

# FFY13

## Richmond Regional PDC Technical Assistance FINAL REPORT

Grant Number:  
NA13NOS4190135

Task Number: 48

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**Virginia Coastal Zone**  
MANAGEMENT PROGRAM

## **Richmond Regional Planning District Commission**

Planning district commissions make government more efficient and effective through coordinated planning and program analysis. Virginia's General Assembly created planning districts in 1968 under the authority of the *Virginia Area Development Act*-revised as the *Regional Cooperation Act* in 1995- "to promote orderly and efficient development of the physical, social and economic elements of the districts." Through planning district commissions, now 21 in number, local governments solve mutual problems which cross boundary lines and obtain expertise from professional staff and advice on making the most of scarce taxpayer dollars through intergovernmental cooperation.

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Edward L. "Ned" Henson, III.

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Zach Trogdon

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Rodney M. Poole  
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Douglas C. Dunlap

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*Asst. Executive Director*

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Management Planner*

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*Administrative Secretary*

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Josh Mallow  
*Intern*

Leo Pineda  
*Intern*

*\*Principal project staff*

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60 Corridor Study

### **Executive Summary**

**Technical Assistance** – RRPDC staff processed 65 environmental reviews and 23 intergovernmental reviews.

**Coordination and Training** – RRPDC staff hosted 4 Environmental TAC meetings throughout FFY13.

- January 24, 2014 – Chuck Gates, the RRPDC Legislative Liaison, provided attendees an update on relevant legislation in the General Assembly. The remainder of the meeting was a roundtable discussion of local stormwater program development among locality staff.
- March 14, 2014 – Walter Gills, DEQ staff, joined via conference call to discuss the Stormwater Local Assistance Fund (SLAF). Mr. Gills reviewed the FY14 selection process and provided guidance for the FY15 round. Locality staffs participated in discussion about the development of local stormwater programs in light of recent legislation passed by the General Assembly. There was consensus to develop a regional Stormwater Pollution Prevention Plan (SWPPP) template that could be used across the Region by localities operating their own stormwater program.
- April 29, 2014 – Henrico County staff presented a draft version of the Henrico County Storm Water Pollution Prevention Plan (SWPPP) template. This template is now being used by other localities in the Region with slight modifications to suit their own locality. Use of a common template across the Region creates efficiencies for local staff as well as the development community.
- August 8, 2014 - Discussions included the RRPDC environmental review process seeking local input for improvements, a presentation of Stormwater Training Modules developed by Chesterfield County through a grant from DEQ, plans for the RRPDC to host a meeting with DCR on the Virginia Outdoors Plan, and a roundtable discussion of updates on local stormwater programs.

### **Existing Land Use Layer Updates and Midlothian Corridor Analysis as Prototype for Other Underutilized Corridors**

**Existing Land Use** - RRPDC staff is currently conducting an update of 2009 – 2011 Existing Land Use GIS base layer using 2013 VGIN aerial imagery. The data for all localities in the Coastal Zone is currently being updated, with preliminary analysis for Charles City and New Kent Counties, and Richmond City already completed.

**Midlothian Corridor Prototype** - RRPDC staff completed *Maximizing Potential: Midlothian – Belt Boulevard Corridor Study*. RRPDC staff worked with a team of City staff to analyze and make recommendations for the Midlothian Turnpike (US Route 60) corridor between Belt Boulevard and Chippenham Parkway in the City of Richmond. Key recommendations include: need to reduce impervious surfaces, ways to integrate plans for the James River Branch Trail and Reedy Creek Greenways into revitalization of the area, and opportunities to capitalize on existing urban agriculture locations.

**Groundwork RVA** - RRPDC staff attends monthly full board meetings, Projects Committee meetings, and weekly meetings with Executive Director. RRPDC staff is helping to guide the direction of the organization as they tackle projects including greenways in riparian areas, brownfield education and awareness, landscaping of underutilized areas and outdoor education.

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**Benefits Accrued from Prior CZM Grants** - Benefits noted this year by RRPDC staff and partners include: 3<sup>rd</sup> printing of the *Rivers of the Richmond Region* Brochure through a \$4,000 donation from MWV, and removal of invasive species from Chapel Island by youth volunteers organized by *Groundwork RVA*.

**Product #1: Technical Assistance**

Throughout the grant year, RRPDC staff provided Technical Assistance to locality staffs. RRPDC staff processed 88 environmental and intergovernmental reviews during FFY13. These reviews include, but are not limited to groundwater withdrawal permits, environmental impact reports, federal coastal consistency certifications, Virginia water protection permits, Virginia pollution abatement permits, etc.

Once these reviews are received, RRPDC staff communicates with local staffs about comments or concerns they may have. PDC staff performs any further research or analysis necessary to fully understand the regional impacts of proposed actions in question. RRPDC staff prepares and submits an appropriate comment letter for the proposed project or permit.

A complete listing of all environmental and intergovernmental reviews processed by RRPDC staff is included in Appendix A.

**Product #2: Coordination & Training**

RRPDC staff hosted four coordination and training Environmental TAC meetings throughout FFY13. Agendas and meeting materials from these meetings are included in Appendix B.

On January 24, 2014 RRPDC staff hosted an Environmental TAC meeting. Chuck Gates, the RRPDC Legislative Liaison, provided attendees an update on relevant legislation in the General Assembly. The remainder of the meeting was a roundtable discussion of local stormwater program development among locality staff.

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RRPDC staff are members of the James River Advisory Council (JRAC) attending regular meetings throughout the year. Information gathered at these meetings is always shared with local staffs. For more information about JRAC see [www.jamesriveradvisorycouncil.org](http://www.jamesriveradvisorycouncil.org).

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RRPDC staff are members of the Middle James Roundtable (MJRT) Steering Committee. The Steering Committee has regular quarterly meetings throughout the year, one of which is the annual meeting for planners and other professional from all over the middle James River watershed. As with JRAC, RRPDC staff shares information gathered at MJRT steering committee meeting with local planning staff. For more information about the MJRT see <http://www.mjrt.org/>.

**Product #3: Existing Land Use Layer Update and Midlothian Corridor Analysis as prototype for Underutilized Corridors**

In 2012, RRPDC staff completed the region's first comprehensive, GIS-based existing land use inventory based on VGIN aerial imagery flown in 2009 (the most up-to-date at the time). This dataset allows users to compare regional data based on a common methodology, something not possible prior to the dataset's creation. Staff has used the dataset for geographic analysis of the region, to illustrate development patterns, and to compare and analyze land use across local jurisdiction boundaries. The regional existing land use dataset is being used for a wide variety of applications, including: projecting demands on the transportation system and population densities supporting transit, identifying opportunities to improve stream quality, and identifying sites suitable for economic development. RRPDC staff also uses the existing land use dataset to analyze development patterns' effects on water quality. RRPDC staff continues to investigate ways in which existing land use tracking work can be beneficial to environmental quality, and has become increasingly interested in finding ways to support implementation of community-based, project-specific efforts. Towards this end, RRPDC staff undertook the following three-prong approach:

- RRPDC staff updated the 2012 regional existing land use GIS dataset using VGIN aerials flown in 2013. Updating the dataset enables users to analyze regional development patterns over time. Having iterative versions of the dataset broadens possible analyses so that users can analyze land across the physical landscape as well as the temporal landscape.
- A focus on underutilized corridors and exploring infill opportunities for redevelopment to the benefit of the environment started with the prototype of the Midlothian corridor in the City of Richmond between Chippenham Parkway in the west and Belt Boulevard in the east.
- The Reedy Creek Greenway intersects with the Midlothian corridor area and is part of a phased improvement effort of the non-profit, *Groundwork RVA*. RRPDC staff had the opportunity to join with *Groundwork* in their commitment to support, promote, and execute projects which protect water quality in the Coastal Plain and turn brownfields and vacant spaces into community assets. RRPDC staff joined the board of *Groundwork RVA*, lending technical expertise to and advocating for these projects. RRPDC staff also helped *Groundwork* staff and fellow board members select projects which have high probability of being executed, have a positive environmental and water quality impact, and which turn community liabilities into assets.

**Product #3A: Existing Land Use Layer Update**

RRPDC staff has begun the first update of the GIS-based regional existing land use dataset. The original dataset, the region's first comprehensive parcel-based existing land use inventory, was completed in 2012 using a combination of municipal GIS data and VGIN imagery flown in 2009 (the most up-to-date at the time). Analysis of the dataset has already proved invaluable in understanding and conveying information about land use in our region by the PDC, state agencies, universities and non-profit agencies. Using newly published 2013 VGIN aerials, RRPDC staff has begun the update, relying solely on aerials. This simple methodology – viewing each and every parcel by aerial – is time-consuming but very accurate. The initial inventory is over halfway complete. Localities with updated existing land use data are Charles City, Chesterfield, Hanover, New Kent, and the City of Richmond.

Appendix C includes a sample map and chart for updated existing land use in Charles City County.

Under the FFY 2014 Technical Assistance grant, RRPDC staff will complete the 2013 update of the regional existing land use layer and perform analysis. RRPDC staff will look for land use change by comparing the 2012 (2009) and 2013 regional existing land use GIS layers.

**Product #3B: Midlothian Corridor Prototype**

RRPDC staff partnered with City of Richmond staff to complete *Maximizing Potential: Midlothian/Belt Boulevard Corridor Study*. The study analyzed the intersection of two aging highway corridors in the southwest portion of the City of Richmond. The section of Midlothian Turnpike included in the study recently saw the investment of more than \$45 million of stormwater and streetscape infrastructure improvements. The existing land use pattern on both corridors reflects their evolution as auto-service oriented corridors throughout the last Century. Currently a collection of shopping centers and big box stores from the 1960s and 1970s line the corridors. These large commercial spaces are interspersed with office and smaller commercial spaces. Industrial trucking and manufacturing infill is also located along the study area portion of Midlothian Turnpike. Single family and multi-family residential uses are located behind the industrial and commercial uses along the corridors.

Reedy Creek forms the Study Area's northern boundary. For a portion of the study area, Reedy Creek is culverted into a concrete channel. Through other portions, the creek flows through a natural streambed with varying widths of riparian buffer. Reedy Creek has been identified as an impaired stream by the Virginia Department of Environmental Quality; impairments include E. coli bacteria, low concentrations of dissolved oxygen, and pH. Stormwater runoff is cited as a primary contributor for these impairments. Indeed, 50% of the Study Area is impervious surfaces. Analysis by the Center for Watershed Protection indicates that streams can become impacted when impervious surfaces in the watershed reach 10%; at 25% impervious surface coverage severe degradation is likely to occur.

Several opportunities present themselves to improve economic and environmental vitality in the Study Area. The proposal for a greenway trail along Reedy Creek presents opportunities for pedestrian access along the corridor as well as increasing much needed recreational facilities in the area. Existing urban agriculture activities at the Jerusalem Connection – Renew Richmond Urban Farm and the George Wythe High School garden and orchard present successful initiatives from which to build environmentally friendly projects that encourage economic and educational growth. The study recommended that urban agriculture and other policies that reduce impervious surface should be explored. These projects should tie in with transformative anchor uses that would be developed on key parcels along the corridors. Redevelopment of existing commercial sites that are largely impervious also presents opportunities. Other recommendations focused on transit efficiencies, affordable housing, and the appointment of City staff to lead the redevelopment efforts.

The complete *Maximizing Potential* study is included in Appendix D. RRPDC staff presented the *Maximizing Potential* study to the RRPDC board on September 11, 2014. The presentation to the RRPDC Board is included in Appendix E.

**Product #3C: Groundwork RVA**

RRPDC staff has become integrated in efforts to improve the environment in the City of Richmond by joining the board of Groundwork RVA and serving as board chair. Groundwork *projects* are those that directly alter the environment, like greenways along impaired creeks, turning vacant land into urban agriculture sites, and watershed improvement projects. At the same time, Groundwork *programs* teach youth about their environment by providing opportunities to care for their neighborhoods, learning through urban archeology programs, and connecting them to the National Park Service. As board chair, RRPDC staff is able to ensure that Groundwork becomes stronger, more sustainable and more integrated into the community, and that it is able to make real change to the physical environment.

Groundwork RVA is funded in part by the national park service and the city of Richmond. Projects include but are not limited to:

- Reedy Creek Greenway
- Installing and maintaining bandalong refuse trap along Reedy Creek
- Oak Grove/Bellemeade Walkable Watershed Project
- Landscape Improvements and training at Oak Grove/Bellemeade Elementary School
- Cannon Creek Greenway
- Outdoor Classroom at Cannon Creek

More information about Groundwork RVA and its projects and programs is available at the Groundwork RVA website at <http://www.groundworkrva.org/>.

**Product #4: Benefits Accrued from Prior CZM Grants**

**Regional Existing Land Use GIS Dataset**

As mentioned in the description of Product 3, the Richmond Regional 2012 Existing Land Use GIS Dataset created as part of the FFY 2011 Technical Assistance Program grant has been used by regional and local planners for numerous projects ranging from environmental quality, to land use, to economic development. The project clearly fed directly into the update performed during FFY2013 using 2013 imagery. This Dataset is and will continue to be an invaluable analysis element for those in the Richmond Region for years to come. Maps and analysis using the Regional Existing Land Use dataset is available at [www.richmondregional.org](http://www.richmondregional.org).

**Rivers of the Richmond Region Brochures**

As part of the Technical Assistance program grant for FFY 2010, RRPDC staff created the *Rivers of the Richmond Region* brochure. The brochure was distributed to local governments, non-profits, and other interested parties, such as those involved in tourism and recreation. The brochure was widely distributed publicly and has been in high demand since this first printing. A PDF of the brochure can be viewed at the RRPDC website at [www.richmondregional.org](http://www.richmondregional.org). In 2012, RRPDC staff secured funds from MeadWestVaco to print 30,000 additional copies of the brochure and distribute them publically. Recently, the RRPDC ran out of copies of the *Rivers* brochure to distribute from the 2012 printing.

RRPDC staff recently \$4,000 from MeadWestVaco to update the *Rivers* brochure and print additional copies. RRPDC staff are currently in the process of updating the brochure. Copies are expected from the printer in late fall or early winter 2014/2015. RRPDC already have a waiting long waiting list of groups who would like copies of the brochure.

**Chapel Island/James River Public Access Enhancement Project**

In FFY 2011, RRPDC secured 306A grant funding for public access improvements to Chapel Island in the James River. Improvements included a 0.5 mile trail loop, interpretive signage, and a canoe/kayak put-in. As mentioned earlier in this Report, RRPDC staff are currently serving on the board of the local nonprofit, *GroundworkRVA*. Recently, student volunteers with *Groundwork* did an invasive species removal project in cooperation with James River Park System staff on Chapel Island. The volunteer effort is helping to maintain the improvements made to Chapel Island.

**Central Virginia Blue and Green Infrastructure Protection Planning – Oak Grove/Bellemeade School**

In FFY 2009, the RRPDC partnered with the City of Richmond and the Green Infrastructure Center to focus on inventorying green infrastructure assets in the City of Richmond. A small study area was chosen for a fuller green infrastructure analysis, the Oak Grove/Bellemeade area in south Richmond. In the ensuing years, the Green Infrastructure Center has continued working with the community. More information about all that has been accomplished can be found here on the GIC website: <http://gicinc.org/projectbellemeade.htm>. Recently, GroundworkRVA has become involved in moving projects forward in the area too. Such projects include landscape improvements and training at the Oak Grove/Bellemeade Elementary School and support for the Walkable Watershed project throughout the neighborhood.

**APPENDIX A**

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October 2013	8 Reviews	April 2014	6 Reviews
November 2013	3 Reviews	May 2014	6 Reviews
December 2013	4 Reviews	June 2014	11 Reviews
January 2014	9 Reviews	July 2014	7 Reviews
February 2014	13 Reviews	August 2014	6 Reviews
March 2014	6 Reviews	September 2014	9 Reviews

- ❖ Department of Environmental Quality; Higgerson Buchanan Groundwater Withdrawal Permit GW00320900
- ❖ Department of Environmental Quality; Rural Point Subdivision Groundwater Withdrawal Permit GW0003001
- ❖ Department of Environmental Quality; Replace Airfield Signage, Richmond International Airport Consistency Certification
- ❖ Department of Environmental Quality; Virginia Water Protection Permit: Port Tobacco at Weanack
- ❖ Department of Environmental Quality; VCU: Virginia Treatment Center for Children
- ❖ Department of Environmental Quality; VPDES Permit No. VA0024899 Reissuance: Ashland WWTP
- ❖ Department of Environmental Quality; East-West Hallsley, LLC VWP Permit No. 04-1215 Modification
- ❖ Department of Environmental Quality; VWP No. 13-0688 The East End Landfill Expansion, Henrico County , VA
- ❖ Department of Environmental Quality; VPDES Permit No. VA0063037 Reissuance: Blessed Sacrament -Huguenot Academy
- ❖ Department of Environmental Quality; Meadowville Technology Park VWP Permit # 13-1389
- ❖ Department of Environmental Quality; Meadowville Technology Parkway Extension
- ❖ Department of Environmental Quality; Virginia Community College System: Phase III Academic Building & Parking Deck, John Tyler CC
- ❖ Department of Environmental Quality; Ashland Residency Office Building
- ❖ Henrico Department of Community Revitalization; Notice for Early Public Review of a Proposal to Support Activity at Wetland
- ❖ Department of Environmental Quality; Airport Improvement Projects at Richmond International Airport
- ❖ Virginia Department of Health; VDH FY14 Drinking Water State Revolving Fund Program Safe Drinking Water Act
- ❖ Department of Environmental Quality; VPDES Permit Reissuance: Grange Hall Elementary School
- ❖ Department of Environmental Quality; [14-05] NOAA 309- Wetlands-Managing and Adapting Coastal Habitats to Preserve Ecological Services with Increasing Sea Level and Development Pressure
- ❖ Department of Environmental Quality; [14-06] NOAA 309- Ocean Planning: Documenting Endangered Migratory Species for Offshore Energy Planning
- ❖ Department of Environmental Quality; [14-07] NOAA Habitat Conservation Program- Marine Debris Grant
- ❖ Capital Area Partnership Uplifting People; FTA Section 5310 program request to purchase transportation equipment
- ❖ Department of Environmental Quality; VPA Permit No. VPA00584 Synagro Central LLC
- ❖ Department of Environmental Quality; Town of West Point Ground Water Withdrawal Permit # GW0005001
- ❖ Department of Environmental Quality; Temporary Storage of Wheeled Tactical Vehicles at Defense Supply Center, Richmond
- ❖ Department of Environmental Quality; I-95/Lewistown Road Interchange Project, Hanover County Municipal Airport Consistency Certification
- ❖ Department of Environmental Quality; Sliding Hill/Air Park Road Intersection Project--Hanover County Municipal Airport Consistency Certification

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- ❖ Department of Environmental Quality; VPDES Permit No. VA0058378 Reissuance--Kinder Morgan Southeast Terminals
- ❖ Heart Havens, Inc.; Heart Havens, Inc. FTA Section 5310 program request to purchase transportation equipment
- ❖ Chesterfield Community Services Board; FTA Section 5310 program request to purchase transportation equipment
- ❖ Department of Environmental Quality; Demolition of Buildings 10, 11, and 67 at Defense Supply Center, Richmond
- ❖ Department of Environmental Quality; Aqua Virginia, Inc. for Woodruff Subdivision GWWP GW0002001
- ❖ The Greater Richmond Association for Retarded Citizens; FTA Section 5310 program request to purchase transportation equipment
- ❖ Department of Environmental Quality; East Side Clearing and Building Demolition, Richmond International Airport Consistency Certification
- ❖ Department of Environmental Quality; VCU 706-716 West Grace Street Acquisition
- ❖ Department of Environmental Quality; VWP No. 13-0873 Mountain Run Phase 5
- ❖ Department of Environmental Quality; VPDES Permit No. VA0080233 Hideaway Sewage Treatment Plant;
- ❖ Department of Environmental Quality; VPDES Permit No. Va0060585 Public Administration Sewage Treatment Plant
- ❖ Department of Environmental Quality; The Studios at Richmond Consistency Determination
- ❖ Department of Environmental Quality; VPDES Permit No. VA0005720 Reissuance: Motiva Enterprises LLC, Richmond Terminal
- ❖ Department of Environmental Quality; Kroger at Greenyard Road Consistency Certification
- ❖ Department of Environmental Quality; VPDES Permit No. VA0052906 Reissuance: Doswell Truck Stop
- ❖ Department of Environmental Quality; Springfield Road Property Consistency Determination
- ❖ Department of Environmental Quality; VPDES Permit No. VA0062731 Reissuance: Elk Hill Farm Wastewater Treatment Plant
- ❖ Department of Environmental Quality; Nestle Purina PetCare Ground Water Withdrawal Permit # GW0003501
- ❖ Department of Environmental Quality; Atlee Road Extension Project Consistency Certification
- ❖ Department of Environmental Quality; VCU Basketball Practice Facility 1300, 1328 W. Marshall Street
- ❖ Department of Environmental Quality; Abberly at Centerpointe Apartments Consistency Determination
- ❖ Department of Environmental Quality; VPDES Permit No. VA0080390: Sussex Service Authority:
- ❖ Department of Environmental Quality; VWPP 13-1611: Middle James River Federal Navigational Channel
- ❖ Department of Environmental Quality; [14-09] – FY2014 Section 319(h) Nonpoint Source Implementation Grant application
- ❖ Department of Environmental Quality; [14-10] FY15 Chesapeake Bay Monitoring Program (CWA 117(e)(1)(B))
- ❖ Department of Environmental Quality; Renovate Building B (Georgiadis Hall), JSRCC Parham Road
- ❖ Department of Environmental Quality; VPDES Permit No. VA0004146 Reissuance Dominion Chesterfield Power Station
- ❖ Department of Environmental Quality; Powhatan State Park- Complete Phase I Development
- ❖ Department of Environmental Quality; VCU: 616 West Grace Street
- ❖ Department of Environmental Quality; [14-11] VADEQ 2015-2017 Wetlands Protection Application
- ❖ Virginia Department of Agriculture and Consumer Services; Pesticide Performance Partnership Grant Application FY15-17

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- ❖ Department of Environmental Quality; VPDES Permit # VA0024163 Reissuance: Mary Mother of the Church Abbey Sewage Treatment Plant
- ❖ Department of Environmental Quality; [14-12] 29th Year VA VZM Implementation Application
- ❖ Department of Environmental Quality; The Hall Property Multi-Use Development Consistency Certification
- ❖ Department of Environmental Quality; Princess Anne Country Club Ground Water Withdrawal Permit
- ❖ Department of Environmental Quality; [14-13] FY2014 VADEQ Technical Review and Services for Defense Environmental Restoration Program (DERP) Activities at Active DoD Facilities and Environmental Restoration at Base Closure Sites
- ❖ Institute for Local Self Reliance; Composting for Community: A program to expand small-scale, community-based composting in the Mid-Atlantic
- ❖ Department of Environmental Quality; Modification VWP# 13-0121 Capital Trail-New Market Section, Henrico county
- ❖ Department of Environmental Quality; [14-14] Virginia DEQ Diesel Emissions Reduction Assistance (DERA3) Project
- ❖ Department of Environmental Quality; Re-issuance of VPDES Permit No. VA0026557– Philip Morris USA Inc. – Park 500
- ❖ Department of Environmental Quality; [14-14] Sec 103 for National Air Toxics Trends Station (NATTS) Air Monitoring Site Program
- ❖ Department of Environmental Quality; [14-15] ChesapeakeBay Nonpoint Source Implementation Grant
- ❖ Department of Environmental Quality; Taxiway Rehabilitation & Lighting Installation, New Kent County Airport
- ❖ Department of Environmental Quality; The Bliley Apartments Consistency Determination
- ❖ Department of Environmental Quality; Paramount Kings Dominion Camp Wilderness Expansion Consistency Certification
- ❖ Department of Environmental Quality; Army 2020 Force Structure Realignment Environmental Assessment
- ❖ Department of Environmental Quality; [15-01] L A Clarke RA OU 4
- ❖ Department of Environmental Quality; Tomahawk Creek Project Consistency Certification
- ❖ Department of Environmental Quality; VPDES Permit Reissuance # VA0020702 Virginia Correctional Center for Women
- ❖ Department of Environmental Quality; [15-03] FY2014 State revolving Loan Funds Capitalization Application
- ❖ Department of Environmental Quality; PSD Permit: James River Genco, LLC
- ❖ Department of Environmental Quality; VPDES Permit Reissuance # VA0054330 --Slurry Pavers, Inc.
- ❖ Department of Environmental Quality; [15-04] FY2015-FY2018 Performance Partnership Grant Application
- ❖ Department of Environmental Quality; [15-05] FY2014-FY2016 Collaborative Fisheries Planning for Virginia's Offshore Wind Grant Application
- ❖ Department of Environmental Quality; [15-02] – L A Clarke RA OU 3
- ❖ Department of Environmental Quality; VPA Permit # VPA00800: Recyc systems, Inc.
- ❖ Department of Environmental Quality; VPA Permit # VPA00832: Nutri-Blend, Inc.
- ❖ Department of Environmental Quality; Spring Arbor Cottage of Salisbury, Memory Care Facility Consistency Determination
- ❖ Department of Environmental Quality; Cunningham-Elmont 500 kV Transmission Line Rebuild, Va. Electric & Power Co. PUE 2014-00047
- ❖ James Madison University; EPA Funding Application National Clean Diesel Funding Assistance Program (VPA-OAR-OTAQ-14-05)
- ❖ Department of Environmental Quality; VPA Permit # VPA00840: Nutri-Blend, Inc.
- ❖ Department of Environmental Quality; RIC East Side Roadway/Utility Extension Consistency Certification

**APPENDIX B**

<b>AGENDA</b>
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**Water Quality Roundtable Meeting**

**January 24, 2014**

Richmond Regional Planning District Commission  
Board Room  
9211 Forest Hill Ave, Ste. 200  
Richmond, VA 23235

**CALL TO ORDER .....9:00 A.M.**

9:00 Welcome & Introductions

- Legislative Update – Chuck Gates
- Roundtable Updates
- Next Steps

**11:00 Adjourn**

# Richmond Regional Planning District Commission

## Issue Brief: Stormwater Management (updated)

At the request of its member localities, RRPDC staff is monitoring the potential impact of bills from the 2014 Session of the Virginia General Assembly that would impact the implementation of local Stormwater Management Programs.

### The Issue

#### Local governments seek delay in implementation of stormwater program

“A growing number of local governments want the General Assembly to delay implementation at the local level of a state-run federal program designed to reduce stormwater pollution.

With a July 1 deadline looming for cities and counties to have their programs up and running, local governments want changes and more time before taking on the responsibility of regulating stormwater pollution caused by construction activity. Many local governments believe the program will prove to be too expensive and too complicated to implement unless some changes are made. Based on the number of pre-filed bills on the subject, it appears the legislature may be willing to simplify and/or delay the program for at least a year” (VML Legislative Bulletin - Jan. 10, 2014 Virginia Municipal League).

### Related Bills

#### Budget amendments funding Stormwater Management Program

Contact members of the Senate Finance Committee (see p. 3) to express your support for these budget amendments.

##### Budget Amendment C-43 #9s (Watkins)

Adds \$38 million to the Stormwater Local Assistance Fund (bond authorization) by shifting the \$20 million in bond funding to finance stormwater improvement projects from FY16 to FY15 and providing an additional \$18 million for new bond authorization in FY15.

##### Budget Amendment 363 #2s (Watkins)

Authorizes DEQ to use available funding to work with VGIN to provide statewide digital orthography to improve land coverage data necessary to assist localities in planning and implementing stormwater management programs.

#### Local implementation of Stormwater Management Program

##### HB 261 (Scott) / SB 423 (Hanger)

*HB 261: subcmtee recommends incorporating into HB 1173*

Authorizes the State Water Control Board to adopt regulations that create a procedure for approving permits for individual parcels in a common plan of development, provide a General Permit for Discharges of Stormwater from Construction Activities that omits unneeded information on post-construction water quality standards, and provide reciprocity with other states regarding certification of best management practices. The bill also allows the submission of an agreement in lieu of a permit where land-disturbing activity results from the construction of a single-family residence.

##### SB 469 (Smith)

Delays the date on which local governments are required to assume responsibility for administering the Stormwater Management Program from July 1, 2014, to July 1, 2015, in those localities in which less than 11 percent of the land area drains to the Chesapeake Bay.

