

Appendix 10-B: Robert Smalls Parkway Joint Corridor Plan

The Planning Departments of the City of Beaufort, Town of Port Royal and Beaufort County have prepared a joint plan for the Highway 170 Corridor between the Broad River Bridge and the intersection of Highway 170 and Highway 280 (please refer to the enclosed map). The purpose of this plan is to recognize Robert Smalls Parkway as the Gateway to Northern Beaufort County. The SC 170 corridor is a key arterial in Beaufort County, linking the Town of Port Royal, City of Beaufort, and areas to the north to Bluffton, Hilton Head Island, and Savannah. Recent roadway widening has increased the capacity along SC 170; however, strong projected growth along the corridor is expected to result in demands that fully utilize this additional capacity.

PLAN GOALS

- 1. Recognize Highway 170 as the only travel link between Northern and Southern Beaufort County by providing for the efficient and safe flow of traffic along Robert Smalls Parkway:** Highway 170 is the lifeline for residents of Northern Beaufort County that work in Hilton Head, Bluffton, and Savannah. This fact needs to be recognized by minimizing delays and traffic hazards while providing a safe thoroughfare for local access as well.
- 2. Establish a cohesive and well-linked community for existing and future neighborhoods along Robert Smalls Parkway:** As the Robert Smalls Corridor develops, it will be used more and more as a means of local access for residents of existing and future subdivisions in the area. Therefore this plan will address such issue as requiring more direct linkages between residential areas and linking residents to commercial areas.
- 3. Preserve and enhance the aesthetic qualities of the Corridor:** Highway 170 has a fairly consistent wall of trees along both sides of the corridor. These visual elements need to be enhanced by encouraging sensitive site planning, promoting quality architecture, and minimizing visual clutter.

To further these goals, this Plan proposes the following:

- 1. Provide for consistent access management standards for new development.** Adopting these standards would ensure the following:
 - That through traffic can flow in an efficient and safe manner;
 - That the visual quality of the landscaped highway buffer is not compromised by too many interruptions in the vegetation; and

- That the number of driveway and access road crossings of pedestrians and bicyclists traveling along the proposed multi-use trail is minimized.
2. **Provide for a uniform set of development standards that would allow for a consistent visual quality along the corridor.** The development standards that have been identified include establishing a uniform landscaped highway buffer, in addition to signage, architectural, landscaping and lighting standards for properties adjoining Robert Smalls Parkway.
 3. **Establish a non-motorized trail along both sides of the Corridor.** This trail is proposed to occur outside of the existing SC Department of Transportation right-of-way. This plan proposes locating this trail on an easement established within the 50-foot wide highway buffer.

ACCESS MANAGEMENT STANDARDS AND PLANNING

The County's Comprehensive Plan has recognized the importance of mobility for the SC 170 corridor. Because of Beaufort County's natural constraints and the prohibitive cost of constructing a parallel route, the operational strategy for the SC 170 corridor focuses on the following:

- ◆ Maximizing the throughput capacity.
- ◆ Using existing parallel roadways to satisfy shorter trips, and installing additional parallel roadway connections.
- ◆ Using backside connections and interparcel access to minimize the need for travel along SC 170 to access development generated trips from within the local area.

In addition to the operational benefits of less frequent interruptions to mainline traffic flow, the spacing of access points facilitates use of minor arterials and collectors to provide connections to final trip origins/destinations.

Alternative routes, backside access, and interparcel access can reduce the need for local trips to travel along Robert Smalls Parkway. Providing alternative access in conjunction with limiting the number of Robert Smalls Parkway access points can result in alternative routes than are more time effective than the primary arterial for local travel. With alternative travel for local trips, the Robert Smalls Parkway corridor will service a higher proportion of longer trips, which have no other alternative for north/south travel. Limiting access points to Robert Smalls Parkway will result in less friction from signals and turning vehicles and, therefore, a smoother traffic flow with improved travel time reliability.

