

# STAFFORD COUNTY

## MASTER REDEVELOPMENT PLAN



VOLUME V: SOUTHERN GATEWAY

OCTOBER 2009 | ADOPTED MAY 17, 2011



**CMSSARCHITECTS**



BOARD OF SUPERVISORS  
COUNTY OF STAFFORD  
STAFFORD, VIRGINIA

RESOLUTION

At a regular meeting of the Stafford County Board of Supervisors (the Board) held in the Board Chambers, Stafford County Administration Center, Stafford, Virginia, on the 17th day of May, 2011:

<u>MEMBERS:</u>	<u>VOTE:</u>
Mark Dudenhefer, Chairman	Yes
Paul V. Milde III, Vice Chairman	No
Harry E. Crisp II	Yes
Gary F. Snellings	No
Cord A. Sterling	Yes
Susan B. Stimpson	Yes
Robert "Bob" Woodson	Yes

On motion of Mr. Sterling, seconded by Mr. Crisp, which carried by a vote of 5 to 2, the following was adopted:

A RESOLUTION TO AMEND THE STAFFORD COUNTY COMPREHENSIVE PLAN IN ACCORDANCE WITH SECTION 15.2-2229 AND SECTION 15.2-2230 OF THE CODE OF VIRGINIA (1950), AS AMENDED, BY ADOPTING THE PROPOSED AMENDMENT, AS ADVERTISED, INCLUDING A NEW ECONOMIC DEVELOPMENT ELEMENT, ENTITLED "STAFFORD COUNTY MASTER REDEVELOPMENT PLAN," DATED OCTOBER, 2009, AS REVISED BY THE PLANNING COMMISSION AT ITS MEETING ON MARCH 15, 2011

WHEREAS, under Section 15.2-2229 of the Code of Virginia (1950), as amended, the Board may amend its Comprehensive Plan; and

WHEREAS, under Section 15.2-2229 of the Code of Virginia (1950), as amended, the Planning Commission (the Commission) has been directed by the Board to prepare and consider Comprehensive Plan amendments; and

WHEREAS, under Section 15.2-2230 of the Code of Virginia (1950), as amended, the Commission can review the Stafford County Comprehensive Plan to determine whether it is advisable to amend the Comprehensive Plan; and

WHEREAS, the proposed amendment to the Comprehensive Plan would amend the Comprehensive Plan by adopting a new economic development element entitled "Stafford County Master Redevelopment Plan," dated October, 2009, with recommendations for changes to existing County ordinances, policies, and procedures to serve as a framework to guide the coordinated and harmonious development of the County's four Redevelopment Areas: Boswell's Corner, the Courthouse area, Falmouth Village, and the Southern Gateway, as revised by the Commission at its meeting on March 15, 2011; and

WHEREAS, the Commission duly advertised and held a public hearing on April 20, 2011, on the proposed Comprehensive Plan Amendment, received a recommendation of County staff supporting approval of the proposed Amendment, received public testimony, decided on a 4-3 vote to recommend approval of Volume II and decided on a 5-2 vote to recommend approval of Volumes I, III, IV, V, VI, VII, VIII, IX, and X, and has forwarded its recommendation of approval of the proposed Comprehensive Plan amendment to the Board; and

WHEREAS, the Board duly advertised and held a public hearing on the proposed Comprehensive Plan Amendment on May 17, 2011, at which time public testimony was received and the above-referenced Comprehensive Plan Amendment was considered by the Board; and

WHEREAS, the Board has carefully considered the recommendations of the Commission, the recommendations of County staff, and the public testimony at the public hearing; and

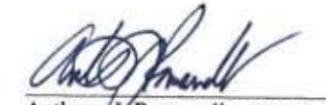
WHEREAS, the Board concludes that the adoption of the proposed Comprehensive Plan Amendment, as advertised, will guide a coordinated and harmonious development of the County's four Redevelopment Areas: Boswell's Corner, the Courthouse area, Falmouth Village, and the Southern Gateway which will, in accordance with the present and probable future needs and resources of Stafford County, best promote the health, safety, morals, order, convenience, prosperity and general welfare of the citizens of Stafford County, Virginia, including the elderly and persons with disabilities; and

WHEREAS, the Board concludes that the adoption of the proposed Comprehensive Plan Amendment, as advertised, is consistent with good planning practices.

NOW, THEREFORE, BE IT RESOLVED by the Stafford County Board of Supervisors on this the 17th day of May 2011, hereby adopts the proposed Comprehensive Plan Amendment, as advertised, by approving a new economic development element, entitled "Stafford County Master Redevelopment Plan," dated October, 2009, as revised by the Commission at its meeting on March 15, 2011.

BE IT FURTHER RESOLVED that the maximum allowed dwelling units in the Boswell's Corner Redevelopment Area is modified to a maximum of 744 units.

A Copy, teste:

  
Anthony J. Romanello, ICMA-CM  
County Administrator

AJR:bbj:jf



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## STAFFORD COUNTY MASTER REDEVELOPMENT PLAN

The efforts of the *Phase I: Research & Program Development* and *Phase II: Concept Master Development Plan* have been combined into five separate volumes. In addition, three additional volumes contain the detailed Cultural Resources Report on each of the four redevelopment areas, as well as examples of Cultural Resources Legislation. Each volume, on each of the four redevelopment areas, stand alone along with the overall Stafford County General Research & Planning section. Each of the four redevelopment area's respective volume integrates the specific Phase I research and Phase II planning efforts. The volumes do not refer separately to Phase I or II efforts, since they are now combined into a book specific to the corresponding redevelopment area.

The volumes have been separated as follows:

### VOLUME I

Stafford County: General Background Research & Planning Concepts

### VOLUME II

Boswell's Corner

### VOLUME III

Courthouse Area

### VOLUME IV

Falmouth Village

### VOLUME V

Southern Gateway

### VOLUME VI

- A. Cultural Resources Report for Falmouth Village
- B. VDHR Forms for Falmouth Village

### VOLUME VII

- A. Cultural Resources Report for Boswell's Corner, Courthouse Area, & Southern Gateway
- B. VDHR Forms for Boswell's Corner, Courthouse Area, & Southern Gateway

### VOLUME VIII

Examples of Cultural Resources Legislation

### VOLUME IX

Stafford County Traffic Data

### VOLUME X

Stafford County Infrastructure Analysis

Following groundwork from the 2006 Stafford County Economic Development Strategic Plan, and using the Cunningham + Quill Architects Vision plans as a springboard, the Planning Team proposed redevelopment plans for the four areas that include: a comprehensive redevelopment plan with urban street grids, open space and parks, pedestrian friendly environments and streetscape improvements, preparing the strategic areas for increased quality commercial investment.

This Master Redevelopment Plan has been designed from the beginning as a possible addition to the Stafford County Comprehensive Plan. As such, the study and analysis needed to address a large cross section of issues including: land use patterns, regional economical support, transportation, architecture, archaeology and historic resources, civil infrastructure and flood hazards. Since each of these subjects is also included in the Comprehensive Plan, this study included assessments of all 18 elements of the Comprehensive Plan. Of these elements, two were found to be of particular significance to redevelopment: the Land Use Plan and the Transportation Plan.

The land uses presented herein are not meant to supercede land uses identified in the Stafford County Land Use Plan. The land uses and layouts depicted herein are notational and are offered as one possible layout for Comprehensive Plan uses. Residential densities are offered as potential targets for the creation of more urban environments conducive to pedestrian friendly, community based and appropriately scaled, commercial development. In no way do the residential densities referenced constitute endorsement of those densities, or endorsement at the exact locations depicted, by the governing body.

## INTERIM IMPLEMENTATION STRATEGY AND REVIEW STANDARDS

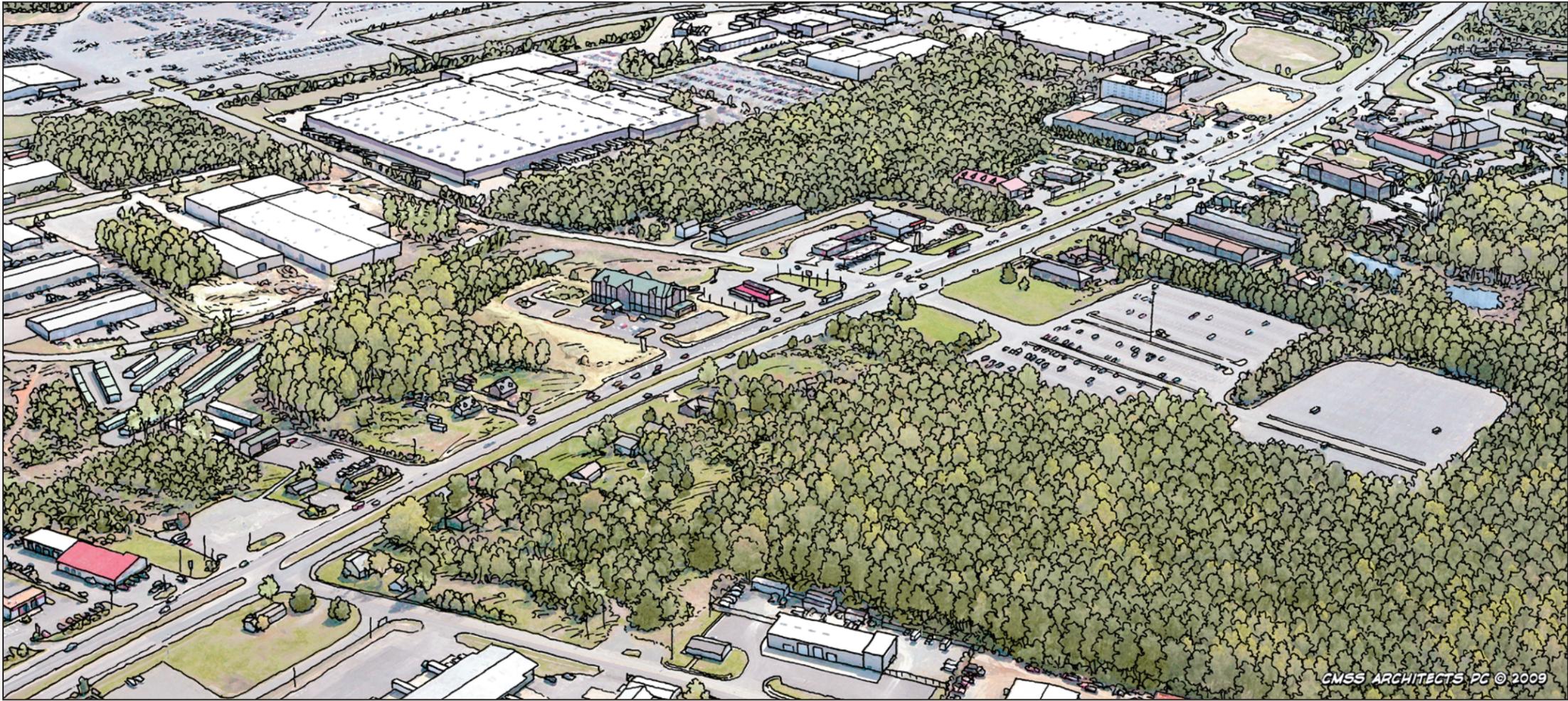
Stafford County's historic development pattern has been of a low-rise suburban scale. In the recent past, individual development projects have approached mid-rise scale and form. Therefore, an interim strategy for review and approval of development projects within the Redevelopment Areas is outlined below to facilitate implementation of the recommendations contained within the Redevelopment Plans, but within a context of historical development patterns and current market dynamics. Until such time as adequate public infrastructure is in place to establish the core framework needed to realize the redevelopment visions, all rezoning or conditional use permit development proposals will be reviewed to determine if they meet the following standards for development during the interim phase:

- the development proposal either constructs or makes accommodation for planned infrastructure identified in the Redevelopment Plans.
- the development proposal includes parcels that are subdivided in a manner to accommodate the creation of blocks and the potential consolidation of properties as recommended by the Plans.
- architectural design themes contained in the development proposal will not conflict with those suggested in the Redevelopment Plans. Franchise architecture should be modified to meet Redevelopment Plans' visions.
- the development proposal is cognizant of the need for public and private open spaces that benefit private properties as well as the public.
- the development proposal uses street furniture and other pedestrian features as recommended by the Redevelopment Plans.
- the location, placement, and design of signs included in the development proposal are done in such a manner as to not detract from building architecture.

Additionally, as development codes are reviewed and modified to ensure there are limited regulatory impediments to implementing the Redevelopment Plans, incentives for by-right developments to incorporate architectural and design recommendations of the redevelopment plans will be considered.



# SOUTHERN GATEWAY: RESEARCH & PROGRAM DEVELOPMENT





## SOUTHERN GATEWAY REDEVELOPMENT AREA

Southern Gateway, located at the southwest part of Stafford County, is generally defined as the Warrenton Road (US-17) from Berea Church Road (VA-654) to Interstate 95 (I-95) in the east to Celebrate Parkway in the west. This redevelopment area generally consists of roughly 309 parcels that contain approximately 1,197 acres of land area. The total land area, including street and road right-of-way is about 1,268 acres, representing  $\pm 0.7\%$  of Stafford County's area. (Refer to Figure 1: Southern Gateway Aerial and Map 1: Southern Gateway Redevelopment Boundaries.)

The area is traversed by Warrenton Road (US-17), a major East-West connector for vehicular traffic, and acts as an important link for trucks between Interstate 95 (I-95) and Interstate 81 (I-81), carrying approximately 60,000 vehicles daily.

Currently, Southern Gateway is developed with a mix of low-density retail and commercial uses with several hotels located closer to Interstate 95 (I-95). Several office buildings are located along Riverside Parkway adjacent to Interstate 95 (I-95). The England Run residential community is located north of Warrenton Road (US-17) along Plantation Drive (VA-1706) and Lichfield Boulevard (VA-700), although it is not a part of Southern Gateway. The Celebrate Virginia planned development currently under construction is located beyond the western end of the redevelopment area (but not a part of it) along McWhirt Loop and Celebrate Virginia Parkway.

Adjacent to the redevelopment area, Celebrate Virginia is a 2,400 acre project being designed as a retail and tourism hub, developed by the Silver Companies. In addition to the retail in the study area, it includes over 2 million square feet of retail, a Corporate Campus offering up to 3 million square feet of office space, the Cannon Ridge Golf Club, and an adult living community. Silver Companies' representatives informed the Planning Team that there were no immediate plans to construct speculative office space here.

The area surrounding Southern Gateway is emerging as an employment center, including the GEICO operations center and other office space. The area is also home to the University of Mary Washington's Graduate and Professional campus, servicing approximately 1,000 students.

Stafford County's Economic Development Plan of 2006 recommended to "Plan and Develop New Opportunity Sites at the new Interstate 95 (I-95) Interchange at Falmouth Village and Warrenton Road (US-17) in line with Identified Clusters." Southern Gateway's position on Interstate 95 (I-95) makes it attractive for hotels. The availability of road access and ample services and employment may make this an attractive residential location. Additionally, Falmouth Village is relatively easy to reach from Interstate 95 (I-95) and from Warrenton Road (US-17), creating an added attraction.

Map 1: Southern Gateway Redevelopment Boundaries

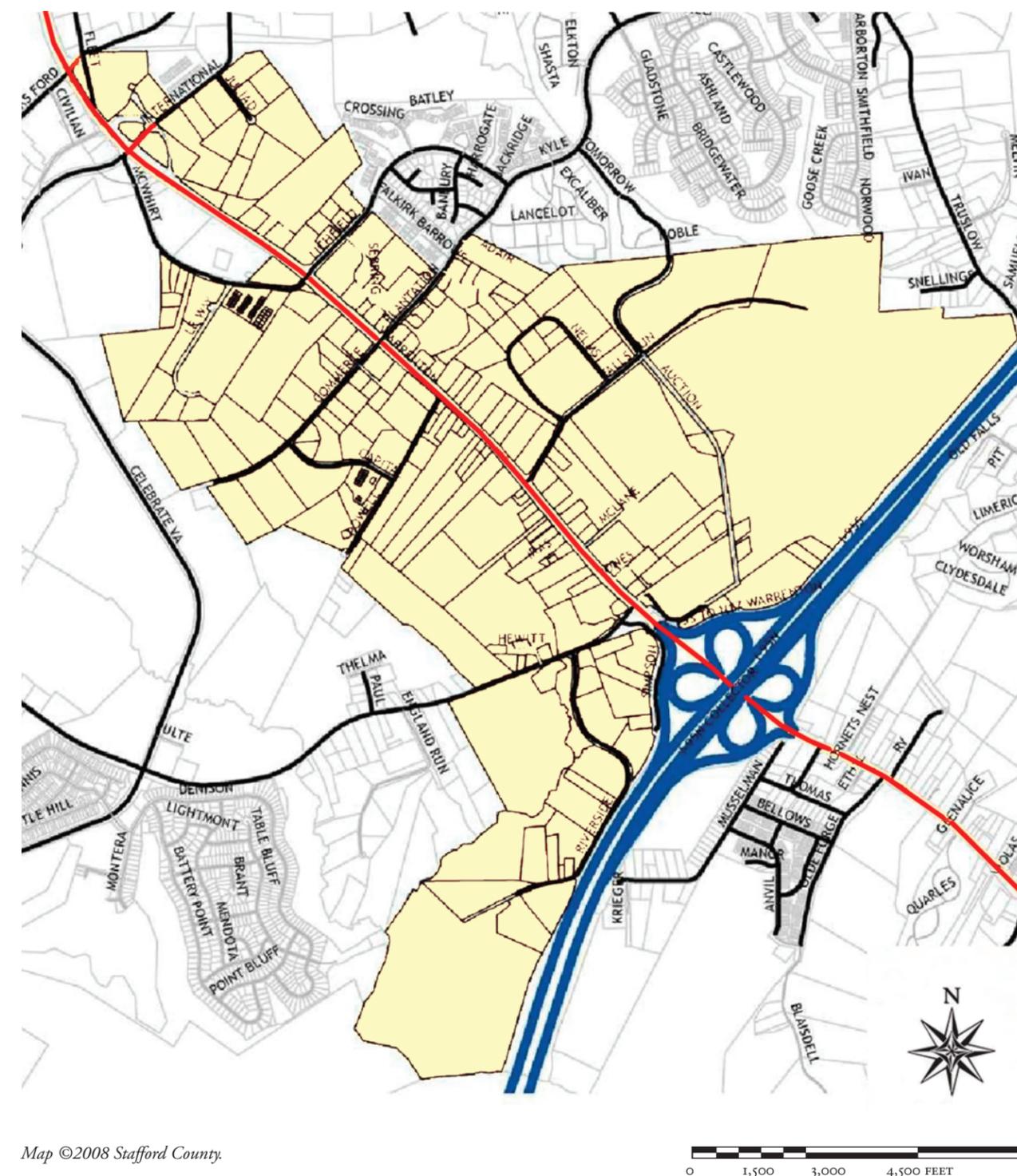


Figure 1: Southern Gateway, Aerial



Aerial Photo ©2007 Flying H Aerial Pictures

# ECONOMIC & MARKET ANALYSIS OVERVIEW

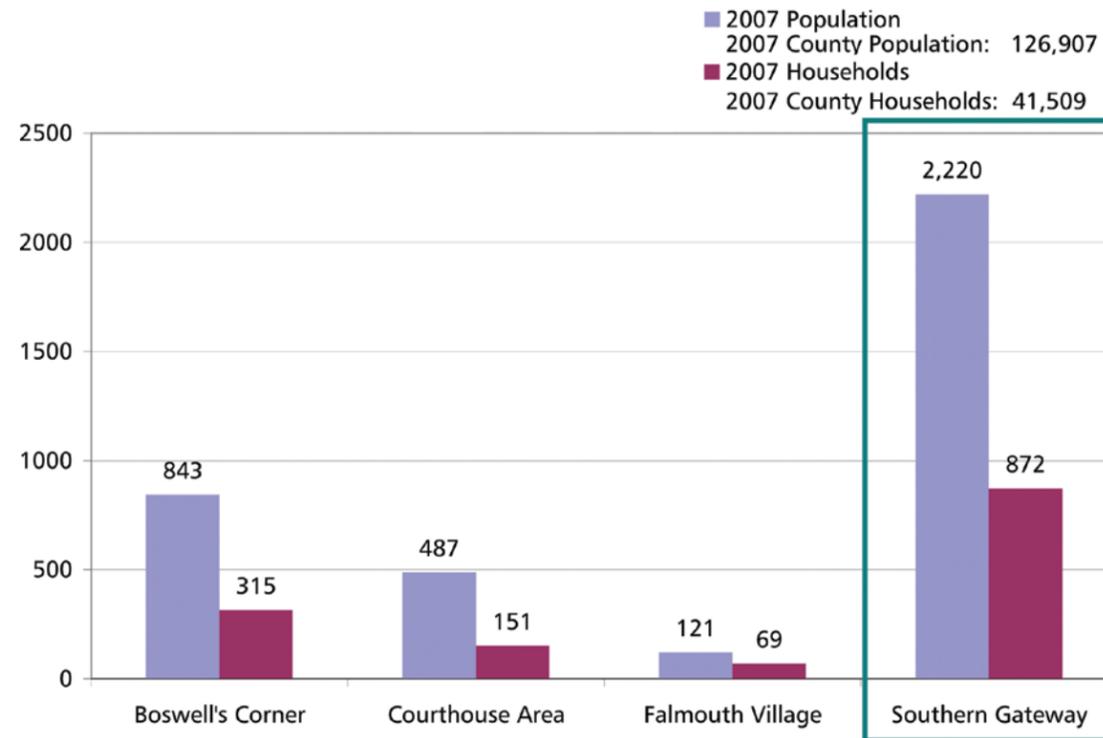
The Planning Team examined both ESRI data and Stafford County’s TAZ data for a picture of the existing demographics. (See the Methodology section for a description of these two sources).

**Table 1: Southern Gateway Demographics, 2006–2028**

	2006	2028
Population	553	9,302
Households	228	3,430

Source: 2006 and 2008 data from Stafford County TAZ; Table by Economics Research Associates, 2008.

**Figure 2: Southern Gateway Population & Households, 2007**

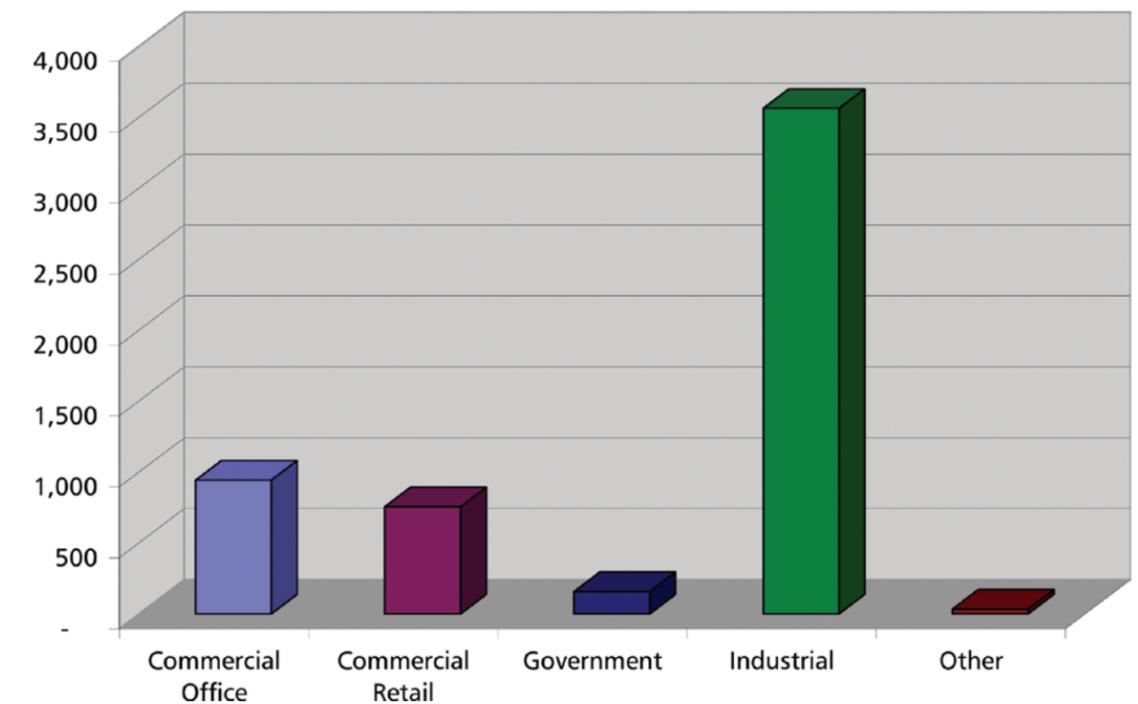


Source: ESRI; Economics Research Associates, 2008.

- According to ESRI data, in 2007, Southern Gateway had a population of 2,200, in 872 households, making it the most populous of the redevelopment areas. (Refer to Figure 2: Southern Gateway Population & Households, 2007.)
- The area TAZ data suggests that in 2006, the area had 553 residents in 228 households, which is expected to increase to a population of 9,302 people in 3430 households by Stafford County’s projection date of 2028. (Refer to Table 1: Southern Gateway Demographics, 2006–2028.)
- The area’s population is young at 29.9, according to ESRI data. 39% of all residents are between the ages of 25 to 44, making it the largest age cohort. The second largest group is of residents aged 45 to 64, having 20% of all residents.
- Again, according to ESRI data, Southern Gateway also has the highest incomes of all study areas. The median household income in 2007 was \$71,550, with nearly half (47%) of all households earning above \$75,000. This is, however, lower than Stafford County as a whole, which has a median household income of \$84,204, and 58.3% of households earning over the \$75,000 mark.
- The area’s median household income is expected to increase by approximately 19% by 2012, for an average annual increase of just under 4%, thus exhibiting growth that slightly outpaces inflation (typically 3%) (ESRI).
- The area is also expected to increase its share of households earning above \$125,000 by 14%, illustrating the greater potential that will likely be exhibited for additional retail and services (ESRI).

Stafford County’s TAZ data for Southern Gateway indicates that the area has approximately 3,500 industrial employees and less than 1,000 in commercial office. The total employment of just under 5,500 employees is approximately 7% of Stafford County’s total. (Refer to Figure 3: Southern Gateway TAZ-based Employment Data, 2006.)

**Figure 3: Southern Gateway TAZ-based Employment Data, 2006**



Source: 2006 Stafford County TAZ; Economics Research Associates, 2008.

## REAL ESTATE MARKET & DEMAND

### OFFICE DEMAND<sup>1</sup>

The Southern Gateway redevelopment area is an emerging office concentration. Currently, the redevelopment area has 7% of all Stafford County office space. Based on the vision of this area being an employment center within Stafford County, the Planning Team has estimated that the area's share of total office space could be increased to 20% of all new space. With this increase in share, a total of 590,000 square feet of office space could be supported in the redevelopment area between 2008 and 2020 for an annual average of 45,500 square feet. (Refer to Table 2: Southern Gateway Projected Office Demand, 2007–2020.)

**Table 2: Southern Gateway Projected Office Demand, 2007–2020**

	Stafford County	Southern Gateway			
<b>Total Inventory (SF)</b>	1,674,518	112,362			
<b>Share of Stafford County</b>	100%	6.7%			
<b>Employment-Based Demand</b>	<b>Avg Ann'l</b>	<b>2007-2012</b>	<b>2012-2015</b>	<b>2015-2020</b>	
Stafford County	227,277	1,034,381	679,376	1,240,844	
<b>Estimated Redevelopment Area Share of New Space</b>	20.0%	20.0%	20.0%	20.0%	
	<b>45,455</b>	<b>206,876</b>	<b>135,875</b>	<b>248,169</b>	

Source: Woods & Poole; CoStar Property Research; Economics Research Associates, 2008.

### HOTEL/HOSPITALITY

#### Existing Conditions

Currently, there are ten hotel properties on Warrenton Road (US-17) located within or adjacent to the Southern Gateway redevelopment area with approximately 960 rooms. These properties – representing approximately 22% of the overall Fredericksburg Interstate 95 (I-95) market – have had average performance and tend to be budget-oriented, serving stopover traffic from Interstate 95 (I-95) and travelers to nearby historic Falmouth Village and cultural attractions. The hotels included in the supply analysis are shown in Table 3 (*Hotel Properties In or Near Southern Gateway*) and Map 2 (*Hotel Properties In or Near Southern Gateway*).

**Table 3: Hotel Properties In or Near Southern Gateway**

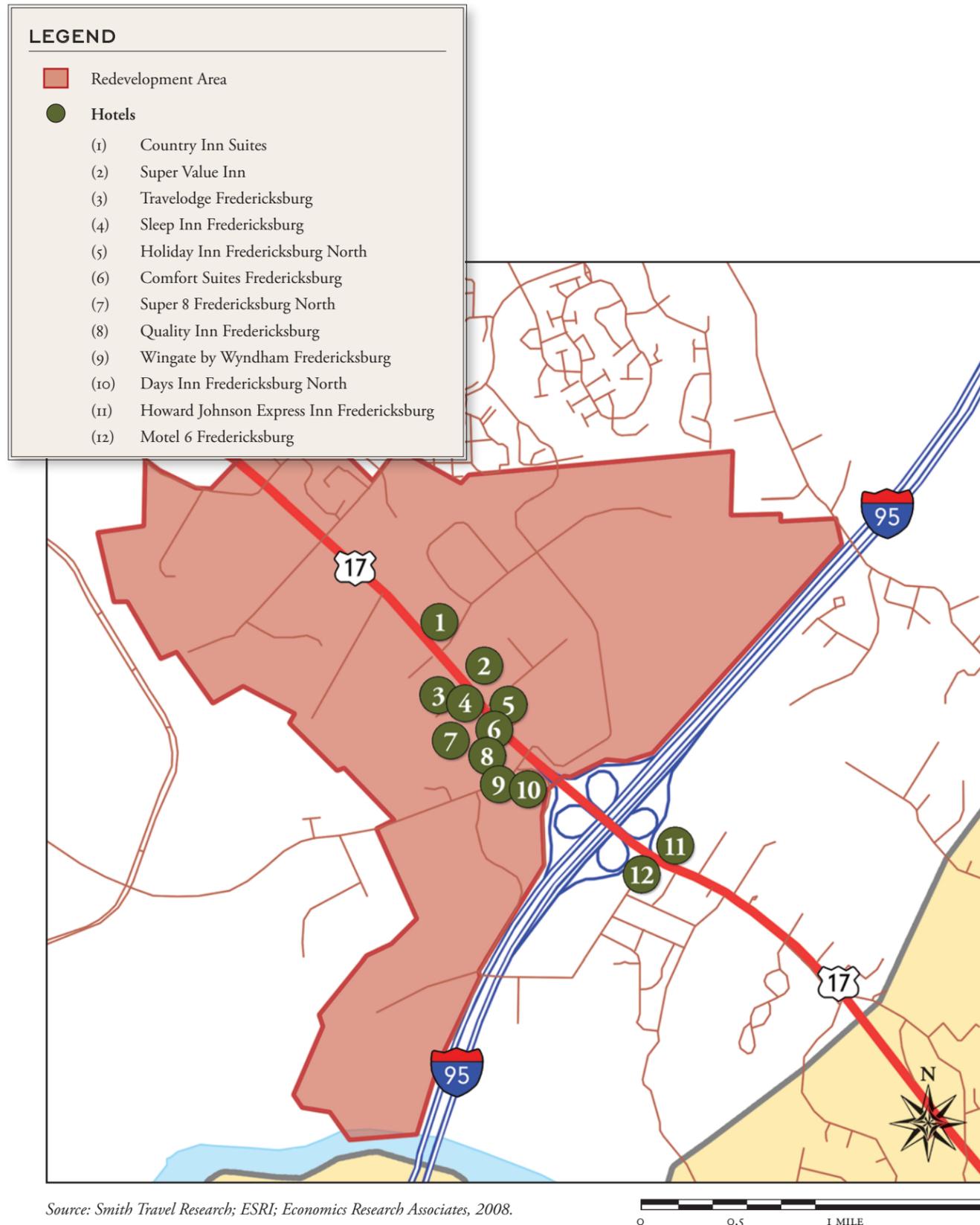
Participating Hotels	No. of Rooms	Open Date
Howard Johnson Express Inn Fredericksburg	100	Jun 1975
Motel 6 Fredericksburg	119	n/a
Holiday Inn Fredericksburg North	148	Nov 1973
Travelodge Fredericksburg	59	Jun 1987
Comfort Suites Fredericksburg	77	Jun 2007
Wingate By Wyndham Fredericksburg	129	Oct 2000
Super 8 Fredericksburg North	80	Jun 1988
Quality Inn Fredericksburg	61	Jun 1969
Days Inn Fredericksburg North	120	Jun 1973
Sleep Inn Fredericksburg	68	Jan 1992
<b>Total Rooms:</b>	<b>961</b>	

Source: Smith Travel Research; Economics Research Associates, 2008. Note: All properties listed above are in Stafford County, as shown on Map 2: Hotel Properties In or Near Southern Gateway.

The majority of the rooms are considered “Economy” which includes Howard Johnson Express, Motel 6, Days Inn, Travelodge, and Super 8 (refer to Figure 4: Southern Gateway Distribution of Hotel Rooms by Type). The redevelopment area has 40% of the overall Fredericksburg area supply in this category. The remaining rooms are in one of two mid-range categories – either having food and beverage service (22%) or not (29%). Examples of hotels offering food and beverage are the Holiday Inn Fredericksburg North and Quality Inn Fredericksburg. Those not offering food and beverage include Comfort Suites Fredericksburg, Wingate By Wyndham Fredericksburg, and Sleep Inn Fredericksburg. The redevelopment area has 19% of the market's overall supply in the mid-range category.

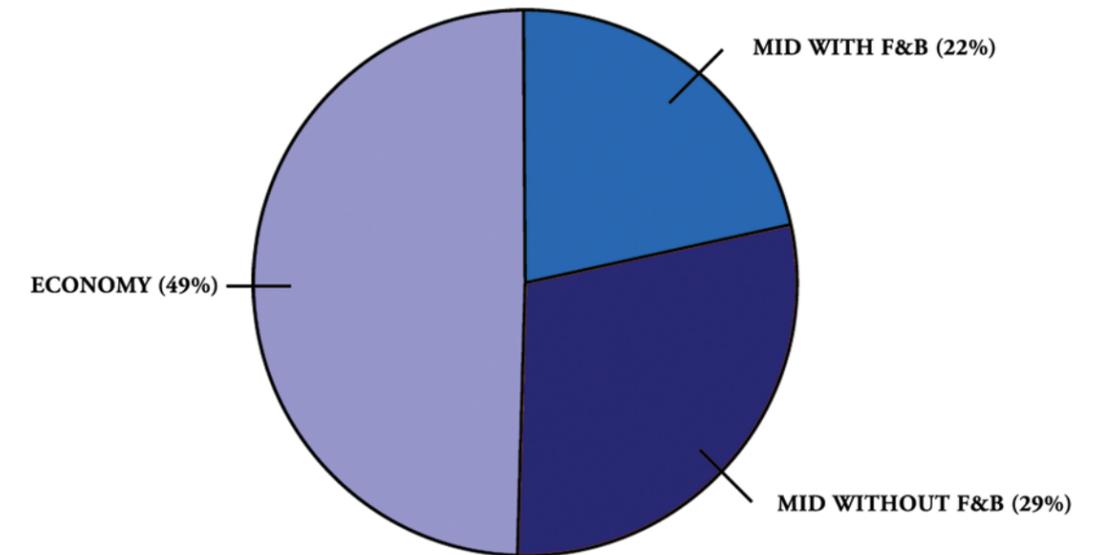
<sup>1</sup> For a description of office methodology, see the Demand Projection Methodology on page 37.

Map 2: Hotel Properties In or Near Southern Gateway



Source: Smith Travel Research; ESRI; Economics Research Associates, 2008.

Figure 4: Southern Gateway Distribution of Hotel Rooms by Type



Source: Smith Travel Research; Economics Research Associates, 2008.

Occupancy in these hotels has been declining since 2003, falling from 72% in 2003 to 60% in 2007, an average annual loss of 4% (refer to Table 4: Southern Gateway Hotel Performance Data, 2002–2007). Again, this is indicative of a changing marketplace. There were several properties in the area (those at Celebrate Virginia, Comfort Suites in the redevelopment area, and others near Aquia) opening during this time that likely stole share from the older existing properties on Warrenton Road (US-17). One of the properties in the redevelopment area, Comfort Suites, opened in 2007. While occupancy rates have decreased, during the same period of time, the average daily rate (ADR) increased by 4% annually, climbing from \$50 to \$59. The overall ADR in the Fredericksburg Area was \$75, reflecting a mix of some higher rate hotel properties.

Table 4: Southern Gateway Hotel Performance Data, 2002–2007

	2002	2003	2004	2005	2006	2007	Ann'l Growth 2002-2007
Available Roomnights (Supply)	307,330	307,330	307,330	313,954	318,152	336,888	1.85%
Occupied Roomnights (Demand)	212,309	220,467	219,762	215,461	208,696	202,502	-0.94%
Annual Occupancy (%)	69.1%	71.7%	71.5%	68.7%	65.6%	60.2%	-2.71%
Average Daily Rate	\$ 47.58	\$ 49.72	\$ 51.56	\$ 52.74	\$ 54.82	\$ 58.37	4.17%
Revenue/Available Room	\$ 33.11	\$ 35.85	\$ 37.05	\$ 36.46	\$ 36.12	\$ 35.33	1.30%
<b>YEAR-TO-YEAR GROWTH</b>							
Annual Occupancy		3.8%	(0.3%)	(3.9%)	(4.5%)	(8.2%)	
Average Daily Rate		4.5%	3.7%	2.3%	3.9%	6.5%	
Revenue/Available Room		8.3%	3.4%	(1.6%)	(0.9%)	(2.2%)	

Source: Smith Travel Research; Economics Research Associates, 2008.

### HOTEL/HOSPITALITY DEMAND

To estimate visitor numbers to use in the hotel demand model, the Planning Team calculated the amount of visitor expenditures collected within Fredericksburg City, Stafford County, and Spotsylvania County and divided by average per person visitor spending (according to the 2003-2004 Fredericksburg visitor profile) of \$179, adjusted for inflation. This method yielded a total of 2.1 million visitors in 2006. Data on spending was available for 2003-2006, and within this time, using these calculations, visitation grew at a compound annual rate of 5.3%.

Using these visitor numbers, the Fredericksburg market would have an estimated demand of 390 rooms. Assuming continued growth of 5.3% annually, there would be gross demand for 1,114 rooms across the market. If Southern Gateway maintains its share of the overall market, there would be the need for between 90 and 250 rooms in the next 5 years. (Refer to Table 5: Southern Gateway & Fredericksburg Area Hotel Demand, 2008 & 2012.)