##### SB 530 (Hanger) / ~~HB 697 (Poindexter)~~ / ~~HB 1071 (Fariss)~~ / ~~HB 1117 (Wright)~~

*House bills rejected by subcmtee: 1/23; SB 539 alive in Senate*

Delays the date that local governments will have to assume responsibility for administering the Stormwater Management Program from July 1, 2014, to July 1, 2015

**HB 846 (Lewis)***Subcmte recommends continuing to 2015 (i.e. kill it in committee): 1/23*

~~Exempts the Towns of Chincoteague, Saxis, and Tangier from compliance with the Virginia Stormwater Management Program. The bill exempts Chincoteague and Tangier Islands from any VSMP for land disturbing activities adopted by Accomack County.~~

**Other stormwater bills****SB 53 (Stuart)**

Requires a locality that adopts a system of stormwater management service charges to provide for a waiver of at least 50 percent of such charge to any church, synagogue, or other place of worship.

**HB 58 (Hodges) / SB 425 (Hanger)***Subcommittee recommends incorporating into HB 1173*

Clarifies the appeals process for persons subject to state permit requirements under the Stormwater Management Act. The bill removes Virginia Stormwater Management Program (VSMP) authorities from the list of bodies whose actions may be appealed. For appeals of actions of the Department of Environmental Quality (the Department) or the State Water Control Board (the Board), the bill refers to applicable hearing procedures and provides that appeals include an opportunity with judicial review in accordance with certain standards.

**HB 555 (Kory)***NOTE: This bill is in House Transportation Committee*

Allows localities by ordinance to prohibit interfering with or impeding storm water runoff into drains or culverts on VDOT-controlled highway rights-of-way.

**HB 1173 (Hodges)***Subcmte recommended w/ amendments incorporating other bills*

Allows any locality that does not operate a municipal separate storm sewer system (MS4) to opt out of establishing Virginia Stormwater Management Programs. Localities that notify the Department of Environmental Quality of their decision to opt out shall have their stormwater programs managed by the Department.

**HB 649 (Ransone)***Subcommittee recommends incorporating into HB 1173*

Allows the submission of an agreement in lieu of a Virginia Stormwater Management Plan where certain land-disturbing activity is the result of the construction of a single-family residence.

**HB 673 (Poindexter)***failed in subcommittee on 1/23*

~~Directs the State Water Control Board to set the fee for coverage of one-acre to five-acre single-family residential projects under a General Permit for Discharges of Stormwater from Construction Activities at the amount charged for similar projects of less than one acre.~~

**HB 744 (Kory)***failed in subcommittee on 1/23*

~~Allows localities by ordinance to prohibit interfering with or impeding storm water runoff into drains or culverts on VDOT-controlled highway rights-of-way.~~

**HB 1170 (Rush)***failed in subcommittee on 1/23*

~~Expands the exemption from state stormwater permit requirements for certain separately built single family residences by raising the area of disturbance for exempt projects from one acre to three acres. The bill does not alter the disturbance area for projects located in jurisdictions designated as subject to the Chesapeake Bay Preservation Area Designation and Management Regulations~~

## Who to contact

### House Agriculture, Chesapeake and Natural Resources Committee

- Del. Ed Scott (R-Culpeper) **Chair**
- Del. David Bulova (D-Fairfax)
- Del. James Edmunds (R-South Boston)
- Del. Matt Fariss (R-Rustburg)
- Del. Matthew James (D-Portsmouth)
- Del. Mark Keam (D-Vienna)
- Del. Barry Knight (R-Virginia Beach)
- Del. Lynwood Lewis (D-Accomac)
- Del. Danny Marshall (R-Danville)
- Sen. Don McEachin (D-Richmond)
- Del. Jackson Miller (R-Manassas)
- Del. Will Morefield (R-North Tazewell)
- Del. Ken Plum (D-Reston)
- Del. Brenda Pogge (R-WilliamSB urg)
- Del. Margaret Ransone (R-Kinsale)
- Del. Mark Sickles (D-Alexandria)
- Del. Luke Torian (D-Woodbridge)
- Del. Lee Ware (R-Powhatan)
- Del. Michael Webert (R-Marshall)
- Del. Tony Wilt (R-Harrisonburg)
- Del. Tommy Wright (R-Victoria)

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### Chesapeake Subcommittee Members

- Del. Tony Wilt (R-Harrisonburg) **Chair**
- Del. Lee Ware (R-Powhatan)
- Del. Brenda Pogge (R-WilliamSB urg)
- Del. Michael Webert (R-Marshall)
- Del. Margaret Ransone (R-Kinsale)
- Del. Lynwood Lewis (D-Accomac)
- Del. Luke Torian (D-Woodbridge)

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### Senate Agriculture, Conservation and Natural Resources Committee

- Sen. Emmett Hanger (R-Mount Solon) **Chair**
- Sen. Dick Black (R-LeeSB urg)
- Sen. Adam Ebbin (D-Alexandria)
- Sen. Dave Marsden (D-Burke)
- Sen. Don McEachin (D-Richmond)
- Sen. John Miller (D-Newport News)
- Sen. Mark Obenshain (R-Harrisonburg)
- Del. Ken Plum (D-Reston)
- Sen. Phil Puckett (D-Tazewell)
- Sen. Bill Stanley (R-Moneta)
- Sen. John Watkins (R-Midlothian)

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### Senate Finance Committee

- Sen. Walter Stosch (R-Glen Allen) **Chair**
- Sen. Bill Carrico (R-Grayson)
- Sen. Chuck Colgan (D-Manassas)
- Sen. Emmett Hanger (R-Mount Solon)
- Del. Bill Howell (R-Fredericksburg)
- Sen. Janet Howell (D-Reston)
- Sen. Louise Lucas (D-Portsmouth)
- Sen. Henry Marsh (D-Richmond)
- Sen. Ryan McDougle (R-Mechanicsville)
- Sen. Tommy Norment (R-Williamsburg)
- Sen. Dick Saslaw (D-Springfield)
- Sen. Frank Wagner (R-Virginia Beach)
- Sen. John Watkins (R-Midlothian)

"Walter Stosch" <district12@senate.virginia.gov>, "Bill Carrico" <district40@senate.virginia.gov>, "Chuck Colgan" <district29@senate.virginia.gov>, "Emmett Hanger" <district24@senate.virginia.gov>, "Bill Howell" <delwhowell@house.virginia.gov>, "Janet Howell" <district32@senate.virginia.gov>, "Louise Lucas" <district18@senate.virginia.gov>, "Henry Marsh" <district16@senate.virginia.gov>, "Ryan McDougle" <district04@senate.virginia.gov>, "Tommy Norment" <district03@senate.virginia.gov>, "Dick Saslaw" <district35@senate.virginia.gov>, "Frank Wagner" <district07@senate.virginia.gov>, "John Watkins" <district10@senate.virginia.gov>

<b>AGENDA</b>
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**Water Quality Roundtable Meeting**

**March 14, 2014**

Richmond Regional Planning District Commission  
Board Room  
9211 Forest Hill Ave, Ste. 200  
Richmond, VA 23235

**CALL TO ORDER .....2:00 P.M.**

2:00 Welcome & Introductions

2:15 SLAF Conference Call – Walter Gills, DEQ

2:35 Discussion Items

- Local Program Development
- Regional SWPP
- Next Steps

**4:00 Adjourn**



# COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY  
Street address: 629 East Main Street, Richmond, Virginia 23219  
Mailing address: P.O. Box 1105, Richmond, Virginia 23218  
TDD (804) 698-4021  
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Douglas W. Domenech  
Secretary of Natural Resources

David K. Paylor  
Director

(804) 698-4000  
1-800-592-5482

## MEMORANDUM

**TO:** David K. Paylor, DEQ Director

**FROM:** Melanie D. Davenport, Water Division Director

**DATE:** December 19, 2013

**SUBJECT:** Authorization of SLAF Project Funding List

### Purpose

In order to reduce pollution from stormwater runoff, the Virginia General Assembly included Item 360 in Chapter 860 of the Acts of Assembly (the Commonwealth's 2013-2014 Budget) which created and set forth specific parameters for the administration of the Stormwater Local Assistance Fund (SLAF). The purpose of the Fund is to provide matching grants to local governments for the planning, design, and implementation of stormwater best management practices that address cost efficiency and commitments related to reducing water quality pollutant loads. In accordance with that legislation, the State Water Control Board recently approved Guidelines for the implementation of the SLAF program. The Guidelines call for an annual solicitation of applications, an application review and ranking process, and the authorization of a Project Funding List (PFL) by the DEQ Director. This memorandum informs you of the results of the evaluation process and the staff recommendations for the authorization of projects to be included in the PFL.

### Applications Received

On October 4, 2013 the staff solicited applications from all the local governments in the Commonwealth. November 15, 2013 was established as the deadline for submitting applications. Based on this solicitation, DEQ received applications from 35 localities for 113 individual stormwater projects totaling **\$39,366,548**. A listing of the projects is included in Attachment A.

### Funding Availability for FY 2014

From the appropriation and bond authorization provided in Item 360 of the Commonwealth's 2013-2014 Budget, **up to \$35,000,000** of the bond proceeds were provided to the SLAF. The bond proceeds, along with any interest earnings thereon, must be used to provide matching grants from the Fund for stormwater best management practices. Additional funds may be appropriated in future fiscal years. Any moneys remaining in the Fund, including interest thereon, at the end of each fiscal year shall not revert to the general fund but shall remain in the Fund.

### Application Evaluation

All 113 projects were evaluated in accordance with the program's eligibility requirements and priority ranking criteria. It was determined that 12 projects from 6 localities totaling **\$8,227,157** were ineligible for SLAF funding. These included 8 projects involving maintenance dredging of existing stormwater BMPs, 2 projects with manufactured treatment devices (MTD), 1 project for rainwater harvesting, and 1 request for a feasibility study. Staff does not consider the maintenance of existing BMPs to be eligible, MTDs are not eligible because they are not yet listed on the BMP Clearinghouse, rainwater harvesting is ineligible because it is only listed in draft status and is not yet reportable to the Chesapeake Bay Program, and a feasibility study is not a capital project.

The funding amount requested for the remaining, eligible projects totaled **\$31,139,391**, less than the \$35,000,000 currently available. Based on the Board's Priority Ranking System, the point totals for those projects ranged from a high of 540 (out of a possible 550) to a low of 120, reflecting a wide spread in the quality of the applications. Of particular concern was the very low cost effectiveness of a significant number of proposals (i.e. high cost per pound of total phosphorous (TP) removal per year). Given the specific reference in the legislation to "practices that address cost efficiency", and the need to be fiscally prudent with this new state grant program, not funding these low efficiency projects was determined to be appropriate, regardless of the current excess availability of funds relative to the requests received.

To initiate the projects with better environmental benefit and cost-effectiveness, staff believes that the FY 2014 SLAF funding should be distributed in phases, with only projects with costs below \$50,000 per pound of TP removal per year being funded in the first phase and the remaining funds being carried over for another funding solicitation in 2014. Virginia localities are currently in the planning phase for developing projects designed to meet municipal stormwater permit requirements. MS4 Permittees are required to complete Local TMDL Actions Plans (for TMDLS established by July 2008) and Chesapeake Bay-TMDL Action Plans by July 2015. The Bay WIP also calls for localities to consider reducing urban stormwater in areas not covered by permit requirements. A 2014 solicitation will allow localities more time to identify and prioritize projects with better environmental benefits and cost effectiveness and for MS4s to better align requests for grant funding with retrofit projects in their TMDL Action Plans.

The recommended project funding list shown below provides funding for the **71** eligible projects identified in applications received from 31 localities with costs below \$50,000 per pound of TP removal per year, totaling **\$22,937,158**. This first phase of funding will allow for the initiation of projects with better environmental benefit and relative cost-effectiveness and allow the remaining **\$12,062,842** to be carried over for an additional solicitation in 2014. DEQ will issue Letters of Commitment to all recipients on the list so that they may proceed with their projects with the certainty of a funding commitment. DEQ staff will work with the authorized grant recipients as they complete the program requirements and advertise for construction bids. Upon the receipt of construction bids and the development and approval of a final project budget based on as-bid or contractual costs, the grants will be awarded individually to each recipient

### Conclusion

DEQ solicited applications for FY 2014 SLAF grant assistance and evaluated the 113 projects received from 35 localities totaling **\$39,366,548**. After an evaluation of funding availability, project eligibility, priority ranking, and analyses of the cost effectiveness of the eligible projects, the recommended PPL for this first phase of funding includes **71** projects in **31** localities totaling **\$22,937,158**. The remaining **\$12,062,842** will be carried over for an additional solicitation in 2014, allowing time for localities to identify projects that are more cost effective and/or better align with their draft TMDL Action Plans.

Staff Recommendations

The staff recommends that the DEQ Director authorize the following localities/projects for SLAF matching grant assistance, subject to compliance with the program requirements and the receipt of construction bids.

	LOCALITY	PROJECT	AMOUNT AUTHORIZED	TOTAL PER LOCALITY
*	Albemarle County	Church Road Basin Retrofit	\$137,750	\$137,750
*	Arlington County	Ballston Pond retrofit to constructed wetland	\$500,000	\$500,000
*	Chesterfield County	Mid-Lothian Mines Park stream restoration	\$421,653	
	Chesterfield County	Swift Creek Watershed - stormwater pond with a sediment forebay.	\$878,200	
	Chesterfield County	Wrens Nest Road - bank stabilization & channel grade control structural (rock weir) retrofits	\$320,783	
				\$1,620,636
*	City of Alexandria	Lake Cook conversion to Wet Pond	\$1,200,000	\$1,200,000
*	City of Chesapeake	Washington Manor Outfall - 2 new wet ponds	\$1,250,000	\$1,250,000
*	City of Fairfax	Daniels Run stream restoration	\$285,000	\$285,000
*	City of Hampton	Coliseum Lake retrofit	\$481,155	\$481,155
*	City of Lexington	New School: perm pavement, bioretention & dry detention pond	\$225,000	\$225,000
*	City of Manassas	Prince William Hospital Regional Stormwater Management Facility	\$1,921,471	\$1,921,471
*	City of Newport News	Stony Run Region Stormwater BMP-modified	\$629,645	
	City of Newport News	Glen Allen Court stream restoration	\$140,773	
	City of Newport News	Turnberry Wells stream restoration	\$238,585	
	City of Newport News	Atkinson Boulevard level 1 wet pond	\$191,000	
	City of Newport News	Warwick Boulevard level 2 wet pond	\$242,500	
				\$1,442,503
*	City of Norfolk	Norfolk Juvenile Detention Center Dry Pond Retrofit	\$86,000	
	City of Norfolk	Ballentine School Retention Pond Retrofit	\$124,500	
	City of Norfolk	Greenway Park Enhanced Retention Basin	\$144,941	
	City of Norfolk	Parkdale Stream Restoration	\$184,000	
				\$539,441
*	City of Petersburg	Brickhouse Run: stream restoration (ID 5.11)	\$32,500	
	City of Petersburg	Lt. Run @ Animal Shelter: stream restoration (ID 5.12)	\$104,000	
	City of Petersburg	Canal Street: bioretention (ID 4.26)	\$7,000	
	City of Petersburg	Forest Lane Washout: stream restoration (ID 4.01)	\$36,500	
				\$180,000
*	City of Richmond	Master Plan ID # 01.01, 03.01, 04.01, 05.01 - Pocosham Creek Stream Restoration	\$1,218,945	
	City of Richmond	Maury Cemetery Stream Restoration	\$451,894	
				\$1,670,839

Authorization of SLAF Project Funding List

*	City of Suffolk	Design & retrofit existing pond into stormwater management facility	\$500,000	\$500,000
*	City of Virginia Beach	Mill Dam Creek stream restoration	\$220,750	
	City of Virginia Beach	Thalia Creek permeable pavers, curb & gutter removal and distributed bio-retention basins	\$145,152	\$365,902
*	City of Waynesboro	South River constructed wetland	\$850,000	\$850,000
*	Fairfax County	Pohick Creek Tributary stream restoration	\$630,500	
	Fairfax County	Rabbit Branch stream restoration	\$510,000	
	Fairfax County	Banks Property stream restoration	\$625,000	
	Fairfax County	South Lakes H.S. outfall stream restoration	\$423,000	\$2,188,500
*	Goochland County	Midpoint Industrial Park - 4 wet ponds	\$77,294	
	Goochland County	County Administrative Bldg - dry swale	\$24,700	\$101,994
*	Hanover County	Church of the Creator - Brandy Branch	\$368,360	
	Hanover County	Laurel Meadows E.S. - Beaverdam Creek	\$48,390	\$416,750
*	Henrico County	Belmont Golf Course stream bank stabilization	\$176,563	
	Henrico County	Hoehns Lake stream restoration	\$146,850	\$323,413
*	Isle of Wight County	Franklin Municipal - John B. Rose Airport BMPs	\$165,000	
	Isle of Wight County	Nike Park BMPs	\$80,300	
	Isle of Wight County	Carrsville E.S. BMP	\$44,220	
	Isle of Wight County	Carrollton E.S. BMP	\$48,620	\$338,140
*	James City County	Southpoint Outfall repair	\$84,048	
	James City County	W'msburg Regional Library - Croaker Rd. Partnership	\$105,000	
	James City County	Brook Haven WQ Improvements	\$181,273	
	James City County	James Terrace WQ Improvements	\$209,817	
	James City County	Jolly Pond Convenience Center BMP Upgrade	\$75,000	\$655,138
*	Loudoun County	County park constructed wetland & bioretention basin	\$194,250	\$194,250
*	Prince William County	Cow Branch steam restoration	\$280,000	\$280,000
*	Roanoke County	Glade Creek at Vinyard Park - stream restoration	\$474,600	
	Roanoke County	Murray Run / Ogdon Rd. - stream restoration	\$278,950	\$753,550
*	Stafford County	Whitsons Run watershed retrofit Detention Ponds (DP257) & (DP339)	\$125,000	\$125,000
*	Town of Ashland	Ashland Police permeable pavement & stream restoration	\$157,500	\$157,500
*	Town of Christiansburg	Diamond Hills Phase I stream restoration & detention basin	\$230,000	
	Town of Christiansburg	Christiansburg Industrial Park Basin detention basin conversion to wetland	\$122,500	
	Town of Christiansburg	Depot Street Drainage Basin stream restoration	\$196,000	
	Town of Christiansburg	Diamond Hills Phase II stream restoration & detention basin	\$82,500	\$631,000

Authorization of SLAF Project Funding List

*	Town of Leesburg	Exeter Wet Pond retrofit with constructed wetlands	\$392,688	
	Town of Leesburg	Greenway Pond retrofit to extended dry detention	\$77,325	
	Town of Leesburg	Stratford #1 Pond retrofit to extended dry detention	\$90,438	
	Town of Leesburg	Exeter Dry Pond retrofit to extended dry detention	\$63,175	
	Town of Leesburg	Stowers Wet Pond retrofit with constructed wetlands	\$110,050	
	Town of Leesburg	Tuscarora Creek stream restoration	\$641,075	
	Town of Leesburg	Kohl's Pond retrofit to extended dry detention	\$81,838	
	Town of Leesburg	Foxridge Pond retrofit to extended dry detention	\$147,575	\$1,604,163
*	Town of Vienna	Hunters Branch stream restoration	\$670,000	\$670,000
*	York County	Dare Elementary stream restoration, constructed wetlands & retrofit practices	\$507,009	
	York County	Wormley Creek stream constructed wetland & stream restoration (Cook Rd. Phase II)	\$406,250	
	York County	Cook Road constructed wetland (Phase I)	\$414,806	\$1,328,065
71 Projects			\$22,937,158	\$22,937,158

Authorized by:

\_\_\_\_ Action approved  
as recommended

\_\_\_\_\_  
David K. Paylor  
Director, DEQ

### **April 26, 2014 Meeting Materials**

The Regional Stormwater Pollution Prevention Plan template was discussed at this meeting. The template document includes 19 sections and over 100 pages. A copy of the full template document is available upon request to RRPDC staff at (804)323-2033 or [sstewart@richmondregional.org](mailto:sstewart@richmondregional.org).

A Table of Contents for the SWPPP template follows.

**SWPPP TABLE OF CONTENTS**

<b>Tab</b>	<b>Content</b>
1	SWPPP TITLE SHEET
2	INTRODUCTION
3	REQUIRED SWPPP COMPONENTS
4	NARRATIVE
5	DELEGATION OF AUTHORITY
6	IDENTIFICATION OF QUALIFIED PERSONNEL
7	ENVIRONMENTAL COMPLIANCE PLAN AND OTHER INCORPORATED PLANS
8	POLLUTION PREVENTION PLAN INFORMATION
9	TMDL INFORMATION
10	SWPPP AMENDMENTS, MODIFICATIONS AND UPDATES
11	PUBLIC NOTICE, AVAILABILITY AND IMPLEMENTATION OF THE SWPPP
12	SWPPP INSPECTIONS
13	CORRECTIVE ACTIONS
14	SWPPP TERMINATION
15	REGISTRATION STATEMENT FOR THE PROJECT
16	NOTICE OF COVERAGE FOR THE PROJECT
17	GENERAL VPDES PERMIT FOR DISCHARGES OF STORMWATER FROM CONSTRUCTION ACTIVITIES
18	NOTICE OF TERMINATION FOR GENERAL VPDES PERMIT FOR DISCHARGES OF STORMWATER FROM CONSTRUCTION ACTIVITIES FORM
19	GCP TRANSFER AGREEMENT FORM

**AGENDA**

**Water Quality Roundtable Meeting**

**September 18, 2013**

Richmond Regional Planning District Commission  
Board Room  
9211 Forest Hill Ave, Ste. 200  
Richmond, VA 23235

**CALL TO ORDER .....9:00 A.M.**

9:00 Welcome & Introductions

- Meeting Purpose: Discuss current status of member programs, receive updated information available, and outline next steps for discussion

9:05 Bay TMDL Update - *Sarah Stewart, RRPDC*

9:15 Local Stormwater Program Development Roundtable Discussion

- Drafting local program/ordinance for submission to DEQ?
- Round Robin of current status & issues
  - Staffing
  - Fees & costs

10:30 MS4 update

- Chesterfield
- Other localities

10:55 Wrap-Up & Next Steps

- Next meeting in early November?
- Include Ag folks?

**11:00 Adjourn**

# RRPDC Water Quality Roundtable

September 18, 2013

RRPDC Board Room

# Judge upholds pollution fight in Chesapeake Bay cleanup

**BY MARC LEVY The Associated Press | Posted: Sunday, September 15, 2013 12:00 am**

HARRISBURG, Pa. A judge has rejected a bid by farm industry and home builders' groups to block federal and state pollution limits designed to improve the health of the Chesapeake Bay by more tightly regulating wastewater treatment, construction along waterways and agricultural runoff.

U.S. District Court Judge Sylvia Rambo in Harrisburg ruled that the U.S. Environmental Protection Agency was within its authority to work with six states and the District of Columbia to set and enforce standards to reduce nitrogen, phosphorus and sediment that drain from rivers into the bay and harm the ecology of the nation's largest estuary.

In her 99-page decision Friday, Rambo rejected arguments that the EPA overstepped its bounds under the federal Clean Water Act, created an unfair process and used standards that were flawed or unlawfully complicated.

The EPA and the group of Chesapeake Bay states "undertook significant efforts to preserve the framework of cooperative federalism, as envisioned by the (Clean Water Act)," Rambo wrote. The act is "an 'all-compassing' and 'comprehensive' statute that envisions a strong federal role for ensuring pollution reduction."

The American Farm Bureau, which originally filed the suit in 2011, had no comment Saturday. The EPA called the ruling "a victory for the 17 million people in the Chesapeake Bay watershed" while other groups that supported the regulations, including the National Wildlife Federation and Chesapeake Bay Foundation, applauded Rambo's decision.

"This is a great day for clean water in the region; there could be no better outcome," Chesapeake Bay Foundation President William Baker said in a statement.

Groups that had joined the farm bureau's effort included the Fertilizer Institute, the National Pork Producers Council, the National Corn Growers Association, the National Chicken Council, the U.S. Poultry and Egg Association and the National Turkey Federation.

Farm runoff — animal waste and fertilizer that get into streams and rivers from watering or rainfall — is the single largest source of pollutants in the Chesapeake Bay, according to the EPA. Agriculture groups had become alarmed at the plan, saying it unfairly singled out farmers and the cost to protect waterways from runoff could devastate farmers. The National Association of Home Builders also had challenged the Chesapeake Bay plan.

# VSMP Deadlines

- **December 15, 2013** localities submit preliminary final application packages to DEQ Regional Offices
  - Include proposed ordinance, funding & staffing plan, policies & procedures
- **April 1, 2014** localities submit final VSMP application packages to DEQ Regional Offices
- **May 13, 2014** DEQ decision to recommend approval of local VSMP
- **June 13, 2014** Local adoption of final VSMP
- **July 1, 2014** Implementation of final VSMP



## VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP)

### REQUIRED ELEMENTS OF LOCAL VSMP & APPLICATION PACKAGE

**Locality:** \_\_\_\_\_  
**Reviewer:** \_\_\_\_\_  
**Date:** \_\_\_\_\_

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To facilitate review of the local Virginia Stormwater Management Program (VSMP) application package, the following information is necessary. This checklist is intended to be used to provide a locality with a list of items, documents and procedures that must be submitted to Department of Environmental Quality (DEQ) staff in order for the Virginia Water Control Board (Board) to approve the local VSMP. All items listed are requirements in the Virginia Stormwater Management Program (VSMP) Permit Regulations and the Virginia Stormwater Management Act.

#### **VSMP Application Package Components - 4VAC50-60-150 - Authorization procedures for Virginia stormwater management programs.**

The following are the items that must be submitted by localities required to adopt a VSMP in accordance with § [62.1-44.15:27](#) of the Code of Virginia or towns electing to adopt their own VSMPs as part of the application package:

1. The draft VSMP ordinance(s) as required in 4VAC50-60-148;
2. A funding and staffing plan;
3. The policies and procedures including, but not limited to, agreements with Soil and Water Conservation Districts, adjacent localities, or other public or private entities for the administration, plan review, inspection, and enforcement components of the program; and
4. Such ordinances, plans, policies, and procedures must account for any town lying within the county as part of the locality's VSMP program unless such towns choose to adopt their own program.

The information referenced under “information needed for review” is to be provided by local staff. Local staff should replace the description of information requested in the “Local Staff to Provide” column with the location, local ordinance citation, or brief summary of requested information.