Recommended Access Management Standards

The application of access management standards can improve the efficiency of a transportation network. Access management is a tool that can help prevent traffic congestion by limiting and controlling vehicles entering, exiting, and turning along a corridor. Minimizing the potential disruptions to the vehicles in the roadway facilitates traffic movement. Effective access standards

benefit a community by reducing accidents, increasing roadway capacity, providing better access to businesses, and improving mobility.

The recommended access management standards for Robert Smalls Parkway include the following elements:

- ◆ Signal Spacing
- ◆ Signal Operations to Maximize Throughput
- ◆ Future Medians
- ◆ Number of Driveways
- ◆ Driveway Spacing and Corner Clearance
- ◆ Driveway Design
- ◆ Driveway Linkages
- ◆ Backside Access
- ◆ Deceleration Lanes
- ◆ Driveway Retrofit Techniques

The following sections explain the various access management techniques and establish standards for each technique for application along the Robert Smalls Parkway corridor. Unless specifically stated otherwise, *SCDOT Roadside Management Standards* should be followed. The recommended guidelines in this document should be utilized in addition to the SCDOT strategies. When they are in conflict, the stricter requirement shall govern.

1. Signal Spacing and Future Signal Locations: The placement of traffic signals significantly impacts the ability to move traffic along a roadway. Signals placed too close together can impede the flow of traffic on the roadway. Traffic signals should only be erected if they are warranted for a particular location and, if warranted, should follow specific placement guidelines. The following signal spacing is recommended for Robert Smalls Parkway:

- ◆ Full signalized access – 3200’ spacing
- ◆ Directional signalized access – 1,900’ spacing

A full signalized access location provides signalized access to both sides of the arterial. A directional signalized access provides signalized access to one side of the arterial. By providing access to only one side of highway, signal operations are simplified allowing more time to through movements.

The signalized access spacing requirements indicated above were used as a starting point and modified to indicate likely signalized access needs as reflected by local development patterns and existing roadway network along Robert Smalls Parkway. The resulting signalized access locations are shown in Figure 1 and are listed below:

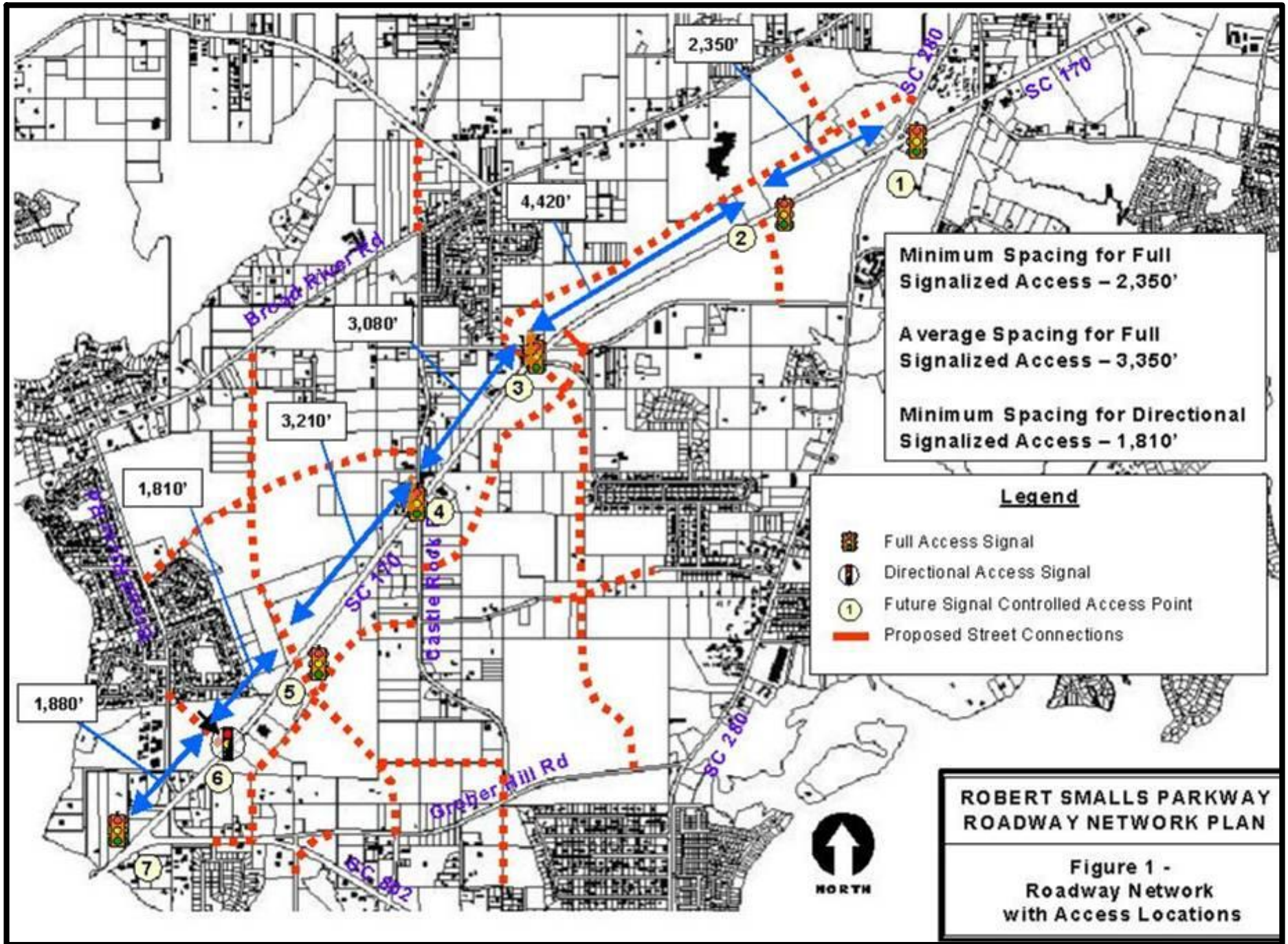
- ◆ Location 1 – SC 280 (full signal access)
- ◆ Location 2 – W. K. Alston Road (full signal access)
- ◆ Location 3 – Goethe Hill Road – southwest intersection (full signal access)

- ◆ Location 4 – Castle Rock Road (full signal access)
- ◆ Location 5 – Approximately 3200’ southwest of Castle Rock Road (full signal access)
- ◆ Location 6 – Broad River Road at location realigned to the north (directional signal access –northwest side)
- ◆ Location 7 – SC 802 (full signalized access)

These signalized access locations result in a minimum spacing between full-signalized intersections of 2,350’ with an average spacing of 3,350’. The specific access locations, indicated above and shown in Figure 1, are defined as part of the corridor access plan. If a modification to the defined locations is desired to meet the needs of a planned development, the following conditions shall be satisfied:

- ◆ The modified location must meet the warrants for signalization with the proposed development as defined in the Manual on Uniform Traffic Control Devices (MUTCD) by the Federal Highway Administration (FHWA) with the analysis and specific application of traffic signal warrants to be approved by the Beaufort County Traffic Engineer.
- ◆ The modified location must provide adequate spacing (as defined in the spacing standards indicated above) from existing traffic signals, programmed traffic signals, and future signalization of primary roadway intersections, including:
 - SC 170 at SC 280
 - SC 170 at W.K. Alston
 - SC 170 at Castle Rock Road
 - SC 170 at Broad River Road
 - SC 170 at SC 802
- ◆ The modified location shall not have an adverse impact on existing or future LOS based on comparative analysis of conditions with the recommended signal locations indicated above. The developer shall be required to conduct LOS and signal system progression analysis to demonstrate compatibility of the proposed signal location with operation of the remainder of the signal system.