**Table 5: Southern Gateway & Fredericksburg Area Hotel Demand, 2008 & 2012**

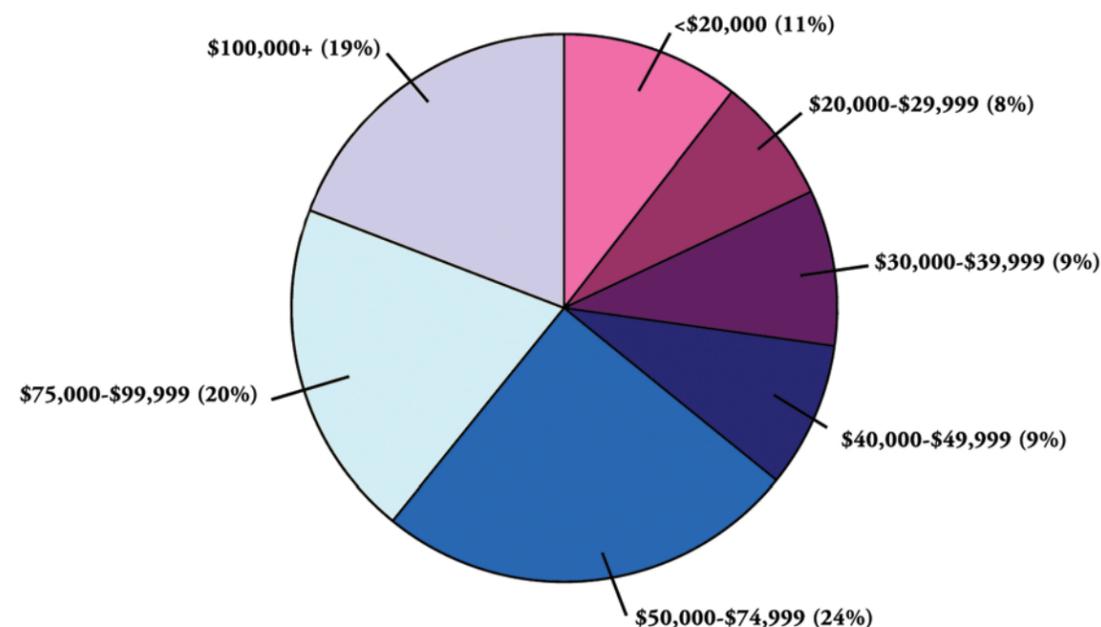
	2008	2012
Estimated Fredericksburg Area Visitors	2,298,810	2,831,218
X % Staying at a Hotel	42%	42%
/ # in Party	2	2
X Length of Stay	3.80	3.80
<b>Roomnight Demand</b>	<b>1,817,924</b>	<b>2,238,958</b>
/ 365 days in the year	365	365
<b>Hotel Room Demand</b>	<b>4,981</b>	<b>6,134</b>
<b>Less Existing Rooms</b>	<b>4,355</b>	<b>4,355</b>
Demand	626	1,779
Occupancy Rate	63%	63%
<b>Total Fredericksburg Market Room Demand</b>	<b>392</b>	<b>1,114</b>
<b>Southern Gateway</b>		
<b>Total Market Demand</b>	<b>392</b>	<b>1,114</b>
<b>Share of Market</b>	<b>22%</b>	<b>22%</b>
<b>Southern Gateway Room Demand</b>	<b>90</b>	<b>250</b>

Source: Virginia Travel Corporation; Smith Travel Research; Economics Research Associates, 2008.

This number is a snapshot of present gross demand. Planned hotels, such as the 900-room one at the new Kalahari resort at Celebrate, Virginia could cannibalize some of this demand. (However, it is important to note that much of the support for that resort will be internally driven and that the visitor numbers the Planning Team uses are based on existing conditions). Additionally, this demand considers all rooms to be equal, rather than looking at demand by segment. Older hotels that are less competitive could close, making way for more competitive newer properties. The Planning Team also examined the rooms by market segment.

Though the properties on Warrenton Road (US-17) appeal to budget travelers, traveler profiles compiled by the Virginia Tourism Corporation (VATC) suggest that Fredericksburg Area could potentially host a number of higher income travelers who would be interested in more expensive full-service hotels. There is no comprehensive visitor data available for the area, from the VATC or otherwise. Data is collected by Stafford County on a venue-by-venue basis, which does not include other visitor segments such as business travelers or those visiting friends and family. In the 2003/2004 traveler survey, the VATC created a profile for visitors whose trips included the Fredericksburg Area, but the sample size (370) was too small to be conclusive. Though the data are somewhat limited, they do suggest that 39% of travelers who come to the Fredericksburg Area during their Virginia trip have household incomes over \$75,000. (Refer to Figure 5: Fredericksburg Area Visitor Income Profile, 2003–2004.)

**Figure 5: Fredericksburg Area Visitor Income Profile, 2003–2004**

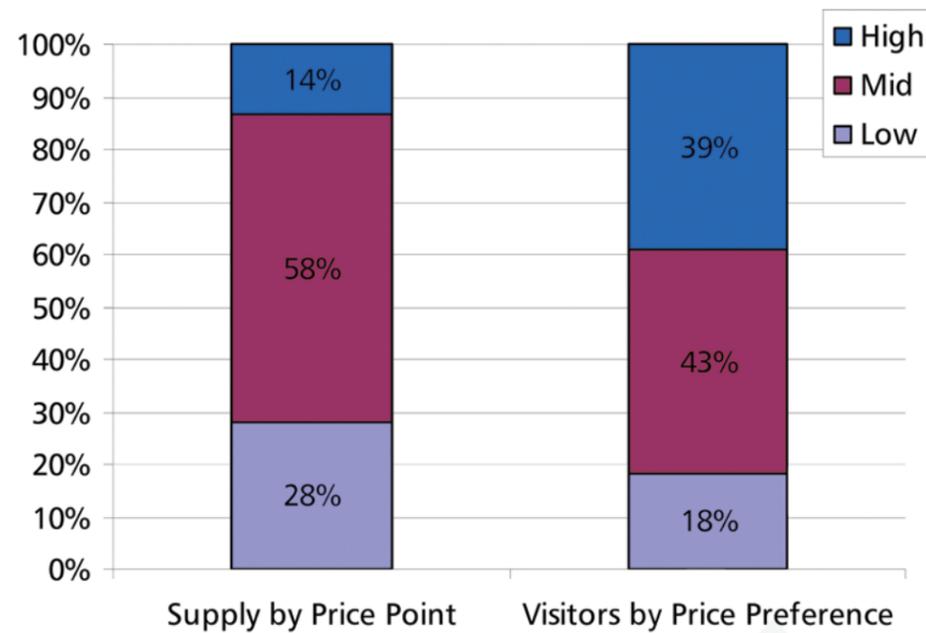


Source: VATC, 2004; Economics Research Associates, 2008.

Based upon this profile of visitor incomes, the Planning Team estimated that preferences for hotels by price range would be 39% for high (\$150+, visitor households making \$75,000+), 43% for mid range (Rooms ranging \$80-\$120, visitor households earning \$30,000 to \$74,999), and 18% for low range (Rooms under \$80, visitor households earning under \$30,000).

As is evident in Figure 6 (Comparison of Hotel Rooms by Price Point & Visitors by Price Preference in Fredericksburg Area Hotels), there is a disparity between the range of lodging options in the Fredericksburg area and the income of visitors based on the sample collected by the VATC. Because a portion of the visitors to the area are generated as “pass-through” from Interstate 95 (I-95), it is possible that they do not require as high of a quality rating as they would if they were staying for several days. However, it would most likely be possible to serve these customers with a higher end hotel option.

**Figure 6: Comparison of Hotel Rooms by Price Point & Visitors by Price Preference in Fredericksburg Area Hotels**



**Fredericksburg Area Hotels**

The gap in hotel quality-preferred demand in the market versus supply would suggest that the most competitive product would be a higher end hotel – not necessarily “luxury,” but a step up from the current hotel offerings. Some of the “upscale” (as defined by STR) choices in the Fredericksburg area are: Homewood Suites, Hilton Garden Inn, and Residence Inn. A hotel in this competitive range, serving the pass-through customer who wants better than economy-rate as well as other travel segments including local corporate clients, would be best suited to the redevelopment area. Because most of the hotel business is driven by Interstate 95 (I-95), the property would be most ideally placed within visibility of the highway exit. (Refer to Figure 6: Comparison of Hotel Rooms by Price Point & Visitors by Price Preference in Fredericksburg Area Hotels.)

**RETAIL DEMAND**

Southern Gateway has retailers with the capacity to draw customers from further distances – such as the new Center with Target. In many ways, it is a part of the regional retail cluster that is centered around the Plank Road exit on Interstate 95 (I-95) (Spotsylvania Towne Centre and Central Park). As this area has grown in retail offerings, it has the power to attract customers from a further distance.

Recent developments along Warrenton Road (US-17) include the Carter’s Crossing center with a Target and PetSmart, a Giant supermarket, and a recently completed Lowe’s Home Improvement, all developed by the Silver Companies. There are also several neighborhood centers, one of which includes a Bloom supermarket, major new drugstores, and a Walmart under construction (at the time of this writing).

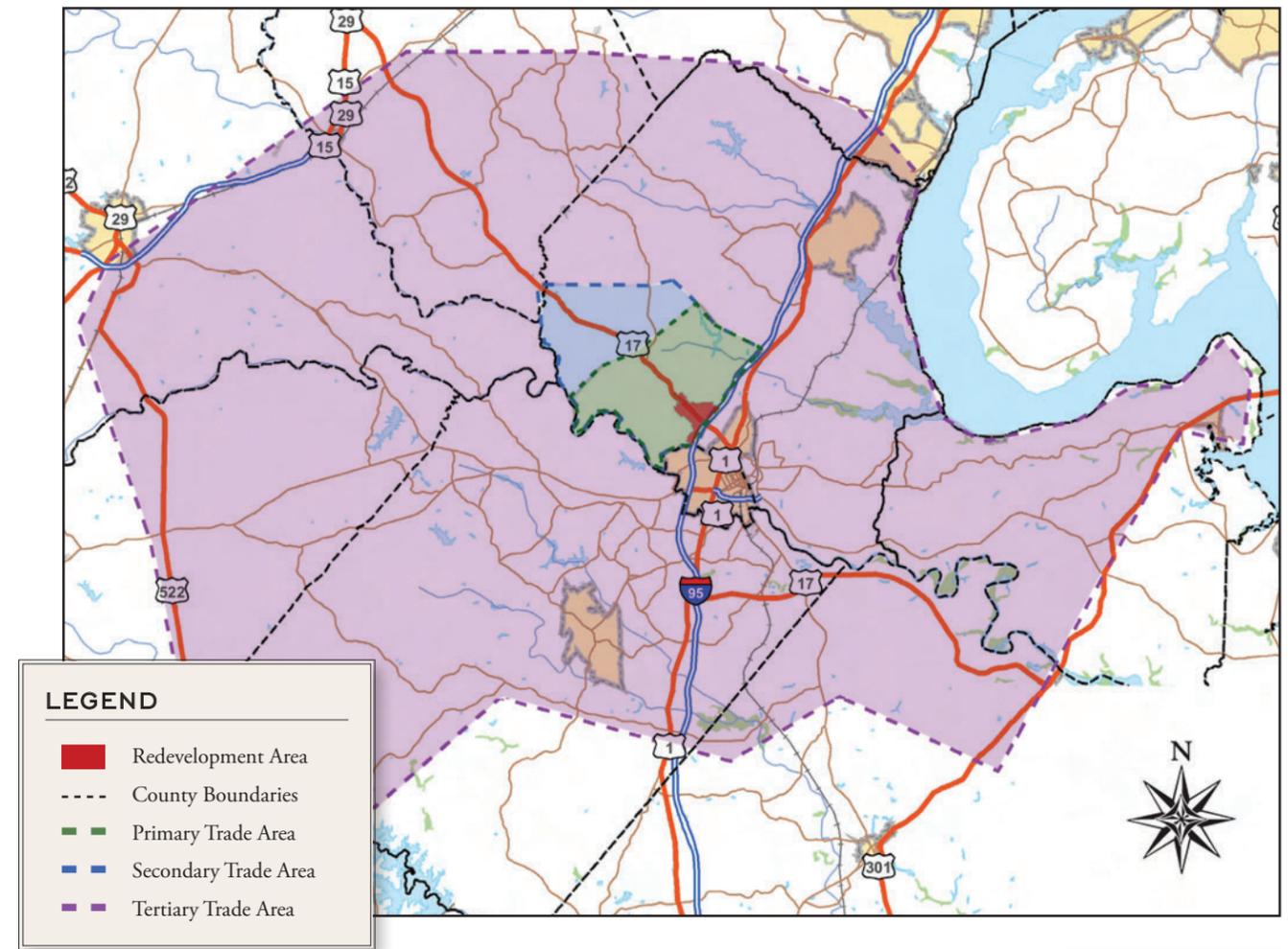
Because of this study area’s more extensive drawing power, the Planning Team has approached this redevelopment area slightly differently and adapted the retail model used to separately analyze “comparative retail,” such as that which is frequently found in a regional retail center, and “convenience retail,” that which is found in convenience centers, which include supermarkets, drugstores, and fast food restaurants.

**Comparative Retail**

Southern Gateway has the potential to draw customers from further distances. The Spotsylvania Towne Centre/ Central Park concentration is one of the largest in Fredericksburg, and competition is far spread. To the north, the first regional-type shopping is at Stafford Marketplace (Target, Walmart, etc), with Potomac Mills providing a wider range of consumer goods further north. To the west, there is little until Culpeper and Charlottesville. And, there is no competition to the south until one reaches the Richmond Metro area.

The Planning Team has drawn a primary, secondary, and tertiary trade area for comparative retail. The primary trade area is the same as the secondary trade area for convenience retail. It extends just beyond Interstate 95 (I-95) to the East, to the river to the south, west to Elk Run Road, and north to approximately the Centreport Parkway interchange. The secondary extends further west to the Stafford County border, north to just south of Aquia, east to the Potomac River, and south to the exit off of Interstate 95 (I-95) for Warrenton Road (US-17). The tertiary trade area extends further still, to 522 in the west, to 301 in the south, and to the Stafford County border in the north. (Refer to Map 3: Southern Gateway Comparative Retail Trade Areas.)

**Map 3: Southern Gateway Comparative Retail Trade Areas**



Source: ESRI; Economics Research Associates, 2008.

The Planning Team has also considered employees and visitors to the area. The number of local employees is based on estimates by the US Census Bureau Longitudinal Employer-Household Dynamics On-The-Map Application. According to this source, there were about 3,600 employees in 2004. Projected to 2007 using the growth rate, this number is 4,100. The spending of these employees are then removed from residential trade areas, using Census information about where employees live. Visitors are based on the number of local hotel rooms, average guests per room, and average occupancy.

**Office Workers**

- Estimated Number, 2007 – 4,100
- Estimated Number, 2012 – 7,700
- Estimated Annual Average Per Employee Expenditures – \$3,546 (\$1,481 Comparative and \$2,065 Convenience)

**Visitors**

- Hotel Rooms – 961
- Occupancy – 62.60%
- Persons Per Party – 3.3
- Total Estimated Visitors, 2007 – 724,610
- Estimated Visitors, 2012 – 915,300 (5% growth rate)

**Primary Trade Area**

- Population/Households 2007 – 21,927/ 7,899
- Population/Households 2012 – 29,658/ 10,671
- Average Household Retail Expenditures, 2007 – \$25,301

**Secondary Trade Area (net of Primary)**

- Population/Households 2007 – 161,966/ 57,455
- Population/Households 2012 – 194,133/ 68,953
- Average Household Retail Expenditures, 2007 – \$21,988

**Tertiary Trade Area (net of Primary and Secondary)**

- Population/Households 2007 – 168,387/ 58,323
- Population/Households 2012 – 199,860/ 69,864
- Average Household Retail Expenditures, 2007 – \$20,325

**Table 6: Southern Gateway Captured Comparative Retail Spending, 2012**

<b>Primary Trade Area</b>					
	<b>Total Spending Potential</b>	<b>Less Resident Employees</b>	<b>Net Spending Potential</b>	<b>Capture Rate</b>	<b>Captured Spending</b>
Shoppers Goods	\$ 123,016,007	\$ (400,882)	\$ 122,615,125	35%	\$ 42,915,294
Full-Service Restaurants	\$ 26,145,037	\$ (169,342)	\$ 25,975,695	20%	\$ 5,195,139
<b>Secondary Trade Area</b>					
	<b>Total Spending Potential</b>	<b>Less Resident Employees</b>	<b>Net Spending Potential</b>	<b>Capture Rate</b>	<b>Captured Spending</b>
Shoppers Goods	\$ 648,828,239	\$ (2,405,295)	\$ 646,422,944	10%	\$ 64,642,294
Full-Service Restaurants	\$ 153,750,743	\$ (1,016,051)	\$ 152,734,692	7%	\$ 10,691,428
<b>Tertiary Trade Area</b>					
	<b>Total Spending Potential</b>	<b>Less Resident Employees</b>	<b>Net Spending Potential</b>	<b>Capture Rate</b>	<b>Captured Spending</b>
Shoppers Goods	\$ 599,009,550	\$ (2,806,177)	\$ 596,203,372	2%	\$ 11,924,067
Full-Service Restaurants	\$ 264,941,384	\$ (1,185,393)	\$ 263,755,991	1%	\$ 2,637,560
<b>Visitors</b>					
	<b>Total Spending Potential</b>	<b>Less Resident Employees</b>	<b>Net Spending Potential</b>	<b>Capture Rate</b>	<b>Captured Spending</b>
Shoppers Goods	\$ 15,242,540	n/a	\$ 15,242,540	25%	\$ 3,810,635
Full-Service Restaurants	\$ 14,814,855	n/a	\$ 14,814,855	25%	\$ 3,703,714
<b>Employees</b>					
	<b>Total Spending Potential</b>	<b>Less Resident Employees</b>	<b>Net Spending Potential</b>	<b>Capture Rate</b>	<b>Captured Spending</b>
Shoppers Goods	\$ 8,017,650	n/a	\$ 8,017,650	45%	\$ 3,607,942
Full-Service Restaurants	\$ 3,386,836	n/a	\$ 3,386,836	30%	\$ 1,016,051
<b>Total</b>					
	<b>Total Spending Potential</b>	<b>Less Resident Employees</b>	<b>Net Spending Potential</b>	<b>Capture Rate</b>	<b>Captured Spending</b>
Shoppers Goods	\$ 1,394,113,985	\$ (5,612,355)	\$ 1,388,501,631	9.1%	\$ 126,900,233
Full-Service Restaurants	\$ 463,038,855	\$ (2,370,785)	\$ 460,668,070	5.0%	\$ 23,243,892

Source: ESRI; Economics Research Associates, 2008.

**Convenience Retail**

The analysis for convenience retail also considered employees and visitors, as well as the residents of two trade areas. The primary area extends just beyond the redevelopment area boundaries to the north and east, to the river to the south and to approximately Stafford Lakes Parkway in the west. The secondary trade area is the same as the primary convenience trade area. (Refer to Map 4: Southern Gateway Convenience Retail Trade Areas.)

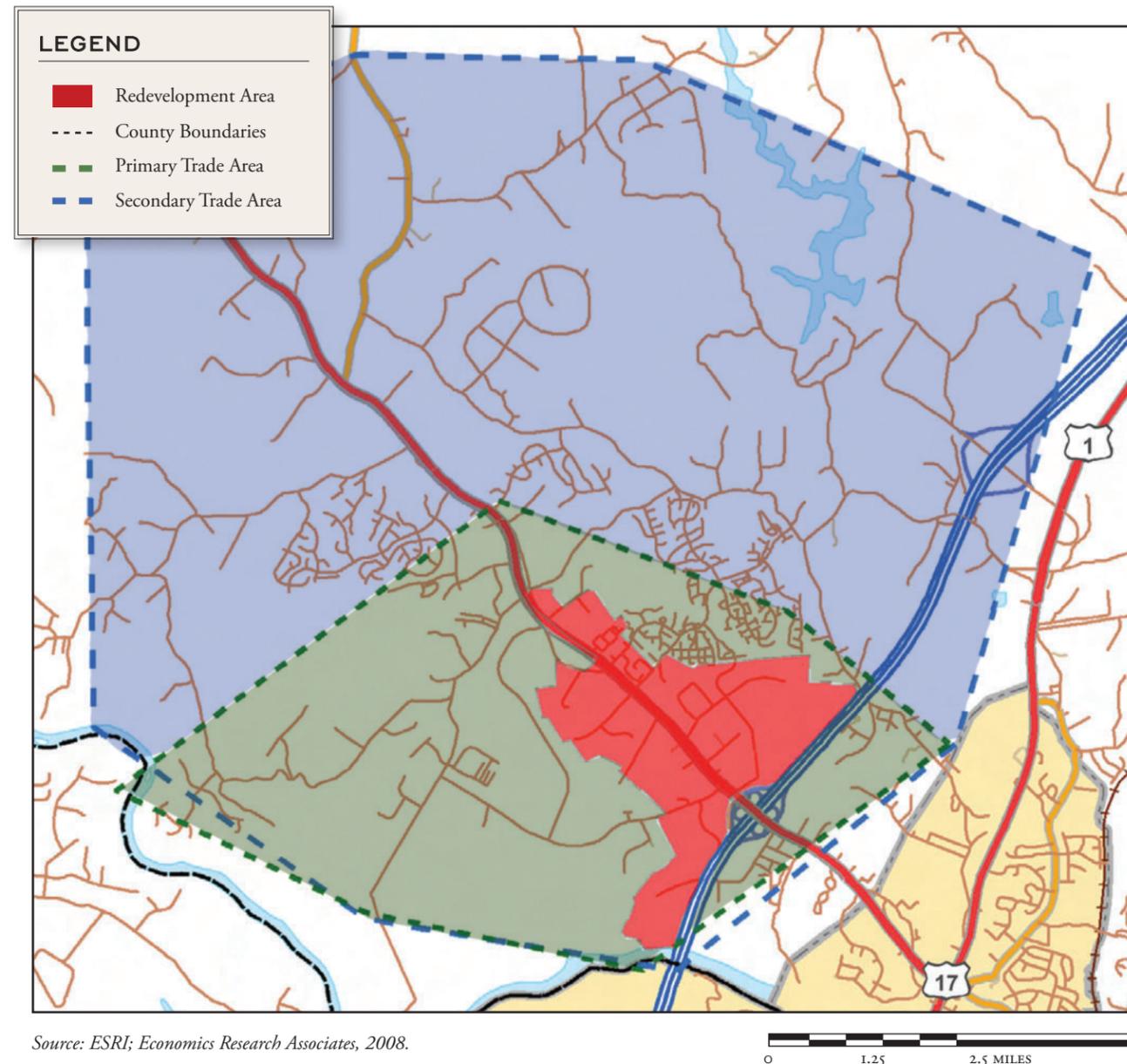
**Primary Trade Area**

- ♦ Population/Households 2007 – 18,941/6,915
- ♦ Population/Households 2012 – 26,229/9,543
- ♦ Average Household Retail Expenditures, 2007 – \$25,927

**Secondary Trade Area (net of Primary)**

- ♦ Population/Households 2007 – 164,952/58,439
- ♦ Population/Households 2012 – 197,562/70,081
- ♦ Average Household Retail Expenditures, 2007 – \$23,302

**Map 4: Southern Gateway Convenience Retail Trade Areas**



Source: ESRI; Economics Research Associates, 2008.

**Table 7: Southern Gateway Captured Convenience Retail Spending, 2012**

<b>Primary Trade Area</b>					
	<b>Total Spending Potential</b>	<b>Less Resident Employees</b>	<b>Net Spending Potential</b>	<b>Capture Rate</b>	<b>Captured Spending</b>
Food & beverage stores	\$ 56,020,477	\$ (155,438)	\$ 55,865,039	40.0%	\$ 22,346,015
Health & personal care stores	\$ 9,354,425	\$ (103,625)	\$ 9,250,800	37.0%	\$ 3,422,796
Limited Service Restaurants	\$ 17,840,648	\$ (377,059)	\$ 17,463,590	11.0%	\$ 1,920,995
<b>Secondary Trade Area</b>					
	<b>Total Spending Potential</b>	<b>Less Resident Employees</b>	<b>Net Spending Potential</b>	<b>Capture Rate</b>	<b>Captured Spending</b>
Food & beverage stores	\$ 367,843,208	\$ (38,860)	\$ 367,804,348	6%	\$ 22,068,261
Health & personal care stores	\$ 63,249,527	\$ (25,906)	\$ 63,223,620	5%	\$ 3,161,181
Limited Service Restaurants	\$ 115,955,492	\$ (94,265)	\$ 115,861,227	11%	\$ 12,744,735
<b>Visitors</b>					
	<b>Total Spending Potential</b>	<b>Less Resident Employees</b>	<b>Net Spending Potential</b>	<b>Capture Rate</b>	<b>Captured Spending</b>
Food & beverage stores	\$ 8,561,185	n/a	\$ 8,561,185	30%	\$ 2,568,356
Health & personal care stores	\$ 5,080,847	n/a	\$ 5,080,847	35%	\$ 1,778,296
Limited Service Restaurants	\$ 11,728,225	n/a	\$ 11,728,225	25%	\$ 2,932,056
<b>Employees</b>					
	<b>Total Spending Potential</b>	<b>Less Resident Employees</b>	<b>Net Spending Potential</b>	<b>Capture Rate</b>	<b>Captured Spending</b>
Food & beverage stores	\$ 3,885,952	n/a	\$ 3,885,952	70%	\$ 2,720,167
Health & personal care stores	\$ 2,590,635	n/a	\$ 2,590,635	70%	\$ 1,813,444
Limited Service Restaurants	\$ 9,426,463	n/a	\$ 9,426,463	65%	\$ 6,127,201
<b>Total</b>					
	<b>Total Spending Potential</b>	<b>Less Resident Employees</b>	<b>Net Spending Potential</b>	<b>Capture Rate</b>	<b>Captured Spending</b>
Food & beverage stores	\$ 436,310,822	n/a	\$ 436,116,524	11.4%	\$ 49,702,799
Health & personal care stores	\$ 80,275,433	n/a	\$ 80,145,901	12.7%	\$ 10,175,718
Limited Service Restaurants	\$ 154,950,827	n/a	\$ 154,479,504	15.4%	\$ 23,724,987

Source: ESRI; Economics Research Associates, 2008.

**Retail Total Demand**

In addition to demand from the above markets, the Planning Team added an inflow factor of 10% for each store type. This factor accounts for visitors staying outside the area, pass-through traffic, and local customers living outside of the trade area. In total, the area can expect to capture \$257 million in retail sales in the defined store categories, which at average productivity rates equates to approximately 777,000 to 1 million square feet of retail. (Refer to Table 8: Southern Gateway Potential Captured Spending & Inflow, 2012 and Table 9: Southern Gateway Estimated Supportable Retail Square Feet, 2012.)

This includes existing retail. If we net out existing retail expenditures (including the Giant and Lowe’s), there is net new demand for approximately 370,000 to 540,000 square feet (refer to Table 10: Southern Gateway Estimated Net New Supportable Square Feet, 2012), with the majority of demand for shoppers goods (including general merchandise, apparel, etc.).

**Table 8: Southern Gateway Potential Captured Spending & Inflow, 2012**

2012	Captured Spending from All Markets	Inflow Factor	Total Potential Captured Spending
<b>Convenience</b>			
Food & beverage stores	\$ 49,702,799	10%	\$ 54,673,078
Health & personal care stores	\$ 10,175,718	10%	\$ 11,193,289
Shoppers Goods	\$ 126,900,233	10%	\$ 139,590,256
<b>Eating and Drinking</b>			
Full-Service	\$ 23,243,892	10%	\$ 25,568,281
Limited-Service	\$ 23,724,987	10%	\$ 26,097,485
	<b>\$ 233,747,628</b>	<b>9%</b>	<b>\$ 257,122,391</b>

Source: Economics Research Associates, 2008.

**Table 9: Southern Gateway Estimated Supportable Retail Square Feet, 2012**

2012	Total Potential Captured Spending	Productivity		Square Feet	
		Low	High	Low	High
<b>Convenience</b>					
Food & beverage stores	\$ 54,673,078	\$ 375	\$ 425	129,000	146,000
Health & personal care stores	\$ 11,193,289	\$ 350	\$ 450	25,000	32,000
Shoppers Goods	\$ 139,590,256	\$ 200	\$ 300	465,000	698,000
<b>Eating and Drinking</b>					
Full-Service	\$ 25,568,281	\$ 375	\$ 475	54,000	68,000
Limited-Service	\$ 26,097,485	\$ 200	\$ 250	104,000	130,000
	<b>\$ 257,122,391</b>			<b>777,000</b>	<b>1,074,000</b>

Source: ULI Dollars and Cents of Shopping Centers; Economics Research Associates, 2008.

**Table 10: Southern Gateway Estimated Net New Supportable Square Feet, 2012**

2012	Total Potential Captured Spending	Productivity		Square Feet	
		Low	High	Low	High
<b>Convenience</b>					
Food & beverage stores	\$ 3,138,078	\$ 375	\$ 425	10,000	10,000
Health & personal care stores	\$ 5,758,189	\$ 350	\$ 450	10,000	20,000
Shoppers Goods	\$ 75,476,756	\$ 200	\$ 300	250,000	380,000
<b>Eating and Drinking</b>					
Full-Service	\$ 9,596,281	\$ 375	\$ 475	20,000	30,000
Limited-Service	\$ 19,101,485	\$ 200	\$ 250	80,000	100,000
	<b>\$ 113,070,791</b>			<b>370,000</b>	<b>540,000</b>

Source: ULI Dollars and Cents of Shopping Centers; Economics Research Associates, 2008.

**RESIDENTIAL DEMAND<sup>2</sup>**

As seen in the demographic overview, Southern Gateway is one of the most populous of the redevelopment areas, with 2,200 people in 872 households in 2007. The area is also home to developing residential and commercial developments with access to additional developing areas of Stafford County and Spotsylvania County. The existing households represent 2.1% of all County households. It is expected that this share will increase, particularly with planning efforts underway.

Stabilized year annual housing demand for new housing is for 53 for-sale units and 124 for-rent units. Over the next five years, there is potential for approximately 900 units, representing 15% of overall projected Stafford County housing demand. (Refer to Table 11: Southern Gateway Supportable Housing Demand, 2008–2030.)

**Table 11: Southern Gateway Supportable Housing Demand, 2008–2030**

	2008	2009	2010	2011	2012	2008-2012	2012-2020	2020-2030
Total For-Sale	68	61	56	53	53	292	430	530
Total Rental	116	121	124	124	124	608	990	1240
<b>Total Units</b>	<b>183</b>	<b>182</b>	<b>180</b>	<b>177</b>	<b>177</b>	<b>900</b>	<b>1420</b>	<b>1770</b>

Source: Economics Research Associates, 2008.

<sup>2</sup> For a description of residential methodology, see the Demand Projection Methodology on page 39.

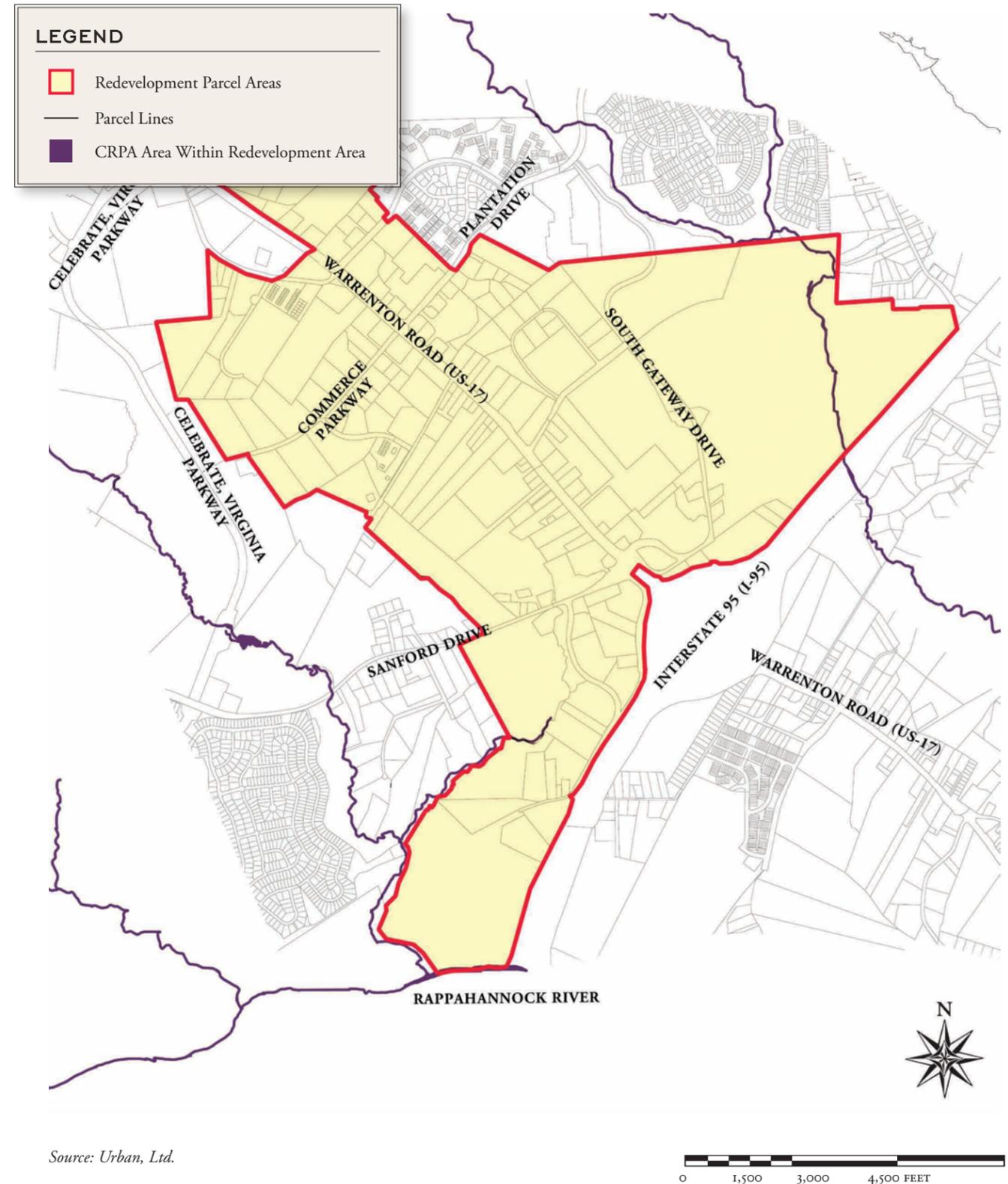
# INFRASTRUCTURE & STORM WATER MANAGEMENT (SWM) ANALYSIS

## STORM WATER MANAGEMENT (SWM) ANALYSIS

Southern Gateway does have several FEMA and County mapped 100-year floodplains which affect the southern and northeastern parcels of redevelopment area. Redevelopment in these areas will be limited, while the remainder of the redevelopment area should be free of floodplain related hindrances.

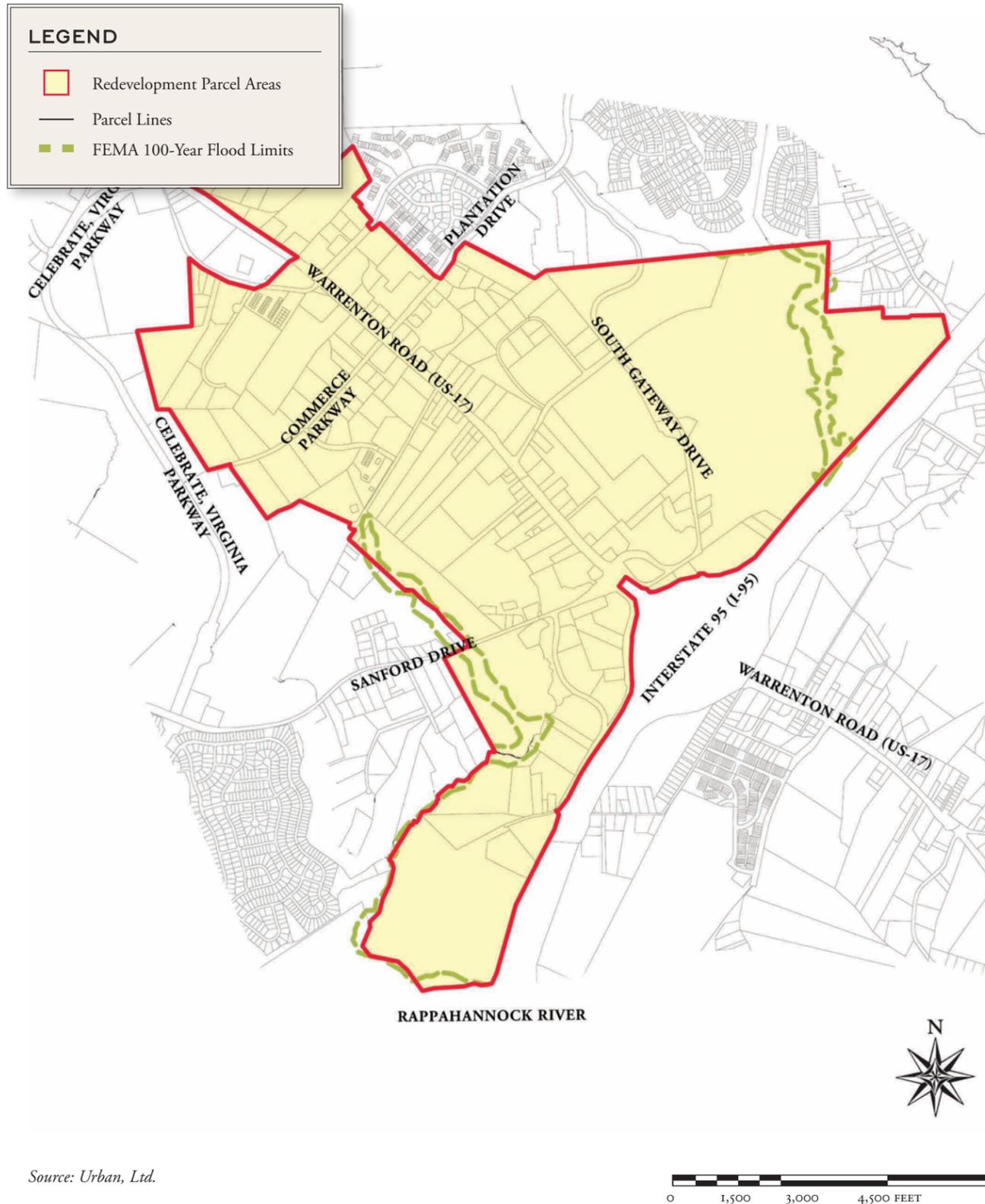
Southern Gateway has two relatively minor locations of CRPA's within the area. The first location forms the southwestern limits of the area along a tributary to England Run. The second CRPA follows Falls Run and bisects the northeast corner of the redevelopment project area. Both areas are along tributaries to the Rappahannock River which lies to the South of Southern Gateway. (Refer to Map 5: Southern Gateway Critical Resource Protection Areas (CRPAs) and Map 6: Southern Gateway FEMA 100-Year Floodplain Limit.)

Map 5: Southern Gateway Critical Resource Protection Areas (CRPAs)



Source: Urban, Ltd.

**Map 6: Southern Gateway FEMA 100-Year Floodplain Limit**



Source: Urban, Ltd.

**Existing Impervious Analysis**

Southern Gateway consists of parcels primarily zoned light industrial (40%) and urban commercial (33%). Heavy Industrial (8%), Suburban Residential (6%) and Agriculture (5%) make up the majority of the remaining zoning. (Refer to Table 12: Southern Gateway Existing Impervious Analysis.)