Locality: \_\_\_\_\_

<b>Item #</b>	<b>Code/Regulatory citation</b>	<b>Information needed for review</b>	<b>Local Staff to Provide</b>	<b>DEQ Staff Review of Information from Locality</b>
1.	<a href="#">62.1-44.15:27 E</a> <a href="#">4VAC50-60-150.A.1</a>	Copy of the final draft of the local Stormwater Management Ordinance (s).	<i>Local staff should provide a copy of the most recent Stormwater Management Ordinance(s) that is consistent with the VSMP regulations. The DEQ Model Ordinance may be used as guidance in developing the ordinance.</i>	Ordinance provided? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
2.	<a href="#">4VAC50-60-150.A.2</a>	Funding and staffing plan.	<i>Local staff should provide a description of staffing (i.e. # of new positions, estimation of percentages of existing positions, etc.) needed to operate the SWM Program along with a discussion of how the locality determined the staffing levels needed. Local staff should also provide a description of where funding for staff will come from and how funds will be distributed.</i>	Information provided? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
3.	<a href="#">62.1-44.15:27 A</a> <a href="#">4VAC50-60-150.A.3</a>	Is the locality partnering with adjacent localities or other entities for the administration, plan review, inspection and enforcement components of a stormwater management program?	<i>If yes, local staff should provide a copy of the agreement, Memoranda Of Understanding (MOUs), or contracts used to develop and administer the multi-jurisdictional program.</i>	Information provided? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Comments:
4.	<a href="#">4VAC50-60-150.A.4</a>	Ordinance language, policies and procedures that account for any town lying within the county as part of the locality's VSMP program unless such towns choose to adopt their own program.	<i>County staff shall ensure that towns lying within their boundaries are included in their local VSMP program, unless the town adopts its own VSMP program. NOTE: Will only apply to counties.</i>	Information provided? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Comments:
5.	<a href="#">62.1-44.15:33</a>	Identification of any provisions of a local stormwater management program in existence before January 1, 2013	<i><a href="#">§62.1-44.15:33</a> of the Stormwater Management Law specifies that localities are authorized to adopt criteria that are more stringent than those</i>	Information provided? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>

Locality: \_\_\_\_\_

		that contains more stringent provisions than the current VSMP regulations.	<i>contained in the VSMP regulations, but that such criteria must be based on findings from regional watershed studies, findings developed through the implementation of an MS4 permit which determine that the more stringent criteria are necessary for the protection of water resources, and reported to the Board. However, more stringent provisions in effect before January 1, 2013 are exempt from this requirement but must be reported to the Board with the submittal of the VSMP approval package. <u>Local staff should verify and provide documentation of the date any more stringent stormwater management criteria were adopted.</u></i>	Comments:
6.	<a href="#">4VAC50-60-148.A.1</a>	Identification of the authority accepting complete registration statements, and of authorities completing plan review, plan approval, inspection and enforcement.	<i>Local staff should identify the responsible authorities for these identified functions.</i>	Information provided? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
7.	<a href="#">4VAC50-60-148.A.2</a>	Identification of ordinance language and processes for the review and approval of erosion and sediment control and stormwater management plans.	<i>Local staff should provide documentation of processes and procedures for erosion &amp; sediment control and stormwater management plan reviews.</i>	Information provided? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
8.	<a href="#">4VAC50-60-148.A.4</a> <a href="#">4VAC50-60-114</a>	Identification of inspection program for land disturbing activities.	<i>Local staff should provide a description of and policies and procedures for the inspection of land disturbing activities.</i>	Information provided? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Comments:
9.	<a href="#">4VAC50-60-112</a> <a href="#">4VAC50-60-148.A.5</a>	Identification of requirements for the long term inspection and maintenance of BMPs.	<i>Local staff should identify where the specific requirements for long term maintenance of BMPs are located within the local Stormwater Management Ordinance(s) and provide policies and procedures to administer these</i>	Information provided? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:

Locality: \_\_\_\_\_

			<i>requirements. Local staff should also provide description of procedures to track BMPs and ensure BMP maintenance through a recorded instrument.</i>	
10.	<a href="#">4VAC50-60-148.A.6</a> <a href="#">4VAC50-60-700</a> <a href="#">4VAC50-60-800</a>	Identification of location of fee structure and if the fee structure differs from the statewide fee schedule.	<i>Local staff should identify where the fee structure is located, either within the local Stormwater Management Ordinance or elsewhere, if applicable. If the local VSMP has determined to lower the fees established in 4VAC50-60-800, the locality must demonstrate through documentation, that they will be able to administer all elements of the VSMP with the reduced fees. If the locality chooses to increase fees, the locality must demonstrate through documentation, that the greater fees are necessary to administer the program.</i>	Information provided? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
11.	<a href="#">4VAC50-60-148.A.7</a> <a href="#">4VAC50-60-116</a>	Explanation of local enforcement for stormwater management program.	<i>Local staff should provide description of enforcement provisions and any procedures developed to conduct enforcement.</i>	Information provided? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
12.	<a href="#">4VAC50-60-148.A.8</a>	Identification of policies/procedures for obtaining and releasing bonds as applicable.	<i>Local staff should provide the location of any procedures for obtaining and releasing bonds, either within the local Stormwater Management Ordinance(s) or elsewhere. Note: having procedures for the obtaining and release of bonds is an option for localities.</i>	Information provided? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Comments:
13.	<a href="#">4VAC50-60-148.A.9</a> <a href="#">4VAC50-60-126</a>	Identification of procedures for reporting and recordkeeping.	<i>Local staff should provide procedures for record keeping in accordance with 4VAC50-60-126 of the regulations.</i>	Information provided? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:

Locality: \_\_\_\_\_

**Other supporting documentation**

14.	<a href="#">4VAC50-60-65</a>	Copy of BMP design criteria.	<i>Local staff should provide description and copy of local BMP design criteria that are consistent with the design criteria set forth 4VAC50-60-63 of the regulations. If the locality proposes to allow BMPs differing from those listed in the regulations, documentation that these BMPs were approved by the Director in accordance with procedures established by the BMP Clearinghouse Committee and approved by the Board must be provided.</i>	<i>Information provided?</i> Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
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**The following is to be completed by DEQ staff.**

15.	Is the local Erosion and Sediment Control program consistent as defined in 62.1-44.15:54.D?	<i>DEQ staff should verify status in advance and note here prior to sending to local contact.</i>	Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
16.	a. Is the locality within Tidewater Virginia as defined in the Chesapeake Bay Preservation Act? b. If so, is the local Bay Act program consistent and compliant?	<i>DEQ staff should verify status in advance and note here prior to sending to local contact.</i>	a. Yes <input type="checkbox"/> No <input type="checkbox"/> Comments: b. Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
17.	Is the locality an MS4 locality?	<i>DEQ staff should verify status in advance and note here prior to sending to local contact.</i>	Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:



## VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) LOCAL ORDINANCE CHECKLIST

**Locality**        \_\_\_\_\_  
**Reviewer:**    \_\_\_\_\_  
**Date:**            \_\_\_\_\_

Virginia local governments that adopt a Virginia State Water Control Board (Board) approved Virginia Stormwater Management Program (VSMP) must develop local ordinances that incorporate specific components of the Virginia Stormwater Management Act and Virginia Stormwater Management Program (VSMP) Regulations. The Department has developed this VSMP Local Ordinance Checklist as a tool to assist Regional Office staff and local governments in the development and review of local SWMP ordinances. It was developed using the DCR Stormwater Management Model Ordinance as a template for organization and minimum requirements. We recommend that the Virginia Stormwater Management Act and the VSMP Permit Regulations be used when reviewing local stormwater ordinances. The relevant code and/or regulatory citations are included to provide the reviewer with the actual regulatory requirement and language.

### 1-1. PURPOSE AND AUTHORITY

	State Code/Regulation Citation	Description	Review Strategy	Local Code Citation	Review Results
1	<a href="#">4VAC50-60-20</a>	Purpose: Describes purpose of local VSMP ordinance.	Verify that purpose of the ordinance is described and provides the framework for the administration, implementation and enforcement of the provisions of the Virginia Stormwater Management Act and to delineate the procedures and requirements to be followed in connection with permits issued by the local VSMP authority.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
2	<a href="#">62.1-44.15:27</a>	Establishes requirement for localities to establish a stormwater management program.	Ensure reference to <a href="#">62.1-44.15:27</a> is given.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:

### 1-2. DEFINITIONS

	State Code/Regulation Citation	Description	Review Strategy	Local Code Citation	Review Results
3	<a href="#">4VAC50-60-10</a>	Definitions: The Model Ordinance includes 33 definitions necessary for	The reviewer should ensure that these 33 definitions are included in the local ordinance. Additional definitions may be included but		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:

		inclusion in a local storm water ordinance.	should be reviewed against the Regulations. All definitions should be consistent with the Regulations. Ensure that any references to DCR are changed to DEQ.		
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### 1-3. STORMWATER PERMIT REQUIREMENT; EXEMPTIONS

	State Code/Regulation Citation	Description	Review Strategy	Local Code Citation	Review Results
4	<a href="#">62.1-44.15:34 A</a>	Requires a VSMP authority permit to be issued prior to the commencement of land disturbance.	Verify requirement exists in the local ordinance.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
5	<a href="#">4VAC50-60-51</a> <a href="#">4VAC50-60-103</a>	Outlines specific technical criteria and administrative requirements land disturbing activities subject to the Chesapeake Bay Preservation Act must meet.	Ensure ordinance states that Chesapeake Bay Act land disturbing activities do not require completion of a registration statement or require coverage under the General Permit but shall be subject to the technical criteria and program and administrative requirements in 4VAC50-60-51. Determine if all 10 technical criteria/administrative requirements are specified in the local ordinance: 1. Erosion and sediment control plan 2. Stormwater management plan 3. Exceptions may be requested 4. Long-term maintenance of stormwater management facilities 5. Water quality design criteria 6. Water quality compliance 7. Channel protection and flood protection 8. Offsite compliance options available 9. Subject to design storm and hydrologic methods, linear development controls, and criteria associated with stormwater impoundment structures or facilities 10. Provisions for inspections		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/>  Technical criteria/administrative requirements specified? 1. Yes <input type="checkbox"/> No 2. Yes <input type="checkbox"/> No 3. Yes <input type="checkbox"/> No 4. Yes <input type="checkbox"/> No 5. Yes <input type="checkbox"/> No 6. Yes <input type="checkbox"/> No 7. Yes <input type="checkbox"/> No 8. Yes <input type="checkbox"/> No 9. Yes <input type="checkbox"/> No 10. Yes <input type="checkbox"/> No  Comments:
6	<a href="#">62.1-44.15:34 C</a>	Lists 8 activities that are exempt under the Regulations.	Must be phrased exactly like the Code to ensure proper interpretation. Determine if all 8 activities are specified in the local ordinance: 1. Permitted surface or deep mining operations and projects, or oil and gas operations and		Exempt activities specified? 1. Yes <input type="checkbox"/> No 2. Yes <input type="checkbox"/> No 3. Yes <input type="checkbox"/> No 4. Yes <input type="checkbox"/> No

			<p>projects conducted under the provisions of Title 45:1;</p> <p>2. Clearing of lands specifically for agricultural purposes and the management, tilling, planting or harvesting of agricultural, horticultural, or forest crops, livestock feedlot operations, or as additionally set forth by the Board in regulations, including engineering operations as follows: construction of terraces, terrace outlets, check dams, desilting basins, dikes, ponds, ditches, strip cropping, lister furrowing, contour cultivating, contour furrowing, land drainage, and land irrigation; however, this exception shall not apply to harvesting of forest crops unless the area on which harvesting occurs is reforested artificially or naturally in accordance with the provisions of Chapter 11 (§ 10.1 – 1100 et seq.) or is converted to bona fide agricultural or improved pasture use as described in subsection B of §10.1-1163;</p> <p>3. Single-family residences separately built and disturbing less than one acre and not part of a larger common plan of development or sale, including additions or modifications to existing single-family detached residential structures. However, localities subject to the Chesapeake Bay Preservation Act (§ 10.1 – 2100 et seq.) may regulate these single family residences where land disturbance exceeds 2,500 square feet;</p> <p>4. Land disturbing activities that disturb less than one acre of land area except for land disturbing activity exceeding an area of 2,500 square feet in all areas of the jurisdictions designated as subject to the Chesapeake Bay Preservation Area Designation and Management Regulations (9 VAC 10-20) adopted pursuant to the Chesapeake Bay Preservation Act (§10.1 – 2100 et seq.) or activities that are part of a</p>		<p>5. Yes <input type="checkbox"/> No</p> <p>6. Yes <input type="checkbox"/> No</p> <p>7. Yes <input type="checkbox"/> No</p> <p>8. Yes <input type="checkbox"/> No</p> <p>Comments:</p>
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			<p>larger common plan of development or sale that is one acre or greater of disturbance; however, the governing body of any locality that administers a VSMP may reduce this exception to a smaller area of disturbed land or qualify the conditions under which this exception shall apply;</p> <p>5. Discharges to a sanitary sewer or combined sewer system;</p> <p>6. Activities under a State or federal reclamation program to return an abandoned property to an agricultural or open land use;</p> <p>7. Routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original construction of the project. The paving of an existing road with a compacted or impervious surface and reestablishment of existing associated ditches and shoulders shall be deemed routine maintenance if performed in accordance with this subsection;</p> <p>8. Conducting land-disturbing activities in response to a public emergency where the related work requires immediate authorization to avoid imminent endangerment to human health or the environment. In such situations, the VSMP authority shall be advised of the disturbance within seven days of commencing the land-disturbing activity and compliance with the administrative requirements of subsection A is required within 30 days of commencing the land-disturbing activity.</p>		
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**1-4. STORMWATER MANAGEMENT PROGRAM ESTABLISHED; SUBMISSION AND APPROVAL OF PLANS**

	<b>State Code/Regulation Citation</b>	<b>Description</b>	<b>Review Strategy</b>	<b>Local Code Citation</b>	<b>Review Results</b>
7	<a href="#">62.1-44.15:34</a> <a href="#">4VAC50-60-54.A-C</a> <a href="#">4VAC50-60-59</a>	Requires an approved erosion & sediment control plan, stormwater management plan,	Verify these 3 requirements are specified in the local ordinance, where required.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:

		and general permit registration statement prior to issuance of a VSMP authority permit.			
8	<a href="#">62.1-44.15:34</a>	Allows for issuance of VSMP authority permit only after evidence of general permit coverage is obtained.	Verify requirement exists in the local ordinance, where required.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
9	<a href="#">4VAC50-60-750.A</a>	Requires fees to be paid before issuance of VSMP authority permit.	Verify requirement exists in the local ordinance.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
10	<a href="#">62.1-44.15:34 A</a>	Requires approval of a VSMP authority permit prior to issuance of grading, building or other local permit.	Verify requirement exists in the local ordinance.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:

#### 1-5. STORMWATER POLLUTION PREVENTION PLAN (SWPPP); CONTENTS OF PLAN

	State Code/Regulation Citation	Description	Review Strategy	Local Code Citation	Review Results
11	<a href="#">4VAC50-60-54.A</a> <a href="#">4VAC50-60-1170</a> , Section II	Requires SWPPP to be in compliance with state regulations and general permit requirements.	Ensure references to 4VAC50-60-54 and 1170 are included. SWPPPs must include: 1. Approved erosion and sediment control plan 2. Approved stormwater management plan 3. Pollution Prevention Plan for regulated land disturbing activities 4. Description of any additional control measures necessary to address a TMDL (Not required to be listed in local ordinance as long as regulatory reference is given.)		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
12	<a href="#">4VAC50-60-54.G</a>	Describes conditions under which a SWPPP must be amended by the operator.	Verify local ordinance states that SWPPP must be amended when there is a change in design, construction, operation or maintenance that has significant effect on discharge of pollutants not addressed by existing SWPPP.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
13	<a href="#">4VAC50-60-54.G</a>	Describes conditions under which SWPPP must be maintained by operator.	Verify local ordinance states that the SWPPP must be maintained at a central location onsite. If an onsite location is unavailable, notice of the SWPPP's location must be posted near the main entrance at the construction site.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:

**1-6. STORMWATER MANAGEMENT (SWM) PLAN; CONTENTS OF PLAN**

	State Code/Regulation Citation	Description	Review Strategy	Local Code Citation	Review Results
14	<a href="#">4VAC50-60-55.A</a>	Requires SWM plan to apply technical criteria and consider all sources of surface runoff and subsurface and groundwater flows converted to surface runoff.	Verify requirement exists in the local ordinance.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
15	<a href="#">4VAC50-60-55.B 1-8</a>	Lists 8 required SWM plan elements.	<p>Determine if all 8 elements are specified in the local ordinance:</p> <ol style="list-style-type: none"> <li>1. Information on type/ location of stormwater discharges, information on features to which stormwater is being discharged, including surface waters or karst features if present, and predevelopment/post development drainage areas;</li> <li>2. Contact information including name, address, telephone number and parcel number of the property or properties affected;</li> <li>3. Narrative that includes a description of current site conditions and final site conditions or if allowed by the VSMP authority, the information provided and documented during the review process that addresses the current and final site conditions;</li> <li>4. General description of the proposed stormwater management facilities and mechanism through which the facilities will be operated/ maintained after construction is complete;</li> <li>5. Information on proposed stormwater management facilities, including (i) type of facilities; (ii) location, including geographic coordinates; (iii) acres treated; and (iv) surface waters or karst features into which facility will discharge;</li> <li>6. Hydrologic/hydraulic computations, including runoff characteristics;</li> </ol>		<p>All elements specified?</p> <ol style="list-style-type: none"> <li>1. Yes <input type="checkbox"/> No</li> <li>2. Yes <input type="checkbox"/> No</li> <li>3. Yes <input type="checkbox"/> No</li> <li>4. Yes <input type="checkbox"/> No</li> <li>5. Yes <input type="checkbox"/> No</li> <li>6. Yes <input type="checkbox"/> No</li> <li>7. Yes <input type="checkbox"/> No</li> <li>8. Yes <input type="checkbox"/> No</li> </ol> <p>Comments:</p>

			<p>7. Documentation /calculations verifying compliance with water quality and quantity requirements of the regulations;</p> <p>8. Map or maps of site that depicts topography of the site and includes:</p> <ul style="list-style-type: none"> <li>a. Contributing drainage areas;</li> <li>b. Existing streams, ponds, culverts, ditches, wetlands, other water bodies, floodplains;</li> <li>c. Soil types, geologic formations if karst features are present in the area, forest cover, other vegetative areas;</li> <li>d. Current land use including existing structures, roads, locations of known utilities and easements;</li> <li>e. Sufficient information on adjoining parcels to assess impacts of stormwater from the site on these parcels;</li> <li>f. Limits of clearing and grading, proposed drainage patterns on the site;</li> <li>g. Proposed buildings, roads, parking areas, utilities, stormwater management facilities;</li> <li>h. Proposed land use with tabulation of percentage of surface area to be adapted to various uses, including but not limited to planned locations of utilities, roads and easements.</li> </ul>		
16	<a href="#">4VAC50-60-55.B.9</a>	Letter of availability required for use of off-site compliance options.	Verify requirement exists in the local ordinance.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
17	<a href="#">4VAC50-60-55.C</a>	Requires elements of SWM plans that include activities regulated under Chapter 4 of Title 54.1 of the Code of Virginia be appropriately sealed and signed by professional registered in the Commonwealth of Virginia.	Verify requirement exists in the local ordinance.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
18	<a href="#">4VAC50-60-55.D</a>	Requires construction record drawing be submitted to VSMP authority. Must be appropriately	Verify requirement exists in the local ordinance.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:

		sealed and signed by a professional registered in the Commonwealth of Virginia certifying that the SWM facilities have been constructed in accordance with approved plan.			
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**1-7. POLLUTION PREVENTION PLAN (PPP); CONTENTS OF PLAN**

	State Code/Regulation Citation	Description	Review Strategy	Local Code Citation	Review Results
19	<a href="#">4VAC50-60-56</a>	Requires PPP which details design, installation, implementation and maintenance of pollution prevention measures in accordance with Regulations.	Verify requirement exists in the local ordinance or is included by reference.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
20	<a href="#">4VAC50-60-56.A 1-3, B 1-4 and C</a>	Lists PPP requirements as outlined in the Regulations.	Determine if all 8 requirements are specified in the local ordinance or are included by reference: 1. Minimize discharge of pollutants from equipment and vehicle washing, wheel wash water and other wash waters. Wash waters must be treated prior to discharge; 2. Minimize exposure of all materials on site to precipitation and stormwater; 3. Minimize discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures; 4. BMPs to prohibit wastewater from washout of concrete, unless managed by appropriate control; 5. BMPs to prohibit wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials; 6. BMPs to prohibit discharges of fuels, oils or other pollutants used in vehicle/equipment operation/ maintenance; 7. BMPs to prohibit discharges of soaps or solvents used in vehicle/equipment washing; 8. Discharges from dewatering activities are		All requirements specified? 1. Yes <input type="checkbox"/> No <input type="checkbox"/> 2. Yes <input type="checkbox"/> No <input type="checkbox"/> 3. Yes <input type="checkbox"/> No <input type="checkbox"/> 4. Yes <input type="checkbox"/> No <input type="checkbox"/> 5. Yes <input type="checkbox"/> No <input type="checkbox"/> 6. Yes <input type="checkbox"/> No <input type="checkbox"/> 7. Yes <input type="checkbox"/> No <input type="checkbox"/> 8. Yes <input type="checkbox"/> No <input type="checkbox"/>  Comments:

			prohibited unless managed by appropriate controls.		
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### 1-8. REVIEW OF STORMWATER MANAGEMENT (SWM) PLAN

	State Code/Regulation Citation	Description	Review Strategy	Local Code Citation	Review Results
21	<a href="#">4VAC50-60-108.A</a>	Requires the VSMP authority to review and approve SWM plans.	Verify requirement exists in the local ordinance. May include “or any duly authorized agent of the Administrator”.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
22	<a href="#">4VAC50-60-108.B</a>	Establishes time frame for review of SWM plans and requirement for communication of decision to applicant.	Ensure all review period benchmarks are included: 1. Completeness of plan must be determined and applicant notified of determination within 15 days of receipt. a. If incomplete, applicant must be notified in writing. b. If determination of completeness is made, 60 days from date of communication is allowed for review. c. If determination of completeness is not made and communicated within 15 days, plan shall be deemed complete as of date of submission and 60 days from date of submission will be allowed for review. d. Any plan previously disapproved must be reviewed within 45 days of resubmission. 2. Decision to approve or disapprove plan must be provided in writing; if not approved reasons must be provided in writing. 3. If a plan meeting all requirements is submitted and no action is taken within appropriate time frame, the plan will be deemed approved. (Note: Shorter time frames are acceptable.)		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
23	<a href="#">4VAC50-60-108.C</a>	Describes the conditions under which modifications to approved SWM plans may be allowed or required.	Verify requirement exists in the local ordinance.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
24	<a href="#">4VAC50-60-108.E</a>	Requires construction record drawing for permanent BMPs.	Verify requirement exists in the local ordinance.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/>

		May elect not to require for SWM facilities for which maintenance agreements are not required pursuant to 4VAC50-60-112.			Comments:
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### 1-9. TECHNICAL CRITERIA FOR REGULATED LAND DISTURBING ACTIVITIES

	State Code/Regulation Citation	Description	Review Strategy	Local Code Citation	Review Results
25	<a href="#">4VAC50-60-62</a> <a href="#">4VAC50-60-63</a> <a href="#">4VAC50-60-65</a> <a href="#">4VAC50-60-66</a> <a href="#">4VAC50-60-69</a> <a href="#">4VAC50-60-72</a> <a href="#">4VAC50-60-74</a> <a href="#">4VAC50-60-76</a> <a href="#">4VAC50-60-85</a> <a href="#">4VAC50-60-92</a>	Technical criteria for land disturbing activities.	Technical criteria must be part of the VSMP, but do not have to be included within the ordinance. They may be contained within a local document that is referenced within the ordinance or the ordinance may reference 4VAC50-60-62 thru 92 of the Regulations. State technical criteria or more stringent local standards must be enforceable through the ordinance.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
26	<a href="#">4VAC50-60-48</a>	Describes conditions under which grandfathering of projects may occur.	Verify requirements exist in the local ordinance.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
27	<a href="#">4VAC50-60-122</a>	Describes conditions under which exceptions to the technical criteria may be granted.	Verify requirements exist in the local ordinance.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:

### 1-10. LONG-TERM MAINTENANCE OF PERMANENT STORMWATER FACILITIES

	State Code/Regulation Citation	Description	Review Strategy	Local Code Citation	Review Results
28	<a href="#">4VAC50-60-58</a>	Requires recorded instrument for long term maintenance of permanent BMPs.	Verify requirement exists in the local ordinance.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
29	<a href="#">4VAC50-60-112.A</a>	Sets out specific requirements for long term maintenance of permanent BMPs.	Determine if all 5 requirements are specified in the local ordinance: 1. Submitted prior to approval of stormwater		All requirements specified? 1. Yes <input type="checkbox"/> No 2. Yes <input type="checkbox"/> No

			<p>management plan</p> <p>2. Stated to run with land</p> <p>3. Provide necessary access to property for maintenance and inspection</p> <p>4. Provide for inspections and maintenance and submission of reports</p> <p>5. Be enforceable</p>		<p>3. Yes <input type="checkbox"/> No</p> <p>4. Yes <input type="checkbox"/> No</p> <p>5. Yes <input type="checkbox"/> No</p> <p>Comments:</p>
30	<a href="#">4VAC50-60-112.B</a>	Allows option for localities to not require a recorded BMP maintenance agreement on individual residential instrument.	If locality desires to allow this option, verify requirement exists in the local ordinance.		<p>Provision met?</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Comments:</p>
31	<a href="#">4VAC50-60-114.D</a>	If individual residential BMPs are not required to have recorded instrument, localities must develop strategy to address maintenance.	Applicable only if individual BMPs are not required to have recorded instrument.		<p>Provision met?</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Comments:</p>

## 1-11. MONITORING AND INSPECTIONS

	State Code/Regulation Citation	Description	Review Strategy	Local Code Citation	Review Results
32	<a href="#">4VAC50-60-114.A</a>	Requires VSMP authority to inspect for compliance 4 items during construction.	<p>Determine if all 4 required inspection items are specified in the local ordinance:</p> <p>1. Compliance with erosion and sediment control plan</p> <p>2. Compliance with stormwater management plan</p> <p>3. Development, updating, implementation of pollution prevention plan</p> <p>4. Development and implementation of additional control measures to address a TMDL</p>		<p>Inspection items specified?</p> <p>1. Yes <input type="checkbox"/> No</p> <p>2. Yes <input type="checkbox"/> No</p> <p>3. Yes <input type="checkbox"/> No</p> <p>4. Yes <input type="checkbox"/> No</p> <p>Comments:</p>
33	<a href="#">62.1-44.15:39</a>	Allows entry onto property in order to obtain information to assist in the enforcement of ordinance.	Verify requirement exists in the local ordinance.		<p>Provision met?</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Comments:</p>
34	<a href="#">62.1-44.15:40</a>	Requires permittee to provide information to VSMP authority when requested.	Verify requirement exists in the local ordinance.		<p>Provision met?</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Comments:</p>

35	<a href="#">4VAC50-60-114.B 2</a>	Requires post-construction inspections to be conducted by VSMP authority at least once every 5 years.	Verify requirement exists in the local ordinance.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
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### 1-12. HEARINGS

	State Code/Regulation Citation	Description	Review Strategy	Local Code Citation	Review Results
36	<a href="#">62.1-44.15:44</a> <a href="#">4VAC50-60-118</a>	Establishes right to hearing by any permit applicant, permittee, or person subject to state permit requirements aggrieved by a VSMP authority.	Verify requirement exists in the local ordinance. (Note: Local Board of Zoning Appeals and locality Program Administrators or his/her designee cannot constitute the Appeals Board. A separate Board or Commission must be appointed to hear appeals.)		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
37	<a href="#">62.1-44.15:45</a> <a href="#">62.1-44.26</a>	Establishes procedures for hearings.	Verify that hearings held by local government comply with the requirements of §62.1-44.26 A – C:  1. Must be conducted by local governing or appeals body at a regular or special meeting or by at least one member designated to conduct such hearings or at any other authorized time and place.  2. Verbatim record of proceedings must be taken and filed with local governing or appeals body.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:

### 1-13. APPEALS

	State Code/Regulation Citation	Description	Review Strategy	Local Code Citation	Review Results
38	<a href="#">62.1-44.15:46</a>	Establishes right to appeals process.	Pursuant to § 62.1-44.15:46, each locality must adopt an appeals procedure, which should be appropriate for the stormwater ordinance provisions, and shall be conducted in accordance with the locality's existing appeals procedures.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:

## 1-14. ENFORCEMENT

	State Code/Regulation Citation	Description	Review Strategy	Local Code Citation	Review Results
39	<a href="#">62.1-44.15:37 A</a> <a href="#">4VAC50-60-116.A</a>	Requires notice to be served if Administrator determines there is a failure to comply.	Verify requirement exists in the local ordinance.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
40	<a href="#">62.1-44.15:37 A</a>	Requires compliance measures to address permit conditions and timeframe for completion.	Verify requirement exists in the local ordinance.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
41	<a href="#">62.1-44.15:37 A</a>	Describes failure to comply actions.	Ensure that the local ordinance states that an order may be issued that ceases all land-disturbing activities until corrected.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
42	<a href="#">62.1-44.15:37</a> <a href="#">4VAC50-60-116.A 1</a>	Allows for informal and formal proceedings if Administrator determines that there is a failure to comply.	Verify requirement exists in the local ordinance.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
43	<a href="#">62.1-44.15:49</a> <a href="#">4VAC50-60-116</a>	Provides enforcement authority and schedule of civil penalties for enforcement actions. Criminal misdemeanor charges are an option also.	Components from 4VAC50-60-116 A 1 & A 2 must be incorporated into the VSMP ordinance. Ensure that the maximum penalty of \$32,500 per violation per day is not exceeded and that violations for which a penalty may be imposed are given.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:

## 1-15. FEES

(The inclusion of fees within the ordinance is optional. If they are not included within the ordinance, they should be documented elsewhere and must be submitted to DEQ as part of the Local VSMP Application package.)

