeping line to help create this effect. A sequential experience may be created through the arrangement of plantings, by a gradual increase in height of trees and shrubs. Plant masses can be used to define a space by becoming, in effect, the walls of the enclosure. Varying the position of these masses with respect to the road creates a succession of confined and relatively open spaces. This pleasant feeling of motion and rhythm imparted to the moving observer tends to dramatize the experience of passing through the space.

Guidelines for Sequencing

A sense of sequencing should be an element of all sound walls within James City County. Sequencing should be designed into the wall and the landscaping. Longer sound walls should have sequencing in the height of the wall and create areas that change the distance from the wall to the road. Indentations in the wall can create attractive niches that help break up the long expanse of wall and add a series of interesting spaces that change as the motorist moves by. Such indentations enable the designer to incorporate sequenced changes to the landscape and wall. Landscaping should be an informal design than changes as you progress along the wall. Groups of trees and shrubs should be utilized, repetitive treatments should be avoided. Treatment should change as the motorist moves along to pull the eye along the progression.

Principles of Dominance

A dominant element attracts attention to itself in a visual scene. A noise barrier should not be the dominant feature along a highway. Dominance of a single element can be reduced through the introduction of other dominant elements which balance each other in the visual

composition. Plantings in front of a barrier help to reduce visual dominance, particularly if the plantings are native varieties commonly found or present in an area. Color can also affect dominance. Brighter, contrasting colors make an object more dominant. Subdued, harmonious colors, similar to surrounding colors in intensity, tend to make an object less dominant. Wall design can also affect dominance of a noise barrier. Straight, high walls adjacent to the roadway appear imposing, an encroachment upon the space. Walls which step back in some way relieve this tight constricted feeling, and become less of a dominant element in the highway environment. Similar patterns of dominance occur on the residential side of barriers, with equally similar effects upon the resident.

Guidelines for Dominance

Sound wall design with in James City County should incorporate construction materials and plantings that reduce the visual dominance of the wall and emphasize the natural terrain and vegetation. The wall can appear to be part of the natural landscape by starting the placement of the wall from a wood line or berm and having the height increase as you progress and then decrease as you come to the end. The configuration of the wall should mimic the natural terrain and the landscaping should mimic the natural vegetation.

Principles of Landscaping



The landscape treatment of sound walls should use plants that are similar to existing vegetation in the area and planted in an informal design that makes the wall appear to be part of the natural landscape. Repetitive uniform plantings should be avoided. Groups of plants placed in an informal pattern that pulls the eye along as you progress is preferred.

Figure 8 Informal landscape design

Guidelines for Landscaping

Sound walls built within James City County should always have landscaping installed in front and when possible have tall existing vegetation behind the wall. The County is aware that it is not always possible for enough right of way area to be provided for landscaping. However every effort should be made to utilize as much area for landscaping that is practical. The landscape design should incorporate the design principles of line, form, texture color, dominance, sequencing, and dominance discussed above.

Construction Materials

There are a wide range of construction materials available for sound wall construction, ranging from wood, steel, rock, concrete, concrete block, and precast. All of these materials offer their own aesthetic and sound absorbing or sound reflecting properties. Typically the precast systems offer the most flexibility in design and are most often the most economical choice.



Figure 9 Pre cast concrete systems are economical and attractive and offer a wide variety of styles

Construction Material Guidelines

All sound walls within James City County should utilize the most aesthetically pleasing products that offer suitable sound absorbing properties, and are readily available on the market today. Since sound walls are primary funded by the Federal Government, efforts to keep cost below the \$30,000.00 per effected resident standard should be made. James City County would consider any construction material that can provide the proper noise abatement and costs within the proposed budget. Aesthetics should be the primary emphasis when choosing the type of construction material used, with cost also taken into consideration.

Conclusion

The intent of these guidelines is to enable James City County to work closely with VDOT through the design process of sound walls. These guidelines will be made available to VDOT so the County's desired treatment of sound walls can be known before the design process begins. Once the design process begins the County shall be active in the public meetings portion. VDOT advertises the public meetings in local newspapers and sends out notices to the effected property owners. The meetings are typically held at local schools. It is the County's intent to have a representative at each of these meetings to advocate the design principles contained in these guidelines. The guidelines are intended to enhance the operation of these meetings by making the County's preferences known ahead of time and to ensure that the design of sound walls with in the county are designed to be efficient sound mitigation facilities that are cost effective and aesthetically pleasing. The following bullet points summarize the James City County's expectations for the design and construction of sound walls.

- The line and form of sounds walls should mimic the line and form found in the natural landscape making the wall appear to belong as an element of the natural topography.
- Colors in sound walls should be earth tones that blend into the natural surroundings, and no more than two colors should be used.
- Textures used in sound walls should be compatible similar in contrast. Rarely should more than two textures be used on the same wall. The textures of plant materials should contrast slightly with the texture of the wall to make the plants stand out.
- Sound walls should contrast with their surroundings only slightly so the wall blends into the natural landscape. Some contrast between the wall and plant materials should exist to make the plants stand out but not enough to be distracting.
- Sound walls should be designed to create a progression of line, form, color, texture and contrast known as sequencing. Sequencing should add changing interest to the wall and pull the eye along as one progress along the wall.
- Sound walls within James City County should never dominate their surroundings. Sound
 walls should be designed to reduce the visual dominance of the wall and emphasize the
 natural terrain and vegetation.
- All sound walls in James City County should have landscaping install in front when
 possible. Every effort should be made to provide a planting area. The landscape design
 should incorporate elements of line, form, color, texture, and contrast to reduce the
 visual dominance of the wall and make it blend into the natural surroundings.
 Landscaping should soften the wall and create a progression that pulls the eye along as
 one proceeds.
- Construction materials should be selected based on their aesthetic value and sound absorbing properties. The cost of materials should also be considered and an effort to keep cost below the proposed budget should be made.

MEMORANDUM

DATE: June 16, 2011

TO: Policy Committee

FROM: Scott Whyte, Senior Planner

SUBJECTS: Development Standards - Draft Outdoor Lighting Ordinance

Staff presented a proposal for amending outdoor lighting ordinance requirements to the Policy Committee during Stage I of the Zoning Ordinance Update process. The Committee endorsed staff's proposals and suggested creating a new outdoor lighting section complete with guidelines, similar to the ordinance and guidelines that Fairfax County has adopted.

Following that meeting, the Board of Supervisors held a work session in March to discuss a number of proposed ordinance amendments for development standards. The Board reviewed the Policy Committee recommendations.

Staff has drafted a new outdoor lighting ordinance for stage II which addressed topics discussed at both the February Policy Committee meeting and the March Board work session. A set of guidelines was drafted but staff decided that it would be more effective to roll the guideline suggestions into the ordinance to simplify and condense the requirements. The new ordinance requirements are intended to incorporate measures that ensure that the County can preserve its dark sky qualities, and protect citizens against the adverse effects of light pollution.

Staff requests the Policy Committee offer comment on the draft ordinance prior to the Board of Supervisors work session in July.

Attachments: Draft Outdoor Lighting Ordinance

Development Standards Draft Ordinance Language

Chapter 24

Article I. In General

24-2. Definitions

- a) **FOOTCANDLE:** A measure of light falling on a surface. One (1) foot-candle is equal to the amount of light generated by one (1) candle shining on one (1) square foot surface located one (1) foot away. Foot-candle measurements shall be made with a photometric light meter and with a specified horizontal orientation.
- b) **LIGHTING FIXTURE:** A complete lighting unit consisting of the lamp, lens, optical reflector, housing and an electrical components necessary for ignition and control of the lamp, which may include a ballast, starter and/or photo control.
- c) **LIGHTING FIXTURE, DIRECTIONALLY SHIELDED:** A lighting fixture which emits a light distribution where some light is emitted at or above a horizontal plane located at the bottom of a fixture. Such fixtures may contain visors, louvers or other types of shields or lenses which are designed to direct light onto a targeted area and to minimize stray light.
- d) **LIGHTING FIXTURE, FULL CUT-OFF**: A lighting fixture from which no light output is emitted at or above a horizontal plane drawn through the bottom of the lighting fixture. Lighting fixtures located within those portions of open-sided parking structures that are above ground which meet the angle requirements set forth above through the use of any portion of the ceiling or walls of the parking structure shall be deemed full cut-off lighting fixtures.
- e) **LUMEN:** A quantitative unit measuring the amount of light emitted from a light source.
- f) **PHOTOMETRIC DIAGRAM:** A diagram depicting the location of all light poles and building mounted lighting fixtures in a specified area and a numerical grid of the maintained lighting levels that the fixture will produce in that specified area

Chapter 24. Zoning

Article II, SPECIAL REGULATIONS

Division 7 OUTDOOR LIGHTING

Section 24-1000: Statement of intent

The intent of this ordinance is to require and set minimum standards for outdoor lighting to provide for and control lighting in outdoor public places where public health, safety and welfare are potential concerns. These concerns include protecting drivers and pedestrians from the glare of non-vehicular light sources; protecting neighbors, and the night sky from nuisance glare and light trespass from improperly selected, placed, aimed, applied, maintained or shielded light sources; promoting energy

efficient lighting design and operation; and protecting and retaining the intended visual character of the various county venues.