**Table 12: Southern Gateway Existing Impervious Analysis**

EXISTING USE	ACRES	% IMPERVIOUS	IMPERVIOUS AREA
Agricultural	76.5	15	11.48
Light Industrial	507.6	90	456.84
Heavy Industrial	99.3	90	89.37
Suburban Residential	71.1	35	24.89
Urban Commercial	424.3	90	381.87
Urban Residential	20.0	35	7.00
<b>Subtotal</b>	<b>1198.8</b>		
Road Right-of-Way	69.3	95	65.84
<b>Total</b>	<b>1268.1</b>		<b>1037.29</b>

The mix of these zoning Districts supports a maximum impervious area of roughly 82%. A review of Stafford County’s Land Use Map for this area as well as aerial images of the area indicates that a number of locations are not fully developed to the maximum limits of their existing use or are not developed. Therefore, the existing impervious area calculated above represents a higher than actual quantity. Taking this into consideration, the Planning Team believes a more appropriate figure for the amount of existing impervious area within the redevelopment area is approximately 70%.

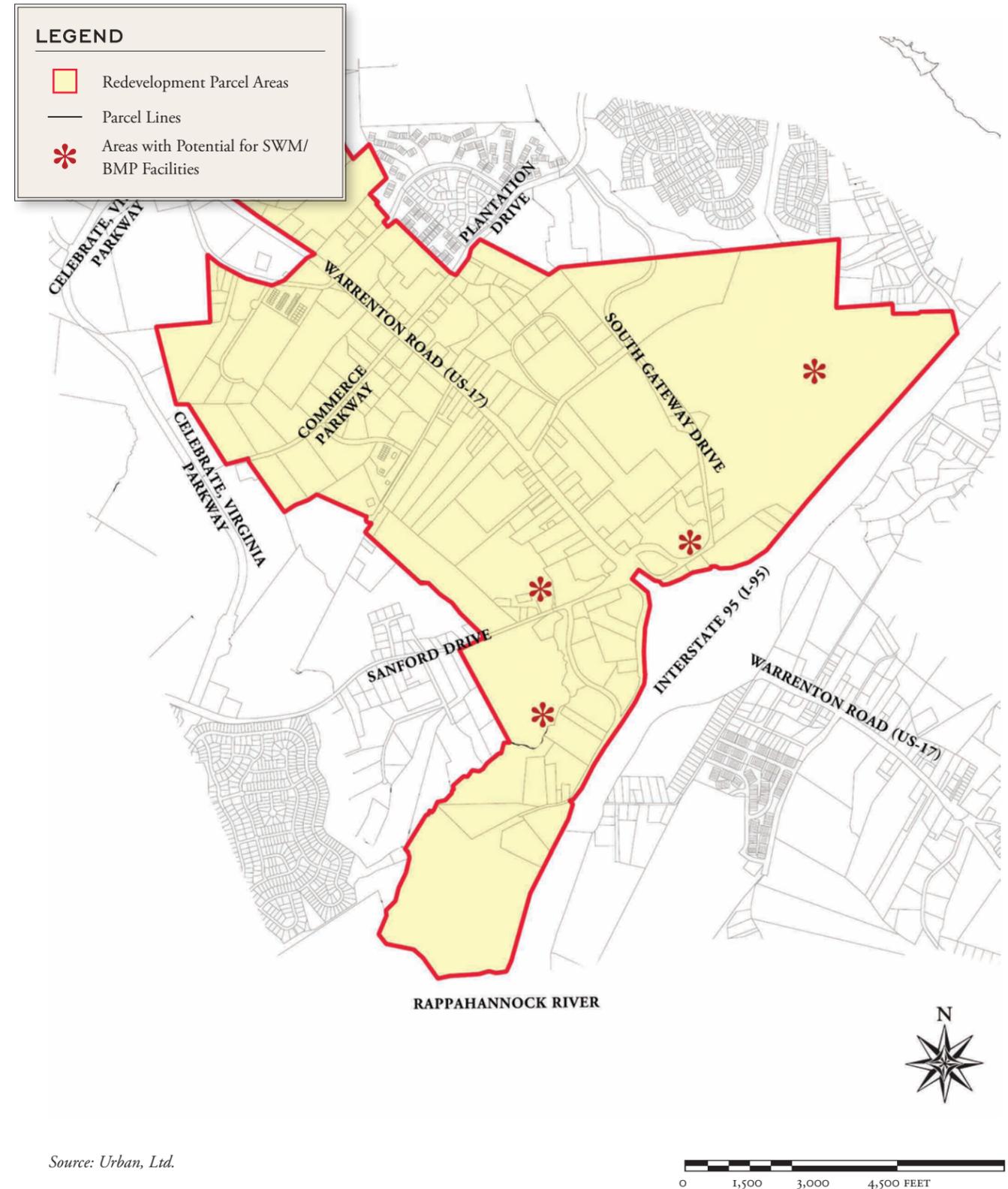
**Regional SWM Opportunities**

Regional SWM facilities should be considered in those areas called out within the Storm Water Management element of the Comprehensive Plan. All of these occur within the Falls Run Watershed. Outside the Falls Run Watershed, i.e. the south side of Warrenton Road (US-17), opportunities may exist to consider some regional storm water improvements on the northern side of the tributary to England Run, which meanders along the southern boundary of the redevelopment area.

While it may prove difficult for any individual property owner to implement a regional SWM facility due to timing and cooperation of adjacent developers whose land would drain to a proposed facility, it is in Stafford County’s interest to help facilitate this approach. Stafford County may establish a mechanism by which Stafford County can implement a regional approach to SWM. Other jurisdictions have instituted a “pro-rata share” fee which is paid by the land owners or developers for increases in impervious area within a watershed. The proceeds would be used to construct new SWM facilities in the watershed or improvements along the tributary. Another option is for Stafford County to create incentives, reimbursements and/or additional concessions to land owners who elect to implement a regional storm water management design which takes into consideration the future development potential of the upstream drainage area.

The Planning Team has included a map (refer to Map 7: Southern Gateway Potential SWM/BMP Facilities) with suggested locations where regional SWM measures may make sense. These locations have been selected based on their ability to serve several development parcels as well as their proximity to the major drainage ways. One of these locations adjacent to Falls Run already contains an SWM pond which also corresponds to location P-6 as shown on the Falls Run regional detention basin map from the Stormwater component of the Comprehensive Plan. Here, either a second pond or even modifications to the existing pond could be implemented. (Refer to Map 7: Southern Gateway Potential SWM/BMP Facilities.)

**Map 7: Southern Gateway Potential SWM/BMP Facilities**



Source: Urban, Ltd.

**WATER/SEWER ANALYSIS**

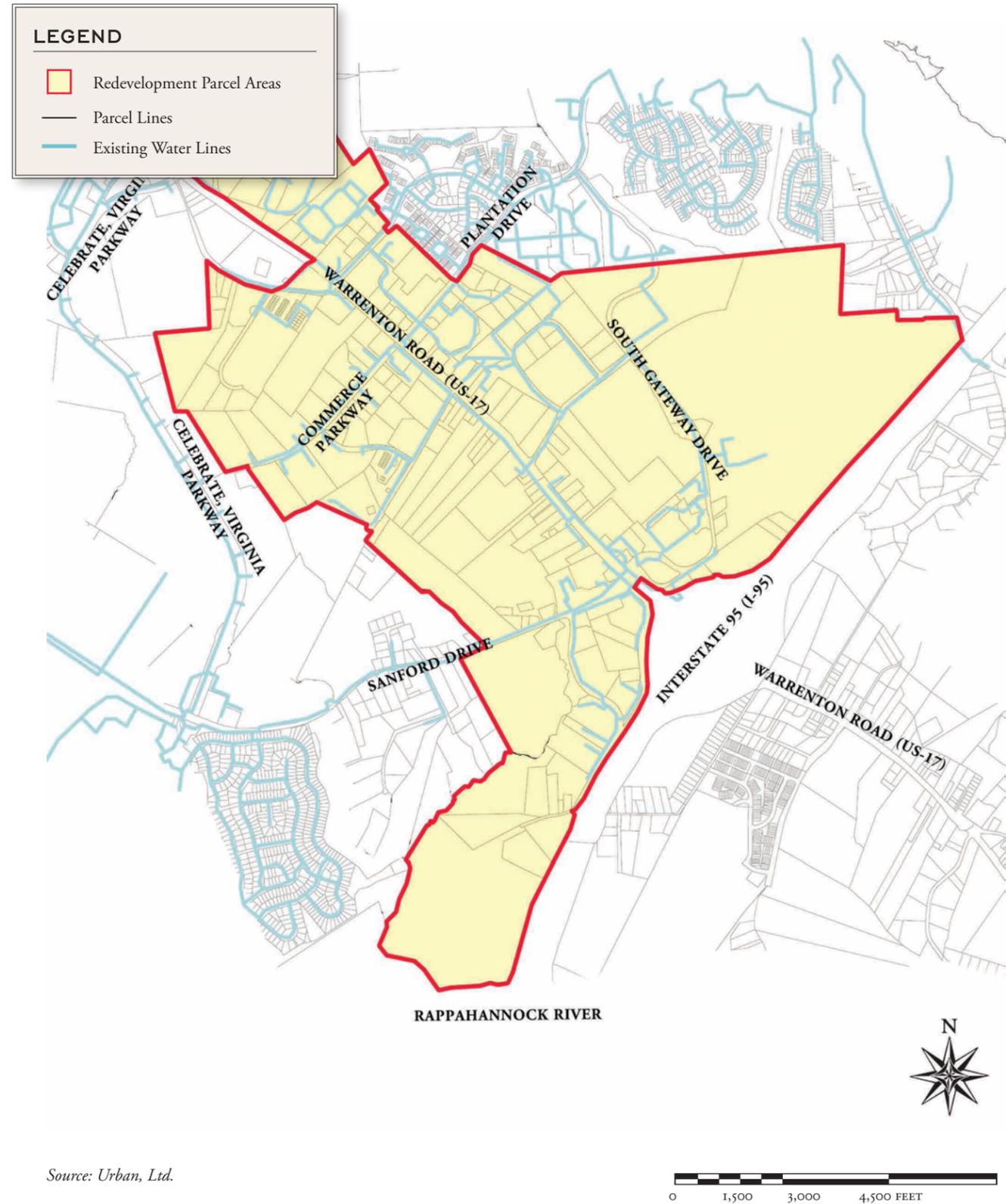
**Existing Water Service**

Southern Gateway lies primarily within the 480 pressure zone of Stafford County. The Rocky Pen Water Treatment Plant (WTP) serves this sector. The existing water mains in the major roads are nearly all 12" in diameter with a few instances of 10" lines. The minor streets typically have 8" diameter lines. Nearly all areas appear to have access to public water from the frontage roads and streets. The predominate water main arteries are located along Warrenton Road (US-17) as well as the major streets which intersect Warrenton Road (US-17) and run north-south. (Refer to Map 8: Southern Gateway Existing Water Facilities.)

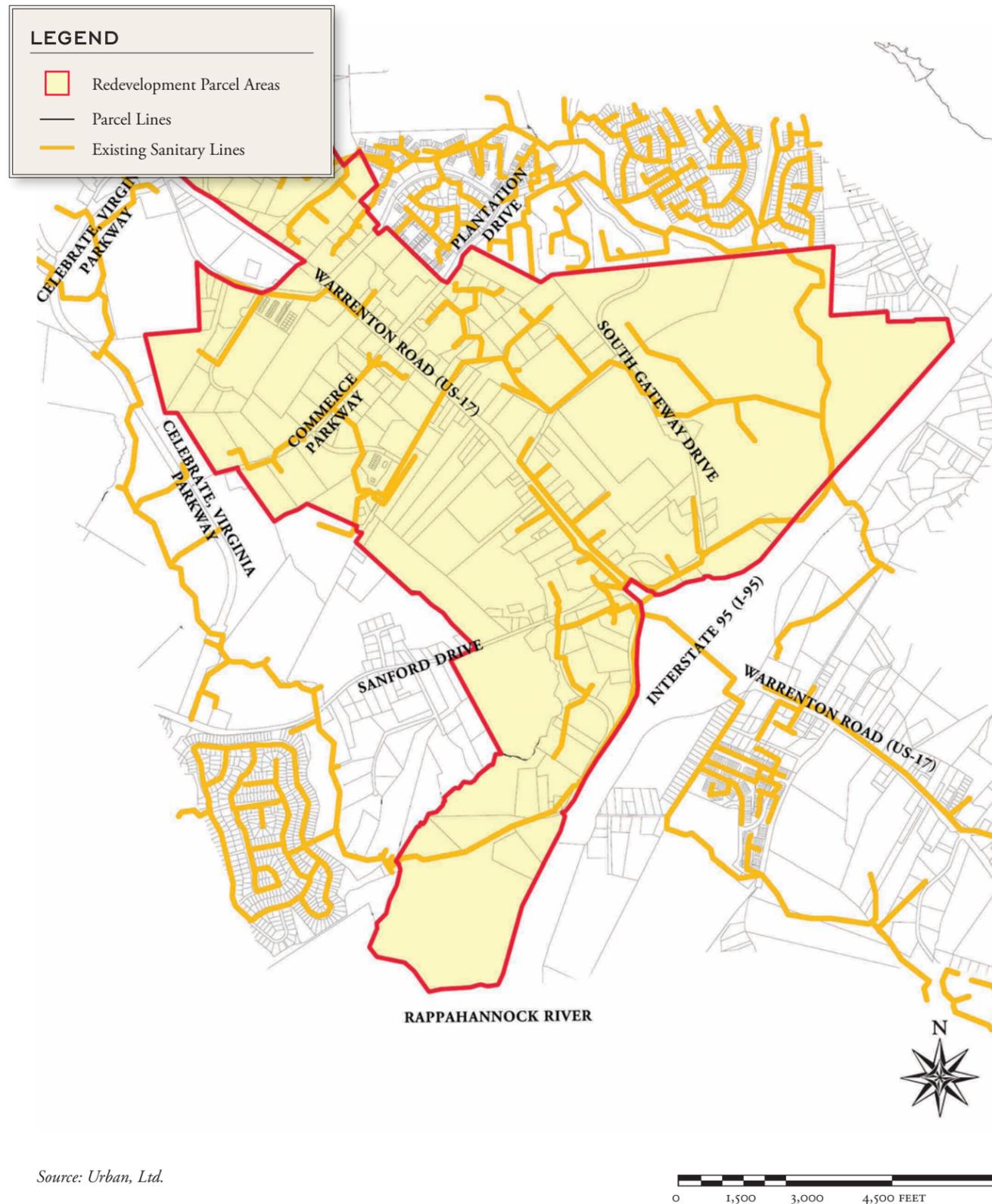
**Existing Sewer Service**

According to the Stafford County sewer model, the majority of Southern Gateway is served with public sewer. The Falls Run interceptor serves the area to the north of Warrenton Road (US-17) and there is a gravity line running along the tributary to England Run for the areas to the south of Warrenton Road (US-17). There are approximately 7 existing sewer pipes along the northern edge of Warrenton Road (US-17) at the Stafford Industrial Park which are over capacity, mainly due to the additional flows to this system from the existing 6" force main coming from the west. (Refer to Map 9: Southern Gateway Existing Sewer Facilities.)

**Map 8: Southern Gateway Existing Water Facilities**



**Map 9: Southern Gateway Existing Sewer Facilities**



Source: Urban, Ltd.

COMPREHENSIVE PLAN ELEMENTS

**Chesapeake Bay Preservation Area (CBPA) Plan**

The CBPA Plan has relatively small impacts on Southern Gateway. Shoreline erosion control measures should be included with any proposed improvements near the Rappahannock River banks in the southern portion of the redevelopment area. Some consideration for waterfront access might be given should the parcel boundaries and topography allow access to the water. The protection of potable water supply is of no stronger concern in Southern Gateway than in any other Stafford area due to the expected redevelopment use of County supplied sewer and water. Contamination of soils is a concern within the region, but no more so than in the rest of Stafford County. Physical constraints to development provide additional concern to redevelopment. As long as typical Erosion & Sediment Control (E&S) measures are used, the CBPA Plan poses no significant concerns to Southern Gateway.

**Capital Improvement Program (CIP)**

There are no SWM improvements indicated for Southern Gateway within the CIP.

Stafford County's CIP calls for both water and sewer improvements in this area. By year 2016 new distribution water mains are proposed from the proposed Rocky Pen Water Treatment Plant to carry water northward into several other pressure zones. Timing of this improvement is critical as the CIP has several alternate improvements consisting of pressure reducing valves (PRV's) should this improvement be delayed.

Master Plan sewer improvements include a new 24" sewer interceptor along Falls Run to convey increased demand from areas west of the redevelopment area. Other improvements include a 10" and 12" gravity sewer main along the tributary to England Run which is scheduled for completion in 2021. In the very near term, a pumping station at England Run is scheduled to come on line. This pumping station is to help serve the Celebrate Virginia project as well as other future projects surrounding this area. The effluent from this pumping station is to be pumped via another CIP project which consists of a 12" force main from the England Run pumping station running parallel to Interstate 95 (I-95) northward to tie into the Falls Run Interceptor.

**Falmouth Plan**

The Falmouth Plan is not applicable to Southern Gateway.

***Groundwater***

Redevelopment within Southern Gateway would pose minor effects to Groundwater within Stafford County. Throughout Stafford County, there is significantly more groundwater supply than demand. Although well usage continues to increase annually throughout Stafford County, this increase will not, as a whole, affect groundwater supplies. Due to unique geographical characteristics, certain small areas may experience a lack of groundwater during periods of heavy drought. Despite this fact, the level of groundwater supply should not directly affect the redevelopment area.

Southern Gateway falls along the Fall Line between the Coastal Plain Aquifer area and the Piedmont area in the area known as the Coastal Plan Aquifer recharge zone. Large increases in impervious areas associated with development, would decrease the ability of the groundwater to recharge wells in the area; however, Southern Gateway is already largely developed with impervious surfaces accounting for around 70% of the land area.

***Shoreline***

Southern Gateway has the Rappahannock River as its southern boundary, but it is further upstream than areas that are characterized by tidal effects. Therefore, the provisions of the Shoreline Plan are of little relevance to Southern Gateway.

***Stormwater***

Southern Gateway does fall partially within the Falls Run regional stormwater watershed. The area that lies within Falls Run is approximately delineated by the Northern side of Warrenton Road (US-17). As such, the recommendations set forth in the stormwater study include the placement of stormwater facilities for P-6, which has been constructed. In addition, an expansion or a second facility might be considered here should development intensities exceed what was planned for with the existing pond.

***Water Supply Plan***

The Water Supply Plan focuses primarily on the characteristics of the existing water sources throughout Stafford County and the costs and concerns associated with delivering it for human consumption. In the case of Southern Gateway, water supply is projected to be supplied via water mains from the Stafford reservoirs and water treatment plants. Therefore, while the Water Supply Plan is integral for reservoir planning, construction, and expansion, it is not directly significant to Southern Gateway, which assumes that the water is readily available, based on the approved reservoir recommendations. Certain aspects of the plan, however, should be considered. If the water supply characteristics of the source reservoirs change, then that could affect water availability to Southern Gateway and to other pressure zones around the areas that rely on the Rocky Pen WTP.

# TRANSPORTATION & TRAFFIC ANALYSIS

## EXISTING ROADWAY NETWORK

The following are descriptions of each of the existing major roadways (collector streets or higher classification) located in Southern Gateway. Map 10 (*Southern Gateway Existing Roadway Network*) depicts the existing roadway network within this redevelopment area. Photographs of typical sections within the area are included in Volume IX (*Stafford County Traffic Data*).

### ***Warrenton Road (US-17)***

Warrenton Road (US-17) functions as a principal arterial and is one of the major corridors within Stafford County. Warrenton Road (US-17) provides regional connectivity between the Fredericksburg metropolitan area and points north and west (via the Town of Warrenton). The roadway carries a posted speed limit of 45 mph and is constructed with a median divided section.

Land development and subsequent roadway construction in recent years has resulted in an inconsistent cross-section along the length of Warrenton Road (US-17) within Southern Gateway. In the eastbound direction, Warrenton Road (US-17) operates with three through lanes from before Berea Church Road (VA-654) transitioning to two lanes beyond Celebrate Virginia Parkway. A third eastbound through lane begins again at Falls Run Drive and continues through to the interchange with Interstate 95 (I-95). In the westbound direction, Warrenton Road (US-17) operates with three through lanes from Interstate 95 (I-95) through the intersection at McLane Drive before transitioning to two-lanes for the remainder of its length. Additional pavement width exists at many locations along Warrenton Road (US-17) for future additional travel lanes. These sections are currently hatched out and/or being used as right-turn lanes under existing conditions.

### ***Sanford Drive (VA-670)***

Sanford Drive (VA-670) is a two-lane, undivided, roadway functioning as a collector street. The roadway carries a posted speed limit of 35 mph. Sanford Drive (VA-670) intersects Warrenton Road (US-17) under signal control.

### ***South Gateway Drive***

South Gateway Drive (formerly Stanstead Road, Auction Drive, and Tomorrow Street) operates as a collector street serving the developing Carter's Crossing retail center. The roadway is constructed as a two-lane section with a two-way turn-lane in the center. South Gateway Drive carries a posted speed limit of 25 mph.

### ***Falls Run Drive (VA-618)***

Falls Run Drive (VA-618) is a two-lane, undivided, roadway functioning as a collector street. Public maintenance of the roadway ends beyond the northern side of Nelms Circle. Falls Run Drive carries a posted speed limit of 35 mph.

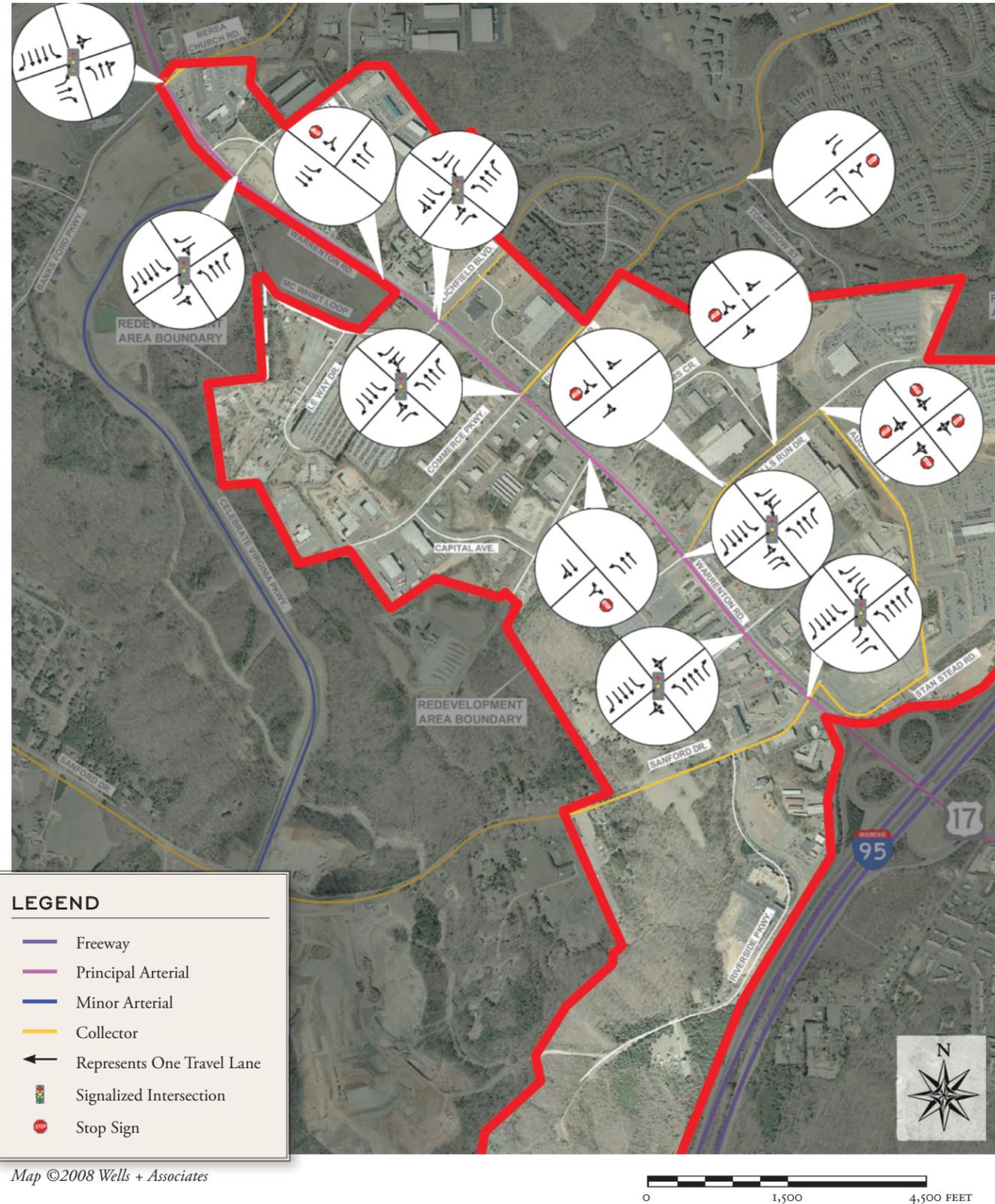
### ***Plantation Drive (VA-1706)***

Plantation Drive (VA-1706) is a four-lane, divided, roadway from Warrenton Road (US-17) transitioning to a two-lane with two-way turn-lane section beyond the Shops at England Run retail center. The roadway functions as a collector street and carries a posted speed limit of 35 mph.

### ***Lichfield Boulevard (VA-700)***

Lichfield Boulevard (VA-700) is a four-lane, divided, roadway from Warrenton Road (US-17) transitioning to a two-lane, undivided, section within the England Run residential community. The roadway functions as a collector street and carries a posted speed limit of 35 mph.

**Map 10: Southern Gateway Existing Roadway Network**



Map ©2008 Wells + Associates

**EXISTING TRANSIT SERVICES**

The Fredericksburg Regional Transit (FRED) operates bus service within Southern Gateway. The D2 “Southern Stafford County” route runs between FRED Central (City of Fredericksburg) and the GEICO office building north of Banks Ford Parkway and provides service at certain locations along Warrenton Road (US-17). The route also serves the England Run community at certain points along Plantation Drive (VA-1706).

**CURRENT PLANNED NETWORK**

**Transportation Plan**

The current Stafford County Transportation Plan (June 7, 2005) makes certain recommendations for the roadways within Southern Gateway. A copy of the Transportation Plan is provided in Volume IX (*Stafford County Traffic Data*). As of the last site visit in the fall of 2008, the recommendations are summarized as follows:

- Upgrade Warrenton Road (US-17) to an eight-lane, divided, facility between Bera Church Road (VA-654) and Interstate 95 (I-95).
- Upgrade Sanford Drive (VA-670) to a four-lane, undivided, facility between Jefferson Davis Highway (US-1) and England Run Lane.
- Complete a new two-lane roadway on the alignment of Stanstead Road/Auction Drive/Tomorrow Street from Warrenton Road (US-17) at Sanford Drive (VA-670) west to Plantation Drive (VA-1706).

**FAMPO Constrained Long Range Plan (CLRP)**

FAMPO’s 2030 Constrained Long Range Plan includes the following recommendations for improvements within Southern Gateway:

- Upgrade Warrenton Road (US-17) to a six-lane, divided, facility between Village Parkway and Interstate 95 (I-95).
- Construct a four-lane, divided parkway (Celebrate Virginia Parkway) between Warrenton Road (US-17) and the Celebrate Virginia development.
- Upgrade Bera Church Road (VA-654) to a standard two-lane facility.
- Construct protected turn lanes on Warrenton Road (US-17) at Greenbank Road.

**VDOT State Highway Plan**

VDOT’s 2025 State Highway Plan provides the following recommendation for Southern Gateway:

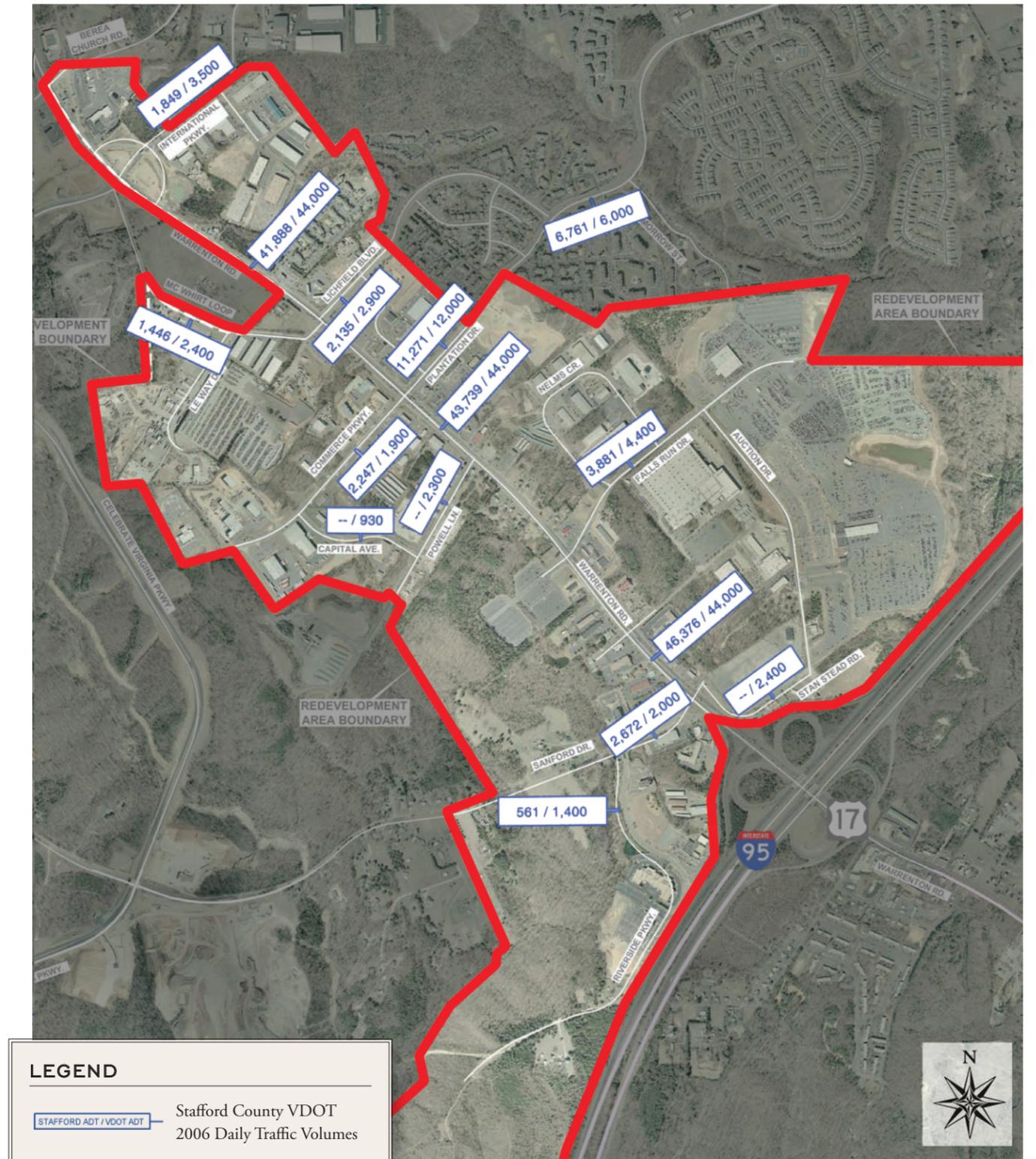
- Upgrade Warrenton Road (US-17) to a eight-lane, divided, facility from Interstate 95 (I-95) to Peach Lawn Road (VA-749).

**EXISTING TRAFFIC VOLUMES**

Baseline traffic volumes for select roadways within Southern Gateway were collected and are summarized on Map 11 (*Southern Gateway Existing Average Daily Traffic Volumes*) and Map 12 (*Southern Gateway Existing Average Peak Hour Traffic Volumes*). Daily traffic volumes are provided based on both Stafford County 2006 baseline traffic data and VDOT 2006 traffic counts. Average daily traffic volumes within the area show Warrenton Road (US-17) carrying 46,376 vpd. Plantation Drive (VA-1706) carries 11,271 vpd and Sanford Drive (VA-670) carries 2,672 vpd. It should be noted that in certain cases Stafford County and VDOT volumes differ. These discrepancies are likely a result of counts being conducted independently on different dates and/or VDOT applying factors for older volume data on certain roadway links.<sup>3</sup>

The peak hour traffic turning volumes are summarized on Map 12 (*Southern Gateway Existing Average Peak Hour Traffic Turning Volumes*). Copies of the count data are included in Volume IX (*Stafford County Traffic Data*).

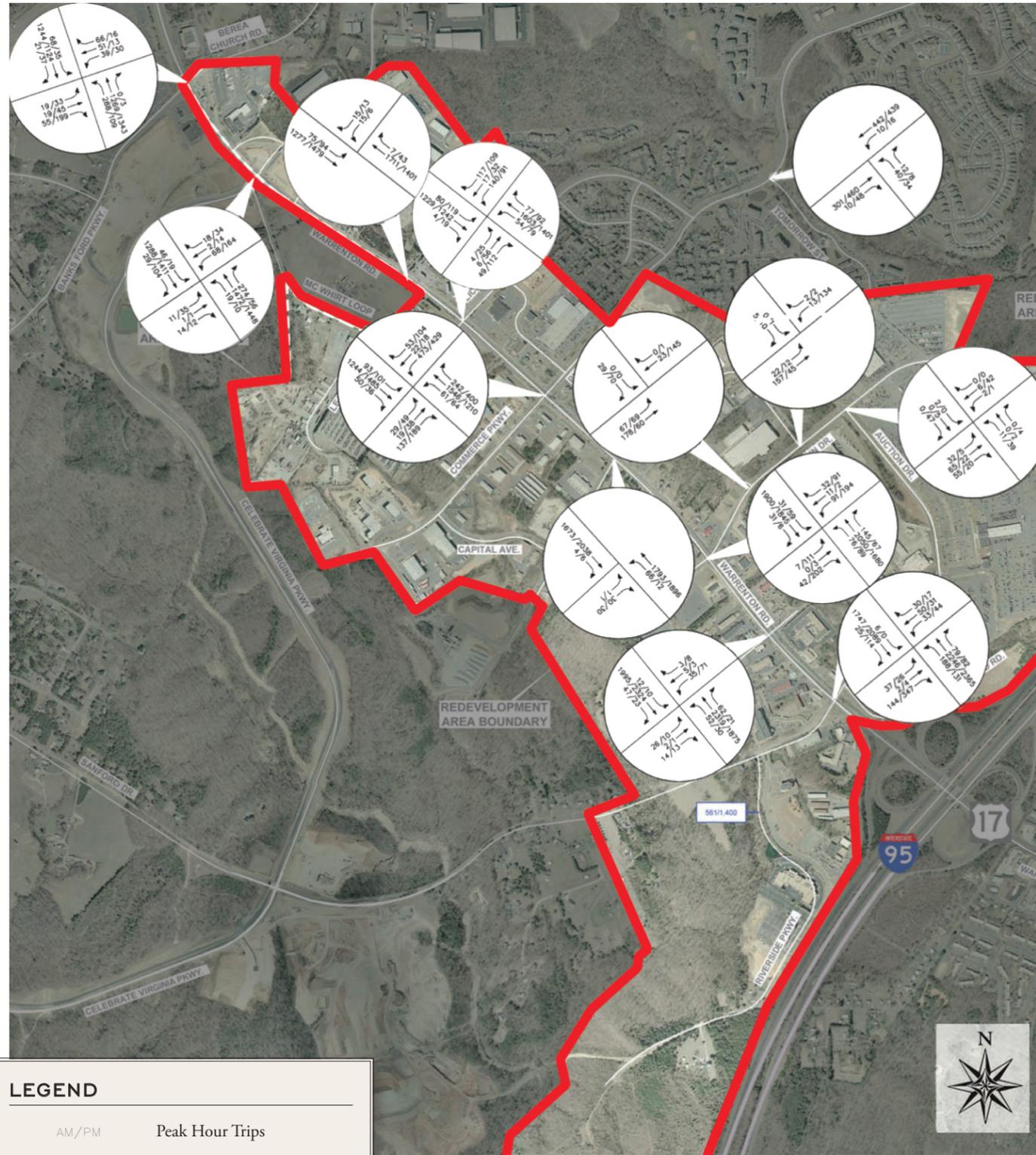
**Map 11: Southern Gateway Existing Average Daily Traffic Volumes**



<sup>3</sup> Peak hour turning movement counts at key intersections within the study area were obtained from counts conducted by Peggy Malone & Associates, Inc. on May 8, 9, 10, and 11, 2006; counts conducted by Wells + Associates, Inc. on May 3, 2005; counts conducted by Wells + Associates, Inc. on March 7, 2006; counts conducted by Wells + Associates, Inc. on September 23 and November 1, 2008.

Map ©2008 Wells + Associates

Map 12: Southern Gateway Existing Average Peak Hour Traffic Turning Volumes



**LEGEND**

AM/PM Peak Hour Trips

Map ©2008 Wells + Associates



**CAPACITY OF ROADWAY NETWORK**

The capacity of a street is typically measured by how many vehicles per hour can be accommodated in a segment without significant delays. Capacity is a function of the number and width of lanes as well as geometric standards and/or criteria.

**Levels of Service**

Level of service (LOS) is a rating of how comfortable and convenient it is to drive along a road or through an intersection. High quality of traffic service occurs when motorists are able to drive at their desired safe speed. For urban streets, a typical desire level of service is “D” which assumes a few traffic stoppages but no major delays.<sup>4</sup>

Threshold levels of service for signalized and unsignalized intersections were evaluated based on Stafford County 2006 baseline traffic volumes. These results are summarized in Table 13 (*Southern Gateway Typical Link Level of Service Threshold Values*).

In order to determine the levels of service at key intersections in Southern Gateway, the Highway Capacity Manual 2000 methodologies as reported by Synchro 7 were used. Synchro is a macroscopic model used to evaluate the effects of changing intersection geometrics, traffic demands, traffic control, and/or traffic signal settings and to optimize traffic signal timings. The levels of service reported for the signalized intersections were taken from the Highway Capacity Manual 2000 (HCM) reports generated by Synchro and summarized in Table 14 (*Southern Gateway Existing Capacity Analysis Summary*).

As shown in Table 14 (*Southern Gateway Existing Capacity Analysis Summary*), the results of the capacity analysis indicate that the signalized intersections within the redevelopment area operate generally at acceptable overall levels of service (LOS “D” or better). A number of side street lane groups operate at or near theoretical capacity during peak hours, however. This is likely caused by the need to allocate the majority of intersection green time to the Warrenton Road (US-17) mainline movements thus sacrificing side street performance. Additionally, this analysis may not account for downstream capacity concerns observed at the Interstate 95 (I-95) southbound onramp. Queues from the volume attempting to merge on to southbound Interstate 95 (I-95) were observed impacting vehicle progression on eastbound Warrenton Road (US-17).

**Volume to Capacity (V/C) Ratios**

The Volume to Capacity (V/C) ratio gives an indication of traffic congestion, with V being the traffic volume and C the street capacity. When the V/C ratio approaches a value of 1.0, the facility is said to be operating at theoretical capacity (or level of service “E”).

For roadway links, the V/C ratio is related to levels of service (LOS) at certain daily threshold volumes. Table 13 (*Southern Gateway Typical Link Level of Service Threshold Values*) summarizes the threshold daily traffic volumes and V/C ratio associated with each level of service grade.

<sup>4</sup> Threshold levels of service for signalized and unsignalized intersections are summarized on Table 36 (*Level of Service Criteria for Signalized Intersections*) and Table 37 (*Level of Service Criteria for Unsignalized Intersections*).