	State Code/Regulation Citation	Description	Review Strategy	Local Code Citation	Review Results
44	<a href="#">62.1-44.15:28</a>	Establishes fees to cover costs associated with implementation of a VSMP.	Verify that the locality has either incorporated the fee schedule into their ordinance or local procedures. See Table 1 in SWM Model Ordinance or regulatory citation. (Note: Localities have ability to raise or lower fees. May also utilize other sources of funding.)		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
45	<a href="#">4VAC50-60-820</a>	Fees associated with coverage	See Table 1 in SWM Model Ordinance or		Provision met?

		under the General Permit for Discharges of Stormwater from Construction Activities (CGP).	regulatory citation.		Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
46	<a href="#">4VAC50-60-825</a>	Fees associated with modification or transfer of CGP.	See Table 2 in SWM Model Ordinance or regulatory citation.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
47	<a href="#">4VAC50-60-830</a>	Maintenance fees.	See Table 3 in SWM Model Ordinance or regulatory citation.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:
48	<a href="#">4VAC50-60-770</a>	Specifies how incomplete and late payments are handled.	Verify local ordinance states that incomplete payments deemed as nonpayments, interest may be charged on late payments, and a 10% late payment fee applied to delinquent accounts.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:

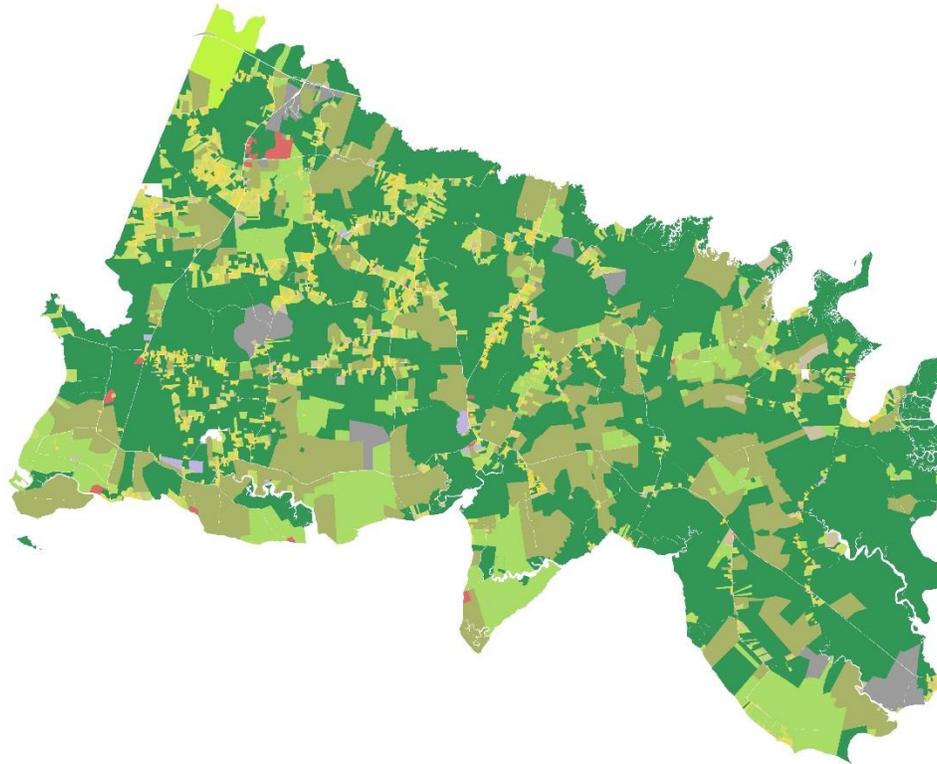
**1-16. PERFORMANCE BOND**

(This section is optional and is not required to be included in local ordinances.)

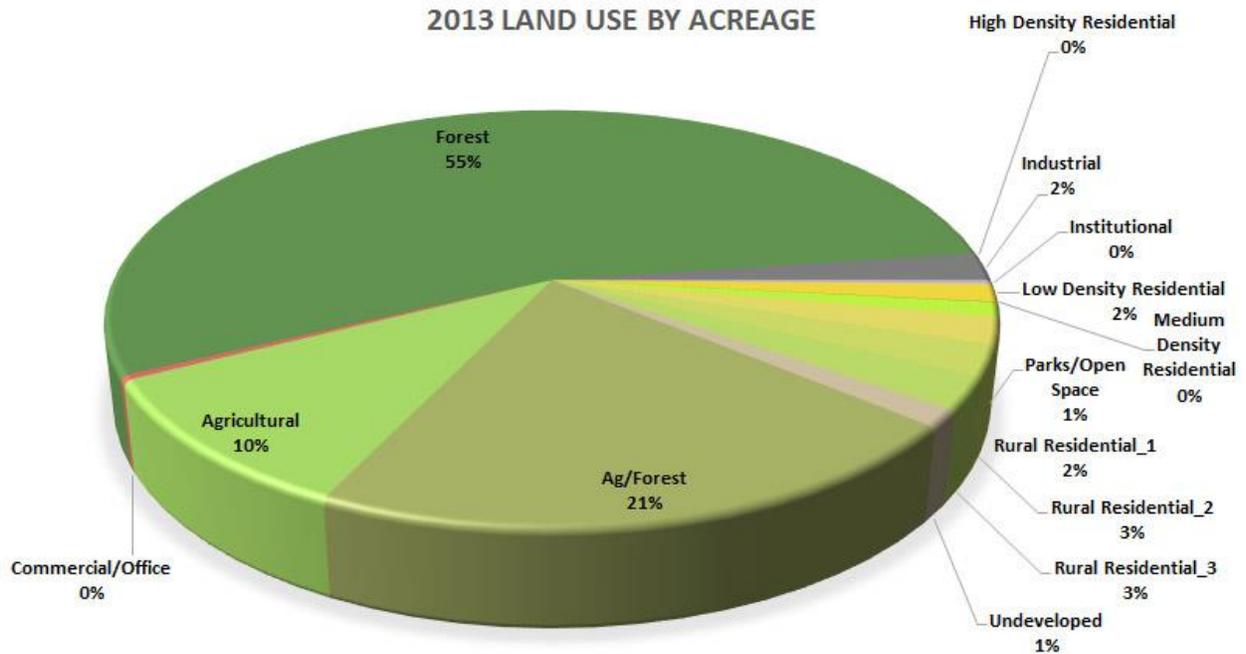
	State Code/Regulation Citation	Description	Review Strategy	Local Code Citation	Review Results
49	<a href="#">62.1-44.15:34 A</a> <a href="#">4VAC50-60-104.D</a>	Allows for bonds and sets out criteria.	Not required in local ordinances.		Provision met? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:

**APPENDIX C**

Charles City County Existing Land Use



2013 LAND USE BY ACREAGE



**APPENDIX D**

# MAXIMIZING

# POTENTIAL

## Midlothian / Belt Boulevard Corridor Study



August 2014



This project was administered by the Richmond Regional Planning District Commission on behalf of the City of Richmond as the FY14 Large jurisdiction Technical Assistance project.

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Dwight C. Jones, Mayor  
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### City Council

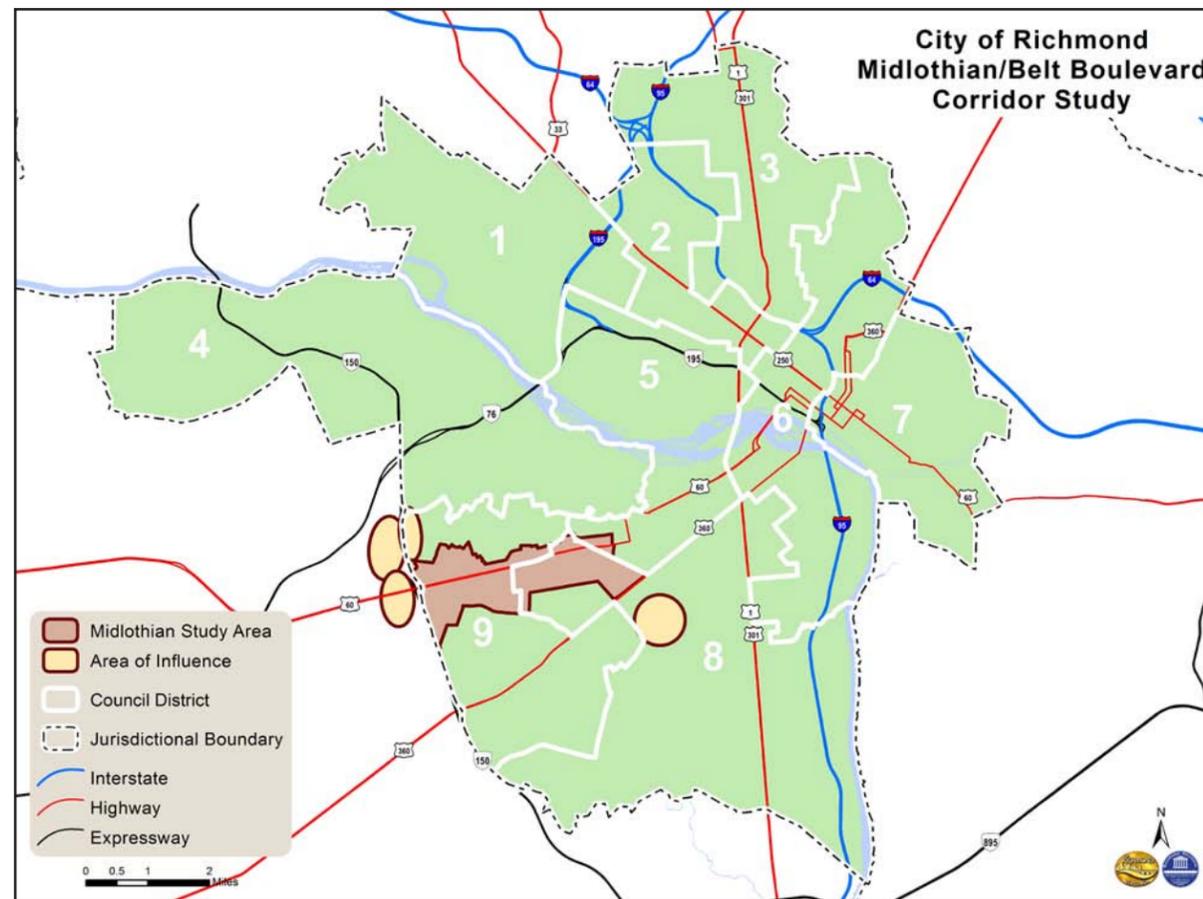
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The designated Midlothian/Belt Boulevard Study Area is included in three city council districts.

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# What does maximizing the potential along the Midlothian and Belt Boulevard corridors look like?

A public investment of \$45 million in the Midlothian corridor has transformed the street functionality for vehicular and pedestrian travel alike. Although not quite a complete street with dedicated bike lanes, clear passage for the other modes of travel, including several transit pull-outs to reduce interruptions to traffic flow, provides a greater sense of order. Pedestrian-timed signals, clearly marked cross-walks, and planted medians with resting spots offer the potential for greater access on foot. Pedestrian destinations along the corridor are not plentiful with the older auto-oriented land use pattern still intact. Belt Boulevard suffers on both counts with neither roadway nor land use pattern conducive to advance revitalization into the next decade.

**This corridor study takes a look at the opportunities and obstacles that could change the future of growth and development potential along Midlothian and Belt Boulevard, and by exploring this aging corridor, it is hoped to set in motion similar responses to other corridors in comparable life-cycles.**

## Traffic

- Midlothian Turnpike finds its origins as a route for transporting the coal from the Midlothian mines to the Manchester dock in the 1730s becoming the first paved road in Virginia in 1808. Belt Boulevard was derived from the Belt Line tracks of the RF&P Railroad, and formed an earlier western bypass in 1934.

- Steady traffic increases along Midlothian through the 1970s have resulted in the 6-lane cross-section we now have today, but subsequent decline in traffic to the east of Chippenham Parkway may provide new opportunities to reconsider the highway's function. Chippenham Parkway now serves as the innermost western parkway Belt Boulevard once served. As Powhite Parkway and Route 288 take on an increasingly important role moving traffic to the west, what can the study of these innermost highway segments do to help guide us in the future?
- The *Richmond Connects: Richmond Strategic Multimodal Transportation Plan* of July 2013 found that transit service operates inefficiently along the Midlothian corridor (Level 3 or 4 out of 4) with a 12-17 hour service span and headways of over an hour by three general service routes of 10-12 buses per direction per day.
- *Richmond Connects* also sets valuable guidelines for land use policy that supports transit in order to be competitive for Federal Transit Administration funding: In a non-central business district within ¼ mile of transit stops – Floor-to-Area Ratio (FAR) of 1.75-2.5; housing dwelling units (DU) of 15-25 DU/acre; and parking ratio of 1.5-2.5 spaces/1,000 square feet(SF). Developed parcels fronting along Midlothian currently have an overall FAR of 0.16. Residential land use density in the Midlothian/Belt Boulevard Study Area (Study Area) is approximately 4.8 DU/acre. Surface parking appears to be ample and reflects parking for past big-box uses or auto dealers that no longer exist, i.e., K-Mart, the Giant Open-Air supermarket [where the Richmond Outreach Center (ROC) now is located], department stores of Miller & Rhodes, Thalhimers, and Mason's in the Southside Plaza area, etc.

## Existing Land Use & Zoning

- Existing land use reflects vestiges of both corridors' evolution with an auto-service dominated theme, narrow strip commercial centers, and smaller motels toward the main Chippenham interchange with Midlothian. Larger parcels along the south side of Midlothian have allowed for some adaptive reuse or replacement, i.e., conversion of a 1966 industrial use to the Goodwill, construction of Evergreen manufacturing facility in 2003 and the Richmond Outreach Center adaptation of a 1969 big box. Several freight terminals remain as do two older, non-conforming mobile home parks.

- B-3, or General Business, zoned parcels dominate both corridors. In fact, the amount of B-3 zoned property in the study area represents more than one-half of all the B-3 zoned property within the City. Carrying out the minimum standards for the building envelope along with parking requirements for uses permitted by right in the B-3 zoning district, creates a non-urban, suburban conformity which predicts the low density, spread-out nature of development along a major highway arterial.

## Property Values

- Property values in the Study Area, measured in terms of the mean assessed value per acre, do not compare favorably to the values along selected commercial corridors in the City, i.e., Broad Street values are 18 times greater than those in the study area, 3 times greater along Forest Hill Avenue, and 1.2 times higher along Jeff Davis Highway.
- As another indicator of economic health, retail rental rates in the larger Midlothian East/Hull Street sub-market area are also relatively low and the vacancy rate higher when compared to other sub-markets in the Richmond area. In contrast, office and industrial space rental rates in what CoStar defines as the "Midlothian Sub-Market" (note the defined areas differ based on types of use) are better than average. Vacancy in the office market is higher than average, but the industrial vacancy rate is lower and has experienced a positive amount of absorption year-to-date. These statistics for the first quarter 2014 may portend some promise for the industrial sector that would be worth additional market review beyond this limited study.

## Public Safety

- Primary public safety indicators of health and well-being both for the Study Area as a location in which to do business and for the residents who live there were limited to a 10-year examination of crime statistics and review of recent vehicle accident data to try to answer key questions: Is this an area where it is safe to live and do business? Has the recent Midlothian Turnpike upgrade resulted in a noticeable improvement in traffic safety? All types of crime—property and personal—have decreased from 2004 to 2013. However, the area's share of City-wide homicides has increased. The most positive news can be attributed to a possible relationship between the marked decrease in vehicle accidents along the

improved portion of Midlothian Turnpike, nearly a one-third reduction in the past three years. This will be a statistic to carefully monitor, particularly as improvement options to the Midlothian/Belt Boulevard interchange are considered for funding.

## Demographics & Services

- The Study Area population is younger, more Hispanic and African-American than the City population as a whole. The Study Area population is also less affluent than the City population as a whole. Median family income in the Census block groups in and around the Study Area has a wide range from \$14,631 to \$54,426 with an average of \$39,294. This average is about \$20,000 less than the average median family income for block groups in the City of Richmond, \$59,836.
- Looking at the same area for which demographic statistics are cited includes the CJW Hospital, the area is a net job producer with a ratio of approximately 1.4 jobs for every resident. However, very few live and work in the area, and those who do tend to be earning less than \$40,000 annually.
- The Second Police Precinct and Fire Station #23 are both located in the Study Area. George Wythe High School and Jones Elementary also serve the area, although area children may also attend other elementary schools which are not physically located in the Study Area. Indicative of family incomes, the six elementary schools serving the area's children all have high participation rates in Federal free and reduced lunch programs.

## Environmental

- The land area within the defined Study Area is considered more than 50% impervious which leads to a level of concern for the environmental quality impacts on the three watersheds which receive runoff and other pollutants from the area. In fact, the immediate study area is significantly more impervious than the receiving watersheds. Future development and redevelopment of the study area should carefully focus on best practices and measures to reduce impervious cover, and thereby, lessen unfiltered runoff from parking lots and other paved surfaces into the area streams.
- Most importantly, Reedy Creek which forms the Study Area's northern boundary and was the subject of the underlying

stormwater improvements which yielded an improved thoroughfare, flows directly into the James River. This same stream offers exciting opportunities for natural connection for residents and others if an estimated 2.5-mile trail is constructed to meet an existing trail along the Crooked Branch leading into Forest Hill Park. Intersection with the proposed James River Branch (former CSX rail line) trail in the Westover Boulevard/George Wythe High School vicinity would offer a truly unique catalyst connecting neighborhoods along the way like no other proposal before.



## Action Framework

- Midlothian Turnpike consists of 6-travel lanes, a 50'-wide center median, and turn-lanes at 6 signalized intersections. An average of 69,000 vehicles per day pass over Midlothian on Chippenham Parkway which, in effect, functions as the region's inner limited-access loop. Most traffic from Chippenham onto Midlothian heads west into Chesterfield, although a significant increase has occurred to the east to the first intersection with Carnation Drive (39,00 average daily traffic). The traffic volume decreases noticeably east of this intersection. Traffic patterns seem to indicate the desired movement north along Carnation which essentially provides a parallel alternative for traffic headed to CJW Hospital and the medical offices which surround it. A highway arterial like Midlothian Turnpike is capable of providing an adequate level of service for up to 60,000 vehicles per day.
- Looking at trends into the future, this fact offers two somewhat different options:

- intensify the land use to use the excess roadway capacity,
- reduce the function of the roadway returning a travel lane to another mode of travel or some increased pervious green space.
- Selecting the first option above calls for multi-purpose action: creation of destination uses that draw or builds upon populations from outside the area. These can range from the attraction of a more regional use for largest open parcel (Gresham Woods) to providing trail connections along Reedy Creek that will invite a different mode of travel, create interest, and connections among the neighborhoods.
  - The first step in this strategy is to lay the groundwork for building a framework to incentivize and intensify potential development at Gresham Woods starting with increased height to be visible from Chippenham. Extension of the Community Unit Plan (CUP) opens the door for active discussion with the property owner and sets the stage for assisting with market exploration and defining the parameters of form and function for the parcel. This can be used as a pilot for subsequent redevelopment along the corridor.
  - A corresponding feature of the second option, or reduced function of the roadway strictly for passenger vehicles or truck traffic, could come into play with the addition of either a dedicated transit lane and/or bike lane that could better serve the destination/population and employment center created in the Chippenham/Midlothian interchange area.
- Essential to the attraction of destination uses to the corridors is development includes; Enterprise Zone (EZ) designation currently offers several tax incentives, but the EZ application for Midlothian is now under review for revision by the end of 2014. Retaining EZ designation for Midlothian will require advocacy and careful analysis of the advantages offered to stimulate revitalization.
- A primary recommendation of this Study is to establish an ongoing multi-departmental project team to focus and coordinate efforts common to all mature highway corridors within the City. Starting with Midlothian/Belt Boulevard, City-sponsored solution chatters of public and private sector participants would pull together foundational findings and mapping of each corridor to explore opportunities constraints and chart a course for revitalization.

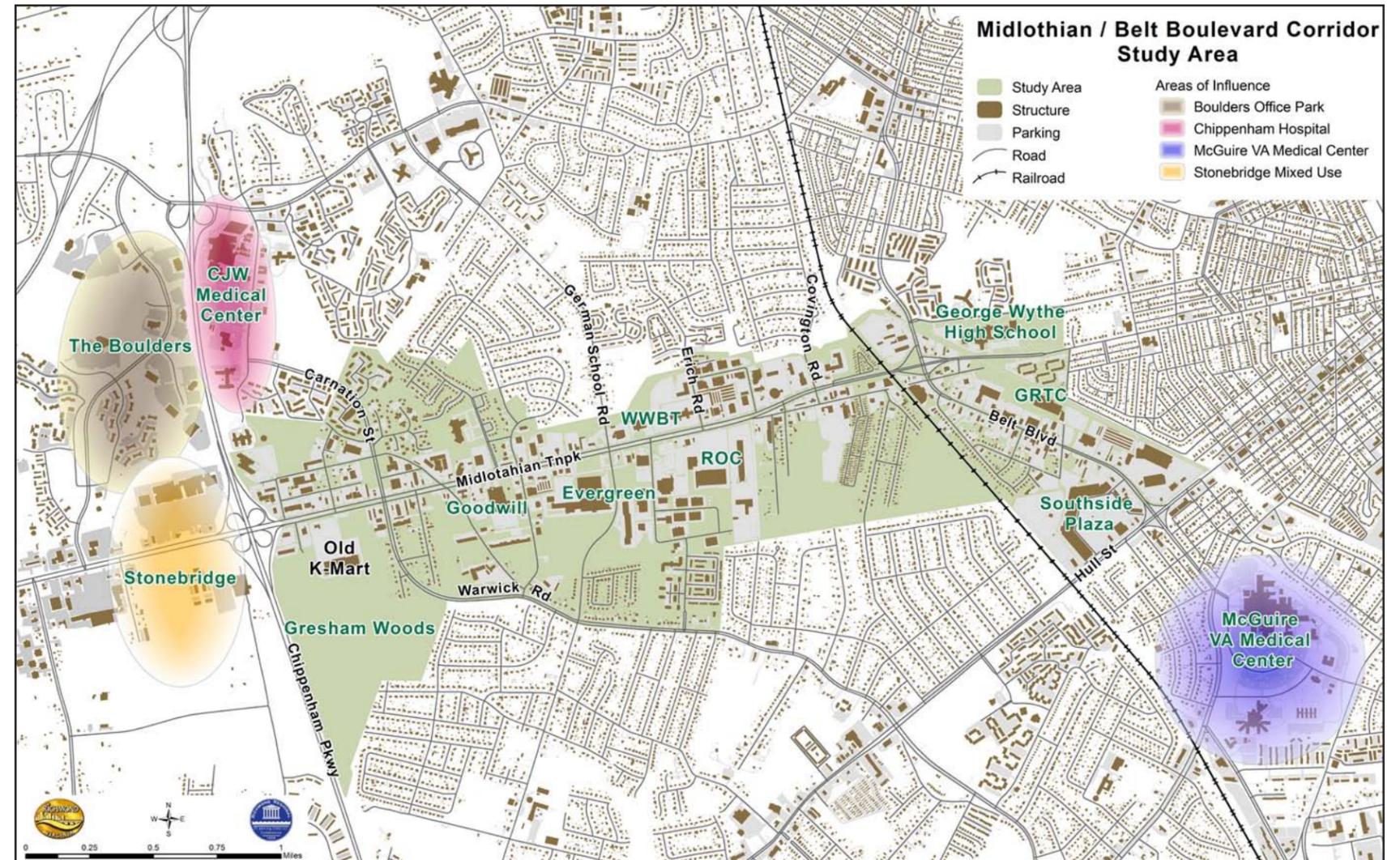
# Background & Purpose

An approximately two-mile portion of Midlothian Turnpike (Route 60) from Chippenham Parkway (Route 150) to Covington Street, just west of Westover Hills/Belt Boulevard, was recently improved by the City of Richmond as part of a flood management project. The \$45.1 million improvement project involved the installation of curbs, gutters, turn lanes, sidewalks, landscaping, streetlights, storm drains and four transit bus pullouts. While the primary purpose of the project was to install a closed drainage system to allow rain water to flow beneath the road and out into Reedy Creek, the resulting complete street design presents an excellent opportunity to explore alternative land uses, redevelopment and infill options that could be generated by the improvement project.

The defined project area of study represents 1,241 acres of mostly commercial frontage of Midlothian Turnpike and Belt Boulevard along with the immediate surrounding residential neighborhoods. As shown by Exhibit 1, large areas of influence outside the Study Area were identified early in the study including Chippenham-Johnston Willis (CJW) Hospital, the Boulders office park, and a new Stone Bridge mixed use development in Chesterfield County as well as the McGuire Veterans Administration Medical Center at the terminus of Belt Boulevard.

**The purpose of this study is to capitalize on the significant public investment in the roadway, and offer recommendations for consideration by the City for alternative land uses and implementation mechanisms which together could strengthen the corridor study area for multiple purposes including improved tax base and community service through enhanced access for adjoining neighborhoods.**

Exhibit 1



The study process engaged a team of planners from the City Departments of Planning & Development Review and Economic & Community Development in review and discussion of:

1. Defining the boundaries of the Study Area
2. Parcel data update, zoning, land use, property ownership, environmental features, community facilities, assessed values
3. Demographic data by Census tract and block group
4. Traffic data, peak volumes & trends
5. Commuting patterns and transit ridership data
6. Existing relevant plans
7. Known plans for future development and capital improvements

# History of Development

In 1701 French Huguenot settlers discovered the existence of coal in Midlothian. William Byrd II, credited as the founder of Richmond, purchased 344 acres (.54 2 sq. mi) of land in the area where coal was found and noted in his 1709 diary that “the coaler found the coal mine very good and sufficient to furnish several generations.” It was first commercially mined in the 1730s, and used to make cannon at Westham (near the present Huguenot Memorial Bridge) during the American Revolutionary War. The demand for coal from Chesterfield brought about some significant transportation improvements to move coal ore from the mines to shipping ports on the James River at the Manchester wharves. In 1804, a toll road was built from Falling Creek to Manchester to ease traffic on what is now Old Buckingham Road. Paved in 1808, it was Virginia’s first paved road. Today it is known as Midlothian Turnpike.

The need to more efficiently move coal brought about one of the first multi-modal solution in the country with the objective of separating passenger from cargo traffic. The Chesterfield Railroad, a 13-mile long incline railroad--believed to be Virginia’s first railroad--began operating in 1831 as a private stock-held company. Without locomotive power, it made use of gravity to move coal cars from Falling Creek to Manchester and mules to pull the empty cars back. The Chesterfield Railroad operated until 1850 when the steam-driven Richmond and Danville Railroad made it economically obsolete. At full operation it carried 85,000 tons of coal and stockholders were fully repaid in 1844. Remnants of the cyclonical inclined plane can be seen just south of the current highway near the remains of the railroad bridge at Falling Creek.

Horse-car service for the general vicinity began in 1873 when the Manchester Railway & Land Improvement Company ran a line along Hull Street as far as the Belt Line. It later merged with Southside Land & Improvement Company to form the Richmond & Manchester Railway Company and received the rights to cross

**In the early 1800s the need to more efficiently move coal brought about one of the first multi-modal solutions in the country.**

the river to Richmond on the Free Bridge at Ninth Street. This service was replaced by an electric streetcar service around 1890 and the Hull Street Line connected to Forest Hill Park by way of Midlothian Turnpike at 34th Street. The connection was discontinued sometime before 1930. The Hull Street/Highland Park line was the last line converted to bus service in 1949. [Rails in Richmond, Carlton Norris McKenney, 1986]

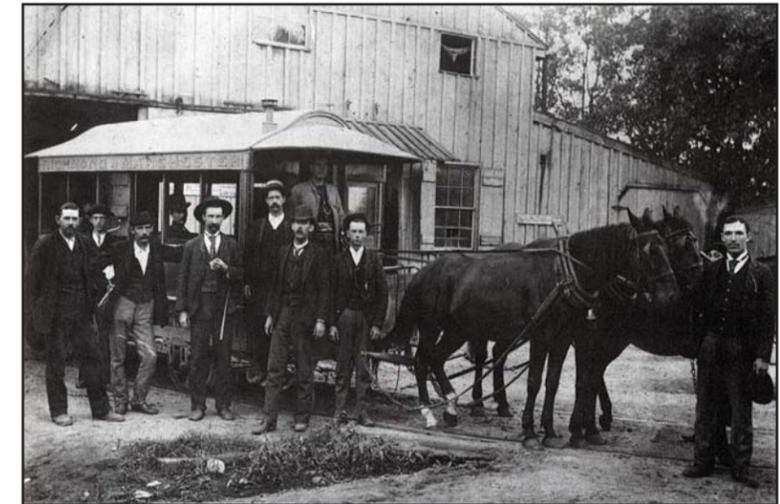
The Belt Boulevard corridor forms the eastern boundary of the Study Area. The name for Belt Boulevard appears to have derived from the “Belt Line” tracks of the Richmond, Fredericksburg and Potomac Railroad (RF&P) and Atlantic Coast Line Railroad (ACL) which had also been built some years earlier to bypass a congestion point and river crossing in downtown Richmond at Byrd Street Station near present-day New Market Corporation.