Section 24-1001 Plan Submission

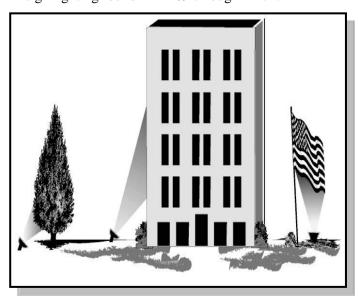
Where site lighting is required by this section, is otherwise required by the county, or is proposed by applicant, lighting plans shall be submitted for county review and approval for site plans, and subdivision plans. The submitted information shall include the following:

- a) A plan or plans of the site, complete with all structures, parking spaces, building entrances, traffic areas (both vehicular and pedestrian), existing and proposed trees, and adjacent uses that might be adversely impacted by the lighting. The lighting plan shall contain a layout of all proposed and existing luminaires, including but not limited to area, architectural, building entrance, canopy, soffit, landscape, flag, sign, etc., by location, orientation, aiming direction, mounting height, lamp, photometry, and type.
- b) Landscaping plans shall contain luminaire locations, demonstrating that the site lighting and landscaping have been coordinated to minimize conflict between vegetation and intended light distribution, both initially and at vegetation maturity.
- c) Plan Notes The following notes shall appear on the lighting plan:
 - 1) Post-approval alterations to lighting plans or intended substitutions for specified lighting equipment on the approved plan shall be submitted to the county for review and approval prior to installation. Requests for substitutions shall be accompanied by catalog cuts of the proposed equipment that demonstrate the proposed substitution is equal to or exceeds the optical quality and maintainability of the specified luminaires, and accompanied by a lighting plan, including a point-by-point plot, which demonstrates that proposed substitutions will result in a lighting design that equals or exceeds the quality of the approved plan.
 - 2) The county reserves the right to conduct post-installation inspections to verify compliance with the requirements of this section and the approved lighting plan commitments, and if deemed necessary, to require remedial action at no expense to the county.
 - 3) All exterior lighting, including building-mounted lighting, shall meet Illuminating Engineering Society of North America (IESNA) full-cutoff criteria unless otherwise specifically approved by the county.

Section 24- 1002: General Outdoor Lighting Standards

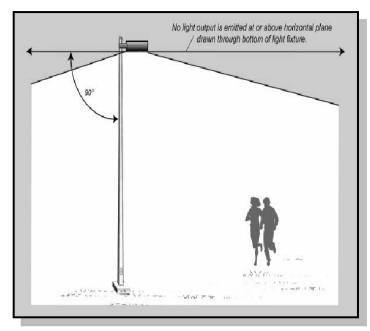
- a) For the lighting of predominantly horizontal surfaces such as, but not limited to parking areas, roadways, vehicular and pedestrian passage areas, merchandising and storage areas, automotive-fuel dispensing facilities, automotive sales areas, loading docks, active and passive recreational areas, building entrances, sidewalks, bicycle and pedestrian paths, and site entrances, luminaires shall be aimed straight down and shall meet IESNA full-cutoff criteria.
- b) For the lighting of predominantly non-horizontal surfaces such as, but not limited to, buildings, facades, landscaping, signs, displays, and statuary, when their use is specifically permitted by the

county, luminaires shall be full cut-off or shielded and shall be installed and aimed so as to not project their output into the windows of neighboring residences, adjacent uses, past the object being illuminated, skyward or onto a public roadway and shall comply with all regulations for sign lighting found in 24-69 through 24-74.



Lighting used for architectural/landscaping lighting shall be aimed and controlled so that light is confined, as much as possible, to the objects that are intended to be lit

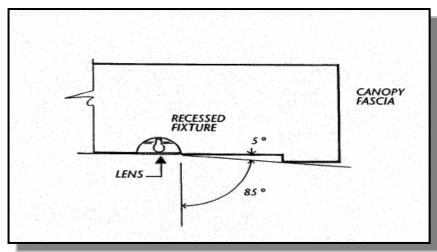
c) Full Cut-Off Lighting Fixtures – All outdoor lighting fixtures shall be full cut-off lighting fixtures used for but not limited to all outdoor walkways, parking lots, canopy and building/ wall mounted lights. A full cut-off lighting fixture is a fixture from which no light output is emitted at or above a horizontal plane drawn through the bottom of the lighting fixture.



Example of full cut-off lighting fixture

Section 24-1003 Control of Glare

- a) All lighting shall be aimed, located, designed, fitted and maintained so as not to present a hazard to drivers by impairing their ability to safely traverse and so as not to create a nuisance by projecting or reflecting objectionable light onto a neighboring use or property.
- b) Directional luminaires such as floodlights and spotlights, when their use is specifically approved by the county, shall be so shielded, installed and aimed that they do not project their output into the windows of neighboring residences, adjacent uses, past the object being illuminated, skyward or onto a public roadway.
- c) Vegetation screens shall not be employed to serve as the primary means for controlling glare. Rather, glare control shall be achieved primarily through the use of such means as cutoff luminaires, shields and baffles, and appropriate application of luminaire mounting height, wattage, aiming angle and luminaire placement.
- d) Flag lighting sources shall not exceed 7,000 aggregate lamp lumens per flagpole. The light source shall have a beam spread no greater than necessary to illuminate the flag and shall be shielded so the light source (lamp and reflector) is not visible at normal viewing angles.
- e) Under-canopy lighting for such applications as gas/service stations, hotel/theater marquees, fast-food/bank/drugstore drive-ups, shall be directed so as not to produce glare on any adjacent property or public right-of-way. Luminaries shall be mounted horizontally and shall be recessed fixtures with no bulb, lens or globe extending below the casing. The casing shall be opaque and shall completely surround the entire light fixture and light source in such a manner that all light will be directed downward and the light source is not visible from the side (refer to the following graphic). Plans detailing the illumination patterns (Iso-footcandle diagrams) and specific design of all lighting fixtures shall be submitted for review along with the site or subdivision plan.



Example of full cut-off fixture for canopy lighting

Section 24-1004 Installation of lighting fixtures;

a. Pole mounted luminaires for lighting horizontal tasks shall be aimed straight down.

- b. Poles and brackets for supporting luminaires shall be those specifically manufactured for that purpose and shall be designed and rated for the luminaire and mounting accessory weights and wind loads involved.
- c. Pole foundations shall be designed consistent with manufacturer's wind load requirements and local soil conditions involved.

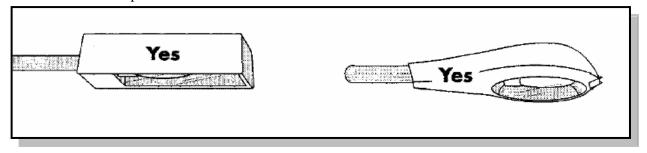
Section 24-1005 Maintenance

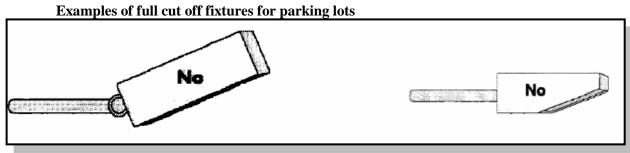
a) Luminaires and ancillary equipment shall be maintained so as to always meet the requirements of this ordinance.

Section 24-1006: Parking Lots

(*NOTE: These are not new requirements, they are relocated from section 24-57 (c) so that all outdoor lighting requirements are located or referenced in one place.)