As shown in Table 13 (*Southern Gateway Typical Link Level of Service Threshold Values*), all studied roadway links in Southern Gateway operate at LOS “C” or better. The maximum V/C ratio is 0.58 and occurs on Warrenton Road (US-17). The maximum V/C ratio occurs due to the heavy through traffic volumes on Warrenton Road (US-17).

In order to determine the levels of service at key intersections within Southern Gateway, the *Highway Capacity Manual 2000* methodologies as reported by Synchro 7 were used. The results of the analysis are summarized in Table 14 (*Southern Gateway Existing Capacity Analysis Summary*).

The V/C ratios for the key signalized intersections are shown in Table 14 (*Southern Gateway Existing Capacity Analysis Summary*). The highest V/C ratios in Southern Gateway are found at the Warrenton Road (US-17) and Plantation Drive (VA-1706) intersection where the overall V/C ratios are 1.01 during the AM peak hour and 0.95 during the PM peak hour. The V/C ratios at the other signalized intersections typically range from 0.69 to 0.94 during weekday peak hours.

**Table 13: Southern Gateway Typical Link Level of Service Threshold Values <sup>5</sup>**

	LOS “A”	LOS “B”	LOS “C”	LOS “D”	LOS “E”
V/C	0.3	0.5	0.66	0.79	1.0
2 LANE	11,400	19,000	25,080	30,020	38,000
4 LANE	22,800	38,000	50,160	60,040	76,000
6 LANE	34,200	57,000	75,240	90,060	114,000
	Limits	ADT	Lanes	V/C	LOS
Warrenton Road (US-17)	West of Sanford Drive (VA-670), East of McLean Drive	46,376	6	0.41	B
Warrenton Road (US-17)	West of Falls Run Drive (VA-618), East of Plantation Drive (VA-1706)	43,739	4	0.58	C
Warrenton Road (US-17)	West of Plantation Drive (VA-1706), East of International Drive	41,888	4	0.55	C
Lichfield Boulevard (VA-700)	North of Warrenton Road (US-17)	2,135	2	0.06	A
Plantation Drive (VA-1706)	North of Warrenton Road (US-17)	11,271	4	0.15	A
Sanford Drive (VA-670)	South of Warrenton Road (US-17)	2,672	2	0.07	A

Source: *Highway Capacity Manual 2000*

<sup>5</sup> “Link” refers to Roadway Lanes, not intersections nor interchanges. Refer to Table 14: *Southern Gateway Existing Capacity Analysis Summary* for Levels of Service at intersections & interchanges.

**Table 14: Southern Gateway Existing Capacity Analysis Summary<sup>6 7 8</sup>**

Intersection	Traffic Control	Lane Group	Existing Levels of Service		Existing V/C Ratios	
			Weekday		Weekday	
			AM	PM	AM	PM
1. Route 17 (Warrenton Road)/ Greenbank Road / Berea Church Road	Signal	EBL	E (70.7)	E (67.3)	0.60	0.41
		EBT	C (29.5)	C (23.7)	0.64	0.46
		EBR	B (19.8)	B (11.9)	0.01	0.03
		WBL	E (73.0)	E (65.2)	0.83	0.64
		WBTR	B (16.3)	B (14.4)	0.72	0.72
		NBL	E (66.6)	E (63.6)	0.27	0.30
		NBT	E (66.3)	E (64.6)	0.25	0.39
		NBR	E (64.3)	E (62.1)	0.04	0.14
		SBLTR	F (100.0)	E (67.3)	0.88	0.51
		<b>Overall</b>	<b>C (33.5)</b>	<b>C (23.2)</b>	<b>0.71</b>	<b>0.69</b>
2. Route 17 (Warrenton Road)/ Celebrate Virginia Parkway / International Parkway	Signal	EBL	E (80.0)	F (85.0)	0.48	0.34
		EBT	A (1.6)	A (3.2)	0.44	0.49
		EBR	A (0.0)	A (0.2)	0.02	0.07
		WBL	E (69.2)	E (71.6)	0.34	0.29
		WBTR	B (17.7)	B (17.2)	0.76	0.74
		WBR	A (8.9)	A (7.6)	0.19	0.04
		NBL	E (68.2)	E (66.9)	0.24	0.43
		NBTR	E (66.3)	E (63.3)	0.03	0.02
		SBLT	F (93.3)	F (501.9)	0.76	1.89
		SBR	E (62.4)	E (62.4)	0.01	0.02
<b>Overall</b>	<b>B (13.9)</b>	<b>D (38.2)</b>	<b>0.77</b>	<b>0.79</b>		
3. Route 17 (Warrenton Road)/ Green Tree Road	Stop	EBL	C [15.9]	B [13.6]	0.20	0.20
		SBLR	F [674.8]	F [138.8]	1.56	0.46

<sup>6</sup> Analysis performed using Synchro software, Version 7.

<sup>7</sup> Values in parentheses, ( ), represent signalized delay in seconds.

<sup>8</sup> Values in brackets, [ ], represent unsignalized delay in seconds.

Table 14: Southern Gateway Existing Capacity Analysis Summary (continued)

Intersection	Traffic Control	Lane Group	Existing Levels of Service		Existing V/C Ratios	
			Weekday		Weekday	
			AM	PM	AM	PM
4. Route 17 (Warrenton Road)/ McWhirt Loop / Litchfield Boulevard	Signal	EBL	E (77.2)	F (80.1)	0.60	0.70
		EBTR	B (17.8)	C (25.2)	0.65	0.73
		WBL	F (103.0)	F (103.7)	0.57	0.59
		WBT	A (8.4)	B (15.7)	0.87	0.84
		WBR	A (0.1)	A (0.5)	0.05	0.06
		NBLT	E (76.1)	E (79.8)	0.19	0.64
		NBR	E (74.7)	E (67.9)	0.03	0.08
		SBL	F (117.6)	F (84.3)	0.92	0.69
		SBT	E (66.6)	E (69.6)	0.10	0.23
		SBR	<u>E (66.4)</u>	<u>E (68.2)</u>	<u>0.08</u>	<u>0.07</u>
		<b>Overall</b>	<b>C (22.8)</b>	<b>C (30.5)</b>	<b>0.87</b>	<b>0.83</b>
		5. Route 17 (Warrenton Road)/ Commerce Parkway / Plantation Drive	Signal	EBL	E (73.7)	E (73.7)
EBT	C (20.3)			D (37.7)	0.74	0.94
EBR	B (14.0)			C (23.0)	0.04	0.04
WBL	F (92.8)			F (98.3)	0.53	0.54
WBT	B (18.8)			A (9.7)	0.96	0.79
WBR	A (6.0)			A (1.6)	0.17	0.27
NBLT	F (81.4)			F (85.0)	0.60	0.71
NBR	E (69.6)			E (66.6)	0.09	0.25
SBL	F (269.1)			F (217.6)	1.38	1.25
SBLT	F (271.4)			F (216.3)	1.38	1.24
SBR	<u>E (62.9)</u>			<u>E (63.3)</u>	<u>0.04</u>	<u>0.07</u>
<b>Overall</b>	<b>D (55.3)</b>			<b>E (50.1)</b>	<b>1.01</b>	<b>0.95</b>
6. Route 17 (Warrenton Road)/ Powell Lane / Driveway	Stop	WBL	C [17.3]	C [21.6]	0.20	0.06
		NBLR	D [32.0]	F [123.9]	0.20	0.56
7. Route 17 (Warrenton Road)/ Commuter Lot / Falls Run Drive	Signal	EBL	E (75.1)	E (63.4)	0.41	0.59
		EBT	C (22.7)	D (45.2)	0.69	0.82
		EBR	B (12.8)	C (27.3)	0.03	0.01
		WBL	F (100.1)	F (93.1)	0.58	0.63
		WBT	C (28.6)	D (42.4)	1.01	1.02
		WBR	A (0.5)	A (2.6)	0.13	0.07
		NBLT	E (76.6)	F (100.0)	0.17	0.84
		NBR	E (75.1)	E (62.3)	0.02	0.08
		SBL	E (74.8)	E (79.2)	0.47	0.66
		SBLT	E (74.8)	F (80.7)	0.48	0.68
		SBR	<u>E (69.6)</u>	<u>E (66.1)</u>	<u>0.02</u>	<u>0.06</u>
		<b>Overall</b>	<b>C (28.5)</b>	<b>D (48.9)</b>	<b>0.93</b>	<b>0.94</b>

Intersection	Traffic Control	Lane Group	Existing Levels of Service		Existing V/C Ratios	
			Weekday		Weekday	
			AM	PM	AM	PM
8. Route 17 (Warrenton Road)/ Driveway / McLane Drive	Signal	EBL	E (73.0)	E (61.5)	0.37	0.32
		EBT	A (8.5)	C (20.1)	0.70	0.81
		EBR	A (6.4)	B (11.6)	0.04	0.02
		WBL	F (99.8)	F (100.0)	0.56	0.41
		WBT	A (4.6)	A (2.2)	0.76	0.63
		WBR	A (0.3)	A (0.2)	0.05	0.02
		NBLTR	E (78.8)	E (79.5)	0.46	0.29
		SBLTR	<u>E (77.9)</u>	<u>E (77.5)</u>	<u>0.48</u>	<u>0.60</u>
		<b>Overall</b>	<b>A (9.1)</b>	<b>B (14.3)</b>	<b>0.74</b>	<b>0.80</b>
		9. Route 17 (Warrenton Road)/ Sanford Drive / Stanstead Road	Signal	EBL	F (83.8)	A (0.0)
EBT	B (13.5)			C (24.9)	0.72	0.88
EBR	B (11.1)			B (12.3)	0.02	0.09
WBL	E (79.6)			F (80.0)	0.78	0.72
WBT	B (14.9)			B (16.5)	0.75	0.79
WBR	A (6.5)			A (6.6)	0.06	0.07
NBL	E (74.9)			E (63.6)	0.38	0.13
NBT	E (71.0)			E (62.5)	0.02	0.02
NBR	E (71.8)			F (89.5)	0.10	0.80
SBL	E (72.7)			E (75.0)	0.19	0.31
SBT	E (78.5)			E (77.3)	0.53	0.40
SBR	<u>E (71.6)</u>			<u>E (73.0)</u>	<u>0.02</u>	<u>0.10</u>
<b>Overall</b>	<b>C (20.7)</b>	<b>C (27.3)</b>	<b>0.73</b>	<b>0.85</b>		
10. Tomorrow Street/ Plantation Drive	Stop	WBLR	B [12.1]	B [13.1]	0.10	0.09
		SBL	A [8.0]	A [8.6]	0.01	0.02
11. Nelms Circle (W)/ Falls Run Drive	Stop	EBLR	A [8.5]	A [9.4]	0.03	0.09
		NBLT	A [2.3]	A [4.3]	0.05	0.05
12. Nelms Circle (E)/ Falls Run Drive	Stop	EBLR	A [8.4]	A [9.1]	0.01	0.01
		NBLT	A [1.0]	A [1.6]	0.01	0.01
13. Tomorrow Street / Auction Drive / Falls Run Drive	Stop	EBLTR	A [7.6]	A [7.0]	0.00	0.06
		WBL	A [7.3]	A [7.4]	0.02	0.06
		WBTR	A [6.7]	A [6.1]	0.00	0.01
		NBLTR	A [7.6]	A [7.2]	0.17	0.06
		SBLTR	A [7.2]	A [7.5]	0.01	0.05

## TRAFFIC CONTROL SYSTEMS

The current design of Warrenton Road (US-17) may be considered more suburban in nature than Jefferson Davis Highway (US-1). Within Southern Gateway, Warrenton Road (US-17) is median divided with limited crossovers. Signals are spaced at least 1,000 feet and are currently timed in coordination to facilitate the mainline progression.

The only intersection with functioning pedestrian signal heads and push buttons is at Warrenton Road (US-17) and McLane Drive. Pedestrian signal heads are currently equipped at the Warrenton Road (US-17)/Sanford Drive (VA-670) intersection but were not operational at the time field reconnaissance took place. By its nature, Warrenton Road (US-17) is unsafe for crossing pedestrians except at designated signal controlled locations.

Warrenton Road (US-17) currently lacks a cohesive network of pedestrian sidewalks. Recent redevelopment along the corridor has resulted in several limited segments of sidewalk along property frontage, but these usually terminate without any connections. The Celebrate Virginia development project has installed sidewalks along Warrenton Road (US-17) between Berea Church Road (VA-654) and McWhirt Loop. Sidewalks are also present along South Gateway Drive adjacent to the Carter's Crossing development and Riverside Parkway within the Riverside Business Park.

## ACCIDENTS & SAFETY

Accident data were obtained from the Virginia Department of Transportation (VDOT) for the period between January 1, 2003 and December 31, 2007. The data is shown on Table 15 (*Southern Gateway Accident Analysis: Expected Values*). A copy of the accident summaries as provided by VDOT is included as Volume IX (*Stafford County Traffic Data*).

The total number of accidents per type at each of the study intersections for the five-year study period is provided. A determination of "expected values" for each accident type and each location was then calculated and compared to VDOT statewide expected values. Those locations exceeding VDOT's "90th percentile and 95th percentile high" values would be considered abnormally high and may require further study by VDOT and/or Stafford County. As shown in Table 15 (*Southern Gateway Accident Analysis: Expected Values*), none of the collision categories exceeded the VDOT 90th-percentile high at any of the intersections along Warrenton Road (US-17). However, several collision categories met or exceeded the VDOT expected value. In particular, rear-end crashes tended to occur at higher than expected rates for four intersections in the corridor. Additionally, sideswipe (same direction) crashes exceeded the expected value at three study intersections. It is likely that these crash rates may be influenced by the fact that Warrenton Road (US-17) traffic destined for southbound Interstate 95 (I-95) needs to merge to the far right through lane prior to the interchange. Rear-end and sideswipe crashes may indicate risky lane change maneuvers associated with this operation. Further study into detailed crash reports would be needed to support these claims.

There were also two reported pedestrian related accidents along the Warrenton Road (US-17) corridor, including one which resulted in a fatality at Stanstead Road (currently South Gateway Drive). These reports support the fact that Warrenton Road (US-17) is currently not suitably designed for pedestrian crossings.

**Table 15: Southern Gateway Accident Analysis: Expected Values<sup>9 10</sup>**

*January 1, 2003 – December 31, 2007*

Intersection	Legs	ADT	Control	Years Studied
Warrenton Road (US-17) at Berea Church Road (VA-654) & Banks Ford Parkway	4	> 20,000	Signalized	5
Warrenton Road (US-17) at International Parkway and Celebrate Virginia Parkway	4	> 20,000	Signalized	5
Warrenton Road (US-17) at Litchfield Boulevard (VA-700) and McWhirt Loop	4	> 20,000	Signalized	5
Warrenton Road (US-17) at Commerce Parkway and Plantation Drive (VA-1706)	4	> 20,000	Signalized	5
Warrenton Road (US-17) at Powell Lane	3	> 20,000	Unsignalized	5
Warrenton Road (US-17) at Falls Run Drive (VA-618)	4	> 20,000	Signalized	5
Warrenton Road (US-17) at McLane Drive	4	> 20,000	Signalized	5
Warrenton Road (US-17) at Stanstead Road and Sanford Drive (VA-670)	4	> 20,000	Signalized	5

<sup>9</sup> Traffic accident data obtained from the Virginia Department of Transportation (VDOT) – Traffic Engineering Division.

<sup>10</sup> Expected value data obtained from "Expected Values for Accident Analysis at Intersections" report prepared by VDOT Traffic Engineering Division, May 1991.

**Warrenton Road (US-17) at Berea Church Road (VA-654) and Banks Ford Parkway**

**Collision Type**

	Rear End	Angle	Head On	Sideswipe Same Direction	Sideswipe Opposite Direction	Pedestrian	Fixed Object
At intersection	18	4	0	2	0	0	0
Acc/Year	3.60	0.80	0.00	0.40	0.00	0.00	0.00
Expected Val	5.79	6.67	0.09	1.57	0.13	0.12	0.63
90%ile high	13.01	15.56	0.42	4.00	0.51	0.50	1.42
95%ile high	14.44	17.33	0.48	4.48	0.58	0.57	1.57

**Collision Severity**

	Property Damage Only	Injury	Fatal
At intersection	15	9	0
Acc/Year	3.00	4.80	0.00
Expected Val	9.92	5.29	0.05
90%ile high	21.53	9.96	0.26
95%ile high	23.83	10.88	0.30

**Warrenton Road (US-17) at International Parkway and Celebrate Virginia Parkway**

**Collision Type**

	Rear End	Angle	Head On	Sideswipe Same Direction	Sideswipe Opposite Direction	Pedestrian	Fixed Object
At intersection	26	6	0	6	0	0	1
Acc/Year	5.20	1.20	0.00	1.20	0.00	0.00	0.20
Expected Val	5.79	6.67	0.09	1.57	0.13	0.12	0.63
90%ile high	13.01	15.56	0.42	4.00	0.51	0.50	1.42
95%ile high	14.44	17.33	0.48	4.48	0.58	0.57	1.57

**Collision Severity**

	Property Damage Only	Injury	Fatal
At intersection	25	7	0
Acc/Year	5.00	1.40	0.00
Expected Val	9.92	4.29	0.05
90%ile high	21.63	9.96	0.26
95%ile high	23.83	10.88	0.30

**Warrenton Road (US-17) at Litchfield Boulevard (VA-700) and McWhirt Loop**

**Collision Type**

	Rear End	Angle	Head On	Sideswipe Same Direction	Sideswipe Opposite Direction	Pedestrian	Fixed Object
At intersection	16	8	0	6	0	0	1
Acc/Year	3.20	1.60	0.00	1.20	0.00	0.00	0.20
Expected Val	5.79	6.67	0.09	1.57	0.13	0.12	0.63
90%ile high	13.01	15.56	0.42	4.00	0.51	0.50	1.42
95%ile high	14.44	17.33	0.48	4.48	0.58	0.57	1.57

**Collision Severity**

	Property Damage Only	Injury	Fatal
At intersection	23	8	0
Acc/Year	4.60	1.60	0.00
Expected Val	9.92	5.29	0.05
90%ile high	21.53	9.96	0.26
95%ile high	23.83	10.88	0.30

**Warrenton Road (US-17) at Commerce Parkway and Plantation Drive (VA-1706) <sup>11</sup>**

**Collision Type**

	Rear End	Angle	Head On	Sideswipe Same Direction	Sideswipe Opposite Direction	Pedestrian	Fixed Object
At intersection	37	16	0	6	0	0	1
Acc/Year	7.40	3.20	0.00	1.20	0.00	0.00	0.20
Expected Val	5.79	6.67	0.09	1.57	0.13	0.12	0.63
90%ile high	13.01	15.56	0.42	4.00	0.51	0.50	1.42
95%ile high	14.44	17.33	0.48	4.48	0.58	0.57	1.57

**Collision Severity**

	Property Damage Only	Injury	Fatal
At intersection	47	15	0
Acc/Year	9.40	3.00	0.00
Expected Val	9.92	5.29	0.05
90%ile high	21.53	9.96	0.26
95%ile high	23.83	10.88	0.30

<sup>11</sup> Intersection contains accidents that are not included in the list of types.

**Warrenton Road (US-17) at Powell Lane <sup>12</sup>**

	<i>Collision Type</i>						
	Rear End	Angle	Head On	Sideswipe Same Direction	Sideswipe Opposite Direction	Pedestrian	Fixed Object
At intersection	11	6	0	4	0	0	0
Acc/Year	2.20	1.20	0.00	0.80	0.00	0.00	0.00
Expected Val	1.01	1.67	0.00	0.41	0.13	0.12	0.63
90%ile high	2.84	4.71	0.00	1.11	0.51	0.50	1.42
95%ile high	3.21	5.32	0.00	1.25	0.58	0.57	1.29

	<i>Collision Severity</i>		
	Property Damage Only	Injury	Fatal
At intersection	19	3	0
Acc/Year	3.80	0.60	0.00
Expected Val	2.21	1.53	0.07
90%ile high	5.09	3.81	0.35
95%ile high	0.40	4.26	5.67

**Warrenton Road (US-17) at McLane Drive**

	<i>Collision Type</i>						
	Rear End	Angle	Head On	Sideswipe Same Direction	Sideswipe Opposite Direction	Pedestrian	Fixed Object
At intersection	12	1	0	9	0	1	0
Acc/Year	2.40	0.20	0.00	1.80	0.00	0.20	0.00
Expected Val	5.79	6.67	0.09	1.57	0.13	0.12	0.63
90%ile high	13.01	15.56	0.42	4.00	0.51	0.50	1.42
95%ile high	14.44	17.33	0.48	4.48	0.58	0.57	1.57

	<i>Collision Severity</i>		
	Property Damage Only	Injury	Fatal
At intersection	20	3	0
Acc/Year	4.00	0.60	0.00
Expected Val	9.92	5.29	0.05
90%ile high	21.53	9.96	0.26
95%ile high	23.83	10.88	0.30

**Warrenton Road (US-17) at Falls Run Drive (VA-618) <sup>13</sup>**

	<i>Collision Type</i>						
	Rear End	Angle	Head On	Sideswipe Same Direction	Sideswipe Opposite Direction	Pedestrian	Fixed Object
At intersection	39	6	0	7	0	0	0
Acc/Year	7.80	1.20	0.00	1.40	0.00	0.00	0.00
Expected Val	5.79	6.67	0.09	1.57	0.13	0.12	0.63
90%ile high	13.01	15.56	0.42	4.00	0.51	0.50	1.42
95%ile high	14.44	17.33	0.48	4.48	0.58	0.57	1.57

	<i>Collision Severity</i>		
	Property Damage Only	Injury	Fatal
At intersection	41	13	0
Acc/Year	8.20	2.60	0.00
Expected Val	9.92	5.29	0.05
90%ile high	21.53	9.96	0.26
95%ile high	23.83	10.88	0.30

**Warrenton Road (US-17) at Stanstead Road and Sanford Drive (VA-670)**

	<i>Collision Type</i>						
	Rear End	Angle	Head On	Sideswipe Same Direction	Sideswipe Opposite Direction	Pedestrian	Fixed Object
At intersection	36	7	0	14	0	1	0
Acc/Year	7.20	1.40	0.00	2.80	0.00	0.20	0.00
Expected Val	5.79	6.67	0.09	1.57	0.13	0.12	0.63
90%ile high	13.01	15.56	0.42	4.00	0.51	0.50	1.42
95%ile high	14.44	17.33	0.48	4.48	0.58	0.57	1.57

	<i>Collision Severity</i>		
	Property Damage Only	Injury	Fatal
At intersection	40	17	1
Acc/Year	8.00	3.40	0.20
Expected Val	9.92	5.29	0.05
90%ile high	21.53	9.96	0.26
95%ile high	23.83	10.88	0.30

<sup>12</sup> Intersection contains accidents that are not included in the list of types.

<sup>13</sup> Intersection contains accidents that are not included in the list of types.

## CULTURAL & HISTORIC RESOURCES ANALYSIS<sup>14</sup>

In June of 2008, the Planning Team conducted a Phase IA archaeological assessment and Phase I Reconnaissance Level Architectural Survey of 1288.3 acres in Southern Gateway. The Planning Team designed the survey to identify all architectural resources that may be present in the project area and to obtain sufficient information to make recommendations about the further research potential of each resource based on their potential eligibility to the National Register of Historic Places (NRHP). To accomplish this, both documentary research and architectural survey were conducted in compliance with the National Historic Preservation Act of 1966 (NHPA-PL89-665), as amended, the Archaeological and Historic Preservation Act of 1974, Executive Order 11593, and relevant sections of 36CFR660-666 and 36CFR800.

### HISTORY OF THE SOUTHERN GATEWAY REDEVELOPMENT AREA

The lands surrounding the Southern Gateway portion of the project area were patented and settled by English-speaking Virginians by the third quarter of the seventeenth century. These tracts were occupied and cultivated well before the founding of Fredericksburg in 1728, and remained significant and sizeable agricultural properties until the late twentieth century. The project area vicinity is rich with cultural resources representing the historic development of Stafford County. The archaeological remains of a large Carter family plantation known as Stanstead and a Federal Civil War encampment known as Camp French are present within the project area, and the remains of Hunter's Iron Works, one of the largest late eighteenth century industries in Virginia, are less than a mile east of the south end of the project area.

In September 1703, Robert "King" Carter patented a 628-acre tract "on Fall Run of Rappahannock." The tract, which included the project area, was part of a larger parcel that had originally been granted to Thomas Wallis in 1695. Within a year of taking up his Fall Run land, Carter had patented more than 12,000 additional acres in the region, with an eye toward setting up his sons on their own landed estates. The first known reference to Carter's Stanstead property is in the official inventory of his vast estate taken after he died in 1732.

By the 1770s, the Scottish merchant James Hunter of Falmouth had purchased Stanstead. Stafford County land tax records, available beginning in 1782, indicate that Hunter owned nearly 6,000 acres in the county during the 1780s and 1790s. Personal property tax rolls from the same period reveal that, at its height, over 100 slaves lived and worked at Stanstead, making it one of Stafford County's largest and most productive plantations.

James Hunter came to Virginia in 1746 at the age of 25, and in the next quarter century he established himself as a leading Falmouth merchant. By mid-eighteenth century, James Hunter was operating a forge and manufacturing iron products on the north side of the Rappahannock River, a mile upstream from Fredericksburg and Falmouth. The site of Hunter's Iron Works was listed on the NRHP in 1974.

By the late eighteenth century, most farms in the county were experiencing the effects of severe soil depletion, and as it became clear that the land was worn out, there was an exodus from the region.

The Antebellum period saw an increase in the number of roads and accessibility to those roads, resulting in settlement of numerous farms sprang up along these new routes (e.g. King's Highway, Plank Road, and Warrenton Turnpike).

After a serious defeat at the Battle of Fredericksburg on December 13, 1862, General Burnside and his Army of the Potomac settled down in winter encampments across the Rappahannock in Stafford County. The massive Army of the Potomac remained encamped across southern Stafford County, from White Oak in the east to Stanstead in the west, until the Chancellorsville campaign in May of 1863. Brigadier General William H. French, commander of the Third Division of the II Army Corps, reportedly established his headquarters at the Lucas house at Stanstead in 1862.

During the course of archaeological investigations at the Camp French site, located within the Southern Gateway project area, Civil War resources were noted throughout an area encompassing more than 60 acres, including numerous intact encampment features such as dug-out huts, trash pits, latrines, ditches, possible picket posts, and other potential occupation areas. In that winter of 1862-63, Stafford County was transformed from a bucolic backwater to a teeming "metropolis" of military might. Virtually overnight, a small city of soldiers sprung up in Stanstead's farm fields. This invading army left its own unique imprint on the landscape, the result of a large number of men living intensely off the land for six to eight months.

Although the war had wreaked havoc with the economy, favorable settlement and agricultural conditions had not changed completely in the region after the Civil War, and the project area would have remained a viable place for domestic and agricultural pursuits.

In 1964, Spencer Berry sold the 201-acre Stanstead farm to the Stafford County Industrial Park, Inc. Any planned industrial development of the property did not proceed during the 1960s, although increasingly the property became an island of rural, undeveloped land, bounded by Interstate 95 (I-95) to the east and the booming Warrenton Road (US-17) commercial corridor to the south and west. The property was conveyed several times, and following archaeological investigations in 1999, a parking lot was constructed.

The construction of Interstate 95 (I-95) as part of the Federal Interstate Highway System in the 1950s allowed easier access to new employment opportunities and with improvements to the local road systems, this portion of Stafford County has witnessed the construction of many small communities and commercial developments. The project area includes and is surrounded by commercial development, a testament to this trend.

### ARCHITECTURE

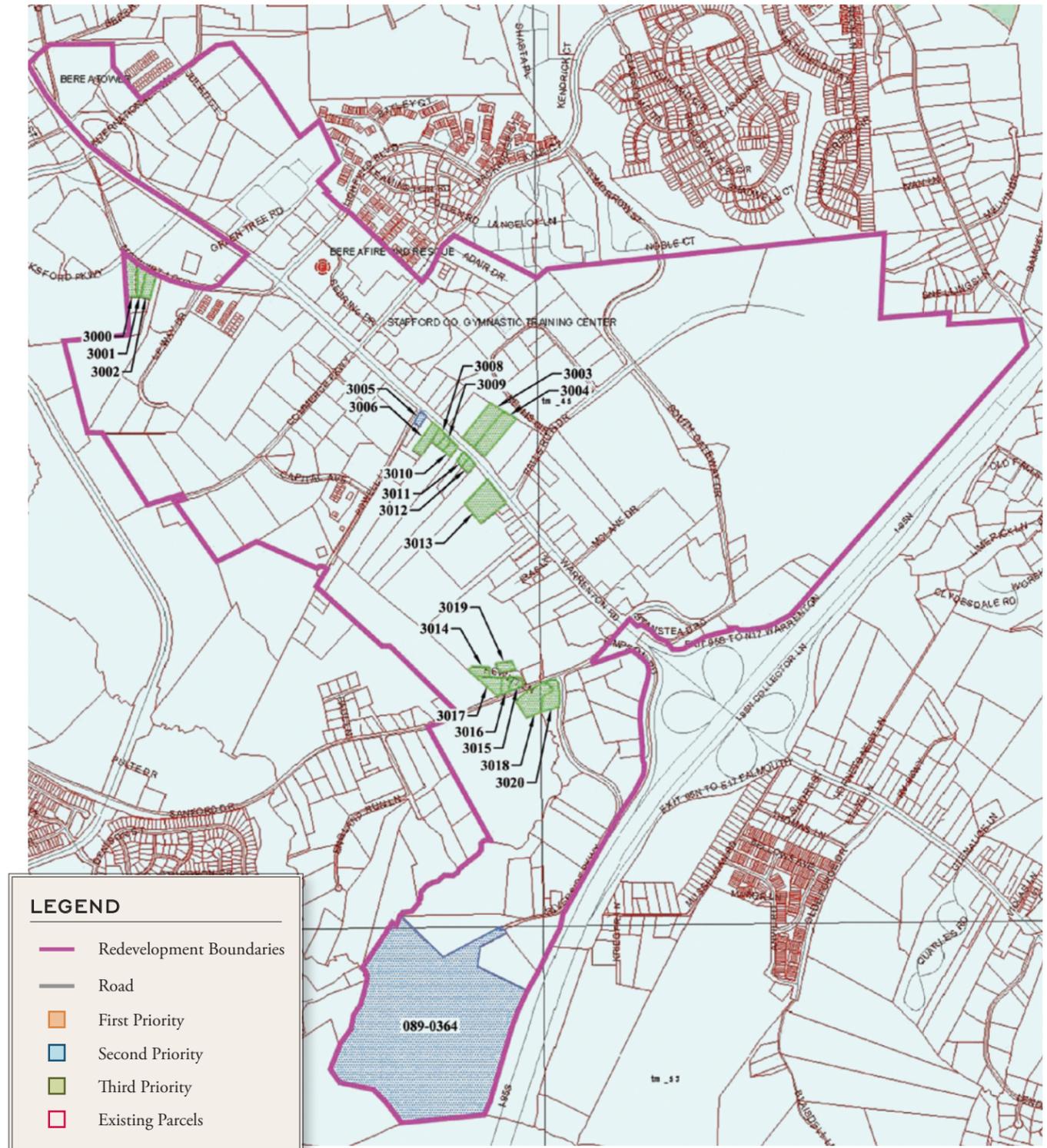
A total of one previously identified and 20 newly identified architectural resources were surveyed during this project, of which none were recommended eligible for listing on the NRHP. The architecture of the area as a whole includes a mix of rural domestic architectural styles from the late 19th to mid-20th centuries and mid-to-late 20th century commercial architecture, with no coherent theme or "flow." Effort should be taken to tie the architecture of Southern Gateway in with the architecture of Falmouth Village, creating a continuous transition between the two areas.

### ARCHAEOLOGY

A total of 16 archaeological resources have been identified within the project area. A total of 868.7 acres of the project area have been determined to have a high probability for cultural resources, and approximately 178.5 acres of the project area have previously been subjected to cultural resources surveys.

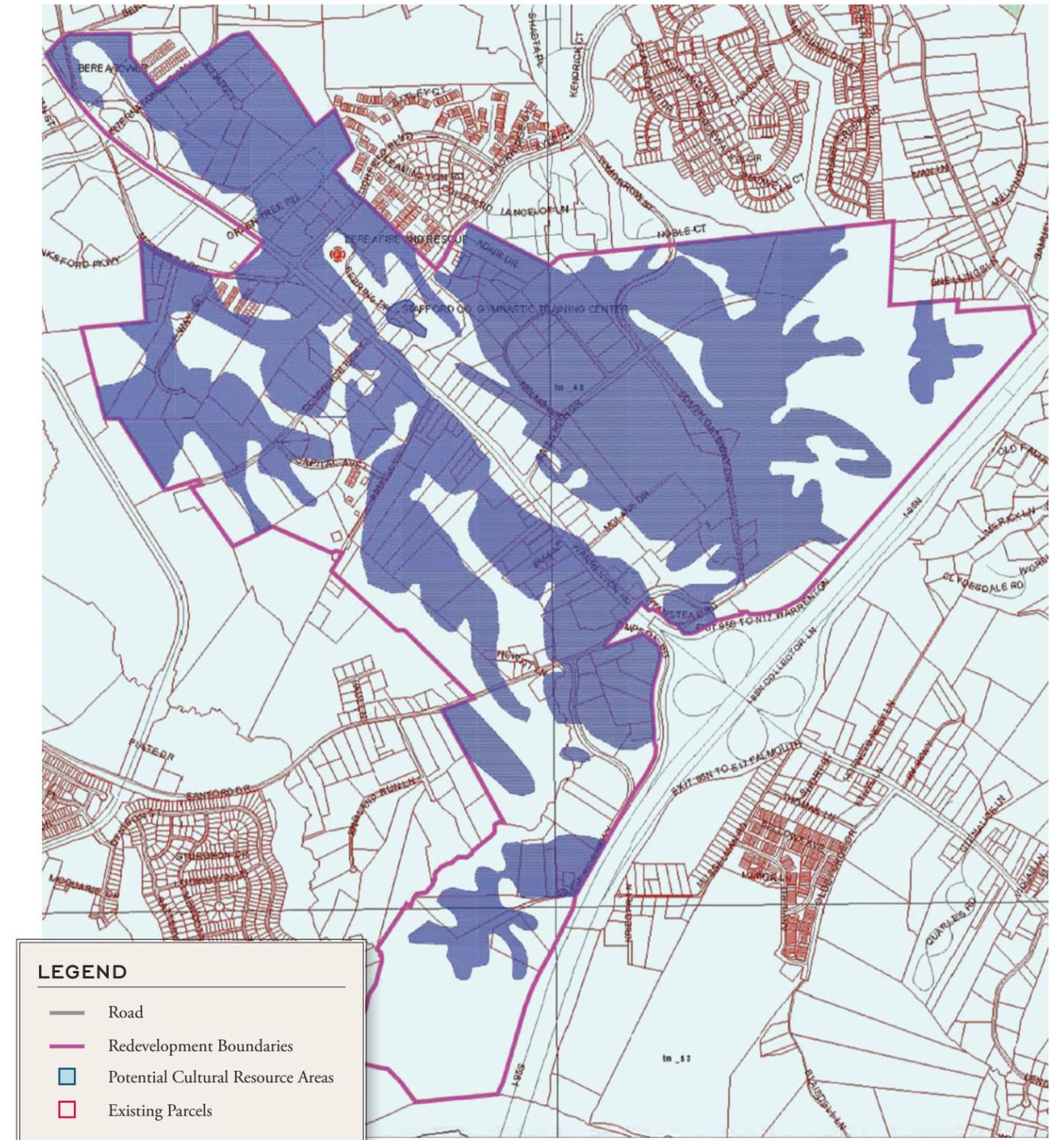
<sup>14</sup> Refer to Volume VII (Cultural Resources Report for Boswell's Corner, Courthouse Area, & Southern Gateway) for thorough detailed and graphically illustrated Architectural and Archaeological Information and Research on the history of Southern Gateway.

Map 13: Architectural Resources Within Southern Gateway — Priorities



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Map 14: Areas with Potential Cultural Resources Within Southern Gateway



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## SOUTHERN GATEWAY REDEVELOPMENT AREA: SUMMARY & CONCLUSIONS

### ECONOMIC & MARKET ANALYSIS

The Southern Gateway redevelopment area is the most visible of the four redevelopment areas in terms of visitors attraction; its proximity to Interstate 95 (I-95) and its position on Warrenton Road (US-17) give it excellent access and visibility, traits favored by retailers and office users. Because of these location attributes, the Planning Team believes that the area could support an additional 350,000 to 500,000 square feet of retail and up to 590,000 square feet of office space. Ample services and employment will also make this an attractive residential location. Even though in Southern Gateway the product will not be urban, the Planning Team believes a grid system that fosters more density and interaction among its different users would be most appropriate. The area's position on Interstate 95 (I-95) makes it attractive for hotels, with the availability of road access and the added attraction of the Falmouth Village relatively easy to reach via Warrenton Road (US-17).

### INFRASTRUCTURE & STORM WATER MANAGEMENT (SWM) ANALYSIS

In regard to Infrastructure and Storm-Water issues, the Southern Gateway area appears to be the best situated redevelopment area from a water/sewer standpoint; redevelopment should focus on limiting sprawl and keeping density along the major roadways while consolidating parcels and access points where possible.

The Southern Gateway area contains two significant drainage ways: Falls Run and a tributary to England Run. Future development within the redevelopment area should be concentrated as much as possible along the corridors of major roads, such as Interstate 95 (I-95) and Warrenton Road (US-17), to allow for buffers and storm water measures at the rear of the parcels adjacent to the stream corridors.

Currently, there is adequate water/sewer capacity in the near term for redevelopment within Southern Gateway, given the near term improvements to the Rocky Pen WTP and the England Run pumping station. Additionally, other programmed CIP projects will increase the capacity of available water/sewer over the next 10-years. As development further progresses, the County's water/sewer models should be updated to reflect demand/flow increases. This is especially important given the alternate CIP approach of building a new 30" water main versus several PRV's within this area.

Phase II of the redevelopment plan process will begin to plug in increases in demands/flows within this area so that timely decisions can be made regarding bringing any critical elements on-line when they are needed.

### TRANSPORTATION & TRAFFIC ANALYSIS

The Transportation and Traffic analysis of the Southern Gateway area shows the intersections and roadway segments within the Southern Gateway redevelopment area generally operate at adequate levels of service (LOS "D" or better). Capacity concerns are noted for the Warrenton Road (US-17) merge onto Interstate 95 (I-95) southbound, which tends to create queues on Warrenton Road (US-17) during peak periods. The roadways currently lack a cohesive pedestrian and bicycle network. By its design and function, Warrenton Road (US-17) is unsafe for crossing pedestrians except at designated signal controlled locations. Local transit service is limited to a single low capacity bus route. An accident analysis conducted for the area supports the assertion that pedestrian safety is a concern within the Southern Gateway area.

### CULTURAL & HISTORIC RESOURCES ANALYSIS

There was one previously identified and 20 newly identified architectural resources surveyed during this project, of which none were recommended eligible for listing on the NRHP. The architecture of the area as a whole includes a mix of rural domestic architectural styles from the late 19th to mid-20th centuries and mid-to-late 20th century commercial architecture, with no coherent theme or "flow." The Planning Team will delineate in the Master Plan an effort to tie the architecture of the Southern Gateway area in with the architecture of the Falmouth Village area, creating a continuous transition between the two areas.