The road very roughly parallels the belt line railroad about a mile or so east for a large portion of its routing. By 1934, a combination of roads known collectively as the “Belt Boulevard” formed a western bypass of Richmond’s most congested areas along the US 1/301 corridor, crossing the James River on Richmond’s privately owned Boulevard Bridge, a toll bridge built in 1925.

At the western most boundary of the Midlothian Study Area, Chippenham Parkway was upgraded from a standard 2-lane roadway to a largely grade-separated 4-lane freeway with median over a period from 1967 to 1990. The section between Midlothian Turnpike (Route 60) south to Hull Street (U.S. Route 360) occurred in 1971 and north to Forest Hill Avenue in 1973.

As suburbanization from the City center continued to move south and southwest, Midlothian Turnpike and Belt Boulevard emerged as commercial corridors serving the largely 1940-1950s style suburban single-family residences. Land use patterns have been strongly influenced by the major transportation corridors and the commercial development that has occurred along them, and vice versa. In fact, the 1983 City Master Plan notes that the 25% increase in traffic volumes since 1975 necessitated the widening of Midlothian from four to six lanes in 1979 and a new interchange with Chippenham Parkway.

*Sources: Brochure from Chesterfield County Office of News and Public Information Services, by Pam Wiley; “Historically Significant Sites on the Mid-Lothian Coal Mining Co. Tract In Chesterfield County, Virginia,” a collection of articles and excerpts compiled by Thomas F. Garner, Jr. and located in the Midlothian Branch Library, and libraries of the Virginia Historical Society and Chesterfield Historical Society; “Forerunner of Virginia’s First Railway” by Elizabeth Dabney Coleman, Virginia Cavalcade, Volume 4, Number 3, pages 4-7. Virginia State Library: Winter, 1954*



*Stable and barn crew of the Richmond & Manchester Railway Company pose before a car begins its run. Photo Source: Valentine History Center, Rails in Richmond, Carlton Norris McKenney, 1986.*

**The name for Belt Boulevard was derived from the “Belt Line” tracks of the Richmond, Fredericksburg and Potomac Railroad (RF&P) and Atlantic Coast Line Railroad (ACL) built to bypass a congestion point at the river crossing in downtown Richmond.**



*Left: Cars filled the parking lot and exit/entrance lanes at Southside Plaza in the late 1960s. Right: The fountain at the now demolished Cloverleaf Mall in the late 1970s. Photo Sources: www.vintagerva.blogspot.com*

# Existing Relevant Plans

Moving up to the current day, this Study also relies on a number of relevant planning studies and plans to uncover ideas or recommendations that may still have relevance today.

The following plans provided guidance in assessing the Midlothian/Belt Boulevard corridor Study Area's strength/weaknesses & opportunities/threats along with ideas for recommended improvements in context with the rest of the City and adjacent areas. Key findings and recommendations from each of the relevant plans are summarized chronologically from oldest to newest:

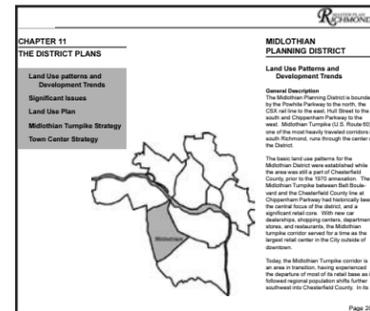
## Richmond Master Plan: Chapter 11, Midlothian Planning District, 2000

### Key Findings & Recommendations:

- Basic land use patterns were established while the area was still a part of Chesterfield County prior to the 1970 annexation. Midlothian Turnpike, between Belt Boulevard and Chippenham, has historically been the central focus and retail core of the planning district. In fact, the Midlothian corridor served for a time as the largest retail center in the City outside of downtown.
- Revitalization of Midlothian and Belt Boulevard is a high priority.
- Public park proposed for area along Reedy Creek.
- A connector road is proposed between Carnation Road and Boulders Parkway to increase access to the Boulders office park and other parts of Chesterfield County.
- A connector road (overpass over Chippenham) between Warwick and Cloverleaf Roads is proposed to constitute the southern half of a circular “loop” road designed to alleviate traffic congestion on Midlothian and Chippenham.
- Reconstruct Midlothian to support transit operations and light-rail transit.
- Realign Midlothian to intersect Belt Boulevard at Brandon Road, thus diverting the majority of heavy through traffic away from George Wythe and residential areas along Midlothian to the north.
- Majority of Midlothian recommended for “Economic Opportunity Area” intended to provide flexibility for future development, provided such development enhances the economic base of the City. Existing trucking and transportation-related uses along the corridor are not appropriate. Development of these areas should occur in a comprehensive, rather than piecemeal, manner to more efficiently develop the land. More appropriate uses south of Midlothian would be light industrial, office, institutional, and retail.

Create a Town Center along Belt Boulevard between Midlothian and Hull:

- A focal point for south Richmond with a mix of higher density residential, office, retail, entertainment, and public uses; and
- Town Center should ultimately become the largest concentration of commercial and residential activity outside of Downtown.



## Belt Boulevard Sustainability Plan, December 2009

(VCU Masters Program Studio Project)

### Key Findings & Recommendations:

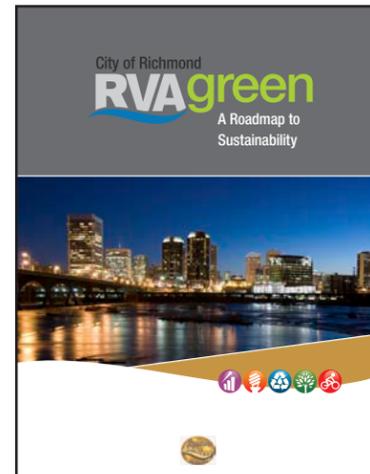
- Corridor is unwelcoming for bike and pedestrian users: sidewalks are lacking, no bike infrastructure, public transportation is too infrequent and bus stops are not ADA compliant.
- Vehicle speeds are often unchecked and pose a danger to users of alternate modes.
- In the study area along Belt Boulevard approximately 67% of land cover is impervious surfaces; tree canopy covers approximately 12.4%.
- Proposed recommendations:
  - Integrated recycling facility or commercial nursery proposed for land near interchange with Midlothian;
  - add green spaces throughout the corridor;
  - higher-density housing near Southside Plaza;
  - traffic calming measures to slow speeds along the corridor and make it more hospitable to modes of transportation other than just the personal vehicle;
  - add sidewalks to both sides of the corridor;
  - parallel alley for service south of Belt Boulevard; and
  - use Southside Plaza as park & ride lot.



## RVAgreen: A Roadmap to Sustainability, 2012

### Key Findings & Recommendations for a greener, more sustainable city:

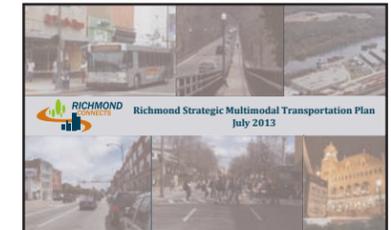
- Replace parking minimums with parking maximums;
- Create a green business support and recognition program;
- Educate landlords on the benefits associated with green leases for both residential and commercial buildings. (Green lease requirements assure that tenants are able to make energy efficiency upgrades and improvements during their lease.);
- Designate a Green Business District/Enterprise Zone;
- Repurpose appropriate vacant lots for urban agricultural use;
- Promote electric vehicle use and charging stations;
- Improve accessibility of bike and pedestrian paths;
- Reduce the percentage of impermeable surface area;
- Promote rainwater collection systems; and
- Increase Richmond's tree canopy.



## Richmond Connects: Richmond Strategic Multimodal Transportation Plan, July 2013

### Key Findings & Recommendations:

- The Midlothian corridor has a high jobs-per-household ratio relative to the rest of the City. Much of the land along the corridor has a jobs-per-household ratio of more than 2.0, with the remaining being 0.5 - 1.0.
- The transit quality of service map indicates that the Midlothian corridor is in the lowest two categories, Level 3 and Level 4, “due to the more auto-dominated land use pattern.” Levels 3 and 4 includes routes with a medium to long service span (12-17 hours) and headways of over an hour on average. These routes provide a necessary service, but their headways mean users must be closely tied to the service schedule. The majority of the Midlothian corridor is served by a Level 4 route.
- Midlothian Turnpike & Belt Boulevard are identified as part of the Federal Freight Network.
- 2009 and predicted 2032 Annual Average Daily Traffic (AADT) indicates that traffic along Midlothian is expected to remain above 25,000 vehicles. Traffic along Carnation and Old Warwick is expected to increase.
- The Midlothian-Belt Boulevard interchange was highlighted for interchange improvement, and recommended to include sidewalks.
- Midlothian was identified as a *Transit Priority Corridor* meaning “Improvements would be focused on consolidating stops [4 per mile instead of 8], stop enhancements, intersection priority (including possibly queue jumpers) and off-board fare collection...”
- Sidewalk improvements recommended as well as on-street bike lanes or sharrows on some streets in study area.
- Transit Supportive Land Use Policies: Floor-to-Area-Ratios (FAR) & Dwelling Units (DU)/acre, and parking space requirements should to be altered to the medium-high Federal Transit Administration (FTA) category listing in order to be competitive for grant funds. The medium-high category includes the following characteristics: non-central business district commercial FAR of 1.75 – 2.5, housing DU/acre of 15 – 25, parking requirements per 1,000 square feet of 1.5 -2.25. These densities and requirements should occur within ¼ mile of proposed transit stops.
- Support bicycling education and infrastructure in low-income communities: require new developments to include safe, convenient bike parking and encourage existing employers to provide safe, convenient bike parking at existing buildings.



## Hull Street Corridor Revitalization Plan, January 2013

(A joint plan by the City of Richmond and Chesterfield County)

### Key Findings & Recommendations:

- “Investment in the [Hull Street] corridor should first focus on helping existing businesses and local entrepreneurs and improving the physical setting of the corridor – its aesthetics and its pedestrian, bicycle and transit accommodations- so that one can begin marketing to outside companies.”
- AADT throughout the corridor has decreased from 2001 to 2011 with a negative growth rate of -5%. This is a signal of economic contraction of the past several years and changing traffic behaviors in the region; capacity far exceeds volume.
- Plan suggests that as land grows scarce around CJW Medical Center located at Chippenham and Jahnke, medical offices may opt for Hull Street given the relative proximity of this alternate location via Chippenham.
- Recommends a Hull Street Corridor Champions group be established consisting of homeowners, business owners, and community leaders to move some initiatives forward.

Recommendations involve the creation of 4 nodes along the corridor. In the City:

- Chippenham & Hull – Design/Health and Wellness Center including indoor recreation center in redeveloped Chippenham Mall Shopping Center, commercial lining both sides of Hull, multi-family uses fronting Elkhardt, central feature of public open space for the expanded residential area, professional/medical offices west of the interchange, a design business cluster centered on the south side of Hull; and
- Hull and Warwick – Town and Family Entertainment Center including two hubs linked by a public green framed by commercial buildings creating a family-oriented node of activity; along local street more residential (multi-family, townhouses, and single family) with a new public park.



Examples of existing commercial uses along Midlothian Turnpike. Photo Source: RRPDC

## Existing Land Use

Using the historical backdrop for perspective, the general westward movement of auto dealers and related auto uses finds both Midlothian and Belt Boulevard in a transitional stage of development. Auto dealers, once a mainstay along Broad Street and other major corridors radiating from the city center, have steadily been moving west.

**Midlothian reached its heyday in the 1960s and early 1970s as the 'motor mile'. This motor mile has now migrated west into Chesterfield County.**

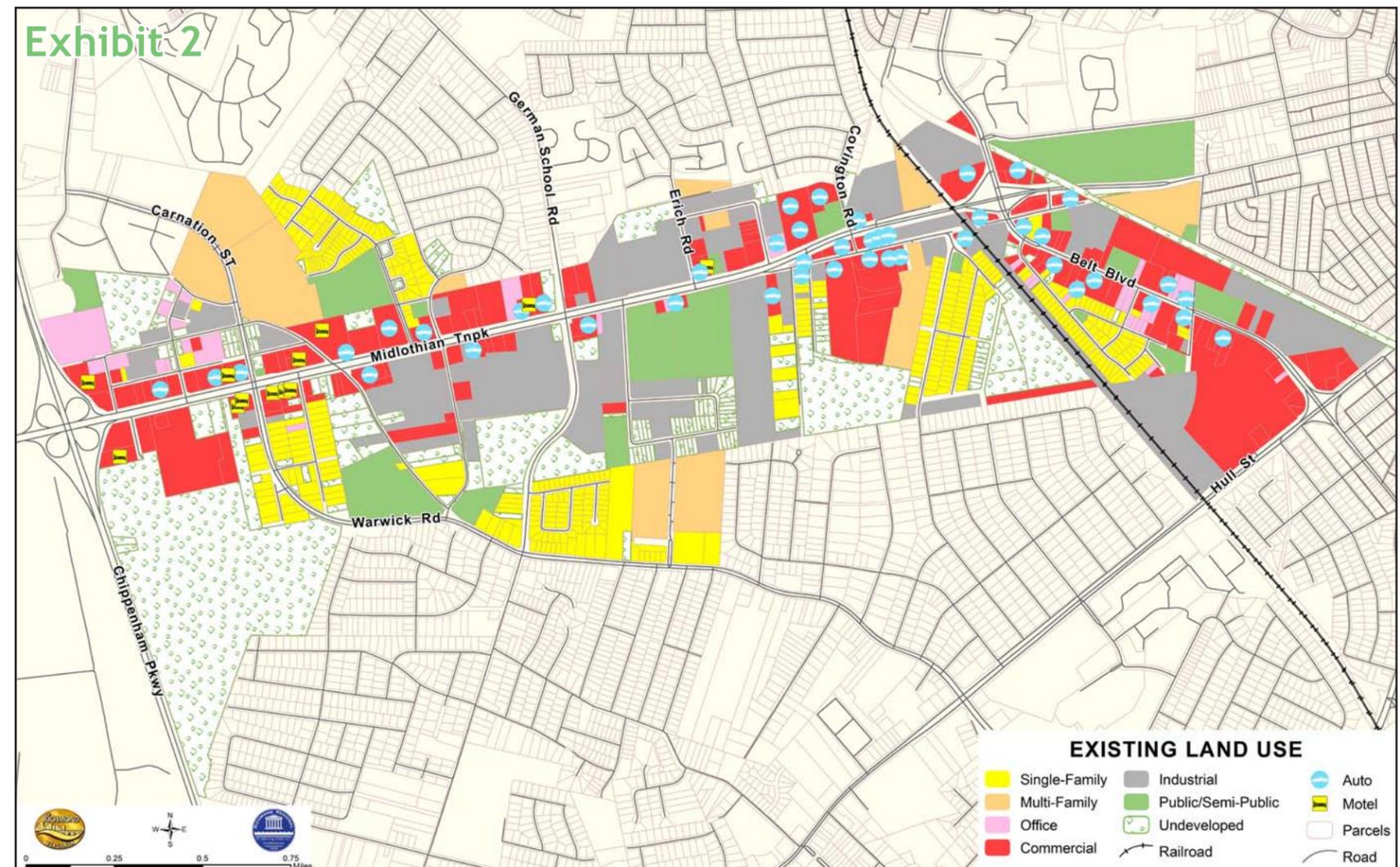
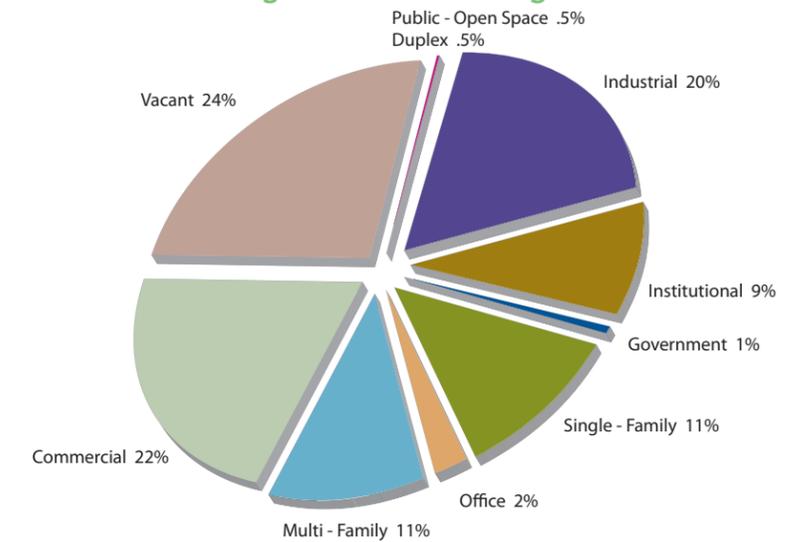
Midlothian reached its heyday in the 1960s and early 1970s as the 'motor mile'. This motor mile has now migrated west into Chesterfield County in the vicinity of Chesterfield Town Center. Retail centers have followed the population in a similar manner with the demise of the downtown department stores and emergence of suburban malls replacing strip shopping centers. This is evident in the progression from Southside Plaza (ca. 1953) being replaced by Cloverleaf Mall which opened in the early 1970s. Although Southside Plaza still operates as a relatively healthy retail shopping center, the former center of gravity created by Cloverleaf Mall has been replaced further west.

Strip commercial on parcels with shallow depths dominates the parcel and land use pattern in the Study Area.

Existing land uses are mostly commercial, industrial, and institutional. (Exhibits 2 and 3) These higher intensity uses front both the Midlothian and Belt Boulevard corridors. Many of the commercial uses are related or dependent on the automobile. Gas stations, auto body repair and supply, and car rental offices are widely distributed along both corridors. Small motels are clustered at the western end of the Study Area near the Chippenham interchange. Observations indicate that these motels may be used as a temporary, flexible housing alternative, in addition to short overnight stays. Institutions include various churches, Jones Elementary School, and George Wythe High School offering not only educational, but cultural, social and organizing opportunities for Study

Area residents. Goodwill is an anchor on the corridor; the location acts as a trucking depot and a training location. Single-family and multi-family residential neighborhoods are located in proximity to the Midlothian Turnpike and Belt Boulevard corridors, but are often separated from the corridors by a buffer of transitional uses. Nearly one quarter of the land in the Study Area is vacant, or undeveloped. 15.7% percent of this undeveloped land has wetlands and other environmental features that affect the capability of the land to be developed. However, much of the undeveloped land, especially a large 118-acre parcel of land known as Gresham Woods at the southeast quadrant of the Midlothian/Chippenham interchange does not appear to be constrained by such environmental conditions and offers one of the few remaining undeveloped interchange quadrants of the Chippenham corridor.

**Exhibit 3: Existing land Use - Acreage Distribution**



## Existing Zoning

How a parcel is zoned (Exhibit 5) offers an opportunity to identify some of the underlying reasons why a certain land development pattern has and will continue to emerge along the corridor. Zoning does not necessarily reflect existing parcel land use because zoning offers an indication of a full range of potential land uses given the prescribed allowances of a specific zone designation. Zoning, however, can set the framework and/or be used as a tool to provide incentives or discourage certain types of development patterns. Along with market forces, zoning sets the tone or character for development.

### Business Zoning

The amount of B-3 zoned property in the Midlothian Study Area represents more than one half of all the B-3 zoned property within the city. A majority (676 acres, or 54.5%) of the corridor is zoned for B-3 Highway Commercial which allows 60 different permitted principal and accessory uses (Sec. 114-438.1 City of Richmond Zoning Ordinance).

Permitted uses in B-3 are commercial in nature, but also include more intense uses such as freight transfer terminals and distribution facilities with limitations as to size and location relative to other less intensive uses. A number of the B-3 uses such as shopping centers and communication facilities require submission of Plans of Development (POD). Limitations are also placed on transitional sites, defined as a lot or portion of a lot within 50 feet of and fronting on the same block as property in a residentially-zoned district.

The B-3 zoning classification does not require a front yard setback and side and rear yards are only required if adjacent to residen-

**The amount of B-3 zoned property in the Midlothian study area represents more than one half of all the B-3 zoned property within the City.**

tially-zoned property. The ratio of the total floor square footage to lot area (FAR or Floor Area Ratio) cannot exceed 2.0, limiting total building mass to no more than two times the area of the lot. A minimum 0.25 open space ratio is also specified for the B-3 zone, and maximum height is set at 35 feet (with some allowance to exceed, up to 60 feet when yards exceed the minimum).

These B-3 zoning standards for the building envelope along with minimum parking requirements (assigned on the basis of a specific uses) create a non-urban, rather suburban conformity which predicts the spread-out nature of development along a major highway arterial.

### Residential Zoning

The R-3 zoned single-family residential properties flanking the commercially-zoned frontage of Midlothian and Belt Boulevard corridors are buffered either by higher density residentially-zoned (R-4, R-7, R-48) and Office-Service (OS) parcels. Yard set backs and landscape screening requirements provide visual distinction between the dissimilar uses. The OS district provides additional guidance for the screening of parking lots from residential uses, but the same height restriction of no more than 35-feet applies (with no exceptions).

Two mobile home developments are located at the eastern end of the Midlothian corridor in the vicinity of the Belt Boulevard intersection. One of the developments is zoned R-MH (ca. 1976) while the development to the north is zoned B-3 (ca. 1967). Both parks were developed before the current ordinance provisions of 1993 which call for a maximum density of 8 units per acre and set standards for their lot area, placement, and the amount of recreation space required for common use. While they are not conforming to current-day standards, State and Federal Fair Housing Law allows for the property owners to continue placing or replacing mobile homes. Active code enforcement to ensure that housing and neighborhood living conditions are decent, safe and sanitary is on a complaint basis.

## Industrial Zoning

Two smaller developments of zoned M-1 Light Industrial are located between the B-3 zoned properties and residential uses within the Study Area. Along Belt Boulevard, one portion of the M-1 zoned property was redeveloped for the headquarters of the Greater Richmond Transit Corporation (GRTC). M-1 allows for a wide variety of “light industrial uses that manufacture, pro-

### Exhibit 4: Existing Zoning Districts

Zone	District Title
B-1	Neighborhood Business (<10,000 SF)
B-2	Community Business
B-3	General Business (Floor Area Ration < 2.0)
M-1	Light Industrial
OS	Office - Service
R-2	Single - Family Residential (< 15,000 SF lot)
R-3	Single - Family Residential (> 10,000 SF lot)
R-4	Single - Family Residential (>7,500 SF lot)
R-5	Single - Family Residential (>6,000 SF lot)
R-6	Single - Family / Attached Residential
R-7	Single & Two - Family Urban Residential
R-43	Multifamily Residential (>3,000 SF lot/DU)
R-48	Multifamily Residential (>2,200 SF lot/DU)
R-53	Multifamily Residential, >5,000 SF lot/DU)
R-73	Multifamily Residential (Floor Area Ration < 2.0)
R-MH	Mobile Home (< 8 DU/AC)
RO-1	Residential - Office
RO-2	Residential - Office

*Floor Area Ratio = total finished floor area/total land area*

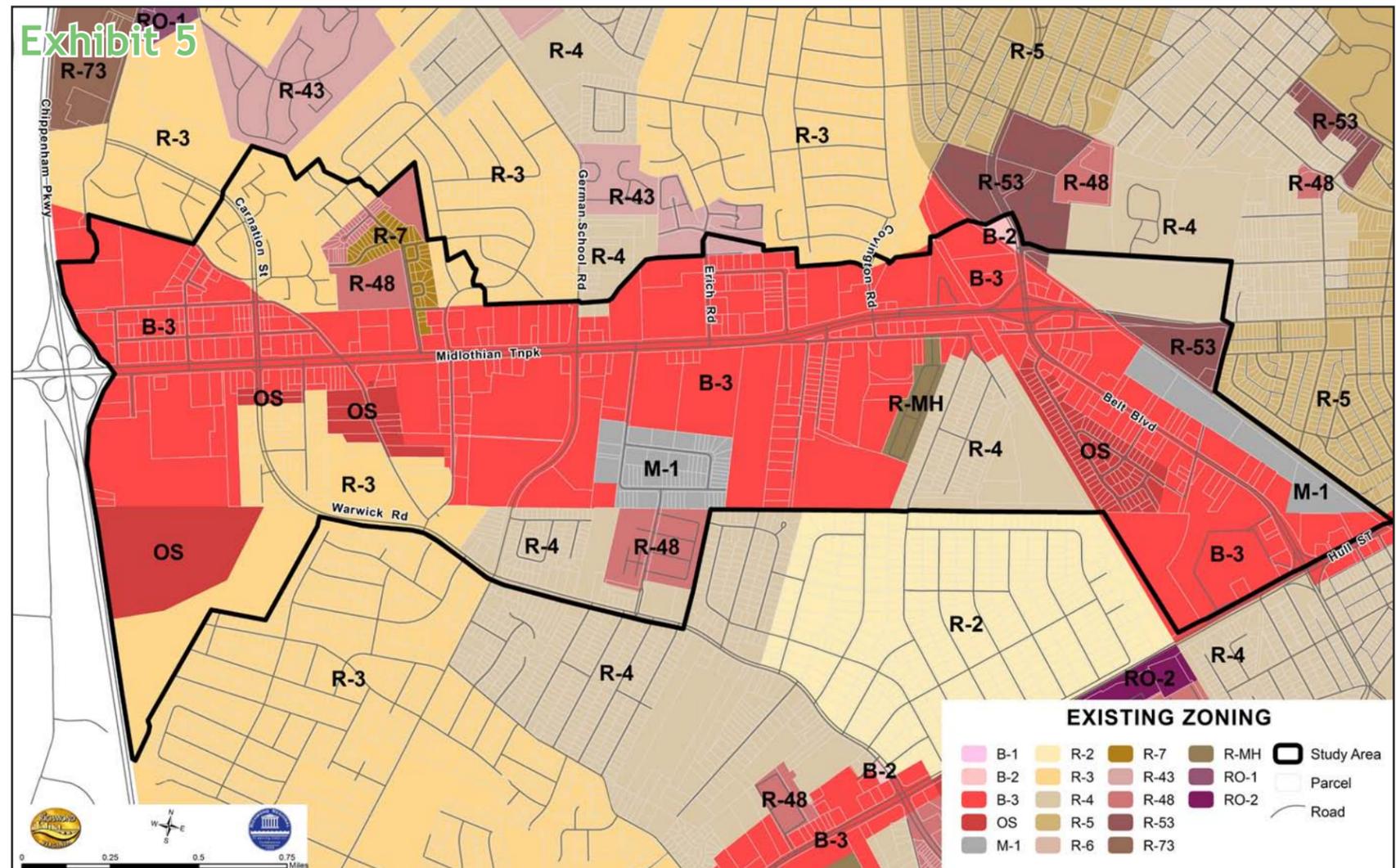
*City of Richmond, Virginia Code of Ordinances, Chapter 114 ZONING; accessed via Municode.com, 2014.*

cess, store and distribute goods and materials and are in general dependent upon raw materials refined elsewhere and manufacturing, compounding, processing, packaging or treatment...."[Sec. 114-452.1, City of Richmond Zoning Ordinance]. No front yard setback is required and side/rear yards of a minimum of 25 feet when adjacent to residentially zoned property. Maximum height is 45 feet with exceptions specified with appropriate horizontal distances.