- a) Adequate lighting shall be provided if the uses which are served by the parking lot will be in operation at night.
- b) No lighting fixture shall exceed a height of 30 feet. Height of the light fixture shall be the distance from ground or finished grade level to the highest point of a luminary.
- c) The lighting in parking lots shall be directed so as not to produce glare on any adjacent property or public right-of-way. Luminaries shall be mounted on light poles horizontally and shall be recessed fixtures with no bulb, lens or globe extending below the casing. The casing shall be opaque and shall completely surround the entire light fixture and light source in such a manner that all light will be directed downward and the light source is not visible from the side (refer to the following graphic). Plans detailing the illumination patterns (Iso-footcandle diagrams) and specific design of all lighting fixtures shall be submitted for review along with the site plan.





Examples of non full cut off fixtures

Section 24-1007 Signs

a) All outdoor lighting associated with illuminating signage shall be required to follow specifications for sign lighting found in Article 2, Division 3.

MEMORANDUM

DATE: June 16, 2011

TO: Policy Committee

FROM: Scott Whyte, Senior Planner

SUBJECTS: Draft Tree Preservation Ordinance, Draft Specimen Tree Option, and Streetscape Policy

Amendment

During stage I of the Zoning Update process staff presented an analysis of the existing tree preservation ordinance requirements, and several suggestions for amending the existing requirements, suggestions for a new specimen tree option, and proposed amendments to the Streetscape Policy to the Policy Committee in February 2011. To summarize, the committee suggested drafting a new tree preservation ordinance which assembled all existing regulations in one area, added provisions for phased clearing, discouraged clear cutting, and utilized staff in pre-construction inspections of sites that contain significant trees. The Committee also endorsed the creation of a new Specimen Tree Option, and proposed amendments to restrict the distance from the road a street tree can be planted and an amended list of suggested trees, to the Streetscape Policy. Staff explored adopting tree canopy percentage regulations and the option of applying tree preservation regulations to residential areas; however these two items are not being brought forward for phase II of the Ordinance Revision Update.

Following that meeting, the Board of Supervisors held a work session to discuss a number of proposed ordinance amendments for development standards. The Board reviewed the Policy Committee's recommendations for a new Tree Preservation ordinance, the creation of a Specimen Tree Option, and the proposed amendments to the Streetscape Policy.

Staff has constructed a draft ordinance for tree preservation during development which addresses the topics discussed at both the February Policy Committee meeting as well as the March Board work session. The new ordinance is intended to consolidate the existing tree preservation requirements and add the enhancements suggested by the Policy Committee, resulting in a clearer, more concise set of requirements that will assist staff in enforcement of the existing regulations. Staff has also drafted a new Specimen Tree Option and proposed amendments to the existing Streetscape policy.

Staff requests the Policy Committee offer comment on this draft tree preservation ordinance, draft specimen tree option, and proposed amendments to the Streetscape Policy prior to the Board of Supervisors work session in July.

Attachments:

- 1. Draft Tree Preservation Ordinance
- 2. Draft Outstanding Specimen Tree Option
- 3. Draft Outstanding Specimen Tree Designation Request Form
- 4. Streetscape Policy

Chapter 24

ARTICLE II. SPECIAL REGULATIONS

DIVISION 4. TREE PRESERVATION AND LANDSCAPING

Sec. 24-86. Statement of intent.

The purpose of this article is to promote the preservation and planting of trees in order to safeguard and enhance residential and commercial real estate values; reduce noise, glare, and heat; conserve energy; buffer noise and wind; mitigate storm water runoff; protect properties from erosion; and provide habitats for wildlife.

These objectives will be realized through regulatory measures which seek to encourage planting of trees and discourage their removal and promote preserving specimen trees. The preservation, installation, and maintenance of plant materials will:

The purpose of this section is to promote the public health, safety and welfare by providing for the preservation, installation and maintenance of trees and plant materials which will:

- (1) Ensure development which is consistent with the goals of the Comprehensive Plan related to natural resources, environmental and land use standards, Community Character Corridors, and aesthetics;
- (2) Retain the historic and natural character of James City County by reducing the visual impact of signs, parking lots, buildings and structures and protecting, preserving and enhancing its natural physical wooded character with emphasis on preserving the existing tree canopy and other indigenous vegetation and providing such canopy and vegetation where it does not exist;
- (3) Minimize the environmental and land use impacts of developments associated with noise, glare, dust and movement; changes in appearance, character and value of neighboring properties; and effects on air and water quality, stormwater runoff, groundwater recharge and soil erosion by preserving existing tree canopies and indigenous vegetation and restoring such canopies and vegetation and providing other landscape features;
- (4) Promote traffic safety by controlling views and visually defining circulation patterns;
- (5) Provide more comfortable exterior spaces and conserve energy by preserving and providing tree canopies and other landscape features which provide shade and windbreaks; and
- (6) Ensure the location, type, and maintenance of plant materials creates and maintains a safe environment for users of the site.

Sec. 24-87. Administration.

(a) Tree Preservation Plan; when required. A tree preservation plan shall be required for any development that requires a site plan under the provisions of ordinance section 24-143 and. Such a plan shall be submitted at time of application for plan approval. The Tree Preservation Plan should be prepared and approved in accordance with Article 3 Site Plan.

- (b) Tree Preservation Plan; who prepares. Tree preservation plans shall be prepared and/or certified by design professionals practicing within their areas of competence as prescribed by the Code of Virginia including certified engineers, architects, landscape architects, and other professionals related to this field.
- (a)(c) Landscape plan; when required. A landscape plan is required for any site plan or subdivision plan for development subject to sections 24-98 (f) and (g) and shall be submitted at the time of application for plan approval. The landscape plan shall be prepared and approved in accordance with article III, Site Plan. The landscape plans shall also indicate the location of all existing and planned utilities.
- (b)(d) Landscape plan; who prepares. A Virginia registered landscape architect, a member of the Virginia Society of Landscape Designers, or a Certified Virginia Nurseryman with experience preparing planting plans and landscape construction drawings, shall prepare landscape plans for projects that propose a new building or group of new buildings whose building footprint(s) exceeds 2,500 square feet; or propose site improvements which result in the disturbance of 5,000 or more square feet of land area.
- (e) (e) Plan requirements and determinations. Where requirements of this section are based on zoning or planning designations, such designations shall be determined by the county zoning district map, Comprehensive Plan and Six-Year Secondary Road Plan and the official planning and zoning documents of the adjoining jurisdiction if applicable. Required landscape areas shall exclude any planned future right-of-way as designated on the Comprehensive Plan, Six-Year Primary or Secondary Road Plan, Peninsula Area Transportation Plan, approved master plan, or any road plan adopted by the board of supervisors.
- (d)(f) Installation of required landscaping, performance guarantee. Where a landscape plan is required, landscaping shall be installed and existing trees shall be preserved in conformance with the approved landscape plan. A certificate of occupancy shall not be issued until all landscaping has been installed in accordance with the approved landscape plan unless the installation of any incompleted landscaping is guaranteed as provided in section 24-8.
- (e)(g) Maintenance of landscaping. The owner, or his agent, shall be responsible for the maintenance, repair and replacement of all landscaping materials, fences and barriers as may be required by the provisions of this section. All plant materials, including existing trees preserved to meet the requirements of this section, shall be tended and maintained in a healthy growing condition, replaced when necessary, and kept free of refuse and debris. Fences and walls shall be maintained in good repair. Replacement material shall conform to the original intent of the approved landscape plan and any replacement planting shall meet the minimum requirements of this section.

Sec.24-88. Tree Preservation Plan: Submittal requirements.

- (a) Tree preservation plans shall be incorporated into clearing plans when required by the County's Chesapeake Bay Preservation ordinance.
- (b) Tree preservation plans shall show the following site conditions:
- (1) An inventory of all existing trees on the site with a trunk diameter of 24 inches or greater, measured at breast height. Large areas of trees proposed to be preserved can be shown as an area and do not need to be shown as individual trees;

- (2) An inventory of all trees with a caliper greater than 24 inches that are proposed to be removed;
- (3) Any designated outstanding specimen trees;
- (4) The location of existing and proposed buffer plantings, street trees and any other landscaping areas required by the zoning ordinance or subdivision ordinance;
- (5) All tree protection measures required by section 24-88 of the zoning ordinance drawn to scale at exact locations,
- (6) A phased clearing plan when required by section 24-89,
- (7) A narrative explaining how only trees necessary for the development of the site are proposed to be removed.