Archaeological resources – a total of 16 – have been identified within the project area. A total of 868.7 acres of the project area have been determined to have a high probability for cultural resources, and approximately 178.5 acres of the project area have previously been subjected to cultural resources surveys.

As mentioned in the Falmouth Village section, the Planning Team has determined that Falmouth Village be considered as part of the Southern Gateway Redevelopment Area, given their locations along Warrenton Road (US-17). Steps should be taken to tie in the architecture of Southern Gateway with the architecture of Falmouth Village, creating a continuous transition between the two redevelopment areas. The integrity of the historic district can be preserved with bus/shuttle service from Southern Gateway, the larger commercial hub where hotels may be located to avoid having more traffic in Falmouth Village.

## MOVING FORWARD

The Planning Team has undertaken thorough research, review and understanding of the four redevelopment areas' existing conditions; their rich cultural resources, land use potential and regulations, current trends and the market. With the information gathered throughout this phase and with the public workshops input the Vision starts to take shape.

The Planning Team recommends that Falmouth Village be considered in context with the Southern Gateway Redevelopment Area, in order to create a continuous transition between the two areas, allowing for the integrity of the historic district to be preserved while maintaining a connection to larger shops, hotels and restaurants in Southern Gateway in an extended corridor area that would make them each more successful for redevelopment. Landscape improvements to Warrenton Road (US-17) between Interstate 95 (I-95) and Jefferson Davis Highway (US-1) will blend Southern Gateway to Falmouth Village, assisting the County in its goals for Economic Development while maintaining dedication to Historic Preservation. The need to create a continuous transition between the two areas became apparent; not just for a corridor via Warrenton Road (US-17) but to take advantage of Southern Gateway's more visible location to capture visitors. The proposed design strategy to create this link and foster development in the Warrenton Road (US-17) Corridor is illustrated as part of the Concept Master Redevelopment Plan.

As mentioned throughout this report, the Planning Team's proposals for Falmouth Village will include an urban street grid; green spaces, parks, pedestrian friendly environments and proposed streetscape improvements for Stafford's main arteries, especially Jefferson Davis Highway (US-1), Courthouse Road (VA-630) and Warrenton Road (US-17). Planning design efforts have been made to propose a grid system that fosters more density and interaction among users. Additional recommendations include the creation of wayfinding signage systems; physical improvements such as landscaping, screening and berms, and billboard management; and small business support programs and financial assistance.

The Concept Master Redevelopment Plan will take the previous conceptual visions and goals a step further, with land uses and implementation strategies for each redevelopment plan. The Planning Team's design recommendations will be made in context with the Comprehensive Plan, the Land Use Plan and in direct response to development trends and public input. It will provide a framework to address each community's vision and potential for the future of their neighborhoods and the County.

The Planning Team has determined that future development should reflect the evolution of architectural styles that is currently present through the development of design principles for new construction within the areas. In general, elements of the surrounding architecture should be included in order to promote a sense of continuity within the area, without creating a false sense of history with inaccurate representations of historic buildings. Regulation and enforcement of these guidelines will require an act of legislation.



# SOUTHERN GATEWAY: CONCEPT MASTER REDEVELOPMENT PLAN & RECOMMENDATIONS





## PUBLIC PROCESS & COMMUNITY INPUT<sup>1</sup>

### PUBLIC WORKSHOP #1 CONCLUSIONS

#### *Public Input: Existing Conditions*

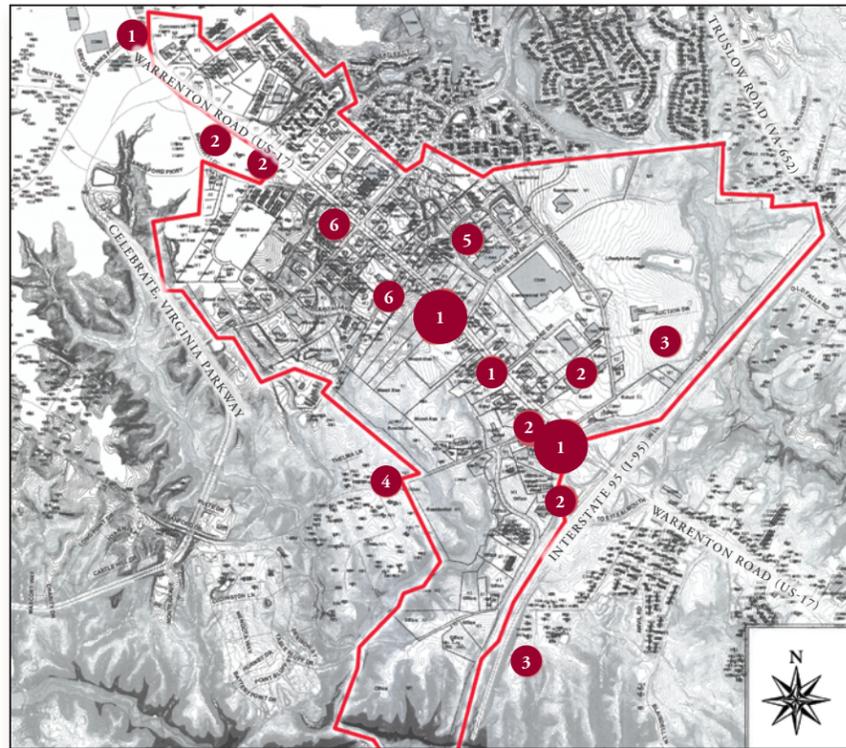
Southern Gateways' strengths include an abundance of existing commercial and office development and visibility from Interstate 95 (I-95), a de-facto Gateway for the county. Conversely, existing residential neighborhoods that add to the intense commercial activity create very heavy local traffic and access problems to main roads and interstate. Southern Gateway challenges include heavy traffic, transportation, congestion; underutilized commercial and industrial properties; unappealing signage and a lack of connection to surrounding residential areas.

- The community is concerned with flooding, steep slopes, traffic congestion, lack of gateways and accessibility issues.
- Residents stated that commercial areas need to be protected while still providing access to surrounding residential areas and fostering development in underutilized commercial properties.
- The community repeatedly mentioned the lack of an "entrance" from Interstate 95 (I-95).



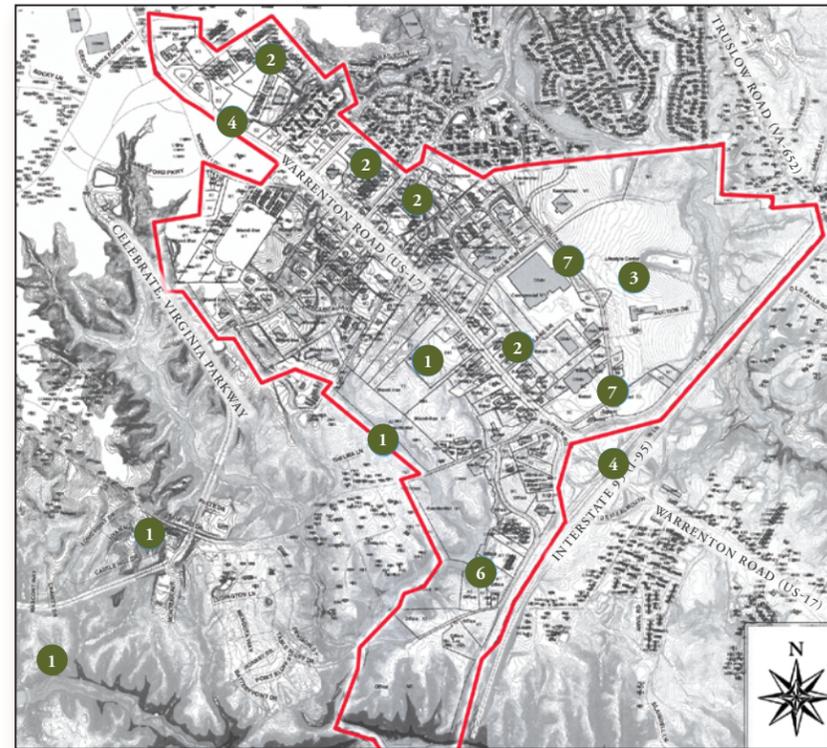
<sup>1</sup> For further detail of the public's preferences, refer to the Appendices, which contain the compiled results in more detail, taken from the public workshops from both Phases of the Redevelopment Plan.

*Public Input: Dot Maps*



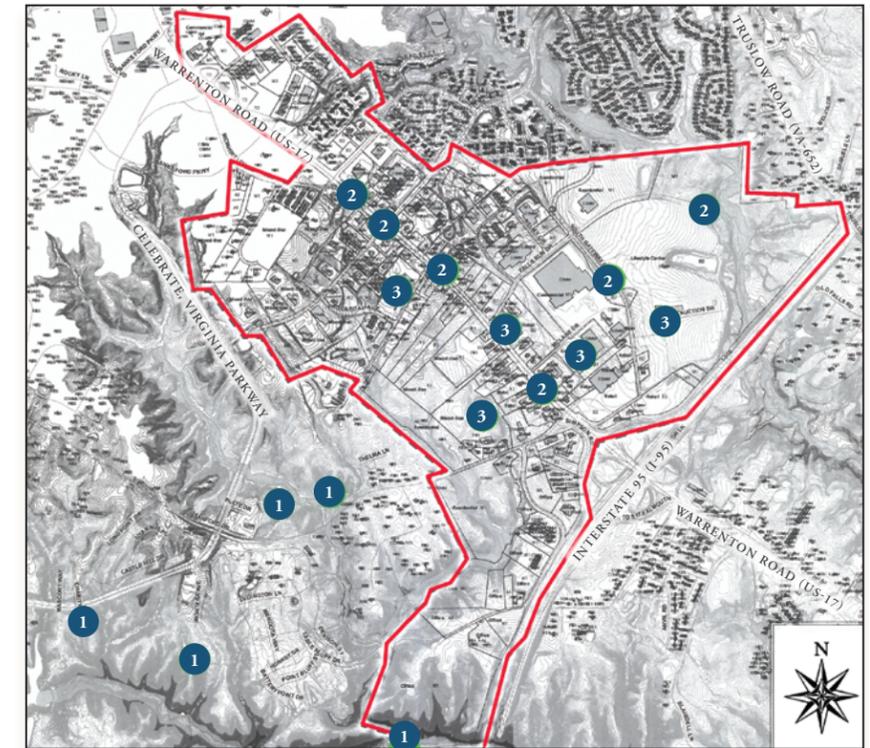
**Map 15: Southern Gateway Existing Conditions – Challenges**

1. Traffic, transportation, congestion
2. Underutilized commercial properties
3. Remove tall signs
4. Connection to surrounding residents
5. Underutilized industrial property
6. Redevelopment of commercial properties, keep existing local businesses



**Map 16: Southern Gateway Existing Conditions – Strengths**

1. Open space
2. Industrial/office parks
3. Auto auction
4. Gateway
5. Existing residential neighborhoods
6. Existing commercial/office
7. Local traffic access



**Map 17: Southern Gateway Existing Conditions – Opportunities**

1. Potential open space, parks, golf course
2. Traffic and transportation improvements
3. Vacant or underutilized commercial properties

### Visual Preference Survey

Most people were in favor of smaller-scale, more inviting one- and two-story buildings, with retail and places to eat at street-level and offices or residential “above the shop.” The public was very much opposed to traditional, cold, suburban and commercial architecture. Most were also in favor of two-story town homes with gardens or small green fronts and tree-lined, nicely landscaped sidewalks.

An overwhelming majority was in favor of smaller, nicely landscaped sidewalks, parks and open plazas, and other gathering spaces with lighting and street furniture improvements. There was no clear consensus on the specific type but a good half of the public was in favor of onstreet parking/landscaped areas. In general, the public seemed to be in favor of small front gardens and landscaped sidewalks, farmer market-style vendors, and outdoor cafes. Most respondents were in favor of images that had green spaces, brick sidewalks, and smaller scale buildings.

### VISION & GOALS

The vision and goals for Southern Gateway embodies these sentiments:

- *A true gateway and entrance to the County: “The Southern Gateway.”*
- *A plan for connecting rather than making crossings less pedestrian friendly.*
- *Focus on new gathering spaces and develop as an attraction for the region.*
- *An area with great open spaces, parks, and even golf course development*

Because community members are aware that this is the most visible of all the redevelopment areas, the need for an iconic structure has been mentioned, perhaps in the form of an elevated pedestrian walk or landscape feature. The focus here would be on a new gathering space and development geared towards a “lifestyle center” attraction for the region. Furthermore, the community envisions this as an area with potential for open space, parks, and golf course development. Traffic and transportation improvements are expected, and the public wants to see plans for connecting rather than making the crossings less pedestrian friendly.

### Vision Statement

*“Southern Gateway should be an identifiable portal to Stafford County. This gateway should integrate open spaces, parks and streets to create a walkable, vital place to work, live, sleep, and enjoy.”*



Map 18: Southern Gateway Preliminary Master Plan – Public Input



**PUBLIC WORKSHOP #2 CONCLUSIONS**

**Concerns & Reservations (Red Dots)**

1. Some would like to expand the Master Plan to include the area around Geico and Lowe’s. (*Note:* This area is currently outside of Southern Gateway’s Redevelopment Boundaries.)
2. Some do not wish to connect the area to existing commerce, but rather tie it to Celebrate, Virginia. (*Note:* Sanford Drive does currently connect Southern Gateway to Celebrate, Virginia.)

3. Some believe there is a need for another bridge across the Rappahannock River. (*Note:* This area is currently outside of Southern Gateway’s Redevelopment Boundaries.)
4. Some people believe there is a need for a separate truck route to Truslow Road (VA-652), along the Plantation Drive area.
5. Many wish to reduce the number of traffic lights along Warrenton Road (US-17).

6. Neighbors would like to fix the Interstate 95 (I-95) interchange/ on-ramp, possibly making it two lanes. (VDOT)

**Agreement & Commendations (Green Dots)**

1. Some were in favor of the newly landscaped median; not only do they like the look of the trees but it also helps slow traffic.
2. Some were in favor of the Park and Ride recommendations.
3. Neighbors favored of creating “villages” in the redevelopment area.
4. Some believe with community partnership, there could be a possibility for a multi-sports venue.
5. Some were interested in redevelopment of the existing residential area south of Warrenton Road (US-17) & east of Interstate 95 (I-95).
6. Neighbors believed that including some of the surrounding residential areas along the Warrenton Road (US-17) corridor a good idea to integrate and adopt in the Master Plan.
7. Many people were in favor of the connection on Truslow Road (VA-652) to the Southern Gateway Area.
8. Many people were in favor of widening Truslow Road (VA-652) just outside the Southern Gateway Area.

**General Notes**

- ◆ Many believe that it is necessary to improve Warrenton Road (US-17) first, believing that “nothing works without [improvements to] Warrenton Road (US-17).”
- ◆ Many people believe that the slower-than-necessary speed limit isn’t useful.
- ◆ Some people expressed the need for more pools and open spaces.
- ◆ Some individuals noted designated office space needs to be large.
- ◆ Some inquired about the incentives for business, noting the need to draw business and the need to make it competitive.
- ◆ A few people mentioned the Old Forge area needs help in addressing drugs and crime.
- ◆ Neighbors would like to see bike paths, jogging trails, amenities.
- ◆ Some people would like Commerce Parkway remain as a cul-de-sac.
- ◆ There was concern that it is critical for commuter lot to have access to Warrenton Road (US-17). The commuter lot may need to be closer and easier to find, but without overwhelming the neighborhood.
- ◆ People noted that trees are a must; as they help the overall appearance of the Southern Gateway area.
- ◆ Some expressed the desire to keep the existing industrial areas along Interstate 95 (I-95) as long as it looks nice – or “buffering” it.
- ◆ Many were in favor of the idea of widening and the extension to Truslow Road (VA-652).

# PROPOSED MASTER PLAN

## SOUTHERN GATEWAY PROPOSED MASTER PLAN

After all of the public workshops during the initial phase were complete, the Planning Team focused on the Master Redevelopment Concept Plan. This step brought the findings of the Planning Team together with the public’s input – their “wish list” – to set realistic goals and seek redevelopment that is a response to market potential, land and infrastructure capacity and mostly, to the community’s desires and vision of itself.

The potential long-term density for Southern Gateway is generally larger than that in the Comprehensive Plan. According to the Stafford Comprehensive Plan, the redevelopment areas should be designed to incorporate principles of traditional neighborhood design and in order to comply with state guidelines, these areas must be able to accommodate and develop at higher commercial and mixed-use densities. This is a necessary step to achieve critical mass and a sense of place; these efforts will help to create a thriving center that integrates a mix of uses, provides balance, and crafts its own character over time, and becomes a positive impact in the area’s economic factors.

The Master Redevelopment Plan takes the previous conceptual visions and goals much further, with land uses and implementation strategies for each redevelopment plan. The Planning Team’s design recommendations are in context with Stafford County’s Comprehensive Plan, and in direct response to development trends and public input. It provides a framework to address each community’s vision and potential for the future of their neighborhoods and of the County. Each master plan is a community guided vision for development of each area.

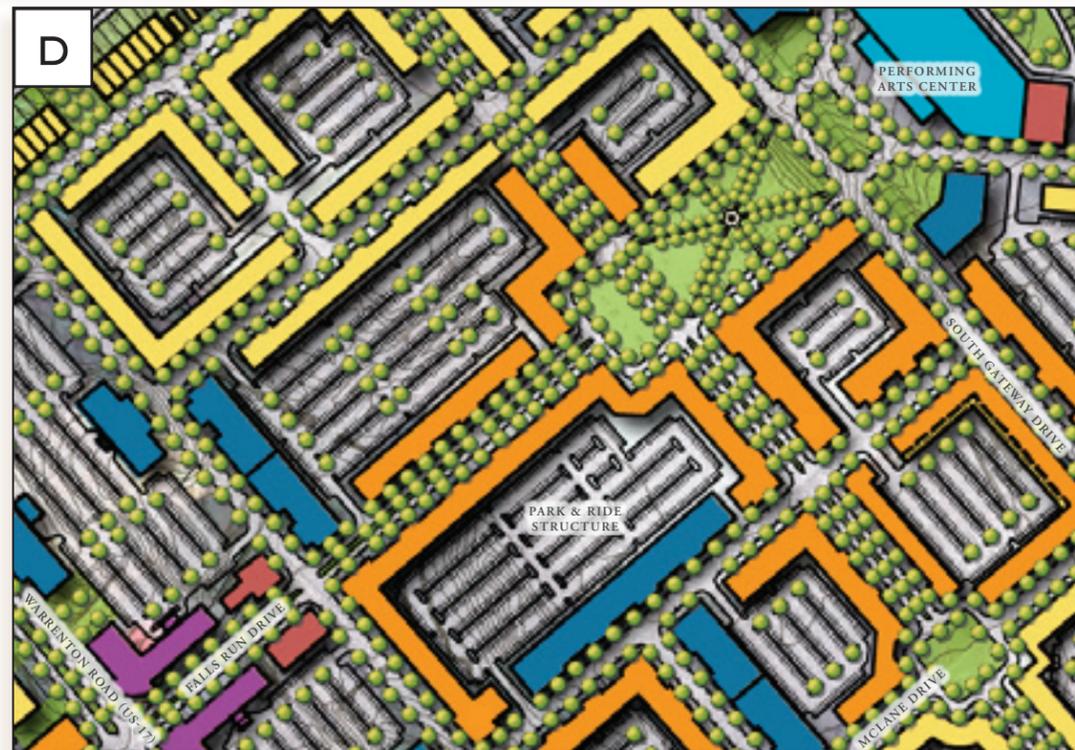
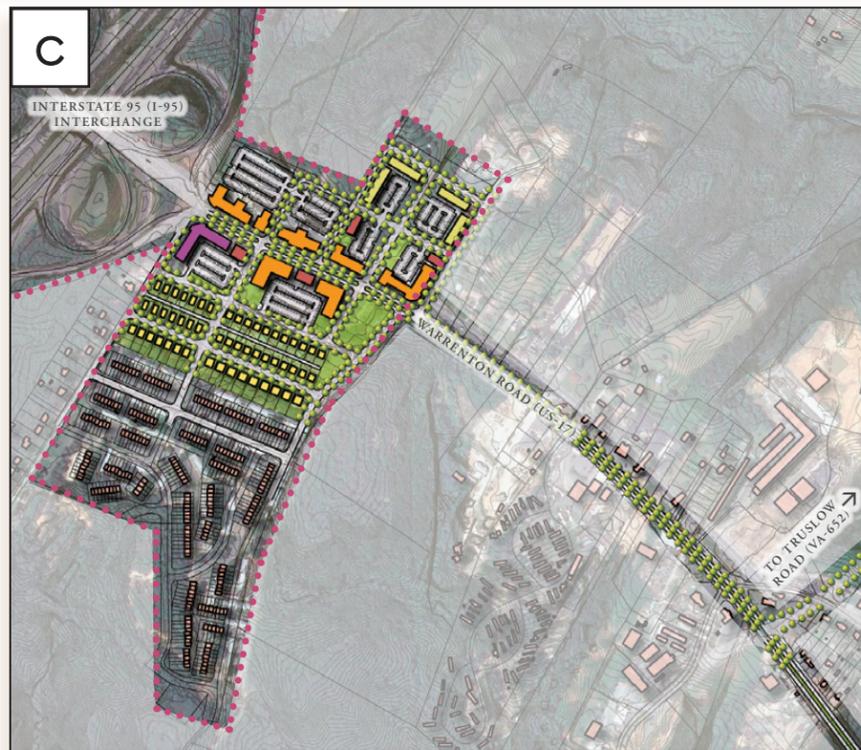
**Table 16: Southern Gateway Estimated Demand**

	TOTAL SF	TOTAL UNITS
Cultural	139,404	
Office	968,141	
Retail/Commercial	1,297,711	
Residential	5,616,972	5,674
Hotel	265,200	408
<b>TOTAL</b>	<b>8,287,428</b>	<b>6,082</b>

**Map 19: Southern Gateway Master Redevelopment Plan**

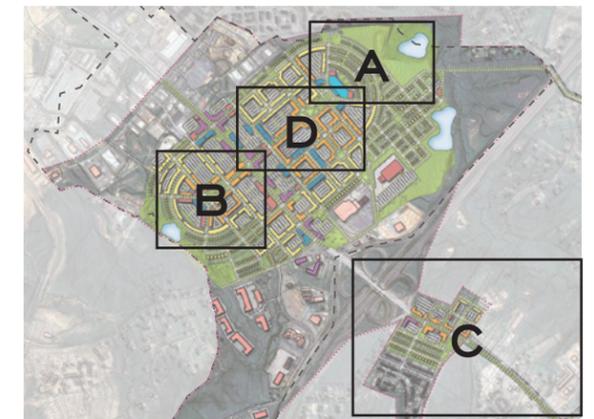


*Land uses presented herein are NOT meant to supercede land uses identified in the approved Stafford County Land Use Plan. The land uses and layouts depicted herein are notational and are offered as one possible layout for Comprehensive Plan uses. Residential densities are offered as potential targets for the creation of more urban environments conducive to pedestrian friendly, community based and appropriately scaled, commercial development. In NO way do the residential densities referenced constitute endorsement of those densities, or endorsement at the exact locations depicted, by the governing body.*



## PROPOSED MASTER PLAN HIGHLIGHTS

- A. The Northeast Corner of Southern Gateway features residential rowhouses encircling the adjacent Performing Arts Center. Along with a large park with a Best Managed Practice (BMP), this part of the redevelopment area allows for indoor and outdoor gathering and event spaces.
- B. The Southwest portion of the Southern Gateway plan features a unique street grid with residential development that circles a central area of a park and mixed-use urban blocks.
- C. The eastern entrance to Southern Gateway off of Interstate 95 (I-95) into the County introduces potential visitors to retail and hospitality opportunities on their westward journey to Falmouth Village.
- D. At the core of Southern Gateway off of Warrenton Road (US-17), building blocks with large courtyards to accommodate parking allow people central access to work, shops, and restaurants throughout the day. A proposed park and ride structure is also centered in the area, off of Warrenton Road (US-17).

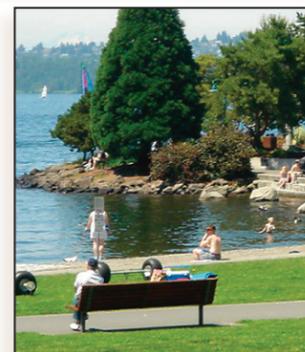
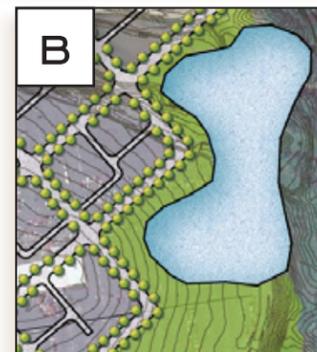
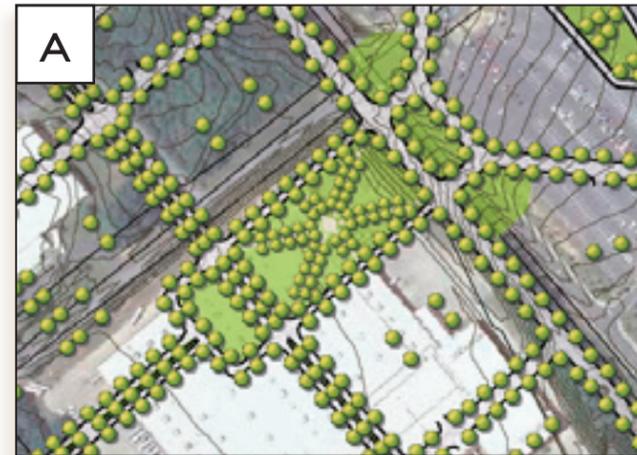


### PROPOSED OPEN SPACE & CIRCULATION PLAN

Open spaces, parks, pedestrian friendly environments and streetscape improvements were sought for Southern Gateway’s main arteries, especially Warrenton Road (US-17). Planning design efforts have been made to foster a grid system, density and interaction among users.

With the intention to provide and promote recreational opportunities, both active and passive open spaces are featured in the Master Plan for Southern Gateway

- Parks are showcased throughout the redevelopment area making an emphasis in a mall-like town green as the center of activity, office and retail and as the soothing area that will welcome commuters and visitors arriving at the Park and Ride (A).
- Large green open spaces and BMP ponds are located north and south of the redevelopment area and in the easternmost part near the interstate, as a green buffer but without jeopardizing highway visibility (B).
- Landscape improvements to Warrenton Road (US-17) between Interstate 95 (I-95) and Jefferson Davis Highway (US-1) will set a physical link between Southern Gateway and Falmouth Village, assisting the County in its goals for Economic Development while maintaining a commitment to Historic Preservation.



Map 20: Southern Gateway Open Space & Circulation Plan



**LEGEND**

- - - Redevelopment Boundaries
- FEMA 100-Year Flood Zone
- Open Space

N

*Figure 7: Southern Gateway Proposed Master Plan Aerial*



*Aerial rendering of Southern Gateway; central parks and green spaces help define the urban fabric and mixed-use blocks.*

**PROPOSED MASTER PLAN  
AERIAL HIGHLIGHTS**

- A. *Adjacent to South Gateway Drive and a park announcing its presence, a cultural/entertainment facility is proposed that will serve as a cultural attraction for Stafford County citizens and visitors, with indoor and outdoor gathering spaces and a formal entrance into the venue.*
- B. *A new park and ride parking structure, set at the central core of Southern Gateway, provides the opportunity for local workers to take advantage of already existing and possible future routes on the Fredericksburg Regional Transit (FRED) and provides parking to support adjacent retail and commercial development.*
- C. *Accessible from South Gateway Drive, a retail shopping center lies within the boundaries of Southern Gateway, providing retail availability for local and nearby residents.*





PROPOSED MASTER PLAN STREET VIEWS

**Figure 8: Southern Gateway Proposed Master Plan – Street View A**

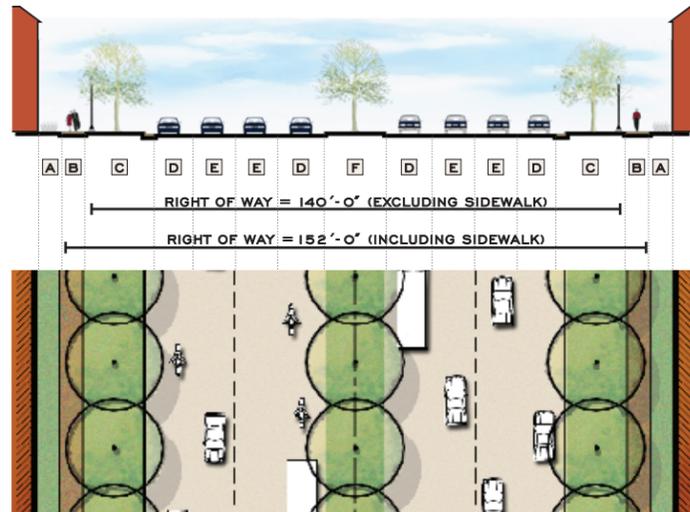
At the intersection of South Gateway Drive and Falls Run Drive, a new cultural and entertainment facility, a large park, and retail become a hub of activity, whether people are on their way to work, to run errands, or simply to relax outside and enjoy the activity around them.

**Figure 9: Southern Gateway Proposed Master Plan – Street View B**

Many of Southern Gateway’s urban blocks have parking lots centrally defined within, and an eye-level view from within one exemplifies the focus on the carefully planned out, pedestrian-friendly infrastructure of the newly redeveloped area.



PROPOSED MASTER PLAN STREET SECTIONS



*Figure 10: Southern Gateway Street Section & Plan – Warrenton Road (US-17)*

- A. Browse/Planting/Seating Area     6' – 0"
- B. Sidewalk     6' – 0"
- C. Landscape Area & Curb     16' – 0"
- D. Thru Lane     12' – 0"
- E. Thru Lane     11' – 0"
- F. Raised Median     16' – 0"



*Figure 11: Southern Gateway Street View – Warrenton Road (US-17) Looking East: Before*



*Figure 12: Southern Gateway Street View – Warrenton Road (US-17) Looking East: After*

## RECOMMENDATIONS TO ELEMENTS OF THE COMPREHENSIVE PLAN: INFRASTRUCTURE

### CHESAPEAKE BAY PRESERVATION AREA (CBPA) PLAN

There are no specific recommendations for Southern Gateway. The CBPA has little impact within these areas. For Southern Gateway, the CBPA in the northeast portion of the redevelopment area has been avoided according to the present layout.

### CAPITAL IMPROVEMENTS PROGRAM (CIP)

As any upgrades are added under the SWM Protection Plan and Water/Sewer Plan the CIP should be updated with the timing and cost of these improvements.

### GROUNDWATER MANAGEMENT PLAN

There are no specific recommendations for Southern Gateway. Existing groundwater supply is adequate and increase in impervious area will be at least partially offset by eliminating many private wells by providing the public water supply to these areas.

### WATER AND SEWER PLAN

#### *Water System*

Our analysis identified no specific water system degradations due to the Core Development Areas. Only minor changes to pipe velocities, headloss, and junction pressures were noted. As a result of the new demands, there are now Two additional pipes which exceed the design maximum velocity of 5 fps. There are also now 5 more pipes which exceed the maximum headloss. In general, pressure drops were noted to be insignificant. No further improvements are recommended.

### SEWER PUMP STATIONS

- ***Days Inn Pump Station***  
Per the Sewer model provided to the Planning Team by Stafford County the Days Inn Pump Station has a capacity of 500 gpm.
  - ◆ Ex. flow = 83 gpm < 500 gpm
  - ◆ Core Development Area flow = 197 gpm < 500 gpm
- ***Conclusion:*** The Days Inn Pump Station is adequate to handle the increase in flows associated with the Southern Gateway redevelopment.

- ***Ingleside Pump Station***  
Per the Sewer model provided to the Planning Team by Stafford County the Days Inn Pump Station has a capacity of 700 gpm.
  - ◆ Ex. flow = 605 gpm < 700 gpm
  - ◆ Core Development Area flow = 720 gpm > 700 gpm
- ***Conclusion:*** The Ingleside Pump Station is not adequately sized to handle the proposed Southern Gateway development. No CIP improvement addresses this.
- ***Falls Run Pump Station***  
LFR-209 expands the Falls Run Pump Station from 9.4 MGD (6,528 gpm) to 15.5 MGD (10,764 gpm). A-217 is planned for design and construction in 2017-2018. (*Note:* The latest model provided to the Planning Team by Stafford County reflects the Pump Station capacity as 3,250 gpm; significantly less than all of the values above. We have used the values referenced in the CIP for the purpose of this analysis.)
  - ◆ Ex. flow = 4497 gpm < 6528 gpm
  - ◆ Core Development Area flow = 4867 gpm < 6528 gpm
- ***Conclusion:*** A 9.4 Falls Run Pump Station is adequate to handle the increase in flows associated with the Falmouth Village redevelopment.
- ***Old Rt. 3 Pump Station***  
After a discussion with County staff, we understand that this Pump Station consists of 2 pumps which combine for a output of 1350 gpm. Present flows to this Pump Station are approximately 1132 gpm. Core Development Area demands are expected to increase the flow to just over 1500 gpm. Accordingly, we recommend that consideration be given to upgrading this pump station. In the short term, there is approximately 218 gpm of capacity available in this Pump Station, which corresponds to being able to handle roughly 60% of the Core Development Area density. Based on the CIP cost of comparative Pump Station upgrades/expansions, a rough cost for this work is approximately \$750,000.

- ***Claiborne Run Pump Station***  
LFR-214 expands the Claiborne Run Creek Pump Station from 8.1 MGD (5625 gpm) to 18 MGD (12,500 gpm) by 2007-2008 and ultimately to 30 MGD (20,833 gpm) by 2025. (Note: The latest model provided to the Planning Team by Stafford County reflects the Pump Station capacity as 2800 gpm; significantly less than all of the values above. We have used the values referenced in the CIP for the purpose of this analysis.)
  - ◆ Ex. Flow = 6,238 gpm > 5,625 gpm
  - ◆ Core Development Area flow = 6,608 gpm > 5,625 gpm
  - ◆ Core Development Area flow with upgraded Pump Station = 6,608 gpm < 12,500 gpm
- ***Conclusion:*** An 18 MGD (12,500 gpm) Falls Run Pump Station is adequate to handle the increase in flows associated with both the Southern Gateway and Falmouth redevelopment. The improvement was planned for 2007-2008. The existence of the 18 MGD Pump Station needs to be verified as existing or constructed prior to development.

#### ***Gravity Sewer***

Several sewer pipes in this area appear to be well undersized based on the information provided in the County's sewer model. Most importantly, a number of these pipes are located in the Falls Run Interceptor. This interceptor conveys flows from Southern Gateway into Falmouth Village where it hits the Falls Run Pump Station. The main reason for this is that the existing pipes have flatter slopes – which yield lower free-flow capacities. In the case of several 18" pipes with slopes roughly at 0.40%, the full flow capacities are between 2,800 and 3,000 gpm. After completion of the Core Development Area, we anticipate that roughly 3,700 to 3,800 gpm will be present in this trunk sewer. In general, it takes a 20"-21" pipe to pass this amount of flow at the same slope. In all, there are roughly 7,500 linear feet of 18" sewer that would need to be upgraded. Assume a rough cost of \$250.00 per linear foot which was determined from other comparative CIP pipe replacements. The total budget cost would be roughly \$1,875,000.

In addition to the Falls Run Interceptor, is discussed in the Falmouth Village recommendations above, there are some additional pipe issues in the downstream sewer outfall. These occur below manhole 68-0106 which is where the 8" forcemain from the Falls Run Pump Station ties into a 10" gravity line. We estimate the following upgrades and costs for this segment.

Existing Pipe Size (Inches)	Proposed Pipe Size (Inches)	Total Length (Feet)	Unit Cost (Per Linear Foot)	Total Cost
8"	10"	104'	\$175.00	\$18,200.00
10"	12"	810'	\$200.00	\$162,000.00
12"	15"	323'	\$225.00	\$72,675.00
15"	18"	786'	\$235.00	\$184,710.00

The team assumes that some of the minor sanitary sewer lines within the redevelopment area will be reconstructed when the uses and new streets come on-line. With this approach, we have not highlighted any specific minor sewer improvements within these areas which will likely be re-routed with the redevelopment.

#### WATER SUPPLY PLAN

There are no specific recommendations for Southern Gateway. The proposed redevelopment is expected to extend the public water supply system within these areas. The public water source reservoirs and storage facilities should continued to be monitored to ensure the highest quality public water possible. The redevelopment should have a net positive effect on the quality of water supply available to private well sites due to the implementation of additional BMP facilities as well as the replacement of some uses which adversely affect water quality (mainly industrial and some agricultural uses).

## RECOMMENDATIONS TO ELEMENTS OF THE COMPREHENSIVE PLAN: TRANSPORTATION

### TRANSPORTATION PLAN

As stated above, the proposed revisions to the Plan set forth four objectives for future development in the County. The proposed redevelopment plan for Southern Gateway has been designed to meet the objectives of the Plan. Implementation strategies should be developed in furtherance of the Plan's policies. A discussion of each of the County's transportation objectives, as proposed, relative to Southern Gateway is provided below:

#### *Maintain a safe road system.*

The roadway network in Southern Gateway should be designed and developed to provide a hierarchal system of interconnected streets and to recognize the function of Warrenton Road (US-17) as a major regional corridor.

Warrenton Road (US-17) is the primary arterial through the redevelopment area. Warrenton Road (US-17) is a principal arterial roadway that extends south and east from the Town of Warrenton, through Fauquier County to Stafford County and the City of Fredericksburg. Warrenton Road (US-17) through the Southern Gateway area is constructed as a four to six-lane, divided, shoulder and ditch section with a posted speed limit of 45 mph.

In order to manage increased congestion in the future, the County should work with VDOT in developing a comprehensive access management plan for this critical corridor with an emphasis on maintaining and enhancing a limited number of full-movement median breaks. The proposed master plan generally retains the existing median breaks along Warrenton Road (US-17). Direct parcel access should be consolidated and restricted to right-in/right-out movements only.

#### *Provide & maintain a multi-modal public transit system.*

As outlined in the Research and Program Development Report, The Fredericksburg Regional Transit (FRED) operates bus service within the Southern Gateway area. The D2 "Southern Stafford County" route runs between FRED Central (City of Fredericksburg) and the GEICO office building north of Banks Ford Parkway and provides service at certain locations along Warrenton Road (US-17). The route also serves the England Run community at certain points along Plantation Drive.

Additionally, a park-and-ride lot maintained by VDOT currently exists along Warrenton Road (US-17) at Falls Run Drive. Because of the proximity of Interstate 95 (I-95), regional park-and-ride facilities should be retained and enhanced to encourage carpooling and HOV/HOT lane usage.

With the proposed redevelopment of the area, the County should request future developers commit to transportation demand management programs with the goal of reducing single occupant vehicle trips through incentivizing car/van pools, flexible work schedules, etc. As stated above, park-and-ride facilities should be retained and enhanced. Future developers should contribute to such facilities.

#### *Create a system of sidewalks, bike paths, and trails to provide non-motorized transportation alternatives.*

Land use controls can be used to create environments that are peaceful between pedestrians and automobiles. Presently, the Warrenton Road (US-17) corridor is characterized by a number of automobile oriented commercial uses, such as service stations, fast-food restaurants etc; indicative of the area's role as a regional truck/driver temporary rest stop along Interstate 95 (I-95). The master plan envisions a transition of this part of the County from its current travel stop character to a regional business and employment center.