## Community Unit Plans

The Richmond Zoning Ordinance also allows for Community Unit Plans (CUPs) by application by a property owner on any tract of land that is at least ten (10) contiguous acres "for use and development of such land in a manner that does not conform in all respects with the regulations and restrictions....(of the district in which the land is located)" [Sec. 114-456.2].

One such Preliminary CUP is in effect until July 1, 2014, within the Study Area consisting of a tract of approximately 118 acres known as the Gresham Woods located within the southeast quadrant of Midlothian Turnpike and Chippenham Parkway. The preliminary CUP primarily calls for single-family detached and attached units with community common area. Extension until 2017 for filing a Final CUP has been requested by the property owner with the understanding that this Midlothian corridor study may be used to offer alternative "higher and better uses for the property." [Correspondence from GSC, Jonathan S. Perel, May 16, 2014]



# Parcel Arrangement & Relationship to the Street

Midlothian Turnpike is a broad street cross-section consisting of 6 travel lanes, turn lanes, a center median within an approximate 140-foot pavement width. Belt Boulevard represents a narrower cross-section of 75-feet without the benefit of a median, but including a center turn-lane. The roadways were ultimately constructed to carry relatively large volumes of commercial traffic, and capable of supporting fairly significant non-residential square footage. One way to describe the character of development is as an average floor-to-area ratio (FAR) and compare it to other similar corridors in the metropolitan area. The average FAR of Midlothian Turnpike is 0.16. In contrast, Broad Street in the vicinity of Short Pump occupies a comparable cross-section and supports an FAR of 0.21.

Another way to depict the character of future development potential is through examination of the parcel arrangement and size as shown by Exhibit 6. The parcels fronting Midlothian range widely in acreage: from 0.1 acres to 119 acres. Most of the parcels are at the low end of the range with a few large parcels as outliers at the top end of the spectrum. The average parcel is 3.26 acres and the median parcel size is 0.74 acres. Given the relatively small parcel size and disjointed ownership common along the corridor, redevelopment of any consequence would require parcel assemblage and acquisition. Property and market values would have to warrant the time and expense for significant reuse. For this reason, larger, intact parcels are considered more development-ready especially if values will not allow a profitable return on investment.

The arrangement of parcels is distinctly different from one side of Midlothian to the other with the northern sector set in a grid without much lot depth compared to the southern portion having significant parcel size and lot depth along with greater separation between commercial and residential uses.

The parcels fronting Belt Boulevard vary in size from 0.23 acres to 32 acres. Most parcels are less than one acre with a median parcel size of 0.67 acres. The few large parcels skew the average parcel size higher at 2.1 acres. As with the Midlothian corridor, very few parcels along Belt Boulevard are owned by the same entity, suggesting greater initial expense required for redevelopment.

A majority of vacant parcels in the Midlothian Study Area are small and scattered; in fact 75% of the vacant parcels are 0.5 acres or smaller. In total, the vacant parcels sum to 285 acres, or 26% of the Study Area parcel land area.

**Given the relatively small parcel size and disjointed ownership common along the corridor, redevelopment of any consequence would likely require parcel assemblage and acquisition.**



Numerous curb cuts along the north side of Midlothian Turnpike near German School Road disrupt safe pedestrian use of sidewalk.

# Indicators of Market Transition

In addition to existing conditions a number of factors can serve as indicators of a corridor’s readiness for transition to new or different uses; and this study looks at a selection of factors that are most quantifiable, including the following:

## 1. Assessed Property Values

Alternative assumptions were tested to determine how to best compare the relative property values along the Midlothian/Belt Boulevard corridors to other commercial corridors of the city. One theory that a low improvement (building) to land value expressed as a ratio of 2014 assessed values turned out to be a good way to highlight undeveloped parcels which may be most easily assembled or ready for redevelopment, but not as good an indicator of value relative to other corridors since the ratio is absent of a common unit of measurement such as acreage or square footage.

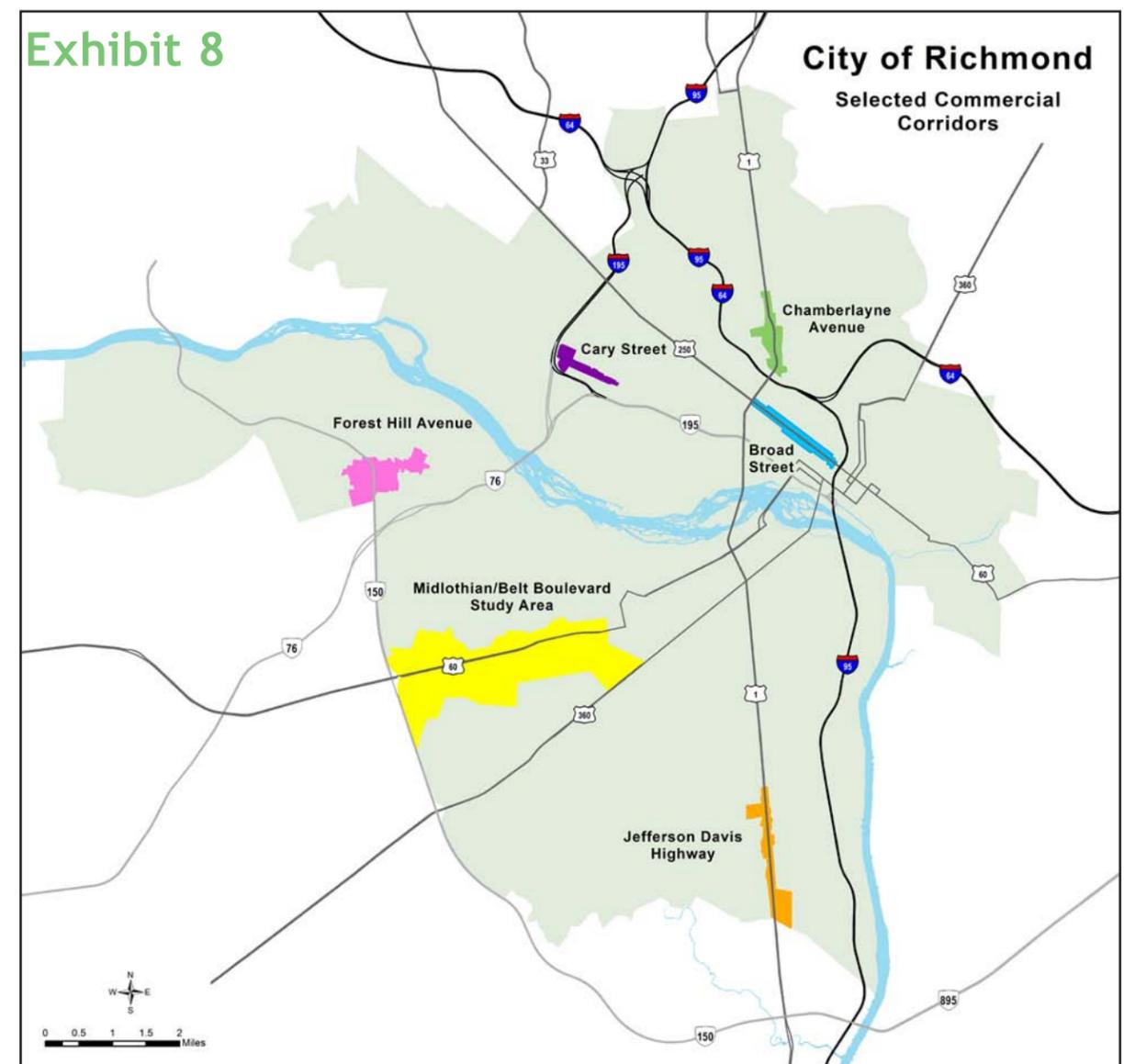
A simpler approach was taken to compare relative assessed value among commercial corridors as one indicator of potential for a greater return on investment due to lower cost basis in land, improved or unimproved. Shown by Exhibit 7 this analysis indicated that the Midlothian Study Area does not compare favorably to the other commercial corridors analyzed (Exhibit 8) when calculating the mean or average assessed value per acre (2014 City of Richmond Assessed Values).

### Exhibit 7: Assessed Value of Selected Commercial Corridors

Corridor	Assessed Value
Broad St from Belvidere (west) to I-95 (east)	\$6.6 million/acre
Cary Street from I-95 (west) to Boulevard (east)	\$5.0 million/acre
Forest Hill Ave from Grantwood (west) to Windsorview (east)	\$1.1 million/acre
Chamberlayne Ave from Brook (south) to Lombardy (north)	\$559,000/acre
Jeff Davis/Rt 1 from Walmsley (south) to Terminal (north)	\$441,000/acre
Midlothian Study Area (Chippenham to Belt Boulevard)	\$365,000/acre

Source: 2014 City of Richmond Assessed Values

As another element of marketplace, the Study Area is also the location of a dozen highway-related motels, many of them clustered toward the Chippenham Parkway interchange with Midlothian Turnpike. A cursory review of the advertised per night room rates indicates a lower than average rate in the Study Area than found in the Richmond market. Some Study Area motels are as low as \$30 per night up to a high of \$50-\$65 per night compared to an average per night rate of \$94 in the larger Richmond market. The Richmond market ranges from a low of \$40/night to a high of \$275/night, putting the Study Area motels at the low end of the market. Observations lead to the possibility that some of the motel occupancy in the Study Area is by temporary, weekly residents, but the extent of such use is beyond the scope of this study. Further study of the motels and the two mobile home parks in the context of provision of affordable, decent, safe and sanitary housing in the Study Area is recommended.



## 2. Rental Market

At first glance, the tenant mix along the Midlothian and Belt Boulevard corridors seems to indicate that monthly rental rates may be relatively low. Comparison of properties available for rent within

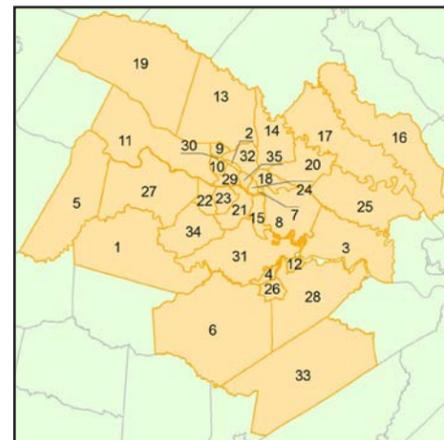
the Midlothian East/Hull Street submarket to other corridors in the region show that in the retail sector (Exhibit 9), the quoted square footage monthly rental rate is below normal, and vacancy rate is higher than average. Within the industrial sector (Exhibit 10), the Midlothian corridor rental rate is somewhat higher than

average and the vacancy rate is lower. The office rental rate (Exhibit 11) is somewhat higher than average with a higher than average vacancy rate. Highs and lows within each of these market sectors according to first quarter 2014 reports by the CoStar Group are shown below:

### Exhibit 9: Retail Submarkets

Sub Market Area	Quoted SF Rate	Vacant SF	YTD Absorption	Vacancy Rate
Midlothian E/Hull St	\$11.23	752,595	11,413	10.7%
Broad St	\$16.19	113,328	-5,904	5.6%
Downtown	\$14.46	356,812	-23,775	8.0%
East End	\$12.84	327,635	-12,152	7.9%
Jeff Davis	\$10.50	371,491	-25,568	11.7%
Mechanicsville	\$13.28	143,459	13,005	5.2%
Midlothian Village	\$18.83	194,115	878	11.9%
Midlothian West	\$14.52	349,959	11,099	5.0%
Near West (incl Carytown)	\$16.08	117,233	-20,422	3.1%
Regency	\$10.33	159,477	8,699	6.3%
Staples Mill/Parham	\$16.93	379,621	7,278	5.0%
Willow Lawn	\$11.21	120,550	-16,141	4.1%
<b>Average</b>	<b>\$13.87</b>	<b>282,190</b>	<b>(4,299)</b>	<b>7.0%</b>

Source: The CoStar Retail Report, First Qtr 2014, Richmond Retail Market, CoStar Group

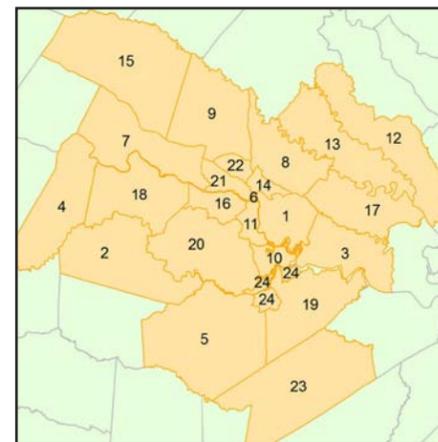


- CoStar Retail Submarket Areas**
- 21 Midlothian East/Hull Street
  - 2 Broad St.
  - 7 Downtown
  - 8 East End
  - 15 Jeff Davis
  - 20 Mechanicsville
  - 23 Midlothian West
  - 24 Near West (incl Carytown)
  - 29 Regency
  - 32 Staples Mill/Parham
  - 35 Willow Lawn

### Exhibit 10: Industrial Submarkets

Sub Market Area	Quoted SF Rate	Vacant SF	YTD Absorption	Vacancy Rate
Midlothian Corridor	\$6.15	259,642	53,220	5.7%
Airport	\$4.02	1,648,763	-125,915	9.6%
I-95 North/Mechanicsville	\$5.46	329,553	6,886	4.1%
I-95 North/Ashland	\$5.05	655,869	52,691	9.8%
I-95/I-295 S/Rt. 10	\$5.11	265,413	4,828	2.3%
Jeff Davis	\$2.80	3,623,773	125,162	12.8%
Laburnum/Rt 360	\$3.73	418,940	106,502	7.5%
Scotts Add/West End	\$5.51	695,324	95,952	6.1%
Staples Mill/Parham	\$5.97	743,887	-64,172	11.5%
<b>Average</b>	<b>\$4.87</b>	<b>960,129</b>	<b>28,350</b>	<b>7.7%</b>

Source: The CoStar Industrial Report, First Qtr 2014, Richmond Industrial Market, CoStar Group

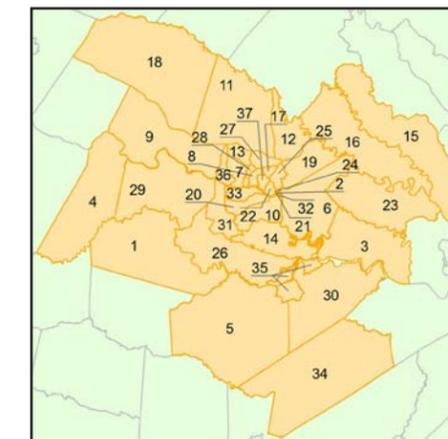


- CoStar Industrial Submarket Areas**
- 16 Midlothian Corridor
  - 1 Airport
  - 8 I-95 North/Mechanicsville
  - 9 I-95 North/Ashland
  - 10 I-95/I-295 South/Rt. 10
  - 11 Jeff Davis
  - 14 Laburnum/Rt. 360
  - 21 Scotts Add/West End
  - 22 Staples Mill/Parham

### Exhibit 11: Office Submarkets

Sub Market Area	Quoted SF Rate	Vacant SF	YTD Absorption	Vacancy Rate
Midlothian Corridor	\$16.05	662,185	-9,084	15.1%
CBD	\$20.37	1,400,573	74,792	13.0%
East End	\$15.34	22,362	-8,500	3.4%
Glenside/Broad St	\$17.42	479,428	-34,499	10.0%
Hull St Corridor	\$13.40	164,437	17,525	5.8%
I-95 North/Ashland	\$14.16	55,942	9,484	8.1%
I-95/Chamberlayne	\$13.48	76,524	0	21.2%
Innsbrook	\$17.48	770,153	-5,807	9.5%
Iron Bridge Corridor	\$14.00	226,199	-1,334	11.2%
Mechanicsville	\$15.15	172,849	-2,230	13.4%
Parham East	\$14.58	389,901	15,218	14.6%
Parham South	\$13.68	202,099	33,092	19.8%
Shockoe Bottom	\$18.15	48,156	16,285	3.1%
Stony Point/Huguenot	\$16.36	137,628	-24,700	9.2%
<b>Average</b>	<b>\$15.69</b>	<b>343,460</b>	<b>5,732</b>	<b>11.2%</b>

Source: The CoStar Office Report, First Qtr 2014, Richmond Office Market, CoStar Group



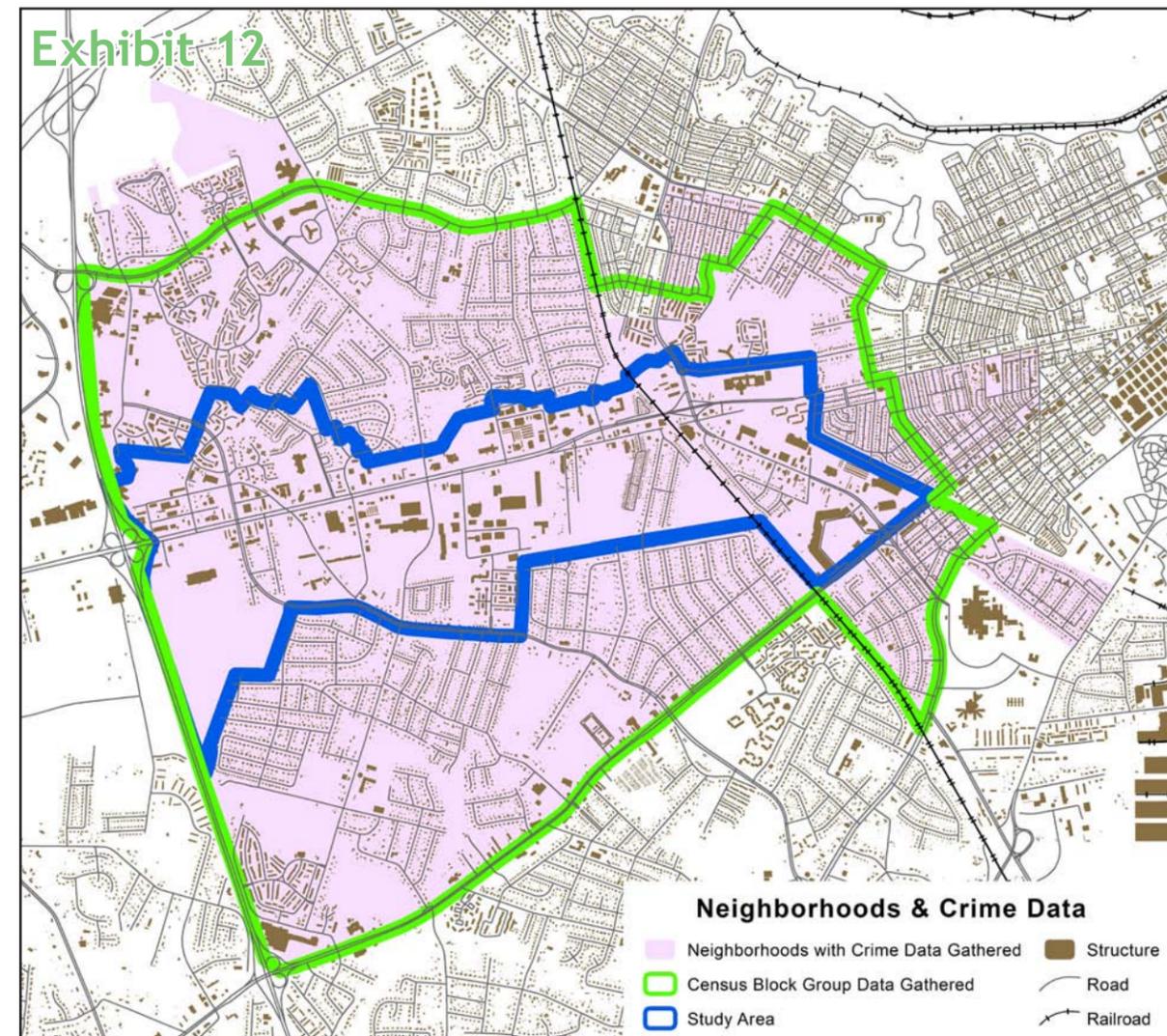
- CoStar Office Submarket Areas**
- 20 Midlothian Corridor
  - 2 CBD
  - 6 East End
  - 8 Glenside/Broad St.
  - 10 Hull St. Corridor
  - 11 I-95 North/Ashland
  - 12 I-95/Chamberlayne
  - 13 Innsbrook
  - 14 Ironbridge Corridor
  - 19 Mechanicsville
  - 27 Parham East
  - 28 Parham South
  - 32 Shockoe Bottom
  - 33 Stoney Point/Huguenot

# Public Safety

## Crime Statistics

Crime statistics for the neighborhoods in and around the Midlothian-Belt Boulevard Study Area were gathered for the years 2004 – 2013. Exhibit 12 illustrates the neighborhoods for which crime data was gathered. The total area is similar to that for which demographic and employment data was gathered using Census data products. Demographic data will be discussed later in the Existing Conditions section.

Depicted by Exhibit 13, violent crime and property crime had dropped as of the end of 2013 throughout the Midlothian-Belt Boulevard Study Area by 46% since 2004. From 2004 through 2008, total crime fell by 50%. Substantial decreases in larceny, robbery, and auto theft between 2004 and 2008 contributed to the total crime decrease. However, violent crime and property crime maintained similar shares of total crime throughout the years. Violent crime, including homicide, rape, robbery, and aggravated assault, hovered around 15% of total crime in the Study Area. Meanwhile, property crime, including arson, burglary, larceny, and auto theft, remained approximately 85% of total crime. Crime remained relatively

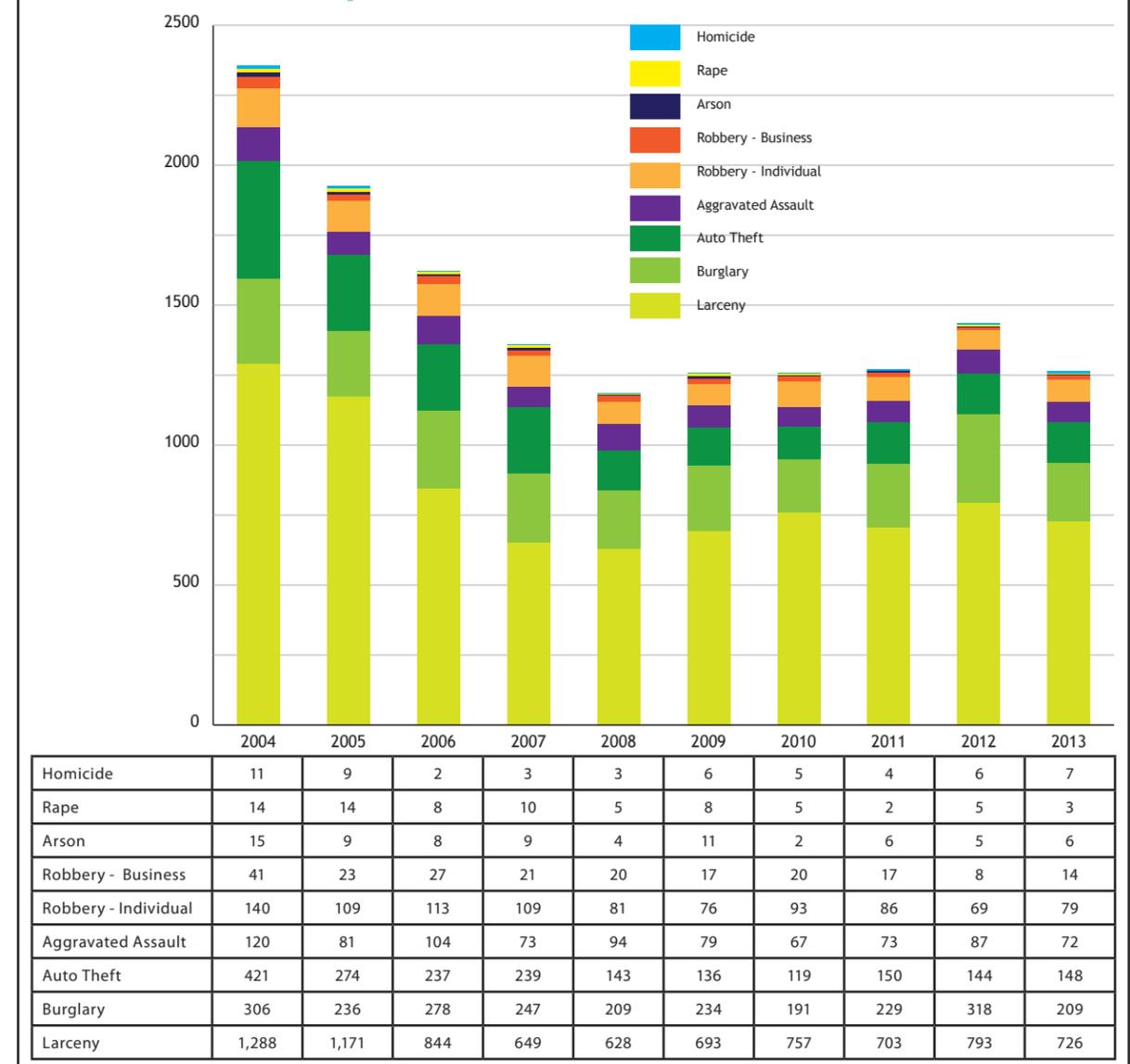


steady at a lower level until 2012, when it increased by 13%. This increase was countered in 2013 with a 12% decrease.

Despite the reductions in crime that the Study Area and the City has experienced in the past several years, the Study Area has seen its share of the City's homicides increase. The City-wide declines in homicide have not translated into parallel declines in all parts of the City. In 2004, the City of Richmond had 95 homicides; 11, or 11.6%, were located in the Study Area and its surrounding neighborhoods. In 2013, the City of Richmond experienced 37 homicides. That same year, 7 homicides, or 18.9% of the City total, occurred in the Study Area and its environs.

Source: Major crime statistics provided by the City of Richmond Police Department for the following neighborhoods: Beaufont, Belt Center, Elkhardt, Forest Hill Terrace, Hioaks, Jahnke, McGuire, Midlothian, Northrop, Pocoshcok, Swansboro West, Swanson, Warwick, Westover, Woodhaven, and Worthington.

### Exhibit 13: Reported Crime Trends



## Vehicle Accidents

In 2012, the Midlothian – Belt Boulevard Study Area and the surrounding Areas of Influence saw 227 accidents; 98 of these crashes were in the Study Area itself. These crashes resulted in one fatality and caused 149 injuries; five pedestrians were injured and 144 vehicle occupants suffered injuries. These accident and injury numbers may seem high; however, recent improvements along Midlothian have resulted in a reduction of accidents along the corridor as shown by Exhibit 14.