Sec.24-89. Tree protection and criteria for tree removal for all uses requiring a landscape plan.

- (a) Standards for tree protection and impervious cover. Existing mature trees shall be preserved except in impervious areas and impervious cover shall be limited to the extent permitted in the county's Chesapeake Bay Preservation Ordinance. Existing mature and specimen trees shall be integrated into the overall plan of development and shall be preserved so as to promote the intent of this section. The commission or planning director, depending upon the applicable review process, may require that certain mature trees or specimen trees be preserved upon determination that they contribute significantly to the character of the county and that preservation is necessary to satisfy the intent of this section. The purpose of this paragraph is to protect such trees and other amenities which could otherwise be lost due to careless site design or construction. All trees to be preserved shall be protected in accordance with the standards of this section.
- (b) Tree protection.
- (1) All trees to be preserved shall be protected before, during and after the development process in accordance with specifications contained in the *Virginia Erosion and Sediment Control Handbook*. The applicant shall include a conservation checklist for review and approval by the environmental director which shall ensure that the specified trees will be protected in accordance with these specifications.
- (2) Groups of trees shall be preserved rather than single trees. Trees or groups of trees to be preserved shall be clearly marked in the field.
- (3) Trees and groups of trees to be preserved shall be enclosed by a substantial, temporary fence or barrier as specified by the environmental director. The location, type, and installation standards for protective tree fencing shall be clearly shown on the site plan. The fence or barrier shall be located and maintained outside the dripline before commencement of clearing or grading. The fencing or barrier shall remain throughout construction and any subsequent grading or excavation unless otherwise approved on a clearing and grading plan. In no case shall materials, debris, fill, vehicles or equipment be stored within this enclosure, nor shall the topsoil layer be disturbed except in accordance with tree protection standards approved as part of the conservation checklist.

- (4) The developer shall be responsible for ensuring these areas are protected in accordance with this section. Where changes from the existing natural grade level are necessary, permanent protective structures, such as tree walls or wells, shall be properly installed in accordance with the *Virginia Erosion and Sediment Control Handbook*, as required by the environmental director.
- (c) Tree removal:

Outside impervious areas, trees may be removed in accordance with sections 24-96 (e) (2) and (3).

Sec. 24-90. Phased Clearing Plan: Submittal requirements.

"Phased clearing" means the clearing or grading a parcel of land in distinct sections with the stabilization of each phase before the cutting and removal of trees or grading of the next. A phased clearing plan shall be required to be submitted with the tree preservation plan on all sites disturbing greater than 25 acres. The size of each phase will be established at site plan review and as approved by the Planning Director or Development Review Committee (DRC) and the commission for plans meeting the criteria of section 24-147.

Sec. 24-91. General standards.

- (a) All tree removal shall be limited to the area required for the practical development of the site. No clear cutting shall be permitted except when it can be shown that the removal of vegetation is necessary for the development of the site. Clear cutting is defined as removal of large areas of existing vegetation in areas not necessary for the construction of buildings and or the infrastructure associated with the development.
- (b) For properties subject to this ordinance, the Tree Preservation Plan shall show which existing trees will be removed in order to develop the property. No existing tree greater than 24 inches in diameter shall be destroyed unless written approval has been granted by the county during the process of approving the Tree Preservation Plan. Tree removal shall take place before development or construction begins.
- (c) This ordinance strongly encourages the planting of trees native to Eastern Virginia and/or adaptable to the coastal conditions and climate of James City County. As a resource for developing tree plans, the Planning Director or his designee shall maintain and make available to the public a list of desirable trees based on their adaptability to the climate of Eastern Virginia.
- (d) If any of the trees specified in the Tree Preservation and Planting Plan are severely damaged during construction or should die within 12 months after project completion, the developer or property owner shall replace the trees. Replacement must happen within six months at a ratio of 1:1 for trees up to 12 inch caliper, 2:1 for trees greater than 12 inches but less than 24 inches, and 3:1 for trees greater than 24 inch caliper, and 5:1 for designated outstanding specimen trees.

Sec. 24-92. Tree Preservation plan site inspections

(a) The Planning Director or his designee shall inspect the sites subject to this ordinance prior to Certificate of Occupancy to determine compliance.

(b) Upon approval of the Tree Preservation Plan and prior to any land disturbance permit being issued the developer shall arrange a meeting with the Planning Director or his designee to tag all trees over 24 inches identified in the plan to be preserved and to coordinate tree protection measures required by section 24-88. The Planning Director may waive this requirement upon finding that the development is less than 10 acres, and not subject to any proffers or conditions pertaining to tree preservation.

Sec. 24-88 93. Modification, substitution, transfer.

- (a) Findings for acceptance of modifications, substitutions, or transfers. The commission or planning director may modify, permit substitutions for any requirement of this section, or permit transfer of required landscaping on a site upon finding that:
- (1) Such requirement would not promote the intent of this section;
- (2) The proposed site and landscape plan will satisfy the intent of this section and its landscape area requirements to at least an equivalent degree as compared to a plan that strictly complies with the minimum requirements of this section;
- (3) The proposed site and landscape plan will not reduce the total amount of landscape area or will not reduce the overall landscape effects of the requirements of this section as compared to a plan that strictly complies with the minimum requirements of this section;
- (4) Such modification, substitution or transfer shall have no additional adverse impact on adjacent properties or public areas; and
- (5) The proposed site and landscape plan, as compared to a plan that strictly complies with the minimum requirements of this section, shall have no additional detrimental impacts on the orderly development or character of the area, adjacent properties, the environment, sound engineering or planning practice, Comprehensive Plan, or on achievement of the purposes of this section.
- (b) Cases for modifications, substitutions, or transfers. Requests for modifications, substitutions or transfers may be granted in the following cases:
 - (1) The proposed landscape plan, by substitution of technique, design or materials of comparable quality, but differing from those required by this section, will achieve results which clearly satisfy the overall purposes of this section in a manner clearly equal to or exceeding the desired effects of the requirements of this section;
 - (2) The proposed landscape plan substantially preserves, enhances, integrates and complements existing trees and topography;
 - (3) Where, because of unusual size, topography, shape or location of the property or other unusual conditions, excluding the proprietary interests of the developer, strict application of the requirements of this section would result in significant degradation of the site or adjacent properties;
 - (4) The proposed landscape design or materials involve a readily discernible theme, historic or otherwise, or complements an architectural style or design;

- (5) Where it is necessary to allow the subdivision of property on which commercial or industrial units will be for sale, for sale in condominium or for lease, and such units are constructed as part of a multiunit structure in which the units share common walls or are part of a multiple-structure development, and the entire development has been planned and designed as a cohesive, coordinated unit under a single master plan; or
- (6) Where transfers of required landscape areas to other areas on a site are necessary to satisfy other purposes of this section, including transfers to increase screening or preserve existing trees, provided such transfers do not reduce overall landscape requirements for a development.
- (c) Process for requesting modifications, substitutions, or transfers. Requests for modifications, substitutions or transfers shall be filed in writing with the planning director and shall identify the specific requirement of this section and the reasons and justifications for such request together with the proposed alternative. Depending upon whether the landscape plan is subject to commission or administrative review, the commission or planning director shall approve, deny, conditionally approve or defer action on such request and shall include a written statement certifying the above findings. The commission or planning director may require the applicant to provide plans, documentation or other materials to substantiate these findings.

In the case of approvals or conditional approvals, this statement shall include a finding as to the public purpose served by such recommendations, particularly in regard to the purposes of this section. The planning director shall notify the applicant in writing as to the reasons for such action within 30 days of submittal of administrative plans meeting all applicable submittal criteria or within five working days of such decision by the commission.

Sec. 24-90 94. Size requirements for new plantings

Planted trees and shrubs shall conform to the minimum size requirements outlined in the following table.

Size Requirements for New Plantings		
Category	Type	Minimum Size at Planting
	Deciduous Shade Tree (D)	Minimum Caliper is= 1.5".
Trees	Evergreen (E)	If multi-stemmed, minimum height shall be 8-feet. If single-stemmed, minimum caliper shall be 1.25" with minimum height of 8-feet.
Ornamental Tree	Single-Stemmed (D) or (E)	8-feet in height.
	Low Growing Woody Plant having several permanent	18" if evergreen.
	stems.	22" if deciduous.
Caliper - The diameter of a tree trunk measured 6" above-ground for nursery stock.		