2. **Coordinating Signal Operations to Maximize Throughput:** Maintaining throughput capacity along the Robert Smalls Parkway corridor requires maximizing the available green time along the corridor. Therefore, all signalized intersections shall provide a minimum of 55% of the signal cycle length for through movement green time for Robert Smalls Parkway. Along the corridor as a whole, an average of 65% of the signal cycle shall be allocated for through movement green time for Robert Smalls Parkway.



3. **Future Installation of Medians:** The cross-section of Robert Smalls Parkway currently consists of four travel lanes and a center turning lane. In the event that medians are installed, median breaks will correspond to the signal locations called forth in this study. As development proposals are reviewed along the corridor, applicants are encouraged to consider alternative means of parcel access to connect to proposed signalized intersections.

4. **Driveway Spacing:** A minimum of one point of access to a property will be allowed. Additional access points above the one permitted may be granted provided the continuous roadway frontage of the property exceeds 500 feet. Single parcel access is strongly discouraged. Joint access driveways are encouraged for small parcels to adhere to the 500-foot spacing. Driveways should be limited to the number needed to provide adequate access to a property. Factors such as alignment with opposing driveways and minimum spacing requirements will have a bearing on the location and number of driveways approved. Refer to Table 1.

Table 1: Maximum Number of Driveways per Frontage

Length of Frontage	Maximum Number of Driveways
500 feet or less	1
500+ to 1,000 feet	2
1,000+ to 1,500 feet	3
1,500+ to 2,000 feet	4
More than 2,000 feet	4 plus 1 per each additional 500 feet of frontage

A minimum spacing of 500’ shall be maintained along Robert Smalls Parkway between a driveway and a signalized intersection. Within 500 feet of signalized intersections, access shall be off the secondary road. Driveway spacing shall be measured from the closest edge of pavement to the next closest edge of pavement.

5. **Driveway Design:** Traffic entering and exiting developments creates potential conflict with vehicles traveling on the roadway. Appropriate driveway design can improve safety and reduce congestion. Driveways should be designed to allow vehicles to enter and exit the roadway quickly and safely with minimum impact to the traffic on the roadway. Driveways should have appropriate turn radii and driveway width. The throat of a driveway must be adequate in depth in order to allow a vehicle to queue as it enters or exits the highway. An access point must also be designed to accommodate appropriate vehicle types. Driveway width and turning radii shall conform to SCDOT’s Access and Roadside Management Standards.

6. **Driveway Linkages:** There are several techniques for linking driveways to improve access from the roadway and between parcels. Shared driveways serve two or more adjacent properties that may or may not be comprised of land from each property. Shared

driveways allow for larger driveway spacing and improved management of traffic entering and exiting a development.

Cross access driveways interconnect the parking facilities of two or more abutting properties. They are always comprised of land from both properties. Cross access driveways provide an opportunity for vehicles to move between developments without using the roadway. Cross access driveways reduce traffic on the roadway and reduce the potential for conflict between entering, exiting, and through traffic.

The land comprising the shared or cross access driveways should be recorded as an easement and serve as a covenant attached to the property. Joint maintenance agreements should also be incorporated into the property deed. Linkages requiring mutually executed easements should be required between adjoining properties to provide movement without requiring a return to the public roadway.

A circulation road may be used as the linkage when a uniform setback line is established on a number of properties so that drives at the front of the building can be interconnected. A common road should be provided if possible to avoid the stripping of lots.

A system of joint-use driveways and cross access easements should be established wherever feasible. Vehicle and pedestrian links to adjacent properties with provisions for stubbed out connections should be required when adjacent land is not developed.

- 7. Backside Access:** The development of backside access roads provides an opportunity to remove turning traffic from the roadway and serve businesses with alternate access. Backside access to businesses provides exposure to a greater number of businesses, thus increasing commercial value, and improving intersection spacing on cross roads. Traffic that would otherwise enter and exit from the main roadway has access to a large number of businesses from a safer, less conflicting location.

Where feasible, a backside access road should be provided. Developments should be designed to connect to existing backside access, where provided. Where feasible, a continuous backside access road shall be provided either immediately behind the buffer yard or, if outlots are provided, along the rear property line of the outlots.

Where backside access does not exist, developments should be designed to allow for future backside access through construction of circulation roads to the rear and parking on the side and in the rear of properties. Figure 1 provides recommended locations for backside access and alternative roadway connections.

- 8. Deceleration Lanes:** Deceleration lanes on corridors providing access into developments that produce a substantial number of trips can reduce the slowing and stopping of traffic caused by turning vehicles. The purpose of a deceleration lane is to enhance motorist safety and the through movement of vehicles on the corridor. These lanes are desirable features on any road, but offer the most benefit on principal arterials such as Robert Smalls

Parkway. These lanes are needed when the volume of traffic turning at a site is high enough in relation to the through traffic to constitute the potential for disruption.

9. **Retrofitting Existing Driveways:** Opportunities to bring existing driveways to the current standards appear when a business changes ownership or when any improvements to the existing driveways or parking lots occur. As changes are made to previously developed property or to the roadway, driveways will be evaluated for the need to be relocated, consolidated, or eliminated if they do not meet the access management standards.
10. **Traffic Impact Analysis:** A traffic impact analysis study should be provided for proposed developments along the Robert Smalls Parkway corridor anticipated to generate at least 50 peak-hour trips. The study should measure development against the traffic service level goals in order to correctly ascertain needed roadway facilities stimulated by new development. A traffic impact study will also enable review and evaluation of the anticipated traffic impact of proposed development along with recommended roadway mitigation measures as appropriate.

A detailed traffic impact study should evaluate the need for deceleration lanes, turn lanes and access control. Where signalized access is recommended at locations other than those indicated in the plan, an arterial analysis should be provided to ensure arterial capacity and traffic progression bandwidth along Robert Smalls Parkway are not adversely affected.

UNIFORM SET OF DEVELOPMENT STANDARDS

The purpose of this section is to identify the most important development standards to produce a consistent visual quality along the Robert Smalls Parkway Corridor regardless of political jurisdiction. These standards build on the best features of the existing Corridor Overlay District standards currently established in Beaufort County and the City of Beaufort.

1. Highway Corridor Buffer Standards:

- **Buffer Width:** A 50-foot wide highway Corridor Buffer will be required for all development along the Robert Smalls Parkway Corridor. For lots of record with depths less than 500 feet, the width of the Highway Buffer shall be the larger of 10% of the lot depth or 25 feet wide.
- **Buffer Vegetation:** For every 100 feet of highway frontage, three overstory trees, nine understory trees and 20 shrubs shall be required. The use of existing plant material is strongly encouraged and will be counted toward the landscaping requirement. No tree six inches in diameter at four feet diameter breast height (dbh) or larger shall be removed from any highway buffer, exclusive of access drive location, required sight triangle, and diseased trees.
- **Uses Permitted in the Buffer:** Vehicular access drives perpendicular to highway right-of-way, foot and pedestrian paths, walls and fences (max. 6 feet high), landscaping sculpture, lighting fixtures, trellises, bus shelters, signage, and utility lines placed perpendicular to right-of-way.

- Bicycle/Pedestrian Trail Easement: A 15-foot wide easement will be sought for the future development of a bicycle/pedestrian trail along the highway. This easement will be located within the highway buffer.

2. **Architectural Standards:** In order to provide a sense of place and character, promote the region's architectural heritage, to stabilize and strengthen property values, and to provide for an attractive climate for quality investment, this plan calls for uniform architectural and landscaping standards to be applied along the Robert Smalls Parkway Corridor. These standards would apply to development within 500 feet of the highway right-of-way line on both sides of the highway. Exceptions can be made to these standards when the developer has demonstrated outstanding design.