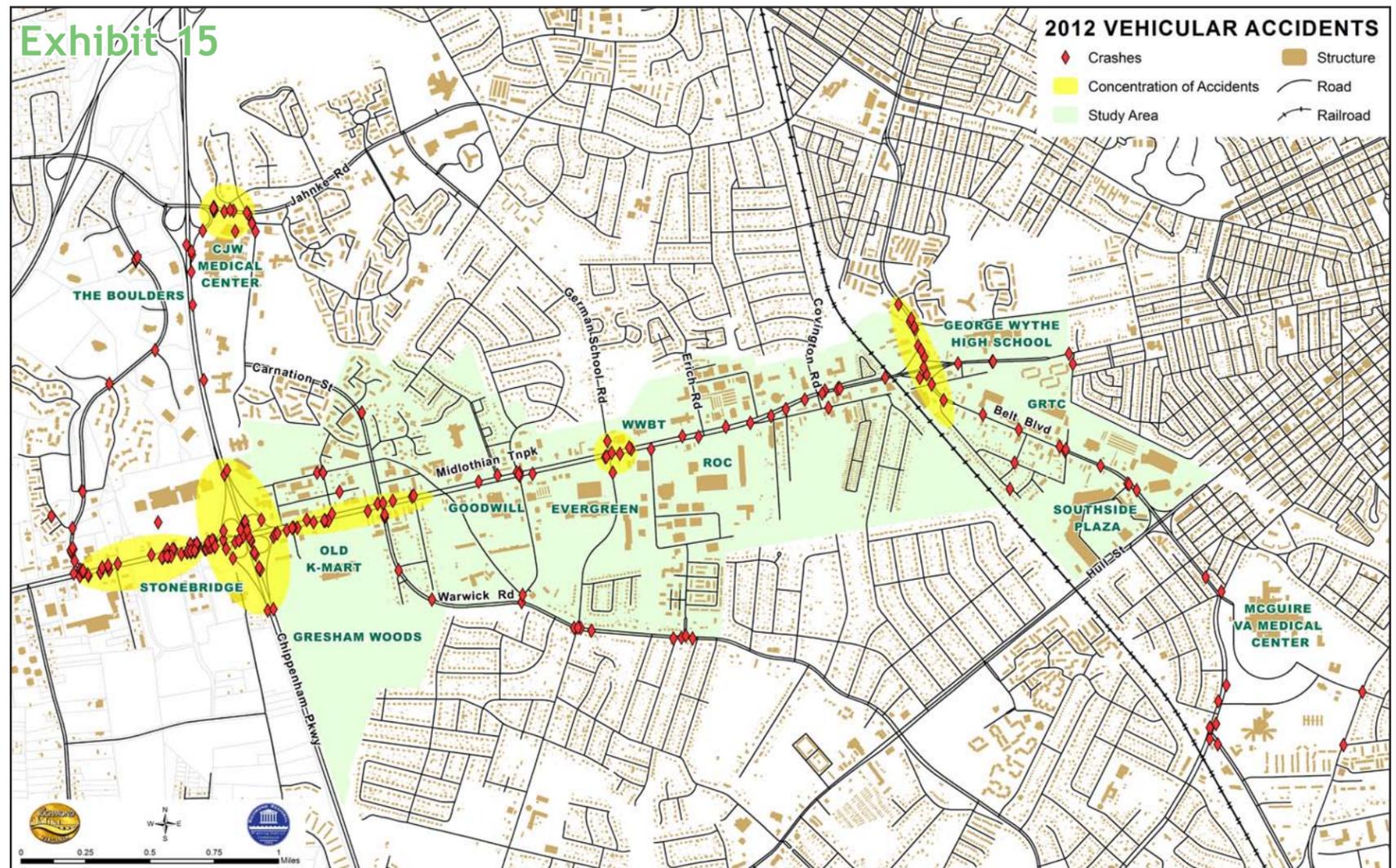
For all years there were numerous accidents along Midlothian in and around the interchange with Chippenham Parkway. In 2012, the interchange alone witnessed 39 accidents: on the ramps, on Midlothian, or on Chippenham. Many accidents also occurred within a half-mile of the interchange along Midlothian. To the east, within the Midlothian – Belt Boulevard Study Area, 17 accidents injured 18 people. Along Midlothian to the west, by the Stone Bridge development, to the intersection with Boulders Parkway, 40 accidents occurred. (Exhibit 15)

**Recent improvements along Midlothian have resulted in a 49% reduction of accidents along the corridor.”**

**Exhibit 14: 2010-2012 Vehicular Accidents**

Accidents in the Midlothian Study Area			
2010	2011	2012	% Change 2010 - 2012
112	118	98	-12.5%
Accidents on Midlothian Immediately east of Chippenham			
2010	2011	2012	% Change 2010 - 2012
25	25	20	-20.0%
Accidents along Improved length of Midlothian			
2010	2011	2012	% Change 2010 - 2012
58	57	39	-48.7%

Source: Virginia Department of Transportation, Crash Data 2010 - 2012

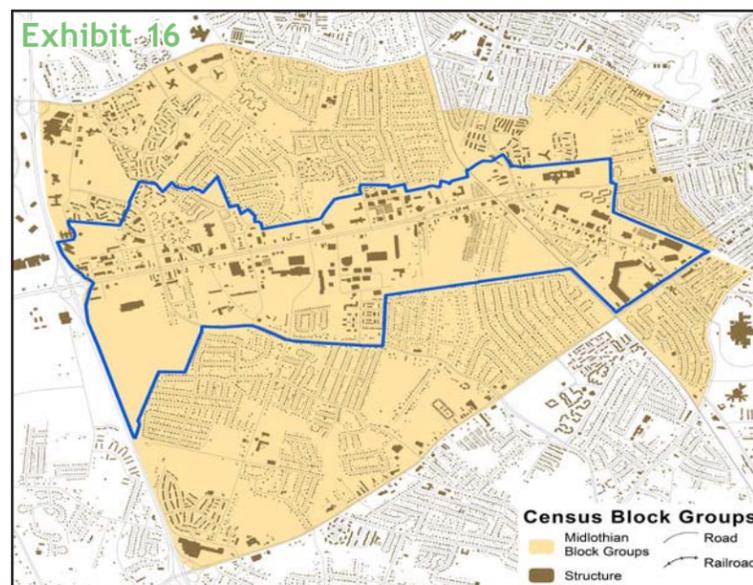


# Demographics

The decennial U.S. Census provides the most complete 100% sample, accurate, and consistent source of demographic data to depict the characteristics of the population living in the defined Midlothian Study Area. Census data must be queried based on delineated Census geographies. The smallest unit of geography, Census blocks are nested in census block groups which are then nested within larger Census tracts. This demographic analysis uses the data provided at a Census block group level as the most universally available.

Two different Census products were accessed for purposes of this analysis: 1) the 2010 decennial census for population related data; and 2) the Longitudinal Employer-Household Dynamics (LEHD) for economic related data. The LEHD data uses a small sample size to make inferences about the larger population of an area. Unlike the decennial Census, where data from 100% of the population is gathered at once, the LEHD combines data from multiple Census Bureau and state sources including unemployment insurance earning data, Quarterly Census of Employment and Wages data, and other censuses and surveys including the American Community Survey which samples around 10% or less of the population, depending on the geography in question.

As by Exhibit 16, Census block group boundaries do not align perfectly with the Study Area boundary; portions of some block groups extend beyond the Study Area boundary. However the resulting statistics are considered to be good indicators of the population within both the Study Area and in the general vicinity.



## Exhibit 17: 2010 Study Area & Vicinity Population and Age

Area	Total Population	Males		Females		Labor Force Population (25-64)		Youth Population (under 18)	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent
Midlothian Study Area	21,562	9,841	46%	11,721	54%	11,570	54%	5,075	24%
City of Richmond	204,214	97,331	48%	106,883	52%	106,690	52%	38,009	19%

Source: 2010 Decennial Census, Table P12

## Who lives in the Study Area?

According to the 2010 U.S. Census, an estimated 21,562 people live in or near the Midlothian Study Area. As summarized by Exhibit 17 this represents 10.6% of the City of Richmond’s population. The population within the age range of 25 – 64 is typically considered to be of working age, and represents 54% of the total area population. This proportion is consistent with City-wide data. The labor force is reflective of the male-female composition of the total population: 54% women and 46% men. The biggest difference between the population characteristics of the Study Area compared to the city of Richmond is that nearly one-fourth of the population in the Midlothian Study Area is under age 18, a 5 percent higher proportion than the population under age 18 in the city of Richmond. Another way to look at this difference is that if the city of Richmond had the same youth population proportion as the Midlothian Study Area, there would be an additional 10,056 children in the City of Richmond.

Exhibits 18 and 19 show the population in or near the Study Area has a higher percentage of Hispanics and African Americans than the city of Richmond as a whole. In fact, the population in and around the Study Area has more than twice the concentration of Hispanics as compared to the entire city, 14% compared to 6%. The Study Area and its surroundings also have a higher concentration of African Americans compared to the city at a whole, 67% compared to 51%.

Approximately one quarter of the population living in and around the Study Area has an annual income below the federal poverty level. This rate of poverty is similar to, yet slightly above, that of the city as a whole – nearly 27% (Exhibit 20). The Federal government establishes poverty thresholds based on the size of a family and the ages of its members. For example, the most common type of family in the Study Area, 42% of families, is that of a single parent with children. In 2010, the poverty threshold for a single parent with two children was \$17,568.

Source: 2008-2012 American Community Survey 5 Year Estimates, Table B11004. Study Area Families: Married couple with related children under 18 – 666 (13.6%); Married couple with no related children under 18 – 1,211 (24.7%); Single householder with related children under 18 – 2,072 (42.3%); Single householder with no related children under 18 – 946 (19.3%).

## Exhibit 18: Race

Race	Midlothian Study Area		City of Richmond	
	Number	Percent	Number	Percent
White	4,058	19%	83,288	41%
Black or African American	14,542	67%	103,342	51%
Native American	112	1%	705	0%
Asian	382	2%	4,750	2%
Some Other & Two or More	2,468	11%	12,129	6%
Total Population	21,562	100%	204,214	100%

Source: 2010 Decennial Census, Table P9

## Exhibit 19: Ethnicity

Ethnicity	Midlothian Study Area		City of Richmond	
	Number	Percent	Number	Percent
Hispanic or Latino	2,990	14%	12,803	6%
Not Hispanic or Latino	18,572	86%	191,411	94%
Total Population	21,562	100%	204,214	100%

Source: 2010 Decennial Census, Table P9

## Exhibit 20: Individuals in Poverty

Location	Income Less than Poverty Level		Income At or Above Poverty Level		Total
	Number	Percent	Number	Percent	
Study Area	5,547	24.9%	16,756	75.1%	22,303
City of Richmond	52,260	26.7%	143,205	73.3%	195,465

Source: 2008-2012 American Community Survey 5 Year Estimates, table C17002: Ratio of Income to Poverty Level in the Past 12 Months. Dataset Universe: Population for whom poverty status has been determined, not included: people in college dormitories, people in military group quarters, institutionalized population, and unrelated individuals under 15 years old.

## Who Works in the Study Area?

The Midlothian Study Area and surroundings can be considered an employment center, largely due to the inclusion of CJW Hospital in the statistical base along with several other large employers on the corridor which employ nearly 3,000 people (as of 2nd Qtr 2012 Virginia Employment Commission).

**According to 2010 Census LEHD data, a greater number of people are employed in and around the Midlothian Study Area than reside in the area: 11,488 people actually work in the area compared to 8,319 workers who live in the area.**

According to 2010 LEHD data, a greater number are employed in and around the Midlothian Study Area than reside in the area: 11,488 people actually work in the area compared to 8,319 workers who live in the area. LEHD estimates 422 people (or 5% of those who live in and around the Study Area) both live and work in the immediate area, while an estimated 7,897 workers who live in the Study Area commute outside the area for employment. With a total of 8,319 workers living in the Study Area, the labor force participation rate compares favorably to the city-wide rate, 72% to approximately 65% of city labor force residents who are actively working (RRPDC, Comprehensive Economic Development Strategy CEDS, 12/12/14, p. 10). It is not possible to accurately depict the rate of unemployment using 2010 Census and LEHD, an estimated 3,251 people considered to be in the labor force are not actively participating for a variety of factors not just unemployment.

On average those that live and work in the Study Area earn the least; workers who commute out of the Study Area for employment fare better. Workers who commute into the Study Area fare the best, on average, when looking at earnings. Inflow workers, those commuting into the Study Area, are most likely to earn \$40,000 a year or more. Inflow workers are also least likely to earn \$15,000 or less per year. By contrast, those living and working in the Study Area, are most likely to be earning \$15,000 a year or less and least likely to earn \$40,000 or more. (Exhibit 21)



Left: Goodwill Industries provides job training and support for many in the metropolitan area. Right: Constructed in 2003, the corporate headquarters and distribution center for Evergreen Enterprises establishes it as one of the corridor's largest employers. Photo Source: RRPDC



Left: The City of Richmond Southside Community Services Building is located in South Side Plaza at Belt Boulevard and Hull Street. Right: The City of Richmond Second Police District is located on Belt Boulevard in the Study Area. Photo Source: RRPDC

### Exhibit 21: Worker's Earnings

Workers	Earning \$15,000 a year or less per year		Earning \$15,001 - \$39,996 per year		Earning more than \$39,996 per year	
	Number	Percent	Number	Percent	Number	Percent
Outflow Workers	2,308	29%	3,647	46%	1,942	25%
Inflow Workers	2,448	22%	4,656	42%	3,962	36%
Interior Workers	142	34%	220	52%	60	14%

Outflow workers are those who live in but work elsewhere - 7,897.

Inflow workers are those who commute from outside the to work - 11,066.

Interior workers are those who live and work in the Study Area - 422.

Percent refers to the percentage of each workers for each commuting pattern (e.g., outflow) earning the indicated amount.

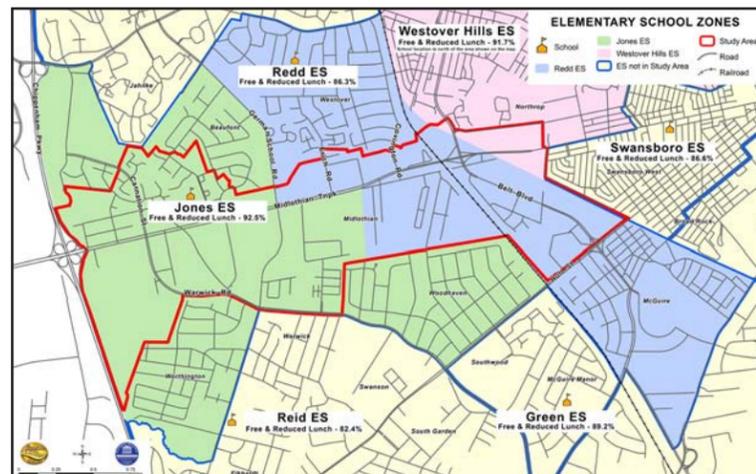
Source: Longitudinal Employer-Household Dynamics, 2010

## Community Facilities

As shown in Exhibit 23 a number of churches are located throughout and in close proximity to the Midlothian Study Area. The area is served by the Second Police Precinct located at 117 East Belt Boulevard and Fire Station #23 on Labrook Concourse. Miles Jerome Jones Elementary School and George Wythe High School are located in the Study Area. The school zone for Jones Elementary School includes much of the western portion of the Study Area (Exhibit 22). The majority of the eastern portion of the Study Area is zoned to attend E.D. Redd Elementary School. The residents of the apartments across Midlothian from George Wythe High School are zoned to attend Westover Hills Elementary School. All the schools in and around the Midlothian Study Area have high rates of free and reduced lunch eligibility among their student populations. This indicates that many families with children in the area have relatively low incomes.

Public recreation and parks are not provided directly to the Study Area population except for those associated with the schools. However, Richmond City Council has approved the purchase of the former ROC Recreation Center located on Old Warwick Road along the southern boundary of the Study Area. The ROC center includes a small school, a full-size gym, a soccer field, two youth baseball fields, and a skate park. Acquisition and operation of this facility by the City of Richmond Parks, Recreation, and Community Facilities Department would offer a valuable recreational asset for those living and working in the Midlothian Study Area.

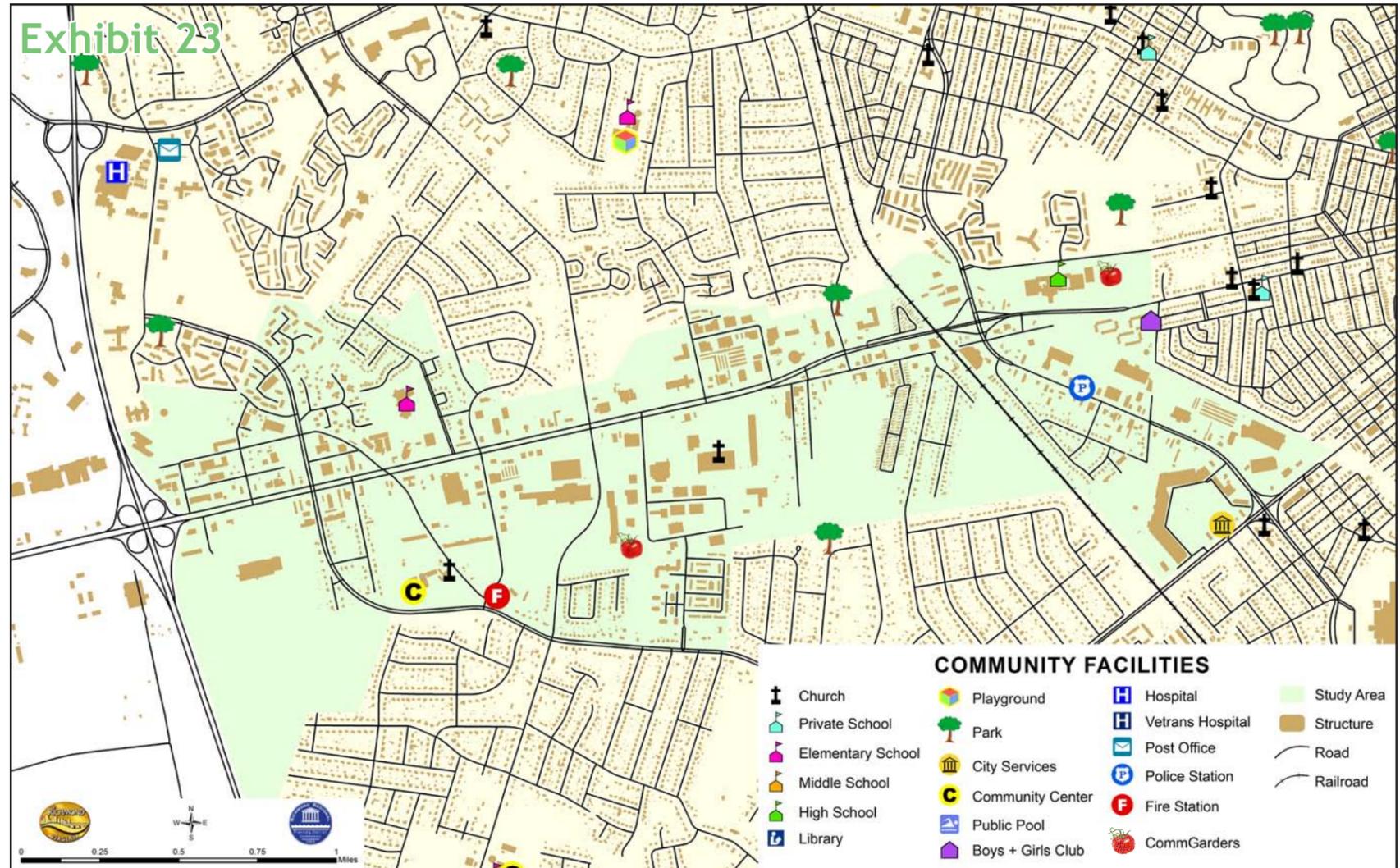
### Exhibit 22: Elementary School Zones



Miles Jerome Jones Elementary School located on Beaufort Hill Drive north of Midlothian Turnpike in the Study Area. Photo Source: RRPDC



United Nations Church International located at Midlothian Turnpike and Covington Road. Photo Source: RRPDC



# Environmental Features

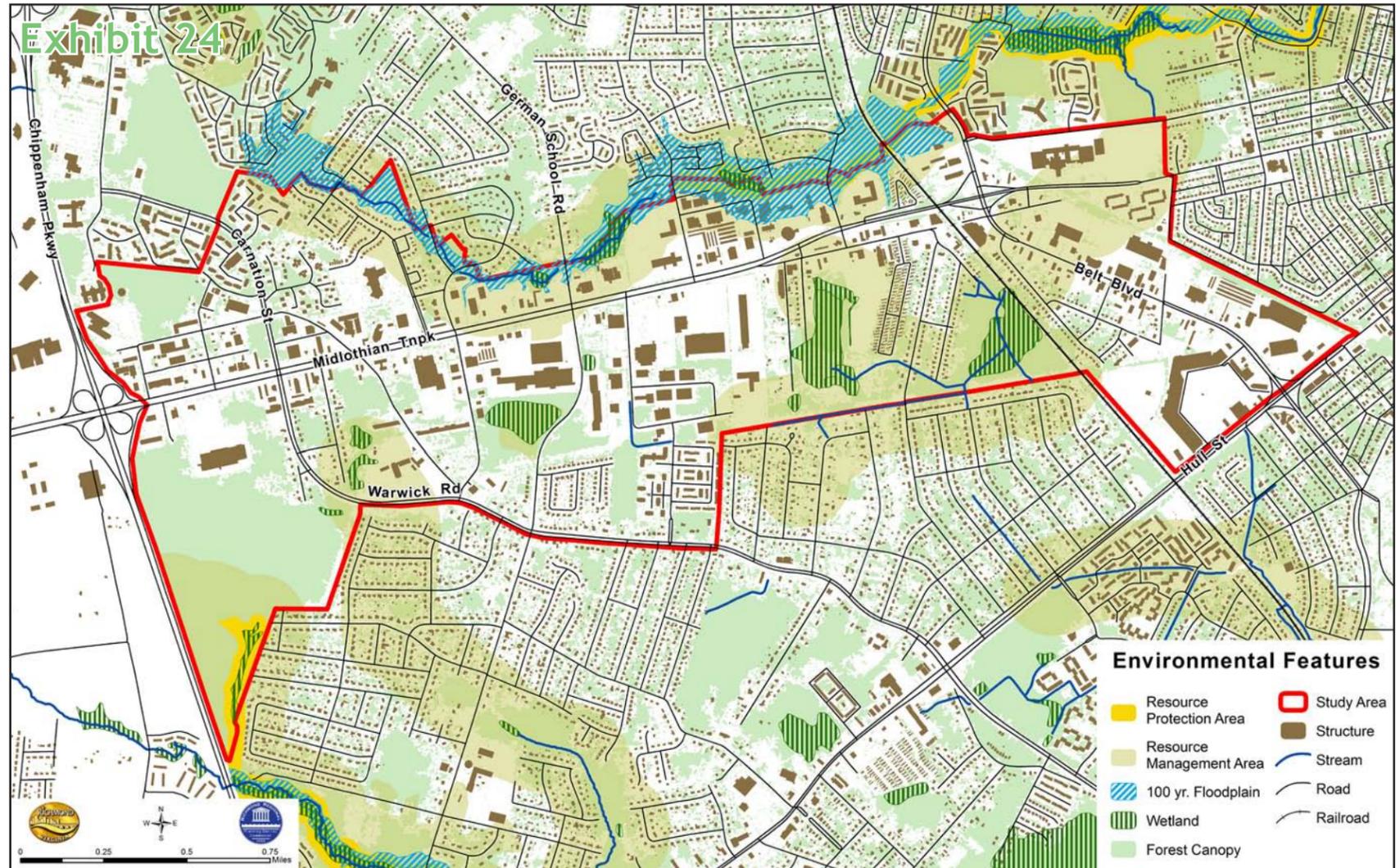
## Natural Features

The northern boundary of the Study Area coincides with Reedy Creek (Exhibit 24). Throughout the western portion of the Study Area Reedy Creek has a natural stream bed; heading east, the stream becomes channelized in a large concrete channel. The Chesapeake Bay Act resource protection area and the 100 year floodplain as identified by the Federal Emergency Management Agency surround the creek. The National Wetlands Inventory (NWI) indicates potential wetlands across many of the larger, undeveloped parcels to the south of Midlothian. Site observations while in the field and the fact that these parcels remain undeveloped in spite of surrounding development suggest that wetlands do exist to some degree on these parcels.

## Community Gardens and Urban Agriculture

Urban agriculture and community gardens are a powerful tool for improving the environment in urban settings. These urban oases naturally reduce and clean stormwater runoff while offering residents opportunities to grow food, organize community, learn, and increase access to jobs. The Midlothian-Belt Boulevard Study Area is already home to two community gardens. George Wythe High School is home to a large school garden and small orchard. The students are responsible for garden care and maintenance as the gardens are incorporated into the classroom setting. The Jerusalem Connection – Renew Richmond Urban Farm is located at the Jerusalem Connection on Giant Road, south of Midlothian Turnpike. The urban farm was recently expanded with a goal of ultimately occupying 2.5 acres. The farm includes greenhouses and raised beds for agricultural production.

Policies that promote urban agriculture to reduce impervious surface should be explored for the Study Area. For example, the reduction of large parking lot impervious surfaces for urban agriculture purposes could be incentivized for various uses along the Midlothian and Belt Boulevard corridors.



Jerusalem Connection Community Garden  
Photo Source: RRPDC



Okra Blossom  
Photo Source: RRPDC



Yellow Squash  
Photo Source: RRPDC



George Wythe Community Gardens  
Photo Source: RRPDC

## Urban Tree Canopy

In 2010 the Virginia Geospatial Extension Program performed an urban tree canopy analysis for the City of Richmond in cooperation with the Chesapeake Bay Program and the Virginia Department of Forestry. The analysis was based on aerial imagery from 2008, and classifies land cover into the following categories: building impervious, non-building impervious, non-tree vegetation, tree canopy, and water. The analysis shows the Study Area is approximately 50% impervious surfaces and slightly more than one third of the total area is tree canopy. The City of Richmond as a whole has a higher tree canopy coverage than the Study Area, 34% compared to 40%. The City as a whole also has a lower percentage of impervious land: 33%. Exhibit 25 displays the full results of this analysis for the city of Richmond and the Study Area.

**Exhibit 25: Urban Tree Canopy**

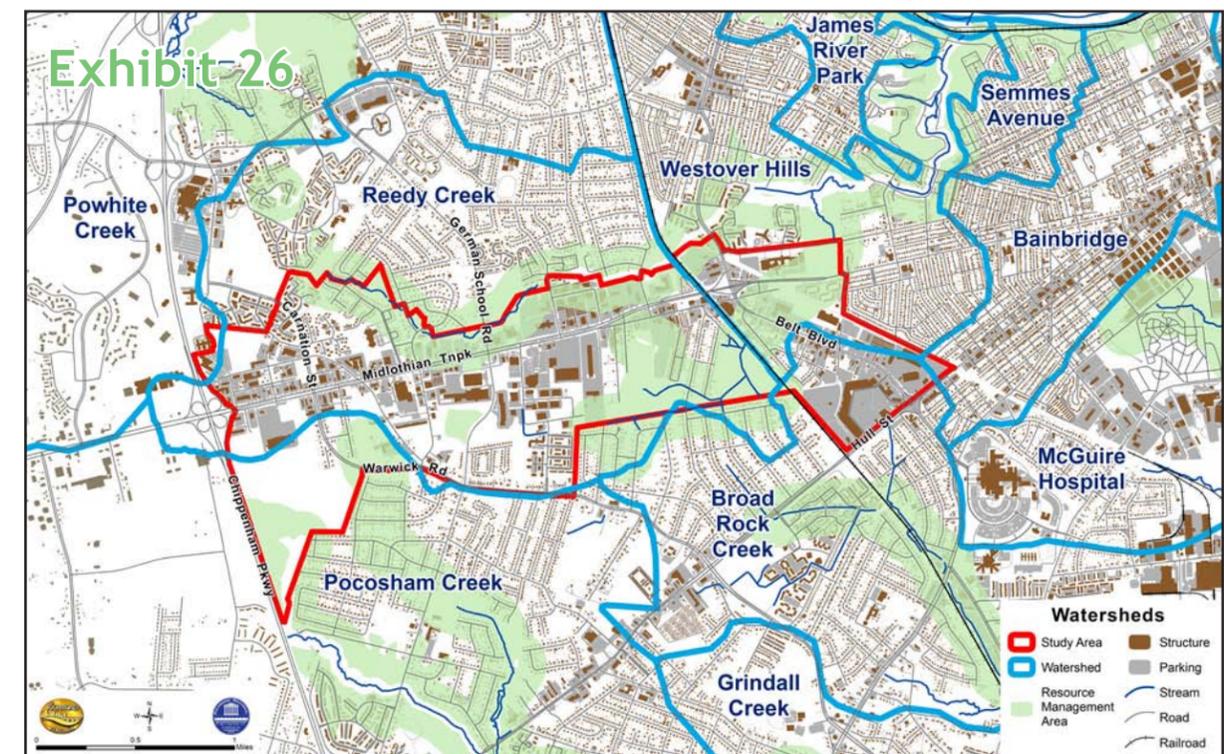
Type	Midlothian Study Area		City of Richmond	
	Acres	Percentage	Acres	Percentage
Building Impervious	129	10%	4,139	10%
Non-Building Impervious	491	40%	9,332	23%
Non-Tree Vegetation	199	16%	8,917	22%
Tree Canopy	422	34%	16,121	40%
Water	0	0%	1,502	4%
<b>Total Area</b>	<b>1,241</b>	<b>100%</b>	<b>40,009</b>	<b>100%</b>

Source: Urban Tree Canopy Analysis GIS data created by the Virginia Geospatial Extension Program at Virginia Tech's Department of Forest Resources and Environmental Conservation; base year for analysis was 2008.