Sec. 24-91 95 Summary of definitions for trees and shrubs

Outlined below is a quick reference of the definitions for trees and shrubs. Please refer to section 24-2 for complete definitions of these terms.

Type	Character	Minimum Size
Specimen Tree	Free of disease and significant damage or which is notable by virtue of its outstanding size and quality for its particular species.	Diameter at breast height (DBH) is 24" or greater.
Outstanding Specimen Tree	Free of disease and significant damage or which is notable by virtue of its outstanding size, form, shape, spread, and quality for its particular species as determined by the Planning Director or his Designee per the Outstanding Specimen Tree Designation Guidelines and Form.	Trees designated as outstanding specimens by the Planning Director or his Designee.
Mature Tree	Free of disease and significant damage.	DBH is 8" or greater
Understory or Ornamental Tree	Trees that typically do not exceed a height of 40-feet at maturity. Understory are those trees typically found within a native plant community. Common understory examples include: Wax Myrtle, American Holly, and Dogwood. Examples of ornamental trees include Japanese Maple and Crape Myrtle.	
Overstory Tree	Trees that typically exceed a height of 40-feet at maturity. Common examples include: Loblolly Pine, Oaks, Red Maple, and London Plane Tree.	
Diameter at breast heigh	nt (DBH) B The diameter of a tree trunk measur	red 4.5 feet from the ground.

Sec. 24-92 96 Plant Material Standards

- (a) All required plantings shall conform with the most recent edition of *American Standard for Nursery Stock*, published by the American Association of Nurserymen, and shall be planted in accordance with the most recent edition of *Guidelines for Planting Landscape Trees and Planting and Care of Trees and Shrubs*, published by the Virginia Cooperative Extension Service.
- (b) Required planting materials shall be of a species that promotes the intent of this division and that is compatible with the proposed planting environment.

(c) Transplanting for the purpose of achieving a larger size tree may be approved, provided it is done in accordance with accepted horticultural and silvicultural practices.

Sec. 24-93-97. Tree credits.

- (a) Existing viable trees, preserved on the site in accordance with the tree protection standards outlined in section 24-89 (b), may provide tree credits which shall reduce the number of new trees required to be installed.
- (b) The trees to be saved shall be clearly identified on the landscaping plan. The plan shall identify the general location, number, size, and type of trees proposed to be saved and the requested tree credits.
- (c) The amount of tree credit is outlined in the following chart.

Tree Credits	
Trees to be saved:	Tree Credits:
1 viable ornamental tree meeting the minimum size at planting as described in Section 24-90.*	1 planted ornamental tree.
3 viable trees meeting the minimum size at planting as described in section 24-90.*	1 planted ornamental tree.
1 viable mature tree.	2 planted trees.
1 viable specimen tree.	3 planted trees.
1 viable outstanding specimen tree as approved by the Planning	5 planted trees
Director or his designee.	

No credit shall be given for any trees that are not protected in full compliance with the tree protection standards listed in section 24-89(b).

^{*} The trees to be saved shall be "tagged" in the field and the planning director or his designee shall inspect the trees to determine which trees are eligible to receive credit. Only those trees which are healthy, of the minimum size noted above, and are of a suitable quality shall be deemed acceptable for receiving credit.

JAMES CITY COUNTY OUTSTANDING SPECIMEN TREE OPTION GUIDELINES

The purpose of the Outstanding Specimen Tree Option is to identify, maintain, and protect designated outstanding specimen trees located within the county. It is the intent of the option to increase public awareness of specimen trees located in the county as well as to provide reasonable assurance that James City County's tree heritage will continue for future generations. The intent of this option is not to be regulatory or punitive but rather to heighten public consciousness by informing and educating the public of the benefits that specimen trees provide. The option is intended to be a means to preserve specimen trees during development of private or public property by giving developers an incentive for doing so. The incentive will allow developers by ordinance to preserve outstanding specimen trees that may be located in areas that are not required to be preserved in exchange for 5 tree credits that can be counted towards satisfying tree credit requirements any where else on site.

OUTSTANDING SPECIMEN TREE OPTION GOALS:

The James City County Outstanding Specimen Tree Option has three major goals:

- To establish a process of designating and protecting outstanding specimen trees located on either public or private property.
- To encourage proper maintenance, care and protection of designated trees.
- To give developers an incentive to preserve outstanding specimen trees on development sites.

CRITERIA FOR REQUESTING OUTSTANDING SPECIMEN TREE DESIGNATION:

Any tree within the boundaries of the James City County that meets the following criteria as described below can be considered for an outstanding specimen tree designation with an Outstanding Specimen Tree Designation Request form.

- 1. Must be architecturally sound, true to its genetic form, and not topped or poorly pruned.
- 2. Be of exceptionally mature size and form, in healthy condition, free of disease, insect infestation, and storm damage.
- 3. Must be visible from publicly accessible location(s).

In addition to meeting the three criteria above, any tree being considered for nomination as a specimen tree must meet at least one of the following descriptions:

- 1. Outstanding Specimen Tree Notable by virtue of its outstanding size and quality for its particular species as determined by the Planning Director or his designee.
- 2. Heritage Tree Notable for its historic or cultural significance as determined by the Planning Director or his designee.

OUTSTANDING SPECIMEN TREE DESIGNATION REQUEST FORM

Applicant:	Date://	
Address:		
E-Mail:	Phone (c): ()	
Signature:		
Private: Public: Tree Description (species, dimensions): Tree Location (closest address, park location):		
Justification:		
Approved Disapproved		
Reason(s) for selected action:		

STREETSCAPE GUIDELINES POLICY

Goal

To preserve and/or establish tree canopies along residential streets, subdivision entrances, and common areas. Plant new trees appropriate to the climate and soils of James City County, enhancing existing healthy, durable, and mature trees in these areas.

Tree preservation/planting shall be accomplished such that, within 20 years growing time, the minimum tree canopy over residential streets shall be *established*.20%. The environmental and aesthetic benefits from tree planting enhance the quality, character, and health of the community.

Guidelines for Street Trees

In all residential subdivisions, deciduous shade trees and/or shrubs shall be planted along all rights-of-way within and abutting the subdivision. Street tree plans shall be prepared by a Virginia Landscape Architect and shall be reviewed and approved by the Development Manager or Designee. The street tree plans shall adhere to the following guidelines:

o Trees and/or shrubs shall be located within a minimum five-foot landscape preservation easement contiguous to such right-of-way or within the right of way, with VDOT approval. Every effort should be made to avoid conflict between the landscape preservation easement and the utilities during the design phase of the subdivision. If a conflict cannot be avoided, the landscape preservation easement shall be placed as close to the right-of-way as the design allows. All landscape easements shall be located no greater than 30% of the distance from the edge of curb to the proposed building envelop

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- o The easement shall contain, at a minimum, one tree per an average 40 linear feet of street on each side of the street or one shrub per an average 20 linear feet of street on each side of the street. The mix of trees and shrubs shall be approved by the Planning Director or his designee.
- Trees and/or shrubs shall be spaced no greater than 75 feet apart along 60% of the street frontage.
- o All trees that are planted shall be native species or street trees commonly planted in the James City County area that are adapted to the soils and climate. At the time of planting, trees shall have a minimum caliper of 1 ½". Shrubs are to be a minimum of 22" in height at the time of planting. Please refer to the Table 1 for street tree suggestions. Although plant material is not restricted to the list provided, any trees or shrubs that are invasive or require extensive maintenance for disease or pest control will not be approved.

- Existing trees which are within 20 feet of the edge of the right-of-way within the proposed landscape preservation easement, and which are protected and preserved in accordance with the requirements of the Zoning Ordinance, may be used to satisfy this planting requirement if approved by the Planning Director. Canopies that are a mixture of existing and planted trees or shrubs shall have similar or complementary branch characteristics.
- Plantings are to occur between November 1 and March 31 while the plant material is dormant to reduce the stress of transplanting. Prior to final site plan approval, the plantings and installation are to be bonded.

Upon completion of installation, the Planning Director or his designee shall inspect the plantings to verify on behalf of the applicant that the job was completed, or a Virginia Landscape Architect Designer shall can verify, in writing on behalf of the applicant, that the specified trees or shrubs were installed in the locations shown on the plans. A signed letter from the Landscape Architect Designer shall be submitted to the Planning Division Director or his designee at the time of verification.