- Roofs: Roof overhangs and pitched roofs shall be incorporated into all building designs unless deemed impractical. Buildings having large footprints, where applying a pitched roof would be impractical, may have a flat roof only if a parapet is used. Pitched roofs shall have a minimum pitch of 4:12. Long unarticulated roofs are not permitted. Roof materials shall consist of wood shingles, slate shingles, multi-layered asphalt shingles, metal (raised seam, galvanized metal, corrugated metal, metal tile, etc.) or tiles.
- Exterior Materials and Form: Wood clapboard, wood board and batten, wood shingle siding, brick, stucco, tabby, natural stone, faced concrete block and artificial siding material which resembles painted wood clapboard are permitted. Highly reflective glass or materials shall not be permitted as the predominant material. Long unarticulated building facades are not permitted. Internally illuminated and/or neon lighted exterior architectural or structural elements that are visible from the Highway are not permitted. Plywood, cinder block, unfinished poured concrete, unfaced concrete block, and plastic or vinyl, not closely resembling painted wood clapboard are not acceptable siding materials.
- Color: Bright primary colors, clashing combinations of colors are not permitted.
- Accessory Uses: The design of accessory buildings and structures shall reflect and coordinate with the general style of architecture inherent with the primary structure. Unscreened chain-link fences and woven metal fences are not permitted where they will be visible from the Highway. Exterior storage shall be screened from view from the Highway. Exterior displays shall consist of merchandise that cannot be practically displayed indoors. These include automobiles, plant materials, landscape structures, agricultural products, and boats.

3. **Landscaping and Site Design Standards:** These standards apply to development occurring within 500 feet of the highway right-of-way line on both sides of SC 170.

- Location of Parking: Parking is encouraged to locate at the sides and rear of the principle structure.
- Landscaped Median: A five-foot wide landscaped median shall be installed alongside (perpendicular to) parking spaces on the interior portion of a parking lot with more than one parking bay.

- Landscaped Peninsula: A landscaped peninsula parallel to the parking spaces shall be required for every eight parking spaces. The peninsula shall, at a minimum, be as large as a parking space. Each peninsula shall have planted an overstory tree that is at least 3 ½” caliper and 12 feet high at time of planting.
- Foundation Buffer: A five-foot wide landscaped foundation buffer will be required between any structure and parking or driving area.

4. Signage Standards:

- Freestanding signs: All new freestanding signs shall be monument signs. Only one freestanding sign shall be allowed per lot if the lot has less than 1,000 feet of frontage and more than one approved driveway. For lots with more than 1,000 feet of frontage and more than one approved driveway, an additional freestanding sign may be permitted. The maximum size of freestanding signs shall be 80 square feet (per side). The maximum height of freestanding signs shall be 10'. For lots with frontage on two (2) arterial streets one freestanding sign shall be permitted per street frontage if these signs can be located at least two hundred (200) feet apart as measured to the leading edge of the sign. For lots with frontage on two (2) streets but where both streets are not arterial streets, a primary entrance and a secondary entrance should be established. At the secondary entrance, a freestanding sign up to 40 square feet in size (per side) may be permitted provided that the two (2) signs are at least seventy-five (75) feet apart. The street address number of the property shall be displayed on the sign or on the support structure in letters at least three (3) inches high.
- Sign Lighting: No internally illuminated signs shall be permitted. However, halo-lit or reverse back-lit channel letters are permitted. Neon signs are prohibited except for window signs; the total square footage of all neon windows signs shall not exceed 16 square feet per tenant space.
- Master signage plan: A master signage plan is required for all new multi-tenant development.
- Colors: Signage color and materials shall be compatible with the overall design of the main building. The dominant sign color must adhere to the architectural color standards. Accent colors and corporate logos shall be reviewed on a case-by-case basis.
- Prohibited Sign Types: The following sign types are prohibited:
 1. Portable signs (except sandwich boards signs).
 2. Changeable copy signs with the following exceptions – churches, schools, theaters, and gasoline price signs
 3. Internally illuminated signs.
- Temporary signs: Real estate “For Sale” signs shall be limited to one sign per street frontage for lots less than 5 acres, the maximum size of the sign shall be 6 square feet per side and the maximum height shall be 3.5'. For lots 5 acres or larger, one sign per 1,000' of street frontage is permitted. Maximum size of these signs shall be 24 square feet and the maximum height shall be 10'. Real estate “For Rent” or “For Lease” signs shall only be displayed as window signs. Project signs that include project information, lease information, individual contractors, sub-contractors, and financiers shall be limited to one sign per development with a maximum size of 40 square feet. Project signs may

not be erected prior to commencement of construction and must be removed at project completion or twelve months after erection, whichever occurs first.

5. Lighting Standards: In order to reduce glare to motorists, inhibit the spillage of light into adjoining properties and to preserve and protect the nighttime environment, the following standards are proposed:

- Fixture (luminaire): Unless otherwise explicitly approved by the appropriate design review board, the light source shall be a full cut-off fixture, completely concealed within an opaque housing and shall not be visible from any street. Where the design for an area may suggest the use of lighting fixtures of a particular “period” or architectural style, fixtures other than full cut-off fixtures may be used if the lumens generated by each fixture do not exceed 5,500 and if the mounting heights of such fixtures are less than or equal to 15'. In all cases, fixtures used under gasoline canopies and other structural canopies shall be flat lens, recessed lens, or drop lens with glare shields. Use of drop lens without glare shields is prohibited.
- Light source (lamp): Only incandescent, fluorescent, metal halide, or color corrected high-pressure sodium may be used. The same type light source must be used for the same or similar types of lighting on any one site or commercial subdivision. No colors other than white or off-white (light yellow tones) may be used for any light source for the lighting of signs, structures, or the overall site unless the appropriate design review board deems such lighting to be appropriate to the design theme of the proposed development. Total lighting levels cannot exceed 50,000 lumens per acre.
- Mounting: Fixtures must be mounted in such a manner that its cone of light does not cross any property line of the site. Wood fixtures shall be naturally stained or painted with earth tones. If metal poles are used, they shall be black, dark gray, dark brown, or earth tone. Any fixtures located within any required buffer should not exceed twelve (12) feet above grade. The height of all other fixtures shall not exceed twenty-five (25) feet above grade; however, in parking areas greater than one acre in size, lights located more than one hundred (100) feet from any property line may be up to thirty (30) feet above grade.
- Light trespass. In addition to the these general provisions, offstreet lighting shall be shielded and/or directed in such a manner that it illuminates only the user's premises and does not spill over into neighboring residential areas so as to interfere with the peaceful enjoyment of residential or public properties.

DEVELOPMENT OF A PEDESTRIAN/BICYCLE TRAIL

This plan proposes the development of a 10 foot wide pedestrian and bicycle trail to be located on both sides of the Robert Smalls Parkway Corridor extending from the intersection of SC 170 and SC 280 to the Broad River Bridge. The location of this trail is proposed to be within a 15-foot wide easement that is in turn located within the required 50-foot highway buffer. This arrangement benefits the property owners along the corridor by making use of an area of their property that cannot be used for development. Locating this trail in an easement rather than acquiring additional right-of-way does not cause development to be pushed further away from the

highway. It is proposed that the entire trail be developed at one time rather than piece-meal fashion when development occurs. Funding sources may include TEA-21 Enhancement Funds.

In addition to the aforementioned guidelines, it is recommended that multimodal access be considered, planned and incorporated. Signalized intersections should have marked crosswalks and appropriate crosswalk signalization. The Beaufort County Trails and Blueway Master Plan should be incorporated.