## Impervious Surface & Water Quality

According to the City of Richmond's Department of Public Utilities, the Study Area is more impervious than the broader watersheds in which it is located. The land area within the Study Area primarily drains to three (3) different watersheds: Reedy Creek, Broad Rock Creek, and Westover Hills/Crooked Branch (Exhibit 26). All of these watersheds are less than 40% impervious.

Research by the Center for Watershed Protection (CWP) and others has shown that stream water quality declines as impervious surface coverage increases as a percentage of watershed area. The CWP's Impervious Cover Model indicates streams can become impacted as impervious cover approaches 10% of land area in the watershed. As impervious surfaces increase to 25% or more of the watershed area, severe degradation is likely to occur. According to the Virginia Department of Environmental Quality's 2012 Water Quality Assessment Integrated Report, segments of Reedy Creek in and downstream of the Study Area have been identified as impaired due to high levels of E.coli bacteria, low concentrations of dissolved oxygen, and pH. The sources for these impairments are urban stormwater runoff from the Municipal Separate Storm Sewer System (MS4) and general non-point source runoff. Programs and policies that will encourage the reduction of impervious surfaces such as the inclusion of urban gardens is described on the previous page will improve water quality and livability in the Study Area.



# Transportation

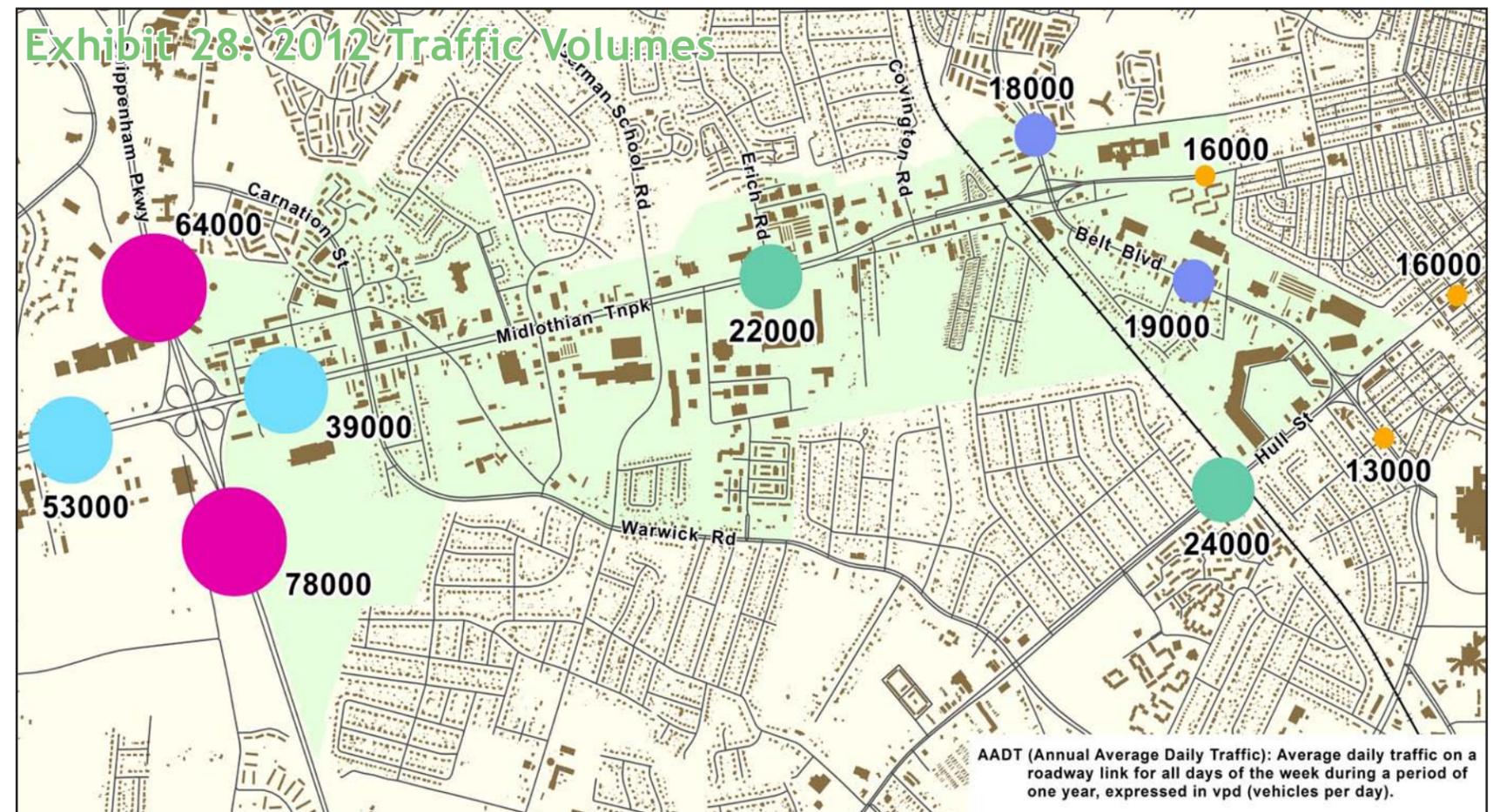
Midlothian Turnpike is a 6-lane highway spanning an approximate 140-foot pavement width with a center vegetated median and turn lanes. Bus Pull Outs, sidewalks, and pedestrian crosswalks increase the hospitality of the street for pedestrians and users of public transit. Belt Boulevard is a 5-lane roadway with 4 travel lanes and one center-turn lane. Sidewalks exist in patches along the road, yet do not span the length of the roadway in the Study Area. The interchange located at the intersection of the two roads is awkward for motorists and unsafe for pedestrians as it spans over the nearby train tracks and returns Midlothian Turnpike to grade east of Belt Boulevard.

An arterial highway designed to Midlothian Turnpike's specifications (6 travel lanes with turn lanes) is capable of handling up to 60,000 AADT while maintaining an adequate level of service, meaning as of 2012 the corridor was operating below full capacity.

# Traffic

Chippenham Parkway (Route 150) is the most heavily travelled artery in the area, and has remained relatively consistent at an average of 69,000 vehicles per day (Average Annual Daily Traffic, or AADT) over the past 15 years from 1997 to 2012. Chippenham traffic has increased to a greater degree south of Midlothian. Chippenham divides the Midlothian Turnpike (Route 60) traffic with greater amounts travelling west than east (53,000 AADT in 2012). As shown by Exhibit 28 traffic has steadily declined to the west in the last 15 years, the Midlothian traffic east from Chippenham to the first intersection of Carnation Drive has dramatically increased by nearly 70% to 39,000 AADT in 2012. This change in traffic volume may be attributable to increased travel north on Carnation toward CJW Medical Center or south on Carnation/Warwick toward Hull Street. AADT on Midlothian from Carnation east to Belt Boulevard falls once again to approximately 22,000 vehicles per day. An arterial highway designed to Midlothian Turnpike's specifications (6 travel lanes with turn lanes) is capable of handling up to 60,000 AADT while maintain-

ing an adequate level of service, meaning as of 2012, the corridor was operating with an excess capacity of 21,000 to 38,000 AADT. Moving east through the more residential portion of the corridor, Midlothian between Belt Boulevard and Roanoke Street traffic declines to 16,000 vehicles per day. Belt Boulevard to the north and south of Midlothian has consistently had less than 20,000 vehicles per day over the same 15-year period.



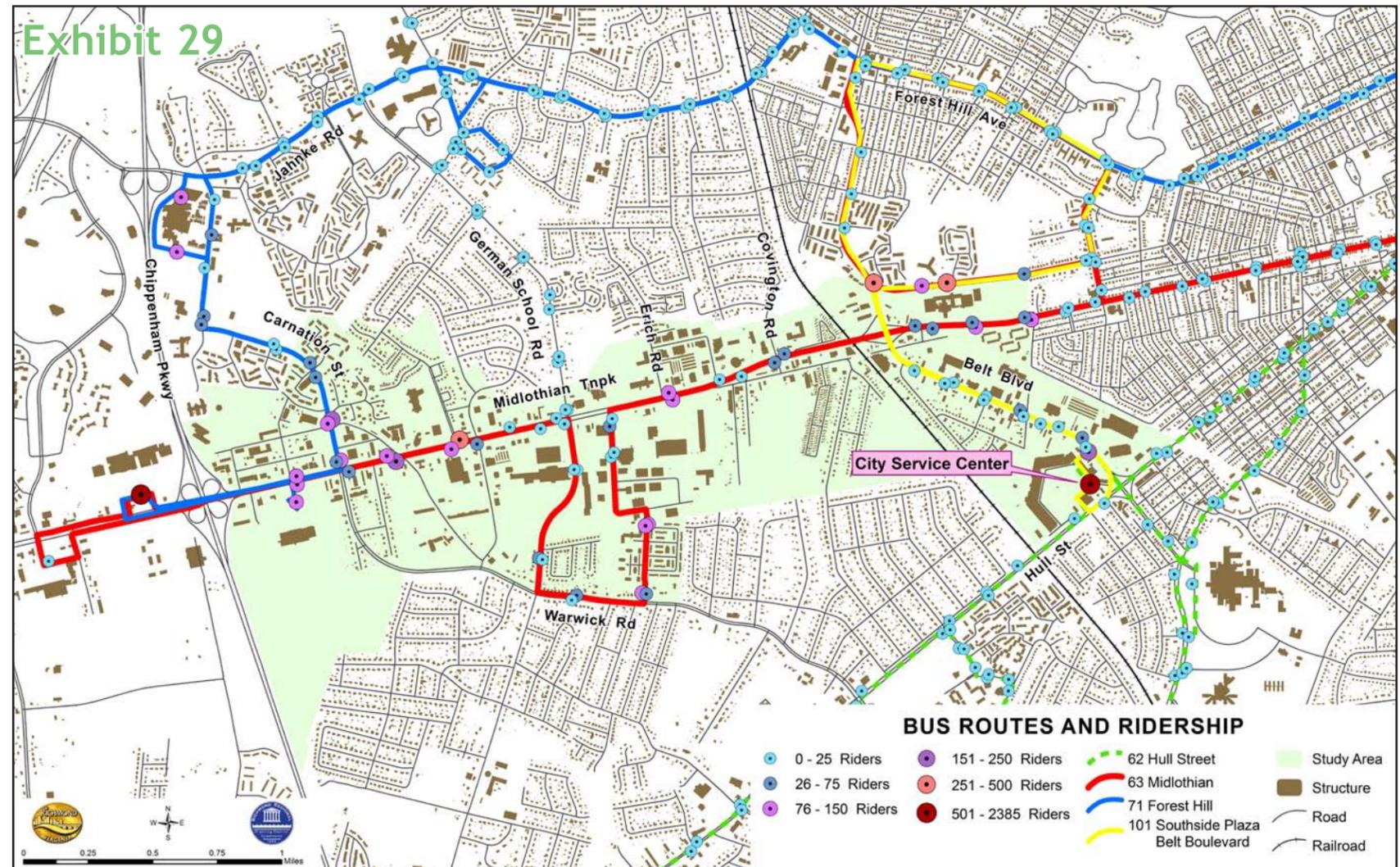
## Public Transit

Four GRTC routes serve the Study Area; however, no single route provides consistent, continuous service from one end of the Study Area to the other, as shown by Exhibit 29:

- Route 62 (green) runs from downtown, across the Mayo Bridge, south along Hull Street. On weekdays one variation of Route 62, 62CM, stops throughout the day at the bus shelter at McGuire Veterans Hospital. On weekends, Route 62 does not stop at McGuire Hospital thereby limiting weekend access to employment for those using public transit.
- Route 63 (red), which runs in the Study Area on weekdays and some limited weekend times and serves the Kroger of Stone Bridge (just west of the Study Area, and the closest complete grocery store) only on Saturdays.
- Route 71 (blue) runs from the CBD to the Study Area by way of CJW Hospital, only on weekdays, which leaves many Study Area residents without access to transit on the weekends.
- Route 101 (yellow) runs in a loop from the Forest Hill area to Southside Plaza, again only on weekdays, leaving area residents without access to transit on weekends.

There are 59 total transit stops in the Study Area. Of these, the 2012 average ridership is 127 combined boardings and alightings. Ten stops have greater than average boardings and alightings, ranging from 138 to 2,385. Forty-nine of the stops have fewer boardings and alightings than average, with 13 stops having fewer than 25 combined boardings and alightings. The four stops with the highest use have a bench, and of the 42 stops with the lowest ridership (combined boardings and alightings of 108 or lower), only two have benches. This suggests a correlation between stop usage and amenities.

Three bus pull-outs were constructed as part of the overall Midlothian Turnpike improvements to enable buses to pull out of traffic to pick up passenger. All are located on the south side, one at the intersection of Arcadia Street and Midlothian Turnpike, one in front of the Goodwill, and one at the Richmond Outreach Center (ROC). Although three stops are among the ten highest in terms of usage, it may be more likely due to their location rather



than the amenities; benches and trash cans are randomly provided, but shelters were not incorporated into the design or construction. The data indicates no correlation between stop use and the new bus pull-outs.

The *Richmond Connects* transit study names Midlothian as a “priority corridor” and recommends eliminating low-activity

stops in order to increase efficiency along the rest of the corridor. The plan recommends limiting stops to four (4) per mile instead of the typical eight (8) per mile; in some cases on Midlothian there are more than eight (8) per mile.

**The Richmond Connects transit study names Midlothian as a “priority corridor” and recommends eliminating low-activity stops in order to increase efficiency along the rest of the corridor.**

## Bike & Pedestrian

Due to the recent corridor improvements, the Midlothian corridor is more pedestrian-safe than it had been previously; sidewalks line Midlothian Turnpike and extend down some cross streets such as German School Road. Crossing signals with ample time for pedestrians are located at the six signalized intersections along the corridor. Minor intersections where cross streets are governed by stop signs do not have timed pedestrian crossing signals.

The relatively high number of curb cuts across the sidewalks can present hazards to the pedestrian (see image). In addition, the large scale of the buildings, the deep setbacks and the lack of walkable (non-auto use) destinations create an environment that is not necessarily conducive to walking being a choice mode of transportation. There are no bike lanes or other bicycle accommodations on the corridor.

Both Chippenham Turnpike and Belt Boulevard represent significant barriers to both pedestrians and cyclists along Midlothian. As Chippenham crosses over Midlothian, there is only a narrow gravel shoulder on the south side on which a cyclist or pedestrian can travel, with no room on the north side. In addition, a slight curve in the road and frequent traffic off the ramp creates unsafe pedestrian or cyclist conditions. As Midlothian crosses over Belt Boulevard, the bridge and flyover separating the two roads presents another very dangerous combination of high traffic volumes and speeds with no pedestrian accommodations. Walking or biking from Midlothian to Belt requires a pedestrian or cyclist to traverse hazardous territory.

Belt Boulevard has fewer accommodations for pedestrians than Midlothian. Curb and gutter extend along the length of the corridor and narrow sidewalks are scattered along both sides of Belt. Where sidewalks do not exist, foot paths worn from frequent pedestrian use are clearly visible. There are frequent curb cuts along the corridor offering access to the numerous small commercial and office parcels that line the roadway. This high frequency of curb cuts translates into many conflict points with motor vehicles for pedestrians. Belt Boulevard also has no bike lanes or other accommodations for cyclists. The two potential trail projects described earlier offer wonderful opportunity to increase integration within the Study Area and attract those from outside.



1. The Chippenham interchange overpass over Midlothian is unsafe for pedestrians to traverse, lacking any facilities such as sidewalks or even a wide shoulder.
2. Car dealerships and other businesses block sidewalks with displays and products.
3. The ramp connecting Belt Boulevard to westbound Midlothian at the interchange of the two roads. Sidewalks or a shoulder are lacking forcing pedestrians to walk along the guardrail.
4. Well-worn footpaths dot Belt Boulevard where sidewalks are absent.

Photo Source: RRPDC

## Proposed Greenways

Offering potential to provide better connection between the commercial corridors and surrounding neighborhoods, two potential greenways have been under discussion in recent years and intersect within the Study Area: (Exhibit 30)

- The Reedy Creek Greenway would follow the route of Reedy Creek from its entrance into Forest Hill Park at Forest Hill Avenue upstream and through the northern extent of the Study Area, parallel to Midlothian Turnpike. The route of the Reedy Creek Greenway intersects the James River Branch Trail at George Wythe High School, connecting the students to adjacent neighborhoods and offering enhanced recreational and transportation alternatives. Significantly, the Reedy Creek Greenway connects Study Area neighborhoods with Forest Hill Park, the James River Park System and the Capital Trail, vastly increasing the recreation and transportation opportunities for residents of the Study Area.
- The James River Branch Trail (JRBT) is a three-mile abandoned CSX rail corridor running southeast from the Study Area and has great potential to become a greenway. When built, the trail would connect large neighborhoods currently with a lack of public open space, recreational facilities and pedestrian and bicycle amenities.



## STRENGTHS

- *Recent \$45 million public investment in extensive improvements to Midlothian Turnpike; aesthetics and functional improvements moving toward a more complete street; 2010-2012 accident data along the improved portion of the corridor shows a dramatic decrease which most likely is attributable to the improvements*
- *Several strong anchors along corridor, i.e., Goodwill, Evergreen Enterprises, WWBT*
- *Easy regional accessibility via Chippenham Parkway*
- *Natural buffer of Reedy Creek between commercial frontage and neighborhoods to north*

## WEAKNESSES

- *Few shoppers' goods that make walking practical or necessary along the corridor; totally impractical to walk to Chesterfield side with Chippenham as a barrier*
- *Trade area dominated by low-and-moderate income households, relatively weak retail market*
- *Stigma imposed by several undesirable uses*
- *Land in-between, pass-through traffic, little identity of its own*

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- *Large parcels (particularly south of Midlothian) with possibility to transition to another use*
- *Southeast quadrant of Chippenham/Midlothian represents only large parcel left in undeveloped status; owner willing to explore alternatives*
- *Introduction of stronger ethnic/culturally-based retail built on core of businesses that exist*
- *Neighborhood/trail based services oriented to Reedy Creek and James River Branch*
- *Capability to make natural assets, i.e., Reedy Creek, James River Branch, community gardens, former ROC recreation center, work together for neighborhood benefit*
- *Proximity to two large hospital centers, CJW and VA Hospital employ almost 4,000*
- *Renewed activity on Chesterfield County side of interchange, i.e., Stone Bridge, Virginia College at Spring Rock shopping center*

## OPPORTUNITIES

- *Loss of Enterprise Zone designation & other incentives*
- *Preponderance of B-3 Highway Commercial zoning which is all-inclusive and sets limited standards*
- *Market forces led by new roof tops continuing to move west, by-passing this older portion of Midlothian and Belt Boulevard*
- *Older properties typically following the strip commercial format, i.e., large parking lots on front, non-descript buildings set-back, little attention to aesthetics; transitioning to a new use often necessitates demolition, beyond remodeling*

## THREATS / CHALLENGES

# Key Findings

## Recommendations and Strategies

### *Economic Opportunities*

- **Create a climate that supports transformative anchor uses on key parcels along the corridor**
  - Identify parcels/nodes which are appropriate for new uses and increased density; prepare schematic ideas for potential reuse
  - Meet with property owners, strong corridor anchors and prospective developers to share this study along with a cohesive vision for the corridor and key parcels
  - Take guidance from these meetings to craft appropriate zoning ordinance revisions, new incentives, public investment priorities and public/private partnerships
  - If appropriate, work with the Department of Economic and Community Development (DECD) to retain Enterprise Zone designation
- **Explore feasibility of possible anchor uses such as an International Market or Medical Center/Hospital related uses that could serve as a regional anchor**
  - Research site selection decision requirements for a short-list of potential anchors
  - Work with property owners/developers as appropriate to provide attractive packages to recruit the most feasible anchors
- **Support and expand on culturally-based businesses already on the corridor**
  - Work with the Multi-Cultural Commission and/or Retail Merchants Association to convene a discussion group of existing Latino business owners along corridor in order to gauge interest in promoting their businesses together
  - Emphasize the regional nature of Latino businesses in the corridor, and offer research/survey of customers, with permission/support of business owners
  - Create plan for promoting the corridor as a regional destination for Latino products
  - Identify funding sources accessible to business owners which will allow physical improvements to business (e.g., ECD loans at low fixed rates)



### *Environmental Enhancement*

- **Reduce impervious surfaces along the corridor to enhance water quality and aesthetics**
  - Provide models of good site design and market research that shows the economic and environmental benefits from increased landscaping, smaller paved parking fields, and reduced front yard setbacks as part of the discussion with property owners/prospects
  - Work with the Department of Public Utilities-Stormwater Division to prepare a simple calculation whereby credits toward non-residential stormwater utility fee so that Low Impact Design (LID) standards can be understood in the discussion with potential developers
  - Explore opportunities to tap existing or potential grant resources to offer additional incentives to developers of environmentally sensitive site design using Low Impact Design (LID) measures that contribute to the City's Chesapeake Bay Total Maximum Daily Load (TMDL) goals
- **Employ all resources to implement the James River Branch Trail and Reedy Creek Greenway projects**
  - Conduct discussions with CSX to arrive at a fair price for acquiring the James River Branch corridor; proceed with formal abandonment
  - Work with area advocacy groups such as Groundwork to promote and plan for the trails and their intersection within the Study Area
  - Investigate the potential of volunteer labor, such as the Army Corps of Engineers, who can provide not only manpower but expertise
  - Link greenways to Study Area through signage, trail heads and trail-based neighborhood connections and services
- **Capitalize on existing urban agriculture locations (Jerusalem Connection/Renew Richmond and other community gardens) and anchor based community resources**
  - Create provisions by which property owners are encouraged to allow small businesses such as greenhouses or other food production-based businesses to locate on vacant land or oversized parking lots
  - Work with the City of Richmond's Maggie Walker Initiative/Social Enterprise working group to promote the idea of using parcels along the corridor for small business start-ups that supply anchor institutions in the area

## Functional Improvements

- **Work with GRTC to consolidate bus stops and provide each with full-service amenities (shelter, benches, information kiosk, etc.) to encourage more active ridership**
  - Assess whether the most active bus stop locations are viable priorities for improvement from a system standpoint
  - Identify other priority sites based on walking distance, accommodations for buses (pull-outs) and adjacent vacant parcels that could be redeveloped in conjunction with bus stop improvements
- **Explore design options for providing direct bike/pedestrian connections under Chippenham along Midlothian, starting with a possible median solution which takes advantage of the gateway feature plaza and offers a safe haven**
- **Work with the Department of Public Works to incorporate bike/pedestrian connections in Belt Boulevard intersection redesign plans, considering possible linkage to the James River Branch & Reedy Creek greenway trailhead proposed for Belt Boulevard at Crutchfield Street**
  - Document need and explore funding sources to extend any pedestrian improvements proposed for the intersection further east along Belt Boulevard which would also incorporate connections to the James River Branch Trail
- **Create opportunities for appropriate affordable housing to be developed in the Study Area**
  - Work with existing organizations such as Better Housing Coalition, Partnership for Affordable Housing, and Virginia Supportive Housing to identify locations as well as funding sources and developers to create new infill developments of affordable housing targeted toward families now living in mobile home parks and de facto residential motels
  - Ensure that new housing is reflective of family budgets, expectations and lifestyles and is truly welcoming of populations currently living along corridor

## Implementation Tools

- **Assign a lead City staff person to form a team to focus on mature highway corridor revitalization using both this study and the Hull Street study as impetus to identify common challenges and opportunities, including strategies for removing obstacles and expanding opportunities that incorporate measures to:**
  - Comprehensively review options to reduce or replace the amount of B-3 zoning on the corridor
  - Revise or replace B-3 zoning or its applicability within corridors in transition with provisions that acknowledge better orientation of uses to the street, encourage a higher FAR, provide for maximum parking standards, and dictate greater building heights or mass at key intersections
  - Consider additional provisions for restricting certain uses currently allowed in the B-3 district
  - Modify OS zoning district for better application to the Midlothian corridor to encourage transitional uses to replace the traditional highway commercial uses
  - Research other models of form-based overlay zones employed by other localities such as the City of Arlington VA
- **Advance private development partnerships for redevelopment of key properties through proactive engagement of property owners and/or developers with common interests.**



Photo Source: RRPDC

# Midlothian / Belt Boulevard Corridor Study



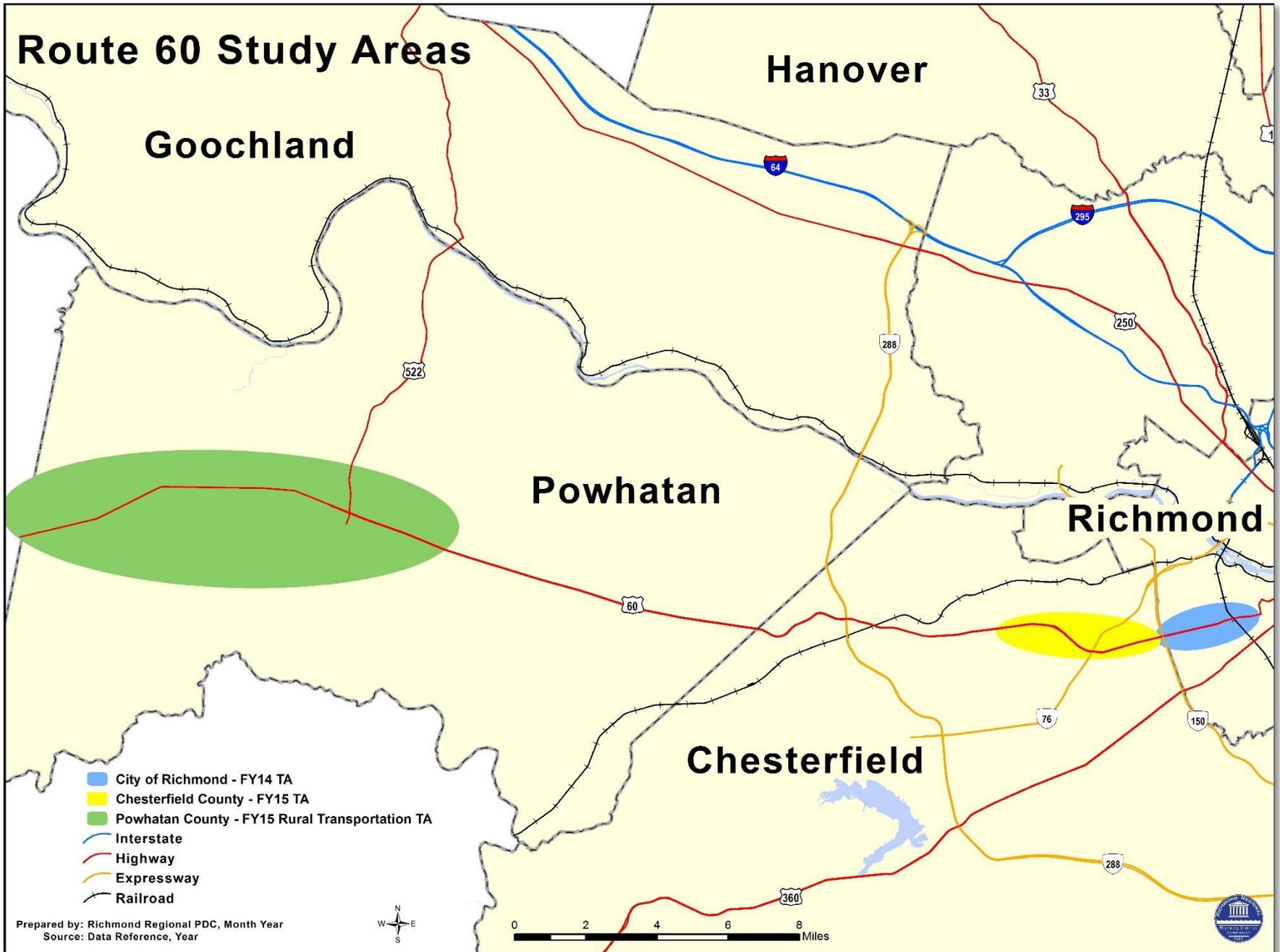
**APPENDIX E**



# U.S. ROUTE 60: CENTRAL VIRGINIA'S MAIN STREET

Barbara Jacocks  
September 11, 2014

# Route 60 Study Areas



**Goochland**

**Hanover**

**Powhatan**