Guidelines for Entrances and Common Areas

Entrances shall be landscaped with native and/or climate and soil appropriate trees, shrubs, grasses, and ground covers except where the existing mature trees have been preserved or protected in such areas. Plant material to be used in these areas shall be specified from Table 2 or, if not on the list, meet the above criteria. Unless the Director of Planning or his designee determines that such landscape treatment is unnecessary, impractical, or in conflict with drainage, utilities, sight distance, or other required features of the subdivision, the cleared portions of the entrances and associated common areas in a residential subdivision shall be landscaped with a minimum of 1 tree and 3 shrubs per 400 square feet exclusive of roadways, sidewalks, recreation facilities or other impervious areas.

In wooded areas, entrance features including walls, fences and signs shall be minimized to reduce the amount of clearing to accommodate entrance roads. In no case shall clearing for entrance roads and abutting utility easements exceed 60 feet in width.

Table 1. Suggested Street Trees

Acer campestre, Hedge Maple*
Acer rubrum, Red Maple
Fraxinus pennsylvanica, Green Ash (seedless cultivars)
Gingko biloba, Maidenhair Tree (male cultivars)*
Nyssa sylvatica, Black Tupelo*
Ostrya virginiana, American Hophornbeam*
Plantanus X acerifolia London Planetree
Quercus palustris Pin Oak
Quercus phellos, Willow Oak
Quercus shumardii, Shumard Oak
Ulmus parvifolia, Lacebark Elm*

Zelkova serrata, Japanese Zelkova*

*Trees recommended for thin planting strips or adjacent to sidewalks.

This list is suggested. Trees used are not required to be from this list.

Table 2. Suggested Plant Material for Entrances and Common Areas

Trees

Betula nigra, River Birch Carya ovata, Shagbark Hickory Cercis Canadensis, Eastern Redbud Cornus kousa, Kousa Dogwood Juniverus virginiana, Eastern Redcedar Pinus taeda, Loblolly Pine

Shrubs

Hamamelis virginiana, Witch Hazel Ilex opaca, Inkberry Ilex vomitoria, Yaupon Holly Myrica cerifera, Wax Myrtle Viburnum dentatum, Arrowwood Viburnum

Groundcovers and other Herbaceous Plants

Calamagrostis acutiflora, Feather Reed Grass Ceratostigma plumbaginoides, Plumbago Coreopsis verticillata, Threadleaf Coreopsis Deschampsia caespitosa, Tufted Hair Grass Festuca cinerea, Blue Fescue Helichtotrichon sempervirens, Blue Oat Grass Hemerocalis, Daylily Hypericum calycinum, St. Johnswort Liriope muscari, Blue Lily-turf Miscanthus sinensis, Japanese Silver Grass Panicum virgatum, Switch Grass Potentilla fruticosa, Bush Cinquefoil

This list is suggested. Plants used are not required to be from this list.

MEMORANDUM

DATE: June 16, 2011

TO: Policy Committee

FROM: Scott Whyte, Senior Planner

SUBJECTS: Development Standards: Community Character Corridor Buffer Treatments, Parking Lot

Landscaping, and Outdoor Operations and Storage

In February 2011, staff presented a proposal to the Policy Committee for Community Character Corridor buffer landscape treatments, amendments to parking lot landscaping, and a proposal to amend and relocate the ordinance requirements for outdoor operations. The committee endorsed staff's proposals to designate the landscape treatments of the Community Character Corridor buffers and suggested slight changes to the map and clarification of some of the language. The committee also endorsed staff's proposal to amend the parking lot landscaping section of the zoning ordinance (24-97) and to relocate the Outdoor Operations and Storage section (24-41) to the right of way section of the landscape ordinance (24-96).

Following that meeting, the Board of Supervisors held a work session to discuss a number of proposed ordinance amendments for development standards. The Board reviewed the Policy Committee's recommendations.

For Stage II, staff has drafted CCC buffer landscape treatment language, created a map which designates the treatment of all CCC buffers throughout the County, proposed draft amendments to parking lot landscaping, and relocated and clarified the outdoor operations section. All topics discussed at both the February Policy Committee meeting as well as the March Board work session have been addressed. The new ordinance requirements for CCC buffers are intended to clarify the type of treatments the County expects in these buffer ahead of any development to assist developers during the planning stages. The changes to the parking lot landscape requirements are intended to relax the tree spacing requirement in parking lots and improve growing conditions for the plant materials within parking lots. Relocating and amending the outdoor operations section is intended to consolidate the requirements into one area and to address conflicts between right of way landscape requirements and the screening of outdoor operations.

Staff requests the Policy Committee offer comment on these draft landscaping ordinance amendments prior to the Board of Supervisors work session in July.

Attachments:

- 1. Tree Preservation and Landscaping Ordinance
- 2. Community Character Corridor Buffer Treatment Guidelines
- 3. Community Character Corridor Buffer Treatment Designation Map
- 4. Parking lot design amendment

Chapter 24

ARTICLE II. SPECIAL REGULATIONS

DIVISION 4. TREE PRESERVATION AND LANDSCAPING

Sec. 24-96-100. Landscape area(s) along right(s)-of-way.

(a) Width requirements. A landscape area having an average width as specified in the following chart shall be provided adjacent to any existing or planned road right-of-way.

Width Requirements for Landscape Areas along Right(s)-of-Way.			
(1) Communi	(1) Community Character Corridors		
	Standard	Minimum width conditioned upon approval of planning director. Reference section 24-96 (d) for the criteria.	Reduction for lots less than 1.5acres which were recorded or legally in existence prior to July 3, 1990.
Average Width	50-feet	30-feet	20-feet or 10% of the average lot depth, whichever is greater.
Minimum Width	25-feet	20-feet	15-feet
(2) All Other	(2) All Other Roads		
Standard			Reduction for Lots less than 1.5 acres which were recorded or legally in existence prior to July 3, 1990.
Average Width	30-feet		20-feet or 10% of the average lot depth, whichever is greater.
Minimum Width	15-feet		15-feet

(3) Further Reductions for Master Planned Communities with approved Design Guidelines.

The standards provided above can be further reduced for developments that are part of an approved master-planned community and have a governing set of design guidelines approved by the county. The design guidelines shall specify architectural standards, building placement and massing, parking location, sidewalks, street-lighting, streetscape standards, landscaping, signage, and other important community aesthetic features.

(b) Square footage calculation for landscape areas. All landscape areas along a right-of-way shall contain a minimum amount of square footage which shall be equal to:

Square Footage Calculation		
Square Footage = [Applicable Average Width Requirement] * [Length of Right-of-Way Frontage]		

In no case shall any portion of any landscape area located more than 65 feet from the right-of-way of a Community Character Corridor or 45 feet from the right-of-way along all other roads be counted toward meeting the requirements of this paragraph. All required square footage shall be contiguous and located in an area that is directly adjacent to the right-of-way except as provided for in section 24-96 100 (e)(1).

(c) Outdoor operations and storage. Any commercial or industrial operation or storage conducted in whole or in part out-of-doors shall:

(*NOTE: Items 2-5 below are not new, they were relocated from section 24-41: Item 1 is new per stage I discussion)

- (1) The operations shall be screened from the right of way and conform the landscape requirements in section 24-94 and 24-96 (a) of the zoning ordinance Evergreen tree and shrub mixture requirements of section 24-94 (b) shall be used to screen the outdoor operations from the public right of way.
- (2) Be well drained with adequate provisions to control storm drainage and erosion; and
- (3) Where the ground cover would be routinely disturbed because of the nature of the activity to be conducted or because of vehicular traffic, the area shall be maintained in an all-weather surface; and
- (4) Be screened from adjacent property by landscaping and fencing, except the outdoor displays for sale of vehicles, equipment, machinery and plant materials are exempt from the screening requirements where such screening would interfere with the visibility of the items for sale from a public road; and
- (5) Be limited to uses and items to be stored which do not create noise, odor, dust or other objectionable effects. The effects of an activity shall be measured at the nearest property line.
- (e)(d) "Construction zone" setback for structures.
 - (1) All structures shall be setback a minimum of 15-feet from the perimeter of the landscape area buffer required in section 24-96 (a). For example, if the required landscape area buffer measures 50-feet in width from the right-of-way, then the structure(s) shall be no closer than 65-feet from the right-of-way.
 - (2) The "construction zone" setback shall be shall be clearly delineated on the site plan.
 - (3) This "construction zone" setback shall not apply to parking lots. Parking lots may be constructed up to the edge of the required landscape buffer provided no grading, tree removal, or land disturbance occurs within the required landscape buffer.
- (d)(e) Waiver criteria for landscape areas along Community Character Corridors. The average width requirement of the required landscape areas along Community Character Corridors may be reduced by the planning director if number (1) and/or (2) provided below is satisfied. In no case shall the total reduction exceed 20 feet. In deciding whether a reduction in the standard landscape area width is warranted, the planning director shall consider the impact of proposed road and/or utility improvements on existing trees and vegetation. Planned road and/or utility improvements that will remove existing trees and vegetation will reduce the likelihood of a reduction in landscape area required. In approving a reduction request, the

planning director may require additional plantings beyond the minimum ordinance requirements, alter the mixture of plantings provided, and/or specify the types of plantings to be used.