While automobile oriented uses may continue to be a component of the overall redevelopment land plan within Southern Gateway, access to/from such uses should be controlled and regulated. The County should consider designating a Highway Corridor (HC) overlay district along Warrenton Road (US-17) to include the redevelopment area in order to regulate access to/from such uses. Driveways to such uses should be located outside major pedestrian corridors.

Sidewalks and trails should be provided along both sides of all streets in order to foster and encourage walking and biking. It is understood that Warrenton Road (US-17) presents a significant physical and psychological barrier between the two sides of the master redevelopment plan for crossing pedestrians, bicyclists, and even vehicle drivers. A series of pedestrian treatments should be implemented at major intersections along Warrenton Road (US-17) to encourage walkability. These should include, but not be limited to, the following:

- Pedestrian push buttons and countdown signal heads at all intersection approaches
- Clearly marked and maintained crosswalks
- A generous STOP bar setback to allow additional room for crossing pedestrians' safety and comfort
- Designated median refuge for two-stage crossing of pedestrians. This may reduce overall vehicle delays due to lengthy pedestrian crossing times

In addition, a trail network for the redevelopment area should be planned and established identifying a major route for pedestrians and bicyclists accessing both sides of the planned redevelopment and, ultimately, the region at-large. As a result of such a trail plan, a grade-separated trail crossing at Warrenton Road (US-17) should be considered and located.

### ***Create better patterns of traffic flow and circulation.***

The proposed redevelopment plan for Southern Gateway reflects, in concept, a grid of streets oriented to/from Warrenton Road (US-17). Stafford County should plan ahead by stipulating maximum block lengths and perimeters in their codes and designating vital public street connections that must be made as the land develops. The development of secondary or parallel streets along highways can also help in meeting community-wide transportation needs. Where public street connections are not practical, local codes should require the development of bicycle and pedestrian connections and internal private streets that mimic public streets and meet the block standard.

A major component of the transportation plan for this redevelopment area is the establishment of additional street connections to other County roadways. Consistent with the current County Transportation Plan, the redevelopment plan proposes street connections to/from the west for both sides of the redevelopment area. These connections offer additional route choices for drivers, enabling local trips that need not rely solely on Warrenton Road (US-17). Therefore, Warrenton Road (US-17) would be maintained as a primarily regional travel route. The redevelopment plan also identifies a connection to/from the development area north to Truslow Road (VA-652), offering an additional means for drivers to cross Interstate 95 (I-95).

The current Stafford County Transportation Plan (June 7, 2005) recommends certain improvements for the roadways within the Southern Gateway redevelopment area. These recommendations are summarized as follows:

- Upgrade Warrenton Road (US-17) to an eight-lane, divided, facility between Berea Church Road and Interstate 95 (I-95).
- Upgrade Sanford Drive (VA-670) to a four-lane, undivided, facility between Jefferson Davis Highway (US-1) and England Run Lane.
- Construct a new two-lane roadway from Warrenton Road (US-17) at Sanford Drive (VA-670) west to Plantation Drive.

Warrenton Road (US-17) is currently established as the critical corridor for local and regional mobility. Based on the proposed redevelopment plan and other regional growth factors, Warrenton Road (US-17) would experience a significant increase in traffic that would potentially result in sharply reduced roadway capacity, increased vehicle delays, and negative safety implications.

As a means to alleviate pressure on Warrenton Road (US-17), the current County transportation plan has recommended a network of parallel roadways to divert a measure of traffic away from Warrenton Road (US-17) and offer additional route choices for local and regional drivers. Upon implementation of the redevelopment plan, these parallel roadways would become even more critical.

As part of this assessment, a preliminary capacity analysis was performed for Warrenton Road (US-17) and its most critical point: the intersection at Sanford Drive/Southern Gateway Boulevard (Stanstead Drive (VA-1050)). Based on this preliminary analysis, if Warrenton Road (US-17) remained a six-lane section at this location, at least 50% of new redevelopment generated trips and 30% of regional Warrenton Road (US-17) trips would need to divert from Warrenton Road (US-17) on to parallel roadways in order to maintain overall LOS "D" (considered adequate levels of service for urban conditions). If Warrenton Road (US-17) was upgraded to an eight-lane section at this location, then at least 40% of redevelopment generated trips and 20% of regional Warrenton Road (US-17) trips would need to divert. This equates to a demand of 45,000 vehicles per day (vpd) and 33,900 vpd removed from the Warrenton Road (US-17) mainline assuming a six-lane and eight-lane Warrenton Road (US-17) section, respectively. In order to meet this demand and maintain LOS "D" along the Warrenton Road (US-17) corridor, these planned parallel roadways would need to be designed in a manner to accommodate the above forecasted daily trips. Further planning efforts and/or studies should be conducted to determine appropriate section(s) for the parallel roadways.

In the absence of more detailed analyses reflecting the build out of the Southern Gateway area, the potential for an eight-lane Warrenton Road (US-17) should be retained as part of the Plan. Furthermore, the additional connections recommended in the existing Transportation Plan should be retained and, in fact, are reflected in the master plan as part of the proposed future connections west of the redevelopment area. A recommendation for a northern connector to Truslow Road (VA-652), as shown in the proposed master plan, should be included as well.

## CORE DEVELOPMENT AREA

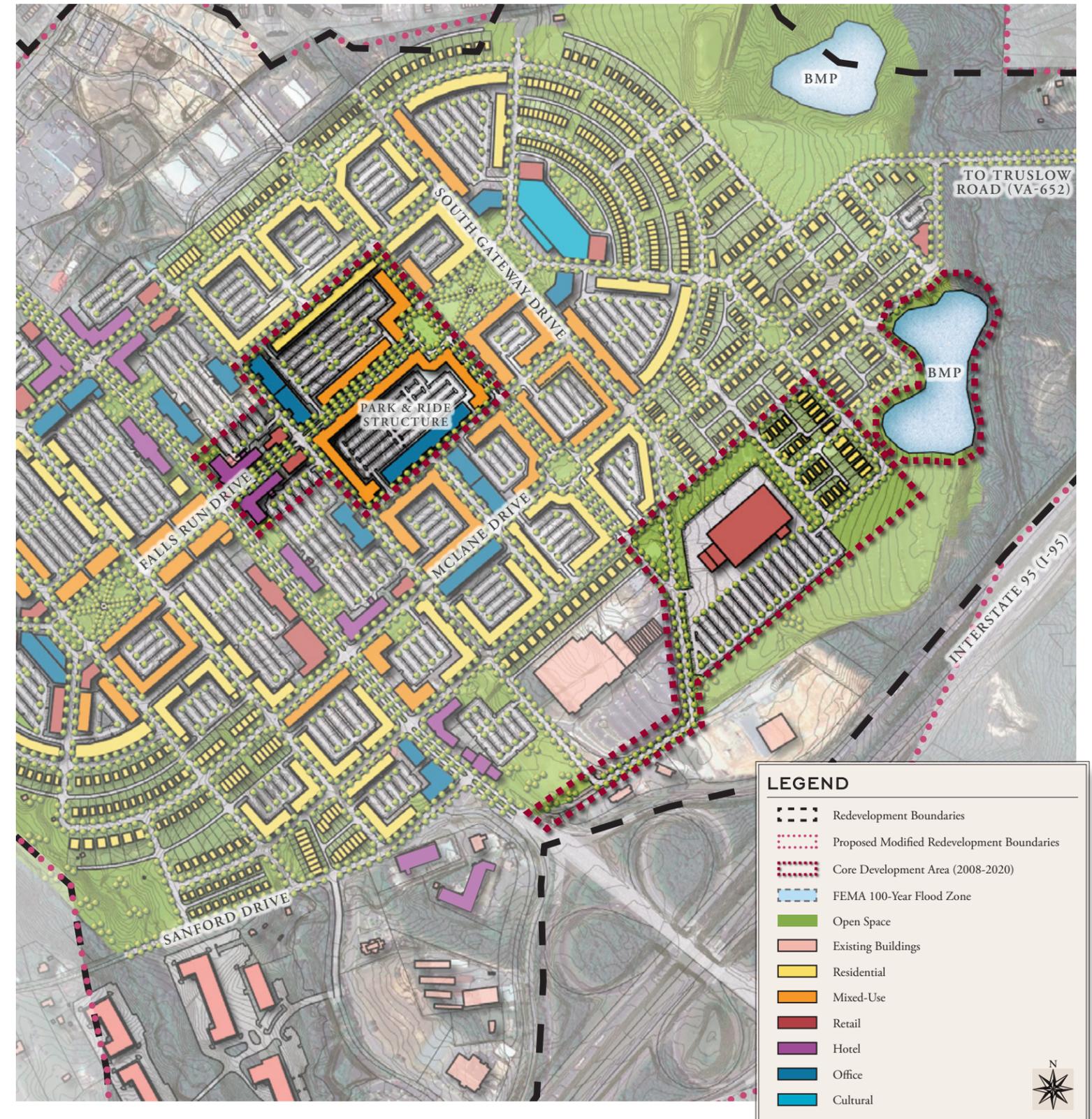
### RATIONALE FOR DEFINING THIS AREA AS THE CORE DEVELOPMENT AREA

This initial phase of development creates a sense of place at this initially defined area along the northern side of Warrenton Road (US-17) corridor in Southern Gateway. The area east of Interstate 95 (I-95) requires major streetscape improvements over to Falmouth Village. The Warrenton Road (US-17) streetscape improvements as proposed will positively impact redevelopment efforts, east of Interstate 95 (I-95). The impact of completing the intersection and the streetscape improvements together will maximize the positive redevelopment of Southern Gateway – and of Falmouth Village.

While automobile oriented uses may continue to be a component of the overall redevelopment plan within Southern Gateway, access to/from such uses (along Warrenton Road (US-17)) should be controlled with sidewalks being provided along both sides of all streets in order to foster and encourage walking and biking. It is understood that Warrenton Road (US-17) presents a significant physical and psychological barrier between the two sides of the master redevelopment plan for crossing pedestrians, bicyclists, and even vehicle drivers. A series of pedestrian treatments should be implemented at traffic light controlled major intersections along Warrenton Road (US-17) to encourage and foster walkability. By developing a Park-&-Ride parking structure, sized for a diversified combination of commuter demand and mixed use demand, this investment will be the catalyst to spur the initial phase development proposed as shown. This initial phase also encourages the development of parallel level streets. The rationale to relocate the VDOT commuter lot to the northwest side of Warrenton Road (US-17) was that it be an overall more appropriate and central location to serve commuters, residents, and visitors.

The master plan envisions a significant redesign of the local and collector street system within the redevelopment area to serve the mixed-use plan along both sides of existing Warrenton Road (US-17). To create better patterns of traffic flow and circulation the proposed redevelopment plan reflects, in concept, an interconnected grid of streets centered along Warrenton Road (US-17). The development of secondary or parallel streets along highways can also help in meeting local transportation needs. The establishment of additional street connections to other County roadways is a major component for this redevelopment area. Master Plan recommendations for Southern Gateway emphasized the need for additional local connections (alternatives to Warrenton Road (US-17)) that travelers may use to cross Interstate 95 (I-95) and reduce future demand for Warrenton Road (US-17). Consistent with the current County Transportation Plan, the redevelopment plan proposes street connections to/from the west for both sides of the redevelopment area. These connections offer additional route choices for drivers, enabling local trips that need not rely solely on Warrenton Road (US-17). The redevelopment plan also identifies a connection to/from the redevelopment area north to Truslow Road, offering an additional means for residents to cross Interstate 95 (I-95).

Map 21: Southern Gateway Core Development Area





## ACTION PLAN

In order for development to occur in this initial target area, the following initiatives *must* be implemented:

1. Create a form based code for the Southern Gateway area to establish the criteria for redevelopment and achieve the goals and vision for this area. The form based code should address the entire Southern Gateway area, not just the initial phase. During the development of the form based code, the County planning staff can develop an interim overlay district for this area. This will allow development to not only proceed, but proceed in accordance with the vision & goals established herein.
2. Relocate the Park and Ride to the north of Warrenton Road (US-17) as a parking structure. Provide excess capacity to accommodate retail, commercial and residential demands of adjacent redevelopment.
3. Modify Warrenton Road (US-17) west of Interstate 95 (I-95) to an 8-lane boulevard with a median and streetscape improvements between Stanstead Drive (VA-1050) and Plantation Drive.
4. Provide a connecting street to Truslow Road (VA-652) from the northeast section of the proposed development. This will allow local residents to bypass the Interstate 95 (I-95) and Warrenton Road (US-17) intersection when traveling to Falmouth or going towards Jefferson Davis Highway (US-1).
5. Provide a regional Stormwater Management (SWM) facility for the Core Development Area.
6. The Ingleside sewer pump station is not adequately sized to handle the proposed Core Development Area of Southern Gateway. Improvements will need to be implemented prior to completion of initial development.
7. Several sewer pipes in this area appear to be well undersized based on information provided. After completion of the initial phase of redevelopment, upgrades should be anticipated (please see more-detailed items in the infrastructure section).
8. Expand the road network to offer alternative options to bypass the congestion areas at Warrenton Road (US-17) and Interstate 95 (I-95).
  - ◆ Extend Commerce Parkway to Celebrate Virginia Parkway.
9. Identify potential locations for pedestrian crossings; begin feasible pedestrian improvements in conjunction with early roadway or development initiatives.
10. Study potential short and long term improvements to improve access to Jefferson Davis Highway (US-1) and Warrenton Road (US-17) from the core areas and nearby communities;
  - ◆ Begin feasible short term improvements

### OTHER KEY ELEMENTS AND RECOMMENDATIONS

- Ultimately a new interchange at Interstate 95 (I-95) and Warrenton Road (US-17) is recommended. An interim recommendation would be to have a two-lane on-ramp, extended approximately a half mile to the south to minimize vehicle stacking on Warrenton Road (US-17).
- The Old Rt. 3 sewer pump station has capacity available to handle roughly 60% of the Core Development Area density in the short term. Consideration should be given to upgrading this sewer pump station.
- Initiate the infrastructure and transportation improvements noted earlier in more detail in this report. In summary, they are:
  - ◆ The redevelopment should have a net positive effect on the quality of water supply available to private well sites due to the implementation of additional BMP facilities as well as the replacement of some uses which adversely affect water quality (mainly industrial and some agricultural uses).
  - ◆ Stafford County should consider designating a Highway Corridor overlay district along Warrenton Road (US-17) to include the redevelopment area in order to regulate access to/from such uses. Driveways to such uses should be located outside major pedestrian corridors.
  - ◆ The current Stafford County Transportation Plan recommends improvements to upgrade Warrenton Road (US-17) to an eight-lane, divided, facility between Berea Church Road and Interstate 95 (I-95). Warrenton Road (US-17) widening is a partially funded VDOT project. Funds are also available from developer proffers and a County transportation bond project. However, this is not a critical project, since it will neither solve nor even address the congestion on Warrenton Road (US-17) which is caused by the Interstate 95 (I-95) southbound on-ramp, nor does it do anything to advance parallel local street network recommendation.



**CORE DEVELOPMENT AREA: FINANCIAL FEASIBILITY**

The Core Area program for the Southern Gateway Redevelopment Area included 684,794 square feet of gross building area on 31.74 acres, including 52,153 square feet of office space, 199,750 square feet of retail, and 432,891 square feet of multifamily residential space (393 units). ERA used the efficiency rates to arrive at a net rentable square footage for each of these uses.

**Table 17: Southern Gateway Core Development Area Program Assumptions**

Redevelopment Area	Southern Gateway Redevelopment Area						
Site Area (acres)--	31.74						
<i>Does not include Cultural or Civic Uses</i>							
<b>PROGRAM AND PSF COSTS</b>							
		<b>Rooms/ Units</b>	<b>Avg Unit Size</b>	<b>GBA</b>	<b>NRA</b>	<b>Avg Ann'l Abs</b>	<b>Total Parking</b>
<b>Office</b>		n/a	n/a	52,153	44,330	40,000	209
<b>Retail</b>	<b>% of retail</b>						
General Retail	85%	n/a	n/a	169,788	152,809	50,000	679
Restaurant	15%	n/a	n/a	29,963	26,966	10,000	120
<b>Residential</b>	<b>% of mf</b>						
Rental Apartments	70%	275	1,046	303,024	287,873	100	552
Condominiums	30%	118	1,046	129,867	123,374	100	236
<b>Total</b>				<b>684,794</b>	<b>635,352</b>		<b>1,796</b>
<b>LAND &amp; INFRASTRUCTURE COSTS</b>							
<b>Horizontal</b>							
Site Improvements	\$250,000 Per Acre						
Demolition Costs	\$336,000 Allocated						

Source: CMSS; Economics Research Associates, 2009.

Using this program and the other assumptions discussed earlier, at infrastructure costs of \$250,000 per acre plus an allocation for demolition, the total development cost would be approximately \$95.3 million, or \$139 per square foot of gross building area. The project IRR would be 15.4%. At a discount rate of 12%, the residual land value of the total development would be approximately \$452,000 per acre.

**Table 18: Southern Gateway Core Development Area Residual Land Value Overview**

<b>NET PRESENT VALUE ANALYSIS</b>	
NPV of Net Cash Flow	\$99,407,003
NPV of Development Costs	(\$85,059,331)
<b>RESIDUAL LAND VALUE</b>	<b>\$14,347,672</b>
\$PSF of Built Scenario	\$20.95
\$PSF of Developable Land Area	\$10.38
\$Per Acre of Developable Land Area	\$452,038
Notes: Net Present Value @ 12.0%	

Source: Economics Research Associates, 2009.

**Table 19: Summary of Core Development Area Annual and Construction Period Fiscal Benefits**

<b>ANNUAL</b>				
<b>Redevelopment Area</b>	<b>Property Tax<sup>1</sup></b>	<b>On-Site Sales &amp; Use Taxes<sup>2</sup></b>	<b>Off-Site Sales &amp; Use Taxes<sup>2</sup></b>	<b>Total</b>
Boswell's Corner	\$1,027,926	\$1,488,293	\$131,525	\$2,647,745
Courthouse Area	\$1,217,035	\$1,549,669	\$252,716	\$3,019,419
Falmouth Village	\$146,663	\$291,546	\$18,597	\$456,807
<b>Southern Gateway</b>	<b>\$800,238</b>	<b>\$883,460</b>	<b>\$108,387</b>	<b>\$1,792,086</b>
<b>Total</b>	<b>\$3,191,862</b>	<b>\$4,212,969</b>	<b>\$511,225</b>	<b>\$7,916,057</b>
<b>CONSTRUCTION PERIOD</b>				
<b>Redevelopment Area</b>	<b>Construction Materials Sales Tax</b>	<b>Sales &amp; Use Taxes on Construction Worker Spending<sup>2</sup></b>		<b>Total</b>
Boswell's Corner	\$477,251	\$92,269		\$569,520
Courthouse Area	\$565,052	\$109,243		\$874,295
Falmouth Village	\$72,725	\$14,060		\$86,785
<b>Southern Gateway</b>	<b>\$383,483</b>	<b>\$74,140</b>		<b>\$457,623</b>
<b>Total</b>	<b>\$1,498,512</b>	<b>\$289,712</b>		<b>\$1,788,224</b>

<sup>1</sup>Construction Cost (not including land) is used as a proxy for full market value. Using 2009 Rates, per County website @ \$0.84 per \$100.00 value. It is assumed that all construction construction purchases are made in Stafford as often, jurisdictions charge taxes on materials even if they are purchased elsewhere.

<sup>2</sup>Includes local retail sales tax of 1%, meals tax of 4%, and hotel tax of 5%, as appropriate.

Source: Stafford County Commissioner of the Revenue; ERA, 2009.

**Table 20: Summary of Property Tax Benefits by Redevelopment Area**

<b>Use</b>	<b>Value<sup>1</sup></b>	<b>County Tax<sup>2</sup></b>
Boswell's Corner	\$1,22,372,178	\$1,027,926
Courthouse Area	\$144,885,069	\$1,217,035
Falmouth Village	\$17,459,910	\$146,663
<b>Southern Gateway</b>	<b>\$95,266,451</b>	<b>\$800,238</b>

<sup>1</sup> Construction Cost (not including land) is used as a proxy for full market value

<sup>2</sup> Using 2009 rates, per County website @ \$0.84 per \$100.00 value.

Source: Stafford County Commissioner of the Revenue; ERA, 2009.

# SOUTHERN GATEWAY: APPENDICES





## APPENDIX I

### CULTURAL & HISTORIC RESOURCES: HISTORY, GROWTH, & HISTORIC PRESERVATION OF THE SOUTHERN GATEWAY REDEVELOPMENT AREA

The independent investigation of Southern Gateway and the other redevelopment areas has derived a collection of architectural and archeological significant properties. Some properties are part of the National Registry of Historic Places while others have the potential of being so designated. Three separate volumes, compiled by Cultural Resources, Inc., document each of the four redevelopment areas as well as additional references of Cultural Resources Legislation. The following is a list of each volume and what they contain.

- Volume VI: Cultural Resources Report for Falmouth Village
  - A. The history and growth of the redevelopment area.*
  - B. VDHR Forms and Documentation of properties within Falmouth Village.*
  
- Volume VII: Cultural Resources Report for Boswells Corner, the Courthouse Area, and Southern Gateway
  - A. The history and growth of Boswell's Corner, Courthouse Area, and the Southern Gateway redevelopment areas.*
  - B. VDHR Forms and Documentation of properties within Boswell's Corner, the Courthouse Area, and the Southern Gateway Redevelopment Areas..*
  
- Volume VIII: Examples of Cultural Resources Legislation
  - Best practices for historic preservation.*

## APPENDIX II

### FREQUENTLY USED ACRONYMS

ADA	Americans with Disabilities Act	FRED	Fredericksburg Regional Transit	TIF	Tax Increment Financing
ADR	Average Daily Rate	FY	Fiscal Year	TND	Traditional Neighborhood Development
BRAC	Base closure And Realignment Commission	GDP	Generalized Development Plan	UDA	Urban Development Area
BMP	Best Managed Practice	GIS	Geographical Information System	USA	Urban Service Area
CBPA	Chesapeake Bay Protection Area	HABS	Historic American Building Survey	USD	Urban Service District
CIP	Capital Improvement Program	LOMR	Letter of Map Revision	VATC	Virginia Tourism Corporation
CLRP	Constrained Long Range Plan	LOS	Level of Service	v/c	Volume to Capacity
CRPA	Critical Resource Protection Area	LRMA	Land Resource Management Area	VDCR	Virginia Department of Conservation & Recreation
EIS	Environmental Impact Statement	MRIS	Metropolitan Regional Information Systems	VDHR	Virginia Department of Historic Resources
EMS	Emergency Medical Service	NRHP	National Register of Historic Places	VDOT	Virginia Department of Transportation
E&S	Erosion & Sediment	PRV	Pressure Reducing Valve	VSMP	Virginia Stormwater Management Permit
FAMPO	Fredericksburg Area Metropolitan Planning Organization	PUD	Planned Urban Development	VEC	Virginia Employment Commission
FAR	Floor Area Ratio	SWM	Storm Water Management	VRE	Virginia Railway Express
FEMA	Federal Emergency Management Agency	SWOT	Strengths, Weaknesses, Oppotunities, & Threats	WHPP	Wildlife Habitat Protection Plan
FIRE	Finance, Insurance, & Real Estate	TAZ	Traffic Analysis Zone	WIA	Workforce Investment Area

## APPENDIX III

### RESEARCH & PROGRAM DEVELOPMENT BIBLIOGRAPHY

#### ***EDA Annual Economic Report (2007 & 2008)***

*Economic Development Authority,  
Stafford, Virginia.*

#### ***Volumes VI-VIII (2008)***

Cultural Resources, Inc.  
Fredericksburg, Virginia.

#### ***Base Alignment and Closure (BRAC) (2005)***

United States Marine Corps  
Washington, DC.

#### ***Best Place to Get Ahead (2008)***

*Forbes.com.*

#### ***Bicycle / Pedestrian Facility Plan (1996)***

*Element of the Comprehensive Plan  
Stafford County, Virginia.*

#### ***Capital Improvement Program (2007)***

*Element of the Comprehensive Plan  
Stafford County, Virginia.*

#### ***Chesapeake Bay Preservation Area Plan (2001)***

*Element of the Comprehensive Plan  
Stafford County, Virginia.*

#### ***Comprehensive Water Supply Study (1991)***

*Element of the Comprehensive Plan  
Obrien & Gere, Virginia.*

#### ***Cultural Resources Plan (2007)***

*Element of the Comprehensive Plan  
Stafford County, Virginia.*

#### ***Design & Construction Standards (2005)***

Stafford County, Virginia.

#### ***The Stafford Comprehensive Plan (2007)***

*A Sustainable Future  
Peter J. Smith & Company  
Buffalo, New York.*

#### ***Economic Development Plan (1994)***

*Element of the Comprehensive Plan  
Stafford County, Virginia.*

#### ***Economic Development Plan (2006)***

*Element of the Comprehensive Plan  
Basile Baumann Prost & Associates, Inc.  
Annapolis, Maryland.*

#### ***Existing Condition Analysis (2008)***

Urban Ltd.  
Chantilly, Virginia.

#### ***Falmouth RMP (2008)***

Cultural Resources, Inc.  
Fredericksburg, Virginia.

#### ***Final Environmental Impact Statement (2007)***

*Westside Marine Base Quantico  
United States Marine Corps  
Washington, DC.*

#### ***Stafford Focus (2005-2008)***

*Economic Development Authority  
Stafford, Virginia.*

#### ***Groundwater Management Plan (2004)***

*Element of the Comprehensive Plan  
Draper Aden Associates  
Charlottesville, Virginia.*

#### ***Land Use Plan (2003)***

*Element of the Comprehensive Plan  
Stafford County, Virginia.*

#### ***Parks & Open Space (1989)***

*Element of the Comprehensive Plan  
Rhodeside Harewell & Economic Research  
Associates  
Alexandria, Virginia & Washington, DC.*

#### ***Master Water and Sewer Plan (1992)***

*Element of the Comprehensive Plan  
Stafford County, Virginia.*

#### ***Public Safety Plan (1993)***

*Element of the Comprehensive Plan  
Stafford County, Virginia.*

#### ***Shaping a Master Plan (2007)***

Cunningham & Quill Archit  
Washington, DC.

#### ***Shoreline Area Management Plan (1990)***

*Element of the Comprehensive Plan  
Stafford County, Virginia.*

#### ***Stafford County Master Redevelopment Plan (2008)***

CMSS Architects, PC  
Virginia Beach, Virginia

Economic Research Associates  
Washington, DC

Urban Ltd.  
Chantilly, Virginia

Wells + Associates  
Manassas, Virginia.

#### ***Stormwater Management Plan (1993)***

*Element of the Comprehensive Plan  
Stafford County, Virginia.*

#### ***Subdivision Regulations (2007)***

Municipal Code Corporation  
Tallahassee, Florida.

#### ***Telecommunication Plan (2002)***

*Element of the Comprehensive Plan  
Stafford County, Virginia.*

#### ***The Falmouth Plan (2002)***

*Element of the Comprehensive Plan  
Stafford County, Virginia.*

#### ***Three Area RMA (2008)***

Cultural Resources Inc.  
Fredericksburg, Virginia.

#### ***Transportation Plan (1995)***

*Element of the Comprehensive Plan  
Stafford County, Virginia.*

#### ***Widewater Area Plan (1994)***

*Element of the Comprehensive Plan  
Stafford County, Virginia.*

#### ***Wildlife Habitat Protection Plan (2000)***

*Element of the Comprehensive Plan  
Virginia Department of Forestry  
Charlottesville, Virginia.*

#### ***Zoning Ordinance (2007)***

Municipal Code Corporation  
Tallahassee, Florida.

## APPENDIX IV

### FALMOUTH VILLAGE & SOUTHERN GATEWAY PUBLIC WORKSHOP #1

On February 2, 2009, the County of Stafford and its Planning Team, led by CMSS Architects, conducted a public workshop for the Falmouth Village and Southern Gateway portion of the Stafford County Master Redevelopment Plan. This workshop was a formal presentation, planning process, and activities that sought to obtain public input on the future of the area. The following report documents the workshop process and the results from the public input surveys.

The workshop was held at the Gari Melchers Home and Studio at Belmont in Falmouth Village on Monday, February 2, 2009, from 6:30 pm till 8:30 pm.

### PUBLIC WORKSHOP #1 AGENDA

1. Introduction by Brad Johnson, Redevelopment Director
2. CMSS team presentation (PowerPoint)
  - a. Introduction of the Planning Team.
  - b. Brief description of the Falmouth Village & Southern Gateway Redevelopment Areas.
  - c. Recap on the “Vision” plan from 2006 (C&Q)
  - d. Explanation of Planning Process; Consultant’s Findings (Cultural, Market-Economic, Infrastructure & Transportation issues).
  - e. Planning Process and Public Input;
    - i. Master Redevelopment Plan: building upon the “Vision” Plans
    - ii. Project phases
  - f. Public Participation / Emphasis on the importance of Public Input
    - i. Recap on Public Forums: public input/citizens concerns
    - ii. Public participation vital to the success of the master plan
3. Hands-On activities, encouraging discussion/input
  - a. After discussion and review of the above-mentioned surveys each table’s representative will present conclusions and comments for review.
    - i. The attendees were asked to place red, blue, and green dots on maps.
  - b. The attendees were given a short questionnaire to fill in.
  - c. The attendees were given a Visual Preference survey to fill in.
4. End of Falmouth Village & Southern Gateway Public Workshop.

### PUBLIC WORKSHOP #1 ACTIVITIES

A total of thirty-four (34) people attended the Falmouth Village and Southern Gateway Public Workshop, not including the Planning Team, County Staff and members of the Board of Supervisors. After the introductory presentation, the public was free to move among the tables, boards, maps and participate in the activities conducted at them. Many people stayed around the table moderators to inform the planning team of the various issues they would like to see addressed. Others placed dots on the maps to bring attention to specific sites, identifying strengths, opportunities and weaknesses in the area. Public comments are found at the bottom of each map, in reference to numbers as indicated on the map.

#### *Dot Maps*

Three maps were mounted on a wall so residents and stakeholders would identify and highlight three specific criteria. A moderator from the planning team was close by to encourage attendees to place color dots on the three maps as follows;

- Red dots — Challenges
- Blue dots — Strengths
- Green dots — Opportunities

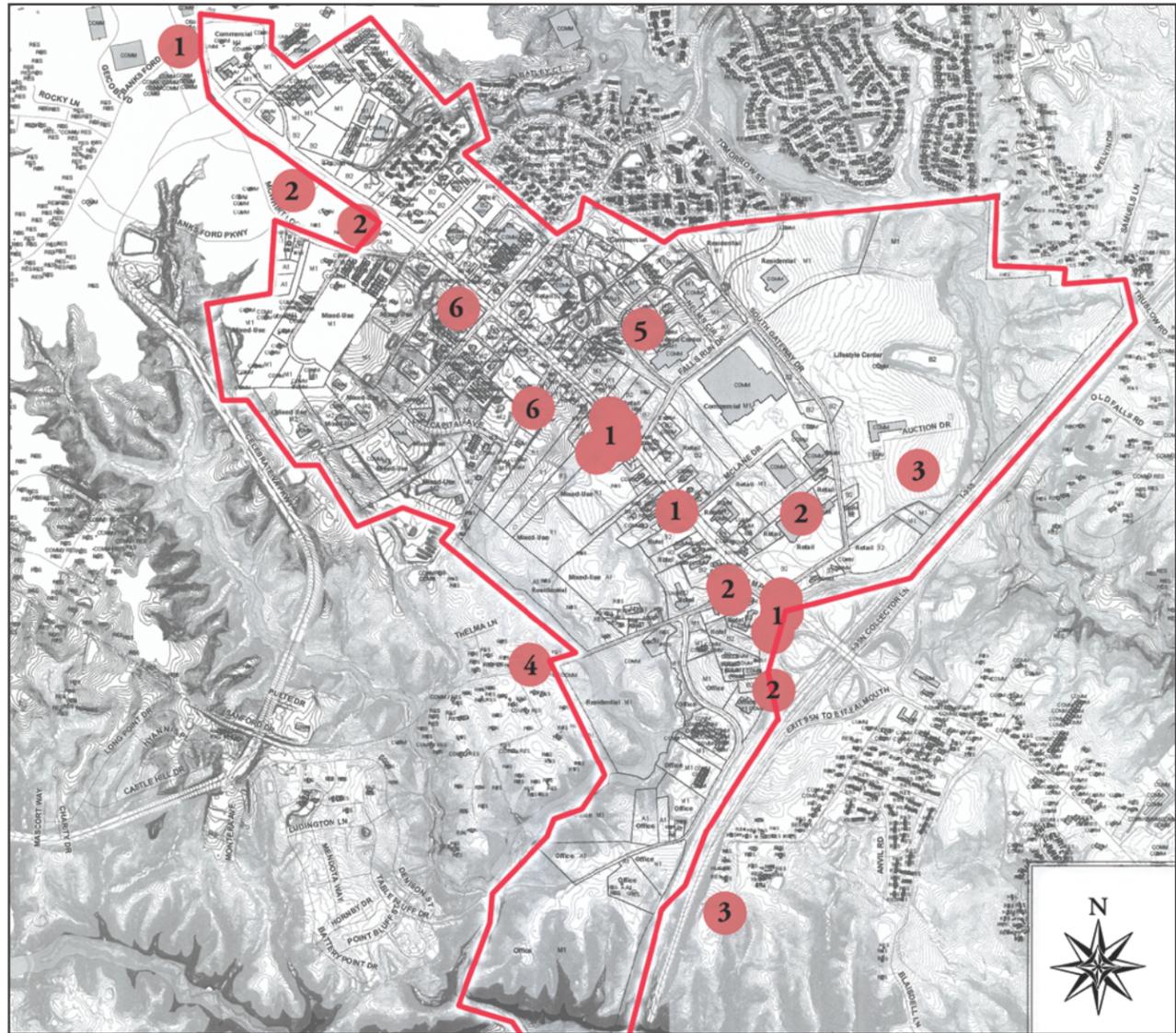
#### *Note on maps and comments*

- ◆ Each table utilized independent numbering system, and marked up on maps separately
- ◆ Numbering system was consolidated and simplified for consistency purpose
- ◆ Mark-ups and notes were also combined to ensure uniformity and coalescent repetition

#### *General Comments*

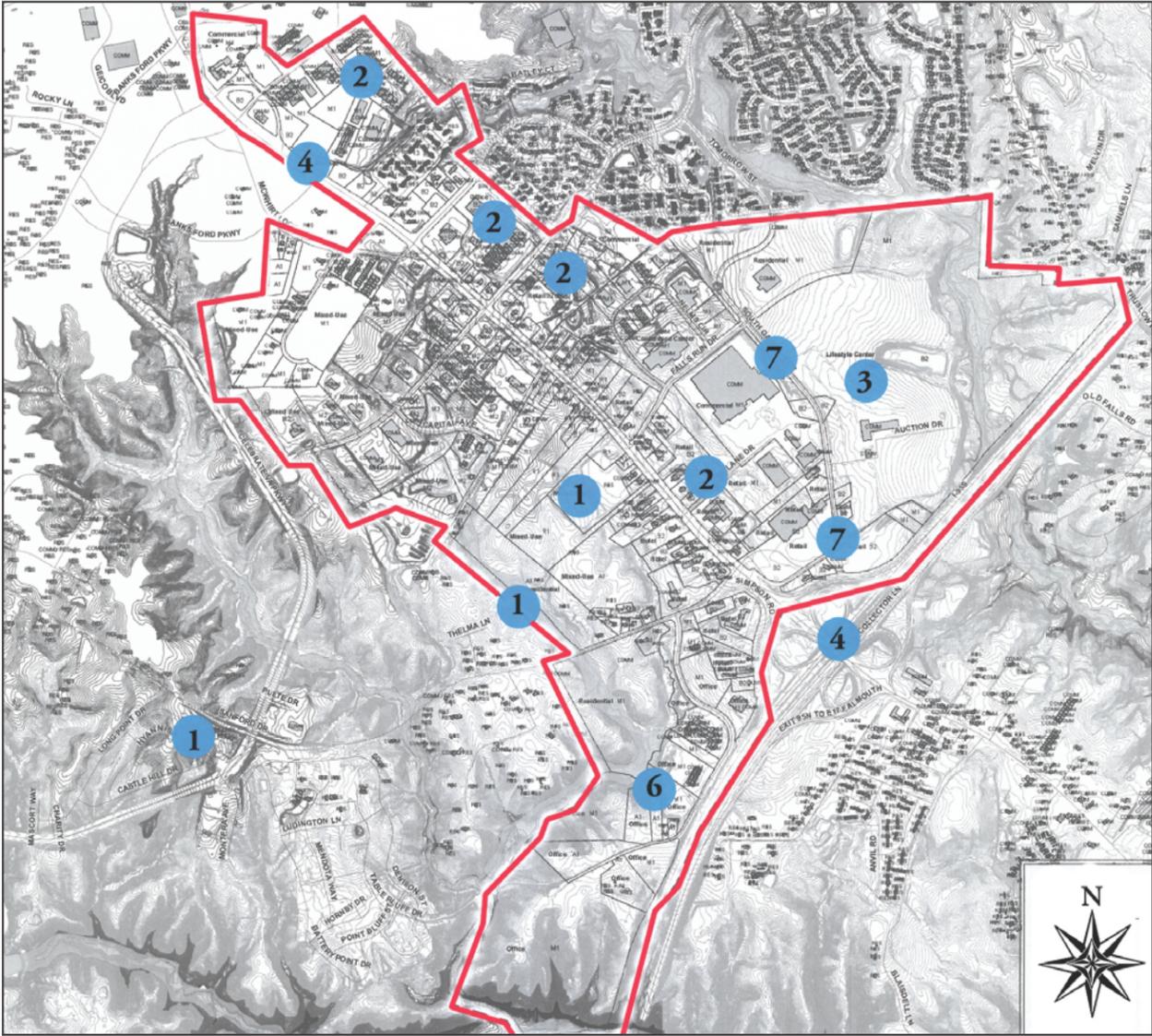
- ◆ County should be involved in paying for road, storm water and grading, pedestrian connectivity.
- ◆ Steep slopes – potential for trails – utility corridor use for trails
- ◆ River as a resource – outdoor markets, ecotourism
- ◆ Road widening impacts on existing buildings, need traffic calming
- ◆ Compatible architecture to historic district
- ◆ Redevelopment to a mixed-use development
- ◆ Add bicycle lane, sidewalks, median with trees, and bypass road from the Corridor to 17 Regional storm water ponds, stream restoration, education regarding erosion & storm water
- ◆ Mass transit opportunities , connection to Leeland Station, buses, etc., restrict truck traffic to certain hours to aid in traffic calming
- ◆ Riverfront – environmental opportunities in conjunction with existing parks, outdoor markets, ecotourism
- ◆ Zoning regulations, overlay district, buffering, setbacks, Open space

SOUTHERN GATEWAY — CHALLENGES



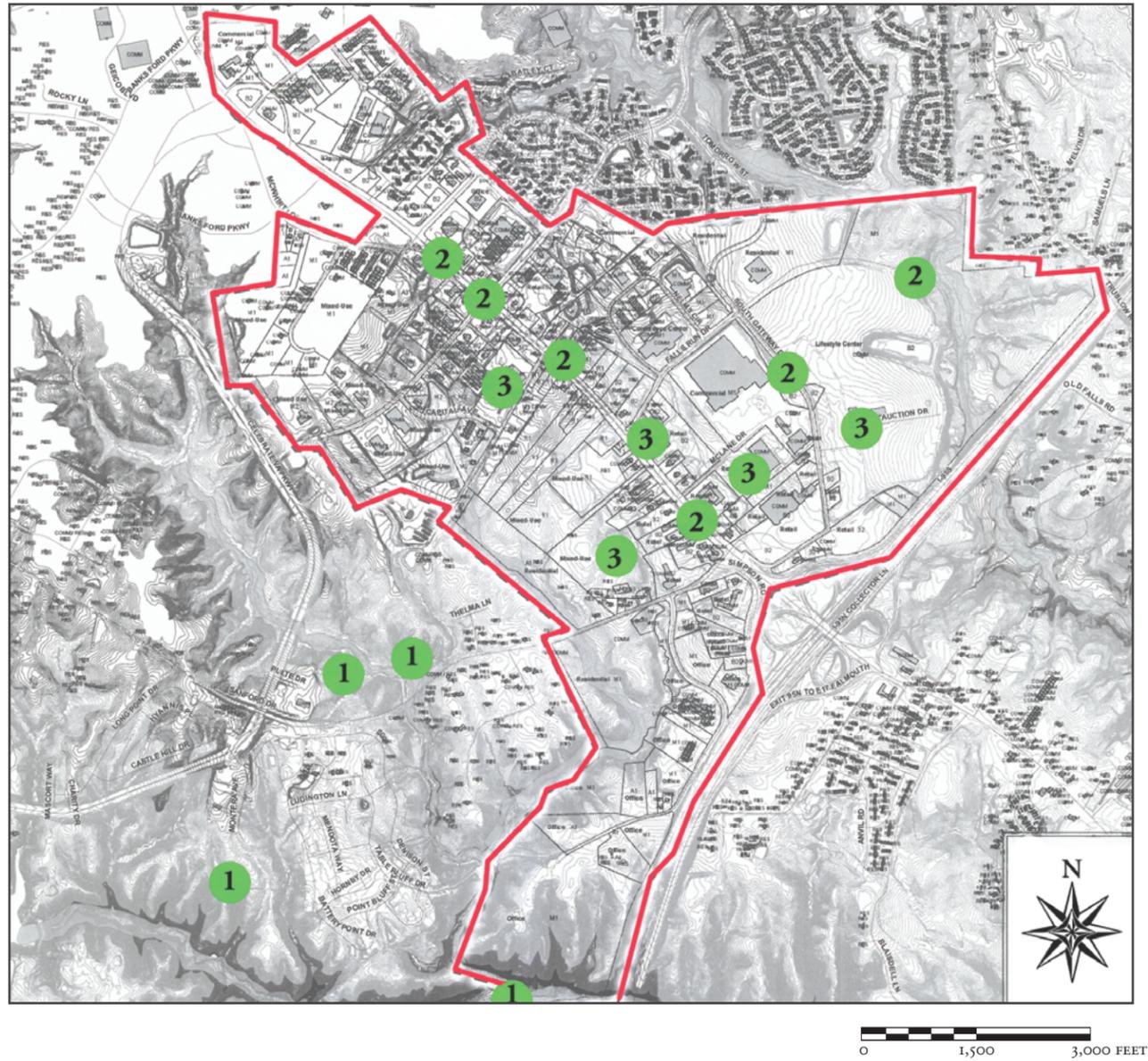
- LEGEND**
- 1 Traffic, transportation, congestion
  - 2 Underutilized commercial properties
  - 3 Remove tall signs
  - 4 Connection to surrounding residents
  - 5 Underutilized industrial property
  - 6 Redevelopment of commercial properties, keep existing local businesses

SOUTHERN GATEWAY — STRENGTHS



- LEGEND**
- 1 Open space
  - 2 Industrial/office parks
  - 3 Auto auction
  - 4 Gateway
  - 5 Existing residential neighborhoods
  - 6 Existing commercial/office
  - 7 Local traffic access

SOUTHERN GATEWAY — OPPORTUNITIES



**LEGEND**

- 1 Potential open space, parks, golf course
- 2 Traffic and transportation improvements
- 3 Vacant or underutilized commercial properties

PUBLIC INPUT SURVEY QUESTIONNAIRES

Each person was also asked to fill out two survey questionnaires. The first survey contained general questions that encouraged public to write anything and everything, while the second used a numeric value as answers to specific topics. Both surveys were consolidated into a table and graph respectively.