- (1) The applicant may achieve a maximum reduction of 10 feet by providing superior site design with a combination of elements such as:
 - a. Parking located away from public view behind buildings or screened by other architectural features (i.e. decorative brick walls);
 - b. Innovative use of grading and topography to minimize visual impacts of parking and other unsightly features (i.e. dumpsters, HVAC equipment, loading areas, etc.);
 - c. Provision of pedestrian amenities beyond what the ordinance requires. Examples may include brick pavers to connect existing and planned pedestrian walkways, lighting, and benches; or
 - d. The use of monument style signs that are of a scale and type that complement the positive features of the surrounding architecture and streetscape. The use of wood, brick, or other natural features is recommended.
- (2) The applicant may achieve a maximum reduction of 15 feet by providing superior architecture and building materials that meet the following standards.
 - a. The building architecture and materials complement the positive features of nearby existing or planned development and/or the character of Colonial Williamsburg and James City County;
 - b. Architecture and materials should be unique and not replicate standard and/or conventional prototypes; and
 - c. The proposed location of the building and parking areas shall not require the removal of specimen trees or large stands of viable mature trees.

(e)(f) Right-of-way landscape area performance standards.

- (1) Permitted breaks in landscape areas.
 - a. All landscape areas along right-of-ways shall be continuous along the road right-of-way frontage, except where driveway, utility or other breaks running perpendicular to the right-of-way are necessary, and shall be designed in a manner that achieves the intent of this division.
 - b. No new utilities, outside of those running parallel to permitted breaks in the required landscape areas, shall be located within the required landscape area(s) unless a waiver is granted by the planning director. The planning director shall grant a waiver only if the applicant can sufficiently demonstrate that there are unavoidable physical or regulatory constraints that warrant an intrusion into the landscape area.

- (2) Tree preservation and criteria for tree removal.
 - a. All existing viable mature trees (eight inches or greater diameter at breast height (DBH)) and specimen trees (24 inches or greater DBH) shall be preserved within the required right-of-way landscape area. All understory trees of two inches or greater DBH shall be preserved.
 - b. The planning director or his designee may permit the removal of understory and overstory trees exceeding these size thresholds after an on-site inspection. The trees must be tagged to allow for easy identification. The planning director or his designee shall authorize removal of the tagged trees only if they are of poor quality, diseased, not consistent with the existing or planned plant species and design, poorly situated so as to interfere with the growth of other viable trees and/or shrubs, compromise safety, or interfere with other planned site improvements such as sidewalks and/or signs.
- (3) Buffer grooming and enhancement.
 - a. Trees below the size thresholds stated above in paragraph (2) and underbrush may be hand-removed from the landscape area. No grading shall be permitted except as permitted in section 24-100 (f) (1); however, hand grooming is permitted.
 - b. Overstory tree limbs may be removed/"limbed-up" to a maximum height of ten feet above the base of the tree. Understory tree limbs may be removed/"limbed-up" to a maximum height of six feet. These height limitations shall not restrict the removal of dead, diseased, or injured tree limbs above the height limits mentioned above.
- (4) Tree protection required. The required landscape area shall be fully protected by a substantial, temporary fence or barrier with a minimum height of 40-inches. The location, type, and installation standards for this fence shall be clearly shown on the site plan. This fence shall be installed prior to the issuance of a land disturbance permit and shall remain standing until all construction activities on site have been completed.
- (5) Landscaping required. Required landscape areas shall be supplemented where necessary with planted trees and shrubs to achieve the minimum number of trees and shrubs specified in paragraph section 24-94.
- (6) Landscaping treatments of Community Character Corridor buffers. Right of way landscape areas along Community Character Corridors as designated on the Community Character Corridor Buffer designation and treatment map shall be designed to meet the design standards found in the Community Character Corridor Buffer Treatment Guidelines as determined by the Planning Director.

Sec. 24-97 101. Off-street parking lot landscaping.

Parking areas, accessory or otherwise, containing ten or more parking spaces shall contain landscaping and landscape areas in accordance with all of the following:

- (a) Preservation of trees. Parking lots shall be designed and constructed so that existing viable trees are preserved in a manner which will meet the intent and satisfy the requirements in this section to the maximum extent possible. Where such existing trees do not fully satisfy these requirements, additional trees shall be planted in an amount which meets or exceeds the stated minimum requirements. The requirements in this paragraph shall be in addition to other requirements stated in this section.
- (b) Landscape area and planting requirements. Total landscape area within the parking lot shall at least meet the minimum standards specified in the following chart.

(1) General Requirements for Parking Lot Landscaping.		
Percentage of Landscape Area Required within the Parking Lot	•	
Minimum 10%	Surface Area of Parking, including drives & circulation areas, exclusive of any perimeter landscape areas or landscape areas around the building.	
Lots less than 65,000 square feet recorded or legally in existence prior to July 3, 1990		
Minimum 7.5%	Surface Area of Parking, including drives & circulation areas, exclusive of any perimeter landscape areas or landscape areas around the building.	

AND		
Number of Trees	Number of Shrubs	Per
1	2	5 parking spaces in the parking
		lot.
Lots less than 65,000 squa	are feet recorded or legally in existe	ence prior to July 3, 1990
1	2	10 parking spaces in the parking
		lot.

As provided above, each mature existing tree or specimen tree may be counted toward meeting the required minimum number of trees, with one (1) viable mature tree substituting for two (2) planted trees and one viable specimen tree substituting for three planted trees. No credit shall be given for any mature or specimen tree which is not protected in full compliance with the tree protection standards in section 24-89 (b) above.

(3) Size and Mixture Requirements for Parking Lot Landscaping.		
Percentage	Of	Shall Be:
At least 35% 25%	Trees	Evergreen Trees which will achieve a minimum height of 40 feet at maturity.
At least 50%.	Trees	Deciduous Shade Trees with a 2.5 inch caliper which will achieve a minimum height of 50 feet at maturity.
At least 50%	Shrubs	Evergreen

(4) Minimum Spacing Requirements for Required Trees in Parking Areas

The required trees shall be spaced no more than 75 99 feet apart throughout the parking lot. These trees shall be evenly and reasonably distributed throughout the parking lot in a manner that promotes the intent of this section.

- (c) *Parking lot screening*. In addition to the above tree and shrub requirements, all parking lots shall be visually screened from public road rights-of-way by evergreen plantings or berms that create a screen a minimum of three feet in height. Such berms shall have a maximum side slope ratio of three horizontal feet to one vertical foot and a level crown with a minimum width of three feet for maintenance and planting purposes. Any berm shall be designed and constructed to ensure that proper erosion prevention and control practices have been utilized.
- (d) *Special requirements for bus parking lots.* Bus parking areas shall contain landscape areas in accordance with the above requirements except that plantings shall be provided as follows:

(1) Quantity Requirements for Bus Parking Lots		
AND		
Number of Trees	Number of Shrubs	Per
1	2	2 bus parking spaces

(2) Size & Mixture Requirements for Bus Parking Lots		
Percentage	Of	Shall Be:
At least 35% 25%	Trees	Evergreen Trees which will achieve a minimum height of 40 feet at maturity.
At least 50%	Trees	Deciduous Shade Trees with a 2.5 inch caliper which will achieve a minimum height of 50 feet at maturity.

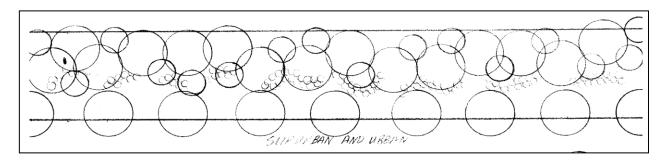
(e) Excavation of parking lot islands.

- 1) All parking lot islands, peninsulas, and planting areas shall be excavated to remove all crusher run or parking lot base material and back filled with quality top soil, except those areas where existing vegetation is to be preserved. The top soil shall be high in organic matter and will allow water to percolate. The excavation of these planting areas shall be to a minimum of 24" and will freely allow penetration of a hand-held probe to a minimum of 24".
- 2) Inspection of these planting areas shall be conducted by environmental inspectors during the construction process. Failure to comply with these requirements can result in a stop work order issued by environmental inspectors.

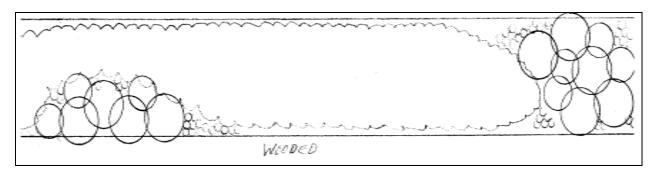
Community Character Corridor Buffer Treatments Guidelines

Purpose: James City County has designated all Community Character Corridor (CCCs) buffers as Urban/Suburban, Wooded, or Open/Agricultural. All commercial developments along these roads are required to provide a 50 foot average buffer. Through the designation of these buffers and their types the County is providing direction on design guidelines for landscape areas along these buffers. Below are design guidelines of the various types of buffers, including descriptions of their landscape treatments and a sample drawing of the landscaping style required.

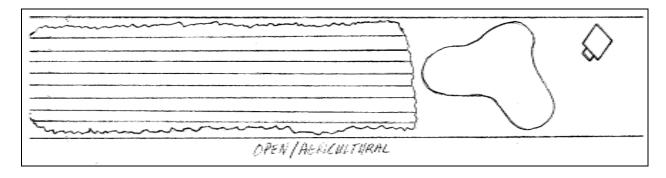
Urban/Suburban CCCs - An urban/suburban area is characterized as having high to moderate traffic, commercial, and some residential uses. The predominant visual character of these areas should be the built environment and the natural landscape, with parking and other auto-related areas as a secondary component. The buffer treatments should incorporate existing specimen and understory trees, required plantings and any legislated enhancements such as over-sized landscape plants, the use of berms, and other desirable design features which compliment and enhance the visual quality of the urban corridor. Auto -related activities such as parking lots and other outdoor operations should be screened with required evergreen plantings. This treatment provides the applicant with the most visibility of the commercial use and the most flexibility in establishing a manicured and/ or formal look compared to the Wooded and Open/Agricultural treatments. The areas designated with this type of treatment are the Community Character Areas and other urban areas of the County that have mainly commercial uses. Roads in New Town, Five Forks, Toano, Norge, and Richmond Road are examples of the urban/suburban type of treatment.

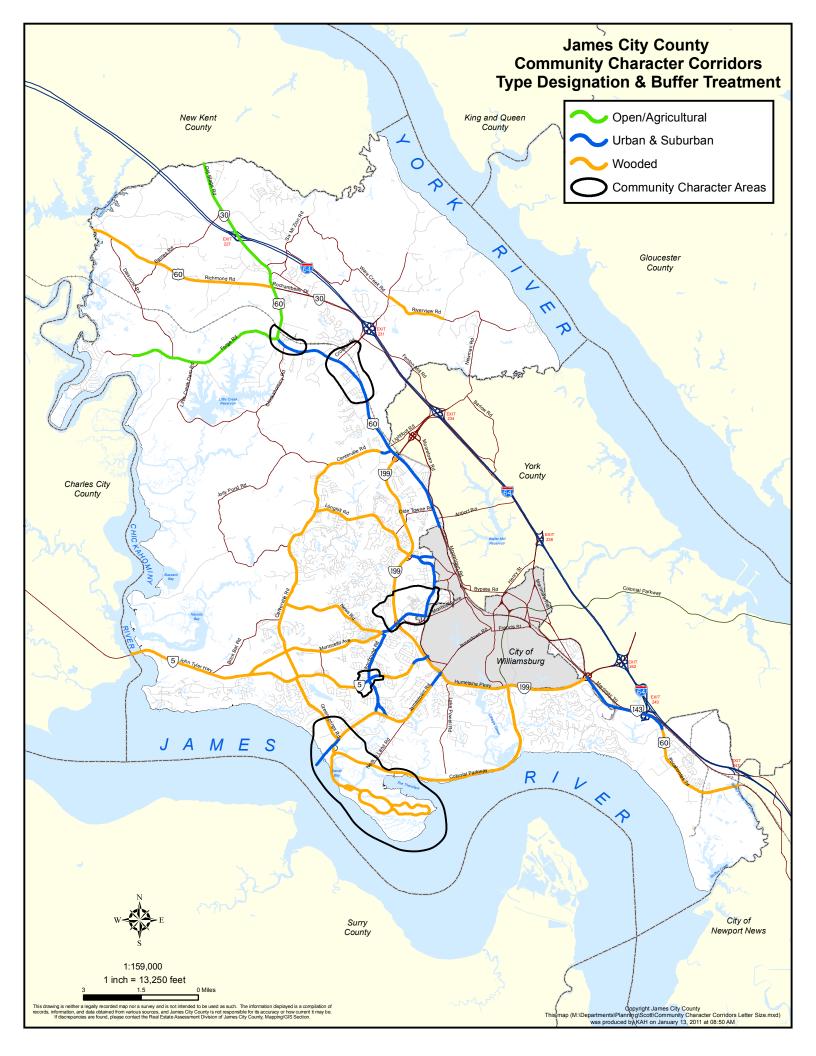


Wooded CCCs - A wooded CCC is characterized as an area having natural wooded areas along the road, with light to moderate traffic and minimal existing or planned commercial development. The objective of the buffer is to visually screen the development from the road. Ideally, existing vegetation should be preserved or supplemented to create a wooded buffer that preserves open space and wildlife habitat to maintain the natural character of the County. Areas of the County that are appropriate for this type of treatment include areas that have existing vegetation consisting of mature trees and shrubs and that are mostly developed with residential uses. Areas of John Tyler Highway, Centerville Road, Longhill Road, and Greensprings Road, and Route 199 are examples of the wooded landscape type treatment. This type of treatment offers the least amount of visibility to the development, and the intent is to preserve the natural beauty of the site. The design should be informal and natural.



Open/Agricultural CCCs - An open/agricultural CCC is characterized as an area that is located primarily in rural lands where farming and forestry activities are predominant or sought to be preserved. The objective of the Open/Agricultural designation is to preserve the view and integrity of farm fields and natural open spaces so they remain the dominant visual features. This type of treatment is appropriate for the agricultural areas that exist in the County. Areas around Anderson's Corner, Forge Road, and Old Stage Road are examples of the open/agricultural treatment type.





Sec. 24-57. Parking lot design.

Parking areas shall be arranged for functional efficiency and safety for both vehicles and pedestrians and shall be designed to be amenable to surrounding property. Parking areas, accessory or otherwise, shall comply with the following:

(a) Dimensions of parking bays and required islands. The parking lot shall be constructed so that spaces are grouped into bays. At the end of each bay, a landscape island of at least nine feet in width and 15 feet in length shall be built to separate the bays from each other or from traffic lanes. When the parking bays contain double rows of parking spaces, the landscape island shall be increased to nine feet in width and 30 feet in length. A parking bay may not be constructed to a length of more than 150 90 feet without constructing a landscape island. The planning director may approve islands which vary from nine-foot by 15-foot or nine-foot by 30-foot rectangles in order to provide desirable geometric design features such as rounded corners and angles to facilitate maneuvering of automobile traffic. However, in no case shall the total area of an island be decreased as a result of such design change.

Landscape islands with plantings

Maximum 90 feet

Single Bay of Parking= 9 feet x 15 feet

Double Bay of Parking= 9 feet x 30 feet

Drawing not to scale

Figure 01-Parking Bays and Landscape Islands Dimensions

(b) Protection of landscape areas and location of parking areas and drive aisles. All landscape areas contiguous to parking bays shall be protected from intrusion by vehicles by curbs or bumpers. Parking areas shall not be located within five feet of any building. Driveways shall not be located within five feet of any building except where vehicular access is necessary. The above-mentioned five-foot setback for parking areas and drives shall not be required for vehicle parking areas and drives (including those serving the parking area) located underneath a building or within a parking garage.