*Notes on Survey Questionnaires*

- ◆ 34 people attended the workshop
- ◆ 25 submitted questionnaire surveys
- ◆ Many questionnaire surveys submissions were repetitive
- ◆ The following are all the individual findings (repeated answers have been consolidated)

PUBLIC INPUT SURVEY QUESTIONNAIRE 1: QUALITATIVE ANALYSIS

**Q: What neighborhood do you live in?**

- A: Clearview Heights
- A: Hartwood
- A: Blythedale
- A: Falmouth
- A: Cardinal Forest
- A: Basil Gordon
- A: Sanford Drive (VA-670)
- A: Butler Road (VA-218)

**Q: Should Falmouth Village and Southern Gateway be combined?**

- A: No (13)
- A: Yes (11)
- A: Undecided (2)

**Q: If Falmouth Village and Southern Gateway were to be combined, what should the boundaries be?**

- A: South – out to Chatham
- A: North – Creek; South – River
- A: North – Centerport; South – River
- A: North – Interstate 95 (I-95)
- A: North – England Run; South – River
- A: North – England Run; South – Cambridge Street (US-1)
- A: North– Brea Church; South – Butler Road (VA-218)
- A: North – Airport; South – River
- A: As is

**Q: What do you like most about Southern Gateway?**

- A: Location
- A: Potential for improvement
- A: Income from tourist
- A: Like to see it go out away from Falmouth
- A: Nothing
- A: Take traffic off Warrenton Road (US-17)
- A: Shopping

**Q: What do you dislike the most about Southern Gateway?**

- A: Traffic
- A: Transportation
- A: Taken of Old home
- A: Too Commercial
- A: Turning into another Route 1 [Jefferson Davis Highway (US-1)]
- A: Lack of open spaces
- A: Overdeveloped

**Q: What do you feel is the greatest asset(s) in the areas?**

- A: Tourism
- A: History
- A: Location
- A: Interstate 95 (I-95) & Warrenton Road (US-17) Interchange
- A: The older homes
- A: Job opportunities
- A: Quick access to surrounding areas
- A: Geico
- A: Open spaces
- A: Belmont

**Q: What do you feel is the biggest challenge(s) in the areas?**

- A: Transportation
- A: Better planning
- A: Build parks, trails and access to River
- A: Run down businesses
- A: Traffic Control
- A: Road infrastructure

- A: Zoning
- A: Change of elected officials
- A: Truck traffic
- A: A miracle to unravel this web
- A: Funding for transportation
- A: Growing too fast
- A: Water/Sewer
- A: Unwanted new ideas
- A: Convincing people that it will work
- A: The people

**Q: What do you see happening to these areas in the future?**

- A: Growth
- A: Beautiful buffered gateway
- A: Architecture to enhance history
- A: Adding Businesses and Housing
- A: Constrictions on property rights
- A: Less traffic
- A: Will become more congested
- A: Nothing
- A: Tourism Development
- A: A lot of empty buildings

**Q: What Land Uses do you want to see occur in these areas?**

- A: Depends on the Citizens
- A: Mixed-use/Traditional Neighborhood Development/Hospitality
- A: More Retail and controlled open spaces
- A: More parking
- A: Better use of feeder roads
- A: New parks or recreation centers
- A: Tourism Development
- A: More farms and parks

**Q: What Land Uses do you not want to see occur in the areas?**

- A: High rise - meaning structures over 75'
- A: Big Box Development
- A: Car Dealers

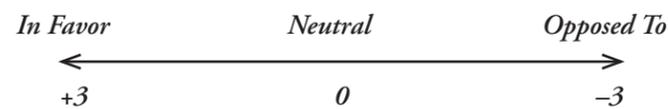
- A: Special interest taking over
- A: Copy of Prince William or Fairfax Counties
- A: Crowded subdivisions and retail
- A: Losing homes
- A: Fly-over Intersection
- A: Industrial Development

**General Comments**

- ◆ Need a road to connect Warrenton Road (US-17) at Washington Street
- ◆ Need a road to connect Warrenton Road (US-17) with Centerport
- ◆ Interchange on Interstate 95 (I-95). Need to widen Truslow Road (VA-652)
- ◆ Need other back roads to parallel Warrenton Road (US-17) to allow easier access
- ◆ Access to housing developments
- ◆ Preserve the Mills along the River for parking decks
- ◆ Raised above the river flood plan
- ◆ Shops on top levels
- ◆ These structures are tall and represent culture and historical context of Falmouth
- ◆ Fix the roads before starting a new project
- ◆ Include the people in making plans for the county

**PUBLIC INPUT SURVEY QUESTIONNAIRE 2: QUANTITATIVE ANALYSIS**

The second series of survey questions was a quantitative approach to analyzing public’s perceptions of the area. Various topics were established to gage the people’s interest in redevelopment efforts. People were asked whether they agree or disagree with each topic, and how much so.



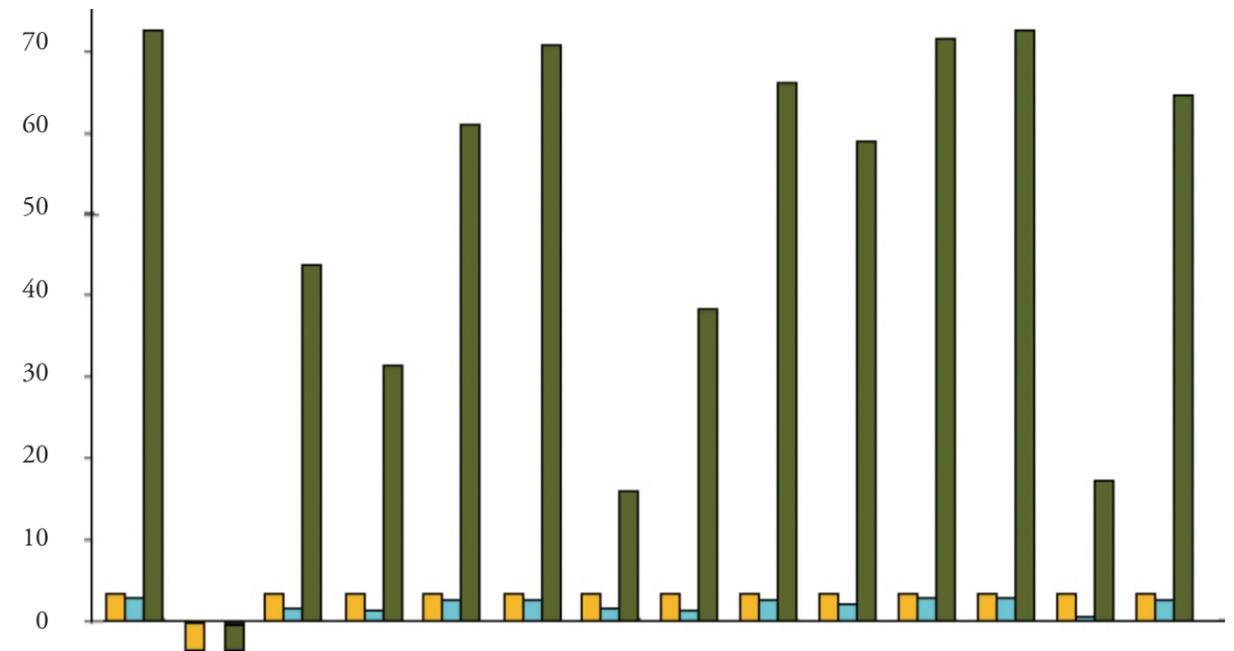
**Notes on Survey Questionnaires**

- ◆ 34 people attended workshop
- ◆ 25 submitted questionnaire surveys

**Three calculations were made, in order to eliminate any bias.**

- ◆ **Mode:** Number given the most often by the public, max mode 3
- ◆ **Average:** Sum divided by total number surveys returned, max average of 3
- ◆ **Sum:** Total number of results given by the public, 18 surveys returned yielding max sum of 54

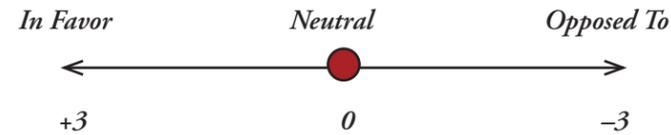
#	Topic	Mode	Average	Sum
1	Streets and roads need to be more pedestrian friendly	3	2.52	63
2	Buildings should be closer to streets to create a better defined community	-3	-0.12	-3
3	Buildings need to relate to one another in material and height	3	1.52	38
4	There needs to be provisions for bicycles	3	1.08	27
5	Green areas and parks need to be integrated into the plan	3	2.12	53
6	There needs to be better street lighting	3	2.44	61
7	Sidewalks need to be wider to allow for outdoor dining	3	0.56	14
8	I need the ability to walk from home to work, shop and entertainment	3	1.32	33
9	There is need for adequate parking	3	2.28	57
10	Landscaping and trees should be integrated into streetscape	3	2.04	51
11	Open space is important for the area	3	2.48	62
12	Traffic calming measures must be improved	3	2.52	63
13	I feel safe in our neighborhood	3	0.60	15
14	I am interested in new ideas to improve safety and walkability of the area	3	2.24	56



	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Mode	3	-3	3	3	3	3	3	3	3	3	3	3	3	3
Average	2.52	-0.12	1.52	1.08	2.12	2.44	0.56	1.32	2.28	2.04	2.48	2.52	0.60	2.24
Sum	63	-3	38	27	53	61	14	33	57	51	62	63	15	56

### VISUAL PREFERENCE SURVEY

The final survey was purely graphic and measured the public perception on various visual topics for future development. People were asked whether they were in favor of or opposed to certain photographic images of numerous topics. Their input was made quantitative so statistical analysis could be conducted similar to the qualitative analysis as demonstrated with survey questionnaire #2.



#### Notes on Visual Preference Surveys

- ◆ 34 people attended workshop
- ◆ 24 submitted visual preference surveys

#### Three calculations were made, in order to eliminate any bias.

- ◆ **Mode:** Number given the most often by the public, max mode 3
- ◆ **Average:** Sum divided by total number surveys returned, max average of 3
- ◆ **Sum:** Total number of results given by the public, 24 surveys returned yielding max sum of 72 – Falmouth Village; 22 surveys returned yielding max sum of 66 – Southern Gateway

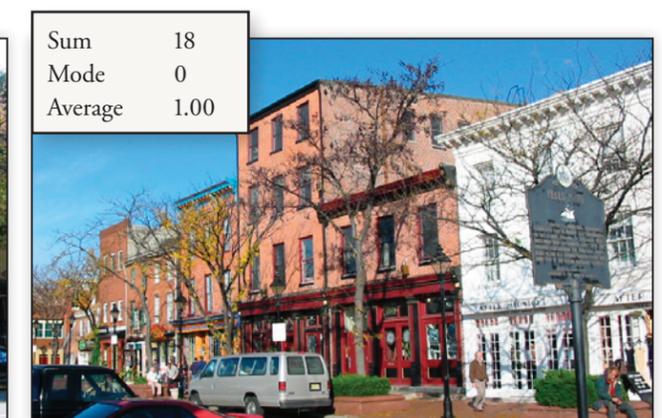
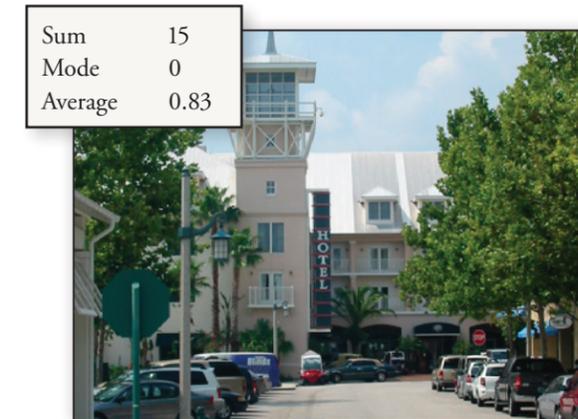
#### Other methods of eliminating bias

- ◆ Non-contextual pictures were included to allow for negative response
- ◆ Similar buildings were included to allow for refined responses

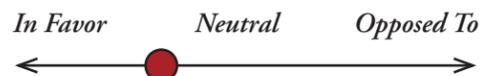
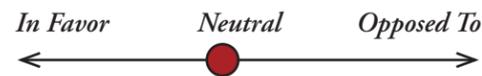
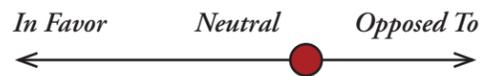
#### Visual topic categories included:

- ◆ Mixed-Use Architecture
- ◆ Residential
- ◆ Commercial
- ◆ Open space & parks
- ◆ Parking
- ◆ Streetscape

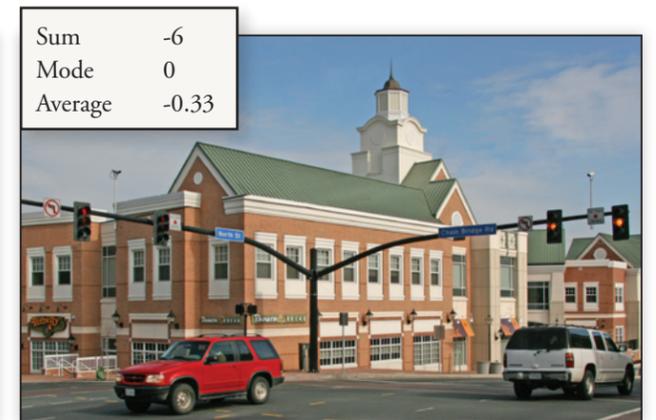
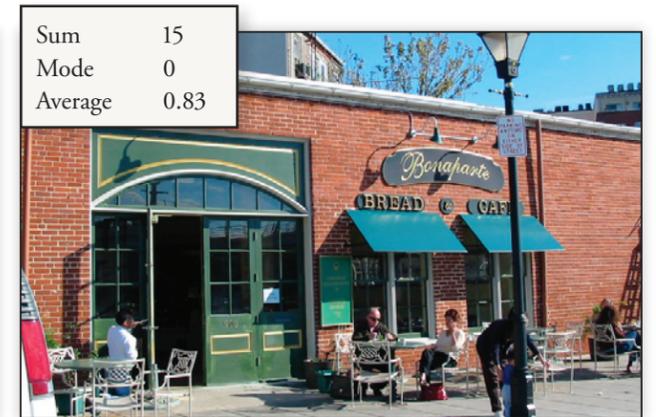
### MIXED-USE ARCHITECTURE IMAGE SAMPLES



RESIDENTIAL ARCHITECTURE IMAGE SAMPLES

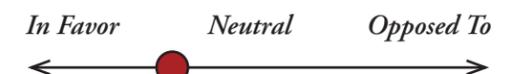
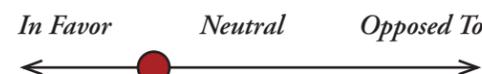
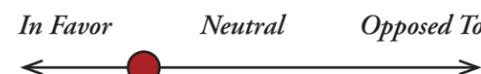
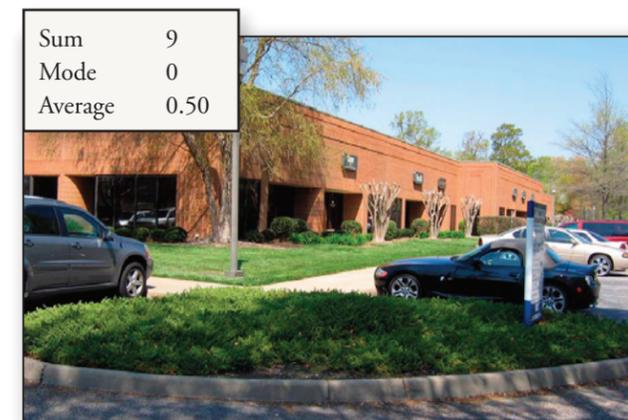
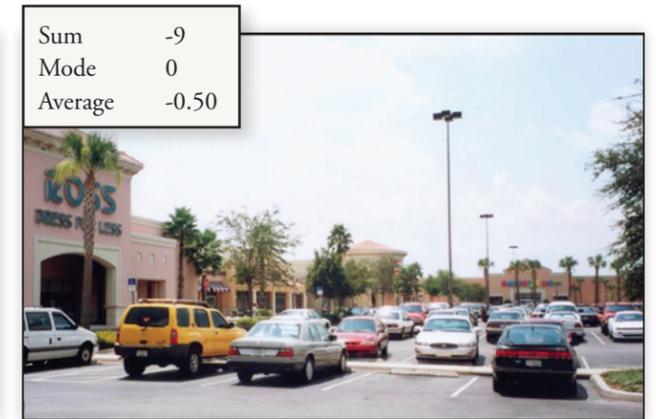
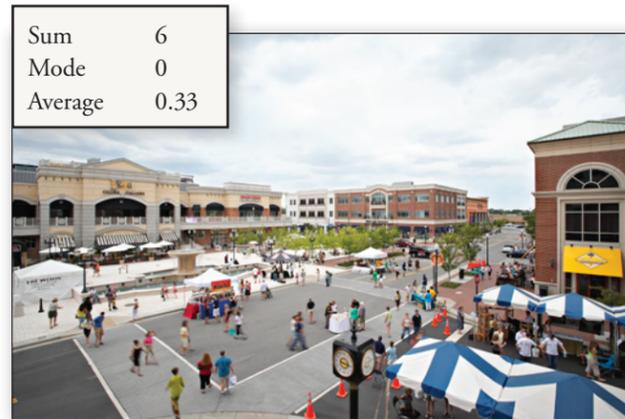


COMMERCIAL ARCHITECTURE IMAGE SAMPLES

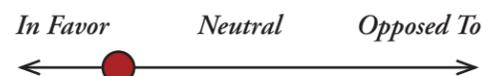
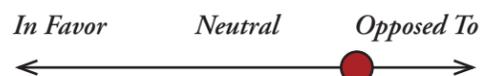
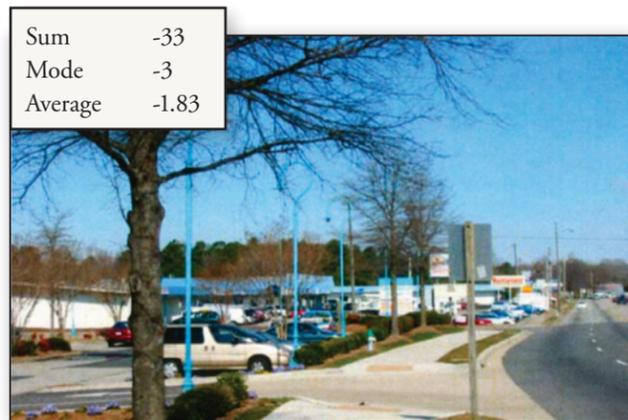
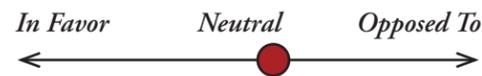
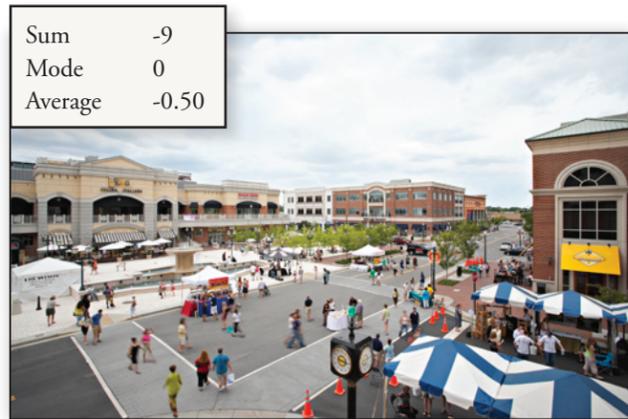
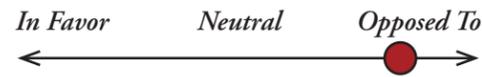
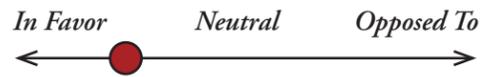


OPEN SPACE & PARKS IMAGE SAMPLES

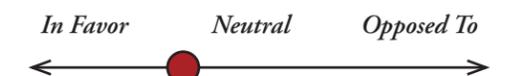
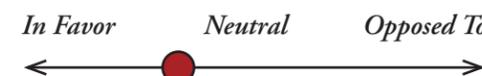
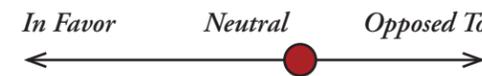
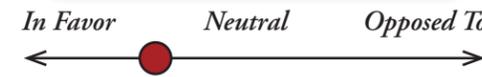
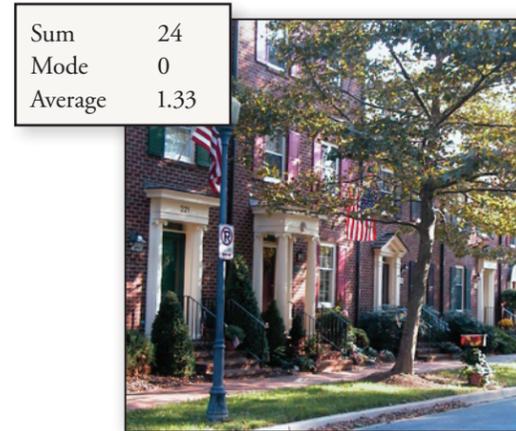
PARKING IMAGE SAMPLES



STREETSCAPE IMAGE SAMPLES



STREETSCAPE IMAGE SAMPLES



## FALMOUTH VILLAGE & SOUTHERN GATEWAY PUBLIC WORKSHOP #1: CONCLUSION

The final, tangible product of this process is the following comprehensive program. Based on a broad consensus view of the various development challenges, community assets, and potential opportunities as identified by the community and stakeholders, this program establishes community goals, a future role for the area, and, ultimately, a vision of how the area could integrate into the whole of Stafford County that will form the basis for a Master Redevelopment Plan.

As a strategy to re-engineer a growing area of the County on the western side of Warrenton Road (US-17), and a small, historic village with traffic congestion on the eastern side of the same road, the community vision will guide the development of the master plan. For that the planning team needed to hear from the public their opinion on strengths and weaknesses and external conditions – opportunities and/or threats.

The community workshop provided a wealth of input on the future of the Falmouth and Southern Gateway areas and of the Warrenton Road (US-17) corridor that connects them. The following section summarizes those thought and opinions and will provide a valuable framework during the next phase of planning.

### *Southern Gateway & the Warrenton Road (US-17) Corridor Area*

Southern Gateways' strengths include an abundance of existing commercial and office development and visibility from Interstate 95 (I-95), a de-facto Gateway for the county. Conversely, existing residential neighborhoods that add to the intense commercial activity create very heavy local traffic and access problems to main roads and interstate.

#### *Southern Gateway challenges include:*

- ◆ Heavy traffic, transportation, congestion.
- ◆ Underutilized commercial and industrial properties.
- ◆ Unappealing signage and a lack of connection to surrounding residential areas.
- ◆ The public sees an opportunity for open space, parks and golf course development.
- ◆ Traffic and transportation improvements are expected, and the public wants to see plans for connecting rather than making the crossings less pedestrian friendly.

Warrenton Road (US-17), particularly where it connects Falmouth Village with Interstate 95 (I-95) and Southern Gateway, is seen as a very busy corridor with its own share of challenges in traffic, blight, transportation, pedestrian access, underutilized properties, and terrain. The community would like to see development improvements, but also would like the opportunity for plans to protect existing residential neighborhoods.

- ◆ Despite blight and traffic, the Warrenton Road (US-17) corridor has among its assets existing businesses, residents, an abundance of open spaces, and historic Civil War sites.
- ◆ The community stated the need for road and sidewalk improvements including medians, bike lanes, and pedestrian access and traffic improvements.
- ◆ Some see potential for a school site connection from Warrenton Road (US-17).
- ◆ Community members believe that the bleak appearance of this part of the county and lack of a feature that announces Falmouth fails to attract potential travelers that might consider the area as an option for distraction and entertainment and constitutes a lost opportunity.

## VISUAL SURVEY RESULTS

### *Mixed-Use Architecture Preference*

The public was in favor of two- and three-story buildings that house a variety of commercial uses on the ground floor, with living or offices above and a mix of early 20th century small town America and contemporary similar buildings.

### *Residential Architecture Preference*

Most of the public was in favor of a mix of two- to three-story, traditional townhomes and contemporary tasteful multi-family buildings.

### *Commercial Architecture Preference*

In general, the public was in favor of the same scale of contemporary structures as above, housing a variety of commercial uses and office spaces.

### *Open Space & Parks Preference*

The public was largely in favor of a landscaped, inviting, walkable environment, tree-lined streets, with parks, benches and gathering spaces.

### *Parking Preference*

The attendees were equally in favor of on-street parking and structure parking.

### *Streetscape Preference*

Again, the majority of the public was in favor of landscaped, inviting, walkable environment, tree-lined streets, with parks and open gathering spaces.

## VISION STATEMENT

The vision for Southern Gateway is for a true gateway to the county, “The Southern Gateway.” Because community members are aware that this is the most visible of all the redevelopment areas, the need for an iconic structure has been mentioned, perhaps in the form of an elevated pedestrian walk or landscape feature. The focus here would be on a new gathering space and development geared towards a “lifestyle center” attraction for the region. Furthermore, the community envisions this as an area with potential for open space, parks, and golf course development. Traffic and transportation improvements are expected, and the public wants to see plans for connecting rather than making the crossings less pedestrian friendly.

While the Warrenton Road (US-17) corridor has open spaces, potential for parks, and a new entryway to Falmouth, the stretch of land between Southern Gateway and the Falmouth Village is also seen as having great potential for redevelopment of commercial property, as well as immediate and badly-needed way-finding and streetscape improvements to bring visitors to both Falmouth and Southern Gateway, creating a continuous transition between the two areas. It is hoped that this will result in a thriving, attractive corridor that benefits the entire district. A gateway, announcing the historic significance of Falmouth, is seen as an important and essential component of any redevelopment plan.

## APPENDIX V

### FALMOUTH VILLAGE & SOUTHERN GATEWAY PUBLIC WORKSHOP #2

On April 24, 2009, Stafford County and the CMSS Planning Team hosted a second public workshop for the Falmouth Village and Southern Gateway redevelopment areas, focusing on the proposed planning efforts for each of these areas. The workshops included a digital presentation of the project background, an analysis of findings and a summary of the previous workshop's preferences as expressed by the residents in each of the redevelopment areas. It also included activities that sought to obtain public input on each area's draft master plan. The following report documents the workshop process and the results from the public input questionnaires.

The workshop was held at Mary Washington College of Graduate and Professional Studies on Thursday, April 24, 2009, from 7:00 p.m. til 9:00 p.m.

### PUBLIC WORKSHOP #2 AGENDA

1. Introduction by Brad Johnson, Stafford County Redevelopment Director
2. CMSS Planning Team Digital Presentation
  - a. Review of Resources & Input
    - i. Comprehensive Plan: Land Use Plan
    - ii. Economic Development Report
    - iii. Cunningham + Quill's "Vision" plan from 2006
    - iv. Public Comments & Preferences from the first round of Public Workshops
      1. Community Goals
      2. Vision Statement
  - b. Present Draft Master Plan
  - c. Next Steps
3. Hands-on Activities, encouraging Discussion & Input
  - a. Review Draft Master Plans and Comments
  - b. Respond to Short Questionnaire
4. Conclusion & Summary

### PUBLIC WORKSHOP #2 ACTIVITIES

In order to gather public input on the Proposed Master Plan for each area, following the initial presentation at the Falmouth Village & Southern Gateway Workshop, the public was free to participate in the activities conducted at each table. Many people gathered with the table moderators to share with the Planning Team their concerns and the various issues they would like to see addressed. Each table discussed the Proposed Master Plan for each redevelopment area.

Participants placed green dots on the plan to highlight positive comments and red dots to highlight concerns. The public's comments follow, referencing the numbers as indicated on the corresponding maps.

#### ***Table Discussion for the Falmouth Village & Southern Gateway Public Workshop included:***

- 30"× 36" Black & White existing condition map for both Falmouth Village and Southern Gateway
- A quarter mile radius pedestrian walking circle template
- 30"× 36" Colored Proposed Master Plan depicting landscape, traffic improvements, building and land use proposals for both Falmouth Village and Southern Gateway
- Written questionnaire on general and specific issues of the Proposed Master Plan for both Falmouth Village and Southern Gateway
- Red and Green dots;
  - ◆ Red dots to note important concerns, reservations, and disagreements
  - ◆ Green dots to note agreements, commendations, and positive feedback
- Written comments (provided in *General Notes* section) for both Falmouth Village and Southern Gateway

## PUBLIC INPUT & TABLE DISCUSSIONS

Please refer to the *Southern Gateway: Preliminary Master Plan (Buildings Colored by Use)*.

### General Notes

- Many people believe that it is necessary to improve Warrenton Road (US-17) first, believing that “nothing works without [improvements to] Warrenton Road (US-17).”
- Many people believe that the slower-than-necessary speed limit isn’t useful.
- Some people expressed the need for more pools and open spaces.
- Some individuals noted that designated office space needs to be large.
- Some people inquired about the incentives for business, noting the need to draw business and the need to make it competitive.
- A few people mentioned the Old Forge area needs help in addressing drugs and crime.
- People would like to see the Plan for bike paths, jogging trails, amenities.
- There was concern that it was critical for commuter lot to have easy access to Warrenton Road (US-17). The commuter lot may need to be closer and easier to find, but without overwhelming the neighborhood.
- Some people would like to have Commerce Parkway remain as a cul-de-sac.
- People noted that trees are a must; as they help the overall appearance of the Southern Gateway area.
- Some expressed the desire to keep the existing industrial areas along Interstate 95 (I-95) as long as it looks nice—or “buffering” it.
- Many were in favor of the idea of widening and the extension to Truslow Road (VA-652).

## MASTER PLAN PUBLIC INPUT

### Concerns & Reservations (Red Dots)

1. Some believe there is a need for another bridge across the Rappahannock River.  
(Note: This area is currently outside of Southern Gateway’s Redevelopment Boundaries.)
2. Some would like to fix the Interstate 95 (I-95) interchange/on-ramp, possibly making it two lanes. (VDOT)
3. Many wish to reduce the number of traffic lights along Warrenton Road (US-17).
4. Some individuals do not wish to connect the area to existing commerce, but rather tie it to Celebrate, Virginia.  
(Note: Sanford Drive does currently connect Southern Gateway to Celebrate, Virginia.)
5. Some people believe there is a need for a separate truck route to Truslow Road (VA-652), along the Plantation Drive area.
6. Some people would like to expand the Master Plan to include the area around Geico and Lowe’s.  
(Note: This area is currently outside of Southern Gateway’s Redevelopment Boundaries.)

### Agreement & Commendations (Green Dots)

1. Many people were in favor of the connection on Truslow Road (VA-652) to the Southern Gateway Area.
2. Some individuals were in favor of creating “villages” in the redevelopment area.
3. Some people were in favor of the newly landscaped median; not only do they like the look of the trees but it also helps slow traffic.
4. People believed that including some of the surrounding residential areas along the Warrenton Road (US-17) corridor a good idea to integrate and adopt in the Master Plan.
5. Some People were interested in the redevelopment of the existing residential area south of Warrenton Road (US-17) and east of Interstate 95 (I-95).
6. Some believe with community partnership, there could be a possibility for a multi-sports venue.
7. Some people were in favor of the Park and Ride recommendations.
8. Many people were in favor of widening Truslow Road (VA-652) just outside the Southern Gateway Area.



## PUBLIC INPUT SURVEY QUESTIONNAIRE: PART 1

**Notes about the Southern Gateway Questionnaire:**

- ◆ 25 attended
- ◆ 9 surveys returned
- ◆ Repeated comments consolidated

**What do you think about the following proposed solutions?****1. The connections to and from Truslow Road (VA-652) for an alternative local travel route?**

- ◆ “Yes”
- ◆ “Okay” (3 times)
- ◆ “Good idea”
- ◆ “Good idea! Set reasonable speed limits”
- ◆ “Very good idea! However, need to make the speed limit attractive to residents”
- ◆ “Layout needs more alternatives for local travel”
- ◆ “Need to widen Berea Church to Truslow Road (VA-652)”

**2. Shifting the focus to both east and west side of Interstate 95 (I-95) interchange and modifying the focus area?**

- ◆ “Yes”
- ◆ “Okay” (3 times)
- ◆ “Good!”
- ◆ “Good idea.”
- ◆ “Idea has merit”
- ◆ “Good idea — east needs it”
- ◆ “West side of Warrenton Road (US-17) is a great idea! Is it in the plan with VDOT? Clean it up east side nicely too.”

**3. The location of the park and ride parking structure?**

- ◆ “Okay” (3 times)
- ◆ “Yes”
- ◆ “Good”
- ◆ “Good but only if supported by shuttle bus”
- ◆ “Move parking garage (park & ride) adjacent to existing Warrenton Road (US-17) commuter lot — so all can take VRE shuttle, busses to D.C., etc.”
- ◆ “Could we not use the current lot?”
- ◆ “Why not outside the redevelopment complex?”

**4. The overall grid layout and parking arrangements?**

- ◆ “Too dense, and must consider trucks and seasonal traffic”
- ◆ “Like the idea of hiding the parking in between the buildings”
- ◆ “Grid okay, move Park & Ride garage adjacent to existing Warrenton Road (US-17) commuter lot”
- ◆ “Good”
- ◆ “Okay”
- ◆ “Not sure”
- ◆ “Needs consideration of traffic flow”

**5. Streetscape improvements along Warrenton Road (US-17) to Falmouth Village?**

- ◆ “Okay”
- ◆ “Good”
- ◆ “Great idea! Bury the electric wires and signs and add landscape!”
- ◆ “I like the look of it, but Falmouth is not a big draw (other than Belmont)”
- ◆ “Great! Any improvements are a plus; but to a big cost to business owners.”
- ◆ “Great idea, anything to clean it up”
- ◆ “Needs consideration of traffic flow”

**6. The height and density of the plan?**

- ◆ “Looks good”
- ◆ “Okay” (2 times)
- ◆ “Yes”
- ◆ “Okay to modify buildings height”
- ◆ “Allow building flexibility”
- ◆ “Appears friendly but much too dense”
- ◆ “Maybe too dense, leave open space-natural areas, don’t add residential if you cannot transport them adequately, don’t add more congestion”

**7. The architectural design planned for the area?**

- ◆ “Good”
- ◆ “Okay” (3 times)
- ◆ “Would like to see more specific plans”
- ◆ “Too dense for roads”
- ◆ “Good, but needs better transition into Celebrate Virginia”
- ◆ “Too much improvement — allow more variations, why back in current trend?”

## PUBLIC INPUT SURVEY QUESTIONNAIRE: PART 2

**1. Do you feel the plan has a balanced mix of uses?**

- ◆ “Yes” (5 times)
- ◆ “Somewhat”
- ◆ “No, need to bring more high-tech, big businesses to use the talent pool existing in Stafford to get them out of the commute”
- ◆ “May be too dense”

**2. Do you think that the plan has adequate open plazas and parks?**

- ◆ “No”
- ◆ “Yes” (6 times)
- ◆ “We need a large community pool and planned soccer, football, and baseball fields”

**3. Do you have any comments and suggestions to improve the plan?**

- ◆ “I think you need to rethink the community lot to stay on Warrenton Road (US-17). When are you going to reveal your plan to draw businesses, instead of pushing them away?”
- ◆ “Needs consideration of traffic flow”
- ◆ “More consideration to heavy trucks by way of by-passes”
- ◆ “We need to think about adding a park with baseball, soccer fields and a pool for residents and competitions. If this was within walking distance, it would add a big factor for businesses, and residential needs. There is a shortage in Stafford for these. It would also add revenue to the hotels and shops. (For instance, a family living off Plantation Drive would take kids to soccer practice and walk a couple of blocks to Starbucks, etc...)”
- ◆ “Given past history, dredge river and help control flooding”
- ◆ “We need to see what is already there in detail, and what would change”
- ◆ “Expand development area north of Warrenton Road (US-17) to Poplar Road/Bristersburg Road (VA-616). Widen Warrenton Road (US-17) to 8-lanes from Interstate 95 (I-95) to Poplar Road/Bristersburg Road (VA-616) (summer traffic backs up all the way to Poplar Road/Bristersburg Road (VA-616)). Expand the on-ramp into Interstate 95 (I-95) South from Warrenton Road (US-17)7 East, to 2-lanes. Put cement barriers on the right lane of Warrenton Road (US-17) East, half a mile before ramp to Interstate 95 (I-95) South, so the fools can not drive to the last minute and pull in front of everyone else!”
- ◆ “I would recommend pursuit of mixed use sports facility to attract locals and visitors –similar to the Freedom Center- to support restaurants, hotels and local attractions. Partnerships with local businesses such as Geico, Silver Companies, Mary Washington University and Stafford County. Freedom Center was paid off in five years and generates \$10,000 - \$15,000/weekend for swim meets alone and extra income for surrounding businesses.”
- ◆ “Extend development west towards Celebrate Virginia.”
- ◆ “The plan to focus growth in small areas is over-rated. Commercial users have needs that are not met in these areas and would need flexibility in finding sites that best meet those needs.”
- ◆ “Don’t try to force limits on commercial users – property owners”
- ◆ “This plan is like those in other areas, not everyone will get what they want. Allow users to have more leeway with their developments (Note: not a developer).”

FALMOUTH VILLAGE & SOUTHERN GATEWAY  
PUBLIC WORKSHOP#2: CONCLUSIONS

While the first workshop provided a great deal of information for planning of the redevelopment areas, this second workshop measured how the plans addressed the public’s concerns. Overall, the majority of the public approved of the plans, clearly giving a positive response to most of the questions asked about the plans. Additional information was provided in these workshops, which will allow the planning team to make specific improvements and enhancement to the draft master plans that favor both residents and businesses of Stafford County.

## APPENDIX VI

### FINANCIAL FEASIBILITY: ASSUMPTIONS & METHODOLOGY

*Note:* The findings herewith are the result of the Planning Team's assumptions and their recommendations based thereon are typical for a master redevelopment study of this magnitude. It is also understood that the market will drive the master plan implementation. Stafford County does not have plans for consolidating land to directly implement the plan.

Economic Research Associates (ERA) constructed a financial pro forma development model to analyze the potential gross residual land value from the proposed Core Development Area development program for each of the redevelopment areas.

The results of the analysis indicate the maximum amount per acre a developer could pay for the land.

Aside from the assumptions by category below, all redevelopment area analyses assume, per discussions with County representatives that:

- The entire Core Development Area program (as summarized by master plan drawings and accompanying tables) is developed in one phase, in year 0 of the development pro forma. (Although in reality this may be multi-phased, the end results will be similar.)
- The Financial feasibility analysis for the master plan is for a ten year period from 2010-2020, with assumed reversion in year 10

Additional assumptions are outlined below in the attached tables and explained below as appropriate.

*Efficiency ratios*, which represent the percentage of built space which is usable (versus space that is dedicated to circulation or building core that is not rentable), are based on industry experience of buildings that are newer and more efficient. They vary slightly by type – from 85–95%.

*Vertical Development Costs* are a cost per square foot figure for building the building (not internal streets or other site infrastructure). These were garnered from R.S. Means, an industry standard for cost estimation with adjustments based on the experience in the market of the Master Planning Team Members. They include both hard and soft costs.

*Tenant Fit Out costs* are costs to finish interior spaces specifically for tenants' needs. These are based on local rental surveys as well as discussions with the Master Planning Team Members and are adjusted upward for inflation.

Parking annual maintenance costs are based on industry averages. Based on discussions with the Master Planning Team Members, it is assumed that all developer-provided parking is on surface lots.

A percentage of the total cost is often added to development costs as Contingency costs for unforeseen overruns and expenses.

The *Developer fee* in this analysis is represented as a percentage, and is a stand in for the minimal amount of profit for the developer. The general contractor fees and other fees are included in the vertical development costs.

*Operating assumptions* provide the backbone of the revenues and expenses which create the value of the development. These include rents, other revenues, and operating expenses such as utilities. The sources for these are noted on the associated table.

Other assumptions include the stabilized occupancy rate (which is the occupancy rate at which most buildings are considered "full" to allow for tenant turnover and other factors), an assumed percentage of units or space that will be presold/preleased, and loss on unsold units. These variables are based on industry experience.

The program used for each redevelopment area is based on information provided by the Master Planning Team. ERA used numbers of square feet, units, and parking spaces by type (designated as either multifamily residential, office, retail). Average unit sizes are calculated by dividing total square feet by the total number of units. ERA further distributed the residential between rental apartments or condominiums, and the retail between general retail and restaurants (because restaurants have a higher construction cost and greater tax implications). This distribution, and the annual absorption, is professional judgment based on ERA's experience with similar projects, the findings of the market study, and consideration for the likeliest market position for the redevelopment area. Because of the conceptual nature of the plan, these represent best guess estimates.

Each area's analysis begins with an estimation of construction and development costs. The vertical construction costs are the result of the per square foot costs multiplied by the gross building area (GBA). By contrast, the tenant improvements use the net rentable area (NRA). Parking was calculated on a per-space basis (\$2,500 per space for surface lots). Additional horizontal costs (infrastructure and site work) are added on a per acre basis. The Master Planning Team members provided ERA with the horizontal cost data, at \$250,000 per acre, which is assumed to provide the necessary on-site parking. Additional infrastructure costs were added to the Boswell's Corner Redevelopment Area for a linear park. A 5% contingency and 4% developer fee were added to the total vertical and horizontal costs.

ERA then prepared a pro forma operating statement analysis by land use type (office, retail, restaurant, hotel, rental apartment, and for sale condominiums, as applicable for the redevelopment area). These found the net operating income of each use by taking the total revenue minus the total expenses. The resulting net operating income (NOI) was capitalized at prevailing capitalization rates to find an approximation of sale value, less a 5% cost of sale (for marketing of the property).

This is unleveraged, meaning it does not represent the cost of money to the developer (financing). In a subsequent step, ERA performs a cash flow analysis to find the net costs and revenues to the developer. The net present value of the revenue at a discount rate of 12% minus the net present value of the construction costs at the same rate represents the residual land value for each area's development. Again, it is important to note that this analysis only represents development of the program for the Core Development Areas. The full step-by-step analyses for each redevelopment area can be found in the Appendix tables.

## FISCAL OVERVIEW

This fiscal overview is intended to give an estimate of the tax revenues generated by the proposed Core Development Area in the four redevelopment areas. This is not intended to be a net fiscal analysis, which would consider sources and uses of funds and the costs associated with the development. The fiscal overview examines the property values of the new investment (using construction costs as a proxy for assessed value) and any county infrastructure investments, and determines the corresponding revenues for Stafford County in the following tax categories, using the most recently available rates from the County (as of the FY 2010 budget):

- **Real Property Tax:** \$0.84 per every \$100 of assessed value. Construction costs are used as a proxy for assessed value in this analysis.
- **Retail Sales Tax:** The state collects 1% for local jurisdictions. The analysis includes retail sales taxes collected for on-site spending, for resident retail sales that happen off-site, and for construction materials bought in the County.
- **Meals Tax:** The County collects 4% dedicated to the School Board, in addition to the 1% local sales tax and 4% state sales tax. Again, this is estimated for both on-site spending, and for resident spending off-site in the County.
- **Transient Occupancy Tax:** The County currently collects (in addition to the retail sales tax) 5% transient occupancy tax – 2% for the general fund and 3% for tourism development. This is estimated for the redevelopment areas, where a hotel is planned in the Core Development program.

Stafford County also collects personal property, business property, machinery and equipment, and BPOL taxes (starting in 2010).<sup>1</sup> Because these vary by value of equipment and by revenue levels, they would require too many unknown assumptions to compute with a reliable accuracy.

As a summary, the total impacts of all four redevelopment areas during the construction period would be \$1.8 million, including \$1.5 million in sales taxes on construction materials, and \$290,000 in sales and use taxes from construction worker spending. Annually, the Core Development program for all four redevelopment areas would benefit the County with \$3.2 million in property taxes, \$4.2 million in on-site sales and use taxes, and \$511,000 in off-site sales and use taxes for a total of \$7.9 million annually. These summary figures are shown in Table 21 (*Summary of Core Development Area Annual and Construction Period Fiscal Benefits*), and the methodology and results for each of the impacts are in the following section. As a typical assumption for a financial/fiscal analysis on a master redevelopment plan, it does not include adjacent property value increases due to redevelopment.

**Table 21: Summary of Core Development Area Annual and Construction Period Fiscal Benefits**

ANNUAL				
Redevelopment Area	Property Tax <sup>1</sup>	On-Site Sales & Use Taxes <sup>2</sup>	Off-Site Sales & Use Taxes <sup>2</sup>	Total
Boswell's Corner	\$1,027,926	\$1,488,293	\$131,525	\$2,647,745
Courthouse Area	\$1,217,035	\$1,549,669	\$252,716	\$3,019,419
Falmouth Village	\$146,663	\$291,546	\$18,597	\$456,807
Southern Gateway	\$800,238	\$883,460	\$108,387	\$1,792,086
<b>Total</b>	<b>\$3,191,862</b>	<b>\$4,212,969</b>	<b>\$511,225</b>	<b>\$7,916,057</b>

CONSTRUCTION PERIOD			
Redevelopment Area	Construction Materials Sales Tax	Sales & Use Taxes on Construction Worker Spending <sup>2</sup>	Total
Boswell's Corner	\$477,251	\$92,269	\$569,520
Courthouse Area	\$565,052	\$109,243	\$874,295
Falmouth Village	\$72,725	\$14,060	\$86,785
Southern Gateway	\$383,483	\$74,140	\$457,623
<b>Total</b>	<b>\$1,498,512</b>	<b>\$289,712</b>	<b>\$1,788,224</b>

<sup>1</sup>Construction Cost (not including land) is used as a proxy for full market value. Using 2009 Rates, per County website @ \$0.84 per \$100.00 value. It is assumed that all construction construction purchases are made in Stafford as often, jurisdictions charge taxes on materials even if they are purchased elsewhere.

<sup>2</sup>Includes local retail sales tax of 1%, meals tax of 4%, and hotel tax of 5%, as appropriate.

Source: Stafford County Commissioner of the Revenue; ERA, 2009.

## REAL PROPERTY

As described above, real estate is taxed at a rate of \$0.84 for every \$100 of assessed value. For this study, the construction cost of the new development is used as the assessed value. The same values as were used for the feasibility study are used for the fiscal analysis. The per square foot costs were estimated using published rates by building type from RS Means adjusted using the industry experience of the Master Planning Team and ERA.

A summary of the results by redevelopment area follow. It is important to note that this does not represent a net impact (existing uses and their impact are not removed, and the costs of County services to these new uses are not represented).

**Table 22: Summary of Property Tax Benefits by Redevelopment Area**

Use	Value <sup>1</sup>	County Tax <sup>2</sup>
Boswell's Corner	\$1,22,372,178	\$1,027,926
Courthouse Area	\$144,885,069	\$1,217,035
Falmouth Village	\$17,459,910	\$146,663
Southern Gateway	\$95,266,451	\$800,238

<sup>1</sup>Construction Cost (not including land) is used as a proxy for full market value

<sup>2</sup>Using 2009 rates, per County website @ \$0.84 per \$100.00 value.

Source: Stafford County Commissioner of the Revenue; ERA, 2009.

<sup>1</sup> BPOL is on business revenues, not retail sales, and it is not computed on gross sales, but is dependent on the number of businesses and how much each earn.

## SALES AND USE

ERA calculated sales and use taxes both for the annual sales of on-site retail, restaurants, and hotels; for the estimated expenditures of residents (annual, at buildout of the Core Development Area), office workers, and construction workers (for the construction period) throughout the County (exclusive of on-site sales to these groups); and for the sales tax on construction materials.

### *On Site*

Retail sales tax of 1% is imposed upon all retail sales. Sales tax rates to the Commonwealth of Virginia differ by type of sale (some food products food and non-prescription drugs are taxed at lower rates than other retail goods).

Retail sales for the various developments were estimated by taking the total rents used in the financial feasibility pro forma and dividing by 10%. 10% is the industry benchmark for the percentage of revenues spent on rent.

Meals in the County are taxed at 5% – 4% Meals and 1% sales tax. Restaurant sales were calculated using the same benchmark as retail – assuming rents represented 10% of sales.

Hotel stays in the county are taxed for transient occupancy tax at 5% and 1% for sales tax. ERA used room revenue – as assessed in the financial pro forma analysis – as a basis for sales. Other sales in the hotel are assumed to be mostly food sales, and are taxed as meals (5% total).

The results of all on-site sales and use are found in Table 23 (*On-Site Sales and Use Tax Revenue*).

**Table 23: On-Site Sales and Use Tax Revenue**

<b>Boswell's Corner</b>			
<b>Use</b>	<b>Est. Sales /1</b>	<b>County Tax Rate /2</b>	<b>County Tax</b>
<b>Retail</b>			
General Retail	\$37,886,778	1%	\$378,868
Restaurant	\$16,435,827	5%	\$821,791
<b>Hotel</b>			
Hotel--Rooms	\$4,793,905	6%	\$287,634
Hotel--Other	\$2,518,298	5%	\$125,915
<b>Total</b>	<b>\$59,116,510</b>		<b>\$1,488,293</b>
<b>Courthouse</b>			
<b>Use</b>	<b>Est. Sales /1</b>	<b>County Tax Rate /2</b>	<b>County Tax</b>
<b>Retail</b>			
General Retail	\$81,856,566	1%	\$818,566
Restaurant	\$14,622,062	5%	\$731,103
<b>Total</b>	<b>\$96,478,628</b>		<b>\$1,549,669</b>
<b>Southern Gateway</b>			
<b>Use</b>	<b>Est. Sales /1</b>	<b>County Tax Rate /2</b>	<b>County Tax</b>
<b>Retail</b>			
General Retail	\$46,665,884	1%	\$466,659
Restaurant	\$8,336,033	5%	\$416,802
<b>Total</b>	<b>\$55,001,917</b>		<b>\$883,460</b>
<b>Falmouth</b>			
<b>Use</b>	<b>Est. Sales /1</b>	<b>County Tax Rate /2</b>	<b>County Tax</b>
<b>Retail</b>			
General Retail	\$4,810,024	1%	\$48,100
Restaurant	\$4,868,923	5%	\$243,446
<b>Total</b>	<b>\$9,678,947</b>		<b>\$291,546</b>

1/ Sales are estimated assuming rents represent 10% of sales (benchmark for retail operations)

2/ Sales Tax rate is 1% for localities in Virginia; to this is added 5% rooms tax for hotel rooms and 4% meals tax for restaurants and hotel's "other" revenue.

Source: Stafford County Commissioner of the Revenue; Virginia Department of Taxation; ERA, 2009.

### *Resident and Office Worker Annual Retail Sales and Meals*

New households, hotels, and office space will bring new daytime populations to Stafford County. To quantify the impact of these populations on sales taxes, ERA used the following methodologies:

**Residents:** ERA took the number of projected households (based on the new units in the Core Development Area) and estimated retail sales by category based on 2009 ESRI spending per household for the County. It was assumed that between 50% and 80% of total sales would be spent within the County (not counting sales on-site which are counted separately in the analysis).

**Office workers:** to estimate employees in proposed office space, ERA assumed an average of 250 square feet per employee. To estimate retail sales, ERA used information published by the International Council of Shopping Centers on office worker spending patterns. This is the same data used in ERA's market analysis work for the redevelopment areas. It was assumed 70% of all employees' workday spending would be captured in the County (excluding on-site purchases).

**Hotel visitors:** Boswell's Corner is the only redevelopment area to have a proposed hotel in the Core Development Area. To estimate visitor spending, ERA multiplied the number of rooms (110) by the estimated occupancy rate (70%) and multiplied the result by 365 to find the yearly room nights. Using spending data by the Virginia Travel Corporation (VTC), ERA calculated approximate total visitor group spending and estimated that of this, 40% would be captured within the County off-site.

The results of this analysis are shown in Table 24 (*Resident, Office Worker, & Hotel Guest Sales Tax Revenue from Off-Site Spending*).

**Table 24: Resident, Office Worker, & Hotel Guest Sales Tax Revenue from Off-Site Spending**

<b>Boswell's Corner</b>		
	<b>County Sales</b>	<b>County Tax</b>
Households	\$3,577,048	\$65,974
Hotel Visitors	\$533,510	\$14,983
Office Workers	\$2,352,000	\$50,568
<b>Courthouse</b>		
	<b>County Sales</b>	<b>County Tax</b>
Households	\$8,479,637	\$156,396
Office Workers	\$4,480,000	\$96,320
<b>Southern Gateway</b>		
	<b>County Sales</b>	<b>County Tax</b>
Households	\$4,701,604	\$86,715
Office Workers	\$1,008,000	\$21,672
<b>Falmouth</b>		
	<b>County Sales</b>	<b>County Tax</b>
Households	\$681,912	\$12,577
Office Workers	\$280,000	\$6,020

Source: Stafford County Commissioner of the Revenue; Virginia Department of Taxation; ERA, 2009.

### *Construction Period Sales and Use Taxes*

For the construction period sales and use taxes, ERA assessed two components: construction of the Core Development Area program and additional infrastructure improvements by the County for the Core Development. There were assumed to be additional infrastructure needs in the Falmouth and Southern Gateway areas, based on information provided to ERA by the civil infrastructure members of the Master Planning Team. Both these infrastructure costs and construction costs of the development program were broken down into hard and soft costs. As a benchmark, costs break down to approximately 65% hard costs and 35% soft costs. Hard costs include the cost of construction—including materials and the labor to construct the building; soft costs include costs such as financing and architecture. Hard costs can subsequently be divided into labor and materials costs. The cost of labor represents approximately 40% of total hard costs, with materials making up the balance.

For sales county-wide from these construction workers, ERA took the total costs of labor, and using standard retail benchmarks based on the U.S. Bureau of Labor Statistics Consumer Expenditure Survey, assumed that these workers will spend 28% of income on general retail purchases and 6% on meals in restaurants. Of these, ERA estimated that half of all spending would be in Stafford.

Additionally, developers would pay sales tax on building materials purchased for construction. It is assumed sales tax for Stafford would be levied on 100% of the materials. The total construction-period impacts are shown by redevelopment area in Table 26 (*Sales and Use Tax Revenues from Construction Period*).

Table 25: Core Development Area Construction Costs for Materials and Labor

<b>Boswell's Corner</b>			
Use		Development Program	Other Infrastructure Expenditures
<b>Total</b>		<b>\$122,372,178</b>	n/a
Estimated Hard Costs	65%	\$79,541,916	n/a
Estimated Soft Costs	35%	\$42,830,262	n/a
<b>Estimated Hard Costs</b>		<b>\$79,541,916</b>	n/a
Estimated Materials Costs	60%	\$47,725,149	n/a
Estimated Labor Costs	40%	\$31,816,766	n/a
<b>Courthouse</b>			
Use		Development Program	Other Infrastructure Expenditures
<b>Total</b>		<b>\$144,885,069</b>	n/a
Estimated Hard Costs	65%	\$94,175,295	n/a
Estimated Soft Costs	35%	\$50,709,774	n/a
<b>Estimated Hard Costs</b>		<b>\$94,175,295</b>	n/a
Estimated Materials Costs	60%	\$56,505,177	n/a
Estimated Labor Costs	40%	\$37,670,118	n/a
<b>Southern Gateway</b>			
Use		Development Program	Other Infrastructure Expenditures
<b>Total Construction Costs</b>		<b>\$95,266,451</b>	<b>\$3,062,585</b>
Estimated Hard Costs	65%	\$61,923,193	\$1,990,680
Estimated Soft Costs	35%	\$33,343,258	\$1,071,905
<b>Estimated Hard Costs</b>		<b>\$61,923,193</b>	<b>\$1,990,680</b>
Estimated Materials Costs	60%	\$37,153,916	\$1,194,408
Estimated Labor Costs	40%	\$24,769,277	\$796,272
<b>Falmouth</b>			
Use		Development Program	Other Infrastructure Expenditures
<b>Total</b>		<b>\$17,459,910</b>	<b>\$1,187,585</b>
Estimated Hard Costs	65%	\$11,348,942	\$771,930
Estimated Soft Costs	35%	\$6,110,969	\$415,655
<b>Estimated Hard Costs</b>		<b>\$11,348,942</b>	<b>\$771,930</b>
Estimated Materials Costs	60%	\$6,809,365	\$463,158
Estimated Labor Costs	40%	\$4,539,577	\$308,772

Source: Urban, Ltd.; ERA, 2009.

Table 26: Sales and Use Tax Revenues from Construction Period

<b>Boswell's Corner</b>		
	Development Program	Other Infrastructure Expenditures
Sales Taxes from Materials	\$477,251	n/a
<u>Construction Worker Spending</u>		
General Sales Taxes	\$44,543	n/a
Restaurant	\$47,725	n/a
<b>Courthouse</b>		
	Development Program	Other Infrastructure Expenditures
Sales Taxes from Materials	\$565,052	n/a
<u>Construction Worker Spending</u>		
General Sales Taxes	\$52,738	n/a
Restaurant	\$56,505	n/a
<b>Southern Gateway</b>		
	Development Program	Other Infrastructure Expenditures
Sales Taxes from Materials	\$371,539	\$11,944
<u>Construction Worker Spending</u>		
General Sales Taxes	\$34,677	\$1,115
Restaurant	\$37,154	\$1,194
<b>Falmouth</b>		
	Development Program	Other Infrastructure Expenditures
Sales Taxes from Materials	\$68,094	\$4,632
<u>Construction Worker Spending</u>		
General Sales Taxes	\$6,355	\$432
Restaurant	\$6,809	\$463

Source: Urban, Ltd.; Stafford County Commissioner of the Revenue; ERA, 2009.

## FINANCIAL IMPLEMENTATION CONSIDERATIONS & TOOLS

Implementation of the development programs will be highly depended on:

- Availability of infrastructure appropriate to the land uses and scale;
- Availability of financing for the specific development or land uses proposed (including the timing of economic recovery of capital markets);
- Ability of each specific market (retail, residential, office, etc.) to absorb space as it is developed (greatly linked to the availability of qualified tenants).

To address the issue of infrastructure implementation, development plans should start in the locations within each redevelopment area that already has adequate infrastructure for the proposed uses, while planning for eventual growth over a period of 10 to 30 years (30 years being a common period for infrastructure bonds). Issues of financing availability are linked to the individual developer, whether there is a public financing mechanism that can be used to cover infrastructure or other costs (thus lowering the amount of financing required) such as tax-increment financing (TIF) or enterprise funds that might be available. Market absorption was addressed in the market analysis of the redevelopment areas.

At the time of the development of this plan, the residential, retail and office market opportunities are limited, with the possible exception of medical-related office and supporting retail in the Courthouse Area. As Marine Corps Base Quantico expands, additional market support will improve for office and supportive retail and residential development in Boswell's Corner.

While grant funds and programs for commercial redevelopment are limited, the tools listed below are an example of organizations, funds and programs that may be available for use in the various redevelopment areas.

## ECONOMIC DEVELOPMENT SUPPORT – STAFFORD COUNTY

### *Economic Development Authority*

The Stafford Economic Development Authority (EDA) is a Board-appointed commission of the county that assists the Board of Supervisors in attracting and financing industry and commerce. The Stafford EDA and the State of Virginia provide incentives to businesses based on the return on investment that they will bring to the community. Incentives include industrial revenue bonds, a loan guaranty program, capital access program and work force training. The EDA would seem to be a logical key actor in the implementation of the redevelopment program, along with local economic development organizations.

The Economic Development Authority (EDA), in cooperation with the Virginia Electronic Commerce Technology Center (VECTEC), offers 50/50 E-commerce Grant Funds for small businesses expansion.

## TECHNOLOGY ZONES

Virginia cities, counties and towns have the ability to establish, by ordinance, one or more technology zones to attract growth in targeted industries. Each jurisdiction designs and administers its own program. According to the enabling legislation (Virginia Code 58.1-3850), this enables jurisdictions to grant tax incentives and provide certain regulatory flexibility.

Tax incentives may be provided for up to ten years and may include:

- Reduction of permit fees
- Reduction of user fees
- Reduction of any type of gross receipts tax.

In addition to tax incentives, the jurisdiction can also provide regulatory flexibility such as special zoning, a special permitting process, exception from certain ordinances, or other incentives. These are also binding for a period of ten years. Having a technology zone does not preclude the County from also taking advantage of an enterprise zone program.

## ECONOMIC AND BUSINESS DEVELOPMENT TOOLS – COMMONWEALTH OF VIRGINIA

### *Tax-Increment Financing (TIF)*

Tax Increment Financing (TIF) is an economic development tool available for use in Virginia designed to stimulate economic activity within specific geographic boundaries. A TIF district is effective for redeveloping areas, encouraging private investment in areas with limited prospects for growth, and improving areas where a much higher quality of development is desired. A key element of the TIF is a “but for” statement – that the economic benefits of the new private development would not otherwise occur (“but for”) without the public investment within the TIF district. TIF is most often used to support bonds used for infrastructure improvements. The calculation of funds available is based on the difference between a baseline assessed value and a projected future assessed value after improvements. Use of a TIF district should be carefully planned so as to not over estimate the potential increment and to accurately anticipate development absorption and market values.

### *Virginia Small Business Financing Authority*

The Virginia Small Business Financing Authority (VSBFA) provides debt financing assistance to established, existing, Virginia-based businesses, entrepreneurs, and to qualifying businesses wishing to expand into Virginia. The VSBFA's financing programs include:

1. ***Economic Development Loan Fund (EDLF):*** The Economic Development Loan Fund (EDLF), funded by the federal Economic Development Administration (EDA), offers gap financing between private debt financing and private equity. Funds are available to economic development authorities and qualifying new and expanding businesses that are creating new jobs or saving “at risk” jobs in qualified underserved and distressed areas of Virginia as defined by the EDA. Funds are also available to Virginia businesses which derive 15% or more of their revenues from defense-dependent activities and can demonstrate economic hardship related to defense downsizing. Funds can be used for the acquisition of land and buildings, construction or improvements to facilities and the purchase of machinery and equipment. Funds can also be used to assist defense-dependent businesses transition to private sector markets. The maximum loan available from the EDLF for each project is limited to \$1,000,000 or 40% of the total project cost, whichever is less.
2. ***Loan Guaranty Program:*** Through the Loan Guaranty Program, the Virginia Small Business Financing Authority will guarantee a portion of a loan or line of credit extended by a commercial bank to a qualified Virginia business. With a guaranty from VSBFA, the bank benefits by reducing its risk in lending to the Virginia business, and the business benefits by accessing financing it would not otherwise have been able to obtain. The maximum guaranty under the program is 75% of the loan or line of credit up to a maximum

guaranty of \$500,000. The program can be used to provide a guaranty for a short-term line of credit or a term loan of up to three years in duration. Applications for the Loan Guaranty Program are made by the bank requesting the guaranty.

**3. Virginia Capital Access Program (VCAP):**

The Virginia Small Business Financing Authority's (VSBFA) Virginia Capital Access Program (VCAP) provides access to capital for Virginia businesses by encouraging banks in Virginia to make loans that they would otherwise not make due to a borrower's riskier profile. Unlike government guaranty programs which provide a guaranty of a specific loan, VCAP utilizes an insurance concept on a portfolio of loans. The Program establishes a loan loss reserve at each participating bank which is funded by enrollment premiums paid by the Borrower/Bank and VSBFA. Because the participating bank determines what loans to enroll without VSBFA's involvement, the Program is a flexible, non-bureaucratic tool to assist banks in meeting the financing needs of Virginia businesses. If the participating bank determines that the proposed financing request does not meet the bank's normal underwriting guidelines, the bank will then determine whether the proposed loan transaction would be acceptable if the loan were enrolled in VCAP.

**4. Industrial Development Bond Program:** Companies seeking to finance new manufacturing plants or improvements to existing manufacturing plants can obtain long-term financing at favorable interest rates through the use of industrial development bonds (IDBs). An IDB is a form of tax-exempt municipal bond issued by a state or local government entity to finance the acquisition, construction or equipping of a facility. IDB tax-exempt financing for manufacturing projects has been restored under the federal Revenue Reconciliation Act of 1993 on a permanent basis. Today IDBs continue to provide companies with an important alternative to conventional financing of manufacturing projects. Some of the benefits of IDBs are:

- a. Sub-prime pricing. Since interest earned on IDBs is exempt from federal income taxes, IDBs provide lower interest rates than conventional financing.
- b. 100% project financing. IDBs enable companies to finance virtually all the costs of a project, including site preparation, capitalized interest during construction and most issuance costs, up to \$20 million.
- c. Long-term financing. IDBs can have an average maturity of up to 120% of the economic life of the assets financed.

**5. Virginia Department of Housing and Community Development - The Community Economic Development (CED) fund:**

The CED fund is designed to support economic development activities, particularly those creating employment opportunities for low- and moderate- income persons in Virginia Community Development Block Grant Eligible Localities. Assistance is limited to projects involving employment creation by private, for-profit basic industries. Projects involving commercial development or other types of job creation may be eligible for competitive grant funding. Activities eligible for CED funding include:

- a. Off-site improvements related to industrial location or expansion, including water and sewer system improvements, streets, and drainage.
- b. On-site improvements are also eligible, pending underwriting, but the funding required for these improvements will be provided to localities in loan form.
- c. This is a relatively broad strategy; therefore certain communities with higher median income are not always eligible, and funds are implemented in a case-by-case basis.

**6. Governor's Opportunity Fund (GOF):**

The GOF supports economic development projects that create new jobs and capital investment according to state guidelines:

- a. Project investment & job creation are achieved
- b. Locality participates with matching financial commitment
- c. Project is not an intrastate relocation
- d. Performance agreement is effected between the locality and the business to ensure fulfillment of promised job creation and investment GOF is coordinated by the Virginia Economic Development Partnership (VEDP)

**7. Virginia Department of Taxation Major Business Facility Tax Credit:**

Qualified businesses locating or expanding in Virginia receive a \$1,000 corporate income tax credit for each new full time job created over 100 jobs. (not available to businesses utilizing Enterprise Zone job grants.)

**8. Community Development Authority (CDA):**

A Community Development Authority is an entity authorized by the Board of County Supervisors (upon petition by a majority of property owners, or those owning a majority of the assessed value, within the proposed CDA boundaries) for the purpose of providing public infrastructure. The CDA is empowered to issue tax-exempt bonds for thirty different kinds of infrastructure improvements including, in part, roads, parks, recreation facilities, educational facilities, water and sewer, and fire prevention and control systems.

Any bonds issued by the CDA are repaid through assessments (other than county tax assessments) levied upon the property owners within the boundaries of the CDA district. Assessments can be levied in two ways.

1. Ad Valorem Assessments limited to 25 cents per \$100 unless all property owners agree to a higher rate;
2. Special Assessment based on use and benefit from the improvements. Assessments cannot exceed the cost of the improvements.

**Potential Benefits of a CDA:**

There are several reasons to consider using a CDA as a funding mechanism for infrastructure improvements. Some reasons would include:

- a. Providing a development incentive for potential developers and property owners by reducing the costs of development of infrastructure;
- b. As a means of accelerating the project timing by financing all of the improvements over the 30-year bond period but implementing the infrastructure improvements in the initial phases of the redevelopment;
- c. Owners/developers might be able to increase development value of their investments by having such infrastructure and funding available;
- d. The CDA can require levels of development quality, thus improving the overall redevelopment area;
- e. It is a lawful and ready redevelopment tool that is already being used in other areas of the Commonwealth;
- f. The CDA could assume expenses that otherwise could be County expenses.

**Caveats Using CDA Bonds:**

Using CDA bonds is not without risk. As with any issuance of debt, the primary concern is default on bonds as a result of insufficient ad valorem tax revenues (if that is the method chosen) or the inability

of property owners to pay special assessments due to slow absorption or poor financial performance of developments within the CDA district. Other concerns might include:

- a. Property value decline could reduce the bond repayment revenue stream. Recent economic experience nationwide with property value declines raises the question of whether values can be kept constant or increasing over the life of the bonds;
- b. There is default potential in the development start-up phase when most land in the CDA owned by developers or property owners and is not yet improved. This time gap can be problematic if extended as bond repayments may have to begin before sufficient revenues are available for repayment;
- c. Insufficient sales/rents to feed bond repayment revenue stream could be a problem if the land uses within the CDA do not perform well;
- d. Cyclical economic downturn could hurt property values, sales prices and/or sales of goods and services that ultimately support the values and/or assessments;
- e. Cost overruns on infrastructure improvements could lead to a liquidity problem
- f. If the CDA fails to perform financially, the County could be at risk to cover the repayments;
- g. The higher tax burden on property located within a CDA might make owners within the boundaries less likely to support the creation of the CDA and risk of higher burden should the CDA fail could reduce citizen support for general County bond referenda;
- h. A potential policy issue exists with the permissibility of using CDA bond proceeds to satisfy proffer obligations. As most CDA-type improvements would likely be eligible for funding under the use of proffers, using CDA funding in this manner results in a depletion of total available County CDA debt capacity. There is also the policy issue of shifting responsibility for paying for proffered improvements directly to the property owner as opposed to specific developers.

ERA was not tasked to complete a CDA sensitivity analysis or to conduct an analysis that reliance upon which debt or securities should be issued. To understand the full implication of the risks and potential of the establishment of a CDA, a full detailed analysis would be needed.

**Note:** Master plan implementation may require that there will have to be some public funds invested for infrastructure improvements if the CDA vehicle isn't used. These could be paid through:

- a. General obligation bonds as they might any infrastructure or
- b. As a pay-as-you-go using the general fund, the utility fund or a combination of the two.
- c. For any large single developer within the redevelopment areas, a proffer structure may also be used to pay for needed improvements to support the development (however, but, unless such developers are "ready to develop right away, some incentive such as a CDA to reduce the cost of development may be needed).

## FEDERAL ECONOMIC DEVELOPMENT TOOLS

### ***Economic Development Administration (EDA)***

1. ***Public Works and Economic Development Program:*** Public Works and Economic Development investments help support the construction or rehabilitation of essential public infrastructure and facilities necessary to generate or retain private sector jobs and investments, attract private sector capital, and promote regional competitiveness, including investments that expand and upgrade infrastructure to attract new industry, support technology-led development, redevelop brownfield sites and provide eco-industrial development. Eligibility is based on economic distress levels, which is determined at the time of application. The EDA

defines economic distress as having one or more of the following criteria: an unemployment rate 1% above the national average for 24 months; per capita income that is 80% or less of the national average per capita income; or a "Special Need," as determined by EDA. The EDA may approve projects that are in sub-areas of regions that do not meet this criteria if the project has "substantial direct benefit" to a geographic area that meets the criteria by providing significant employment to unemployed or low-income residents.

### ***Department of Housing and Urban Development***

1. ***Community Development Block Grants (CDBG):*** CDBG funds are available to eligible localities for off-site activities such as water and sewer extensions or treatment facilities and road & rail access. Funds may be available for on-site assistance that supports economic development, subject to underwriting.

### ***Community Development Finance Institutions Fund (CDFI)***

1. ***The Community Development Financial Institutions (CDFI) Program*** uses federal resources to invest in and build the capacity of CDFIs to serve low-income people and communities lacking adequate access to affordable financial products and services. The Fund provides monetary awards for Financial Assistance (FA) through the CDFI Program. CDFIs use FA awards to further goals such as economic development (job creation, business development, and commercial real estate development) and affordable housing (housing development and home ownership).
2. ***Financial Assistance (FA) Awards:*** Through FA awards, the Fund invests in certified CDFIs that demonstrate they have the financial and managerial capacity to:
  1. Provide affordable and appropriate financial products and services that positively impact their communities;
  2. Be viable financial institutions;
  3. Use and leverage CDFI Fund dollars effectively.
3. ***New Market Tax Credits:*** The New Markets Tax Credit (NMTC) Program permits taxpayers to receive a credit against Federal income taxes for making qualified equity investments in designated Community Development Entities (CDEs). Substantially all of the qualified equity investment must in turn be used by the CDE to provide investments in low-income communities. An organization wishing to receive awards under the NMTC Program must be certified as a CDE by the CDFI Fund. To qualify as a CDE, an organization must:
  - i. Be a domestic corporation or partnership at the time of the certification application;
  - ii. Demonstrate a primary a mission of serving, or providing investment capital for, low-income communities or low-income persons;
  - iii. Maintain accountability to residents of low-income communities through representation on a governing board of or advisory board to the entity.
4. ***Office of Economic Adjustment:*** Stafford already receives BRAC-related funds to establish a baseline for further planning in the Boswell's Corner area, and to establish Jefferson Davis Highway (US-1) in Boswell's Corner as a regional improvement priority.

Within the planned redevelopment areas, all of the census tracts are reported by the CDFI Fund as eligible to receive NMTC funds. NMTC may also be used in conjunction with federal and state historic rehabilitation tax credits (HTC) in eligible areas for historic properties. There may be opportunities for such reinvestment activity in the Falmouth Village redevelopment area.

## APPENDIX VII

### CONCEPT MASTER REDEVELOPMENT PLAN ACKNOWLEDGMENTS

#### STAFFORD COUNTY TEAM

##### *Stafford County Board of Supervisors*

George H. Schwartz . . . . . Chairman  
 Harry E. Crisp II . . . . . Vice-Chairman  
 M.S. “Joe” Brito  
 Cord A. Sterling  
 Paul V. Milde III  
 L. Mark Dudenhefer  
 Robert “Bob” Woodson

##### *Planning Commission*

Pete Fields . . . . . Chairman  
 Archer Di Peppe . . . . . Vice Chairman  
 Ken Mitchell . . . . . Secretary  
 Ruth Carlone  
 Gordon Howard  
 Cecelia Kirkman  
 Michael Rhodes

##### *Redevelopment Advisory Committee*

George H. Schwartz . . . . . Chairman of the Board  
 Paul V. Milde III . . . . . Supervisor  
 Archer Di Peppe . . . . . Stafford Planning Commission  
 Jo Knight . . . . . Economic Development Authority  
 Wendy Surman . . . . . Economic Development Authority  
 Tim Baroody . . . . . Deputy County  
 Administrator & Economic  
 Development Director  
 Brad Johnson . . . . . Redevelopment Administrator  
 Jeff Harvey . . . . . Director of Planning & Zoning  
 Mike Neuhard . . . . . Deputy County Administrator

##### *County Staff Team*

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 Janet Spencer . . . . . Utilities Department  
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 Dale Allen . . . . . County Engineer  
 Dave Capaz . . . . . GIS Manager  
 Anita L. Dodd . . . . . Stafford County Historical  
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 Thomas O’Connor . . . . . Engineering Specialist  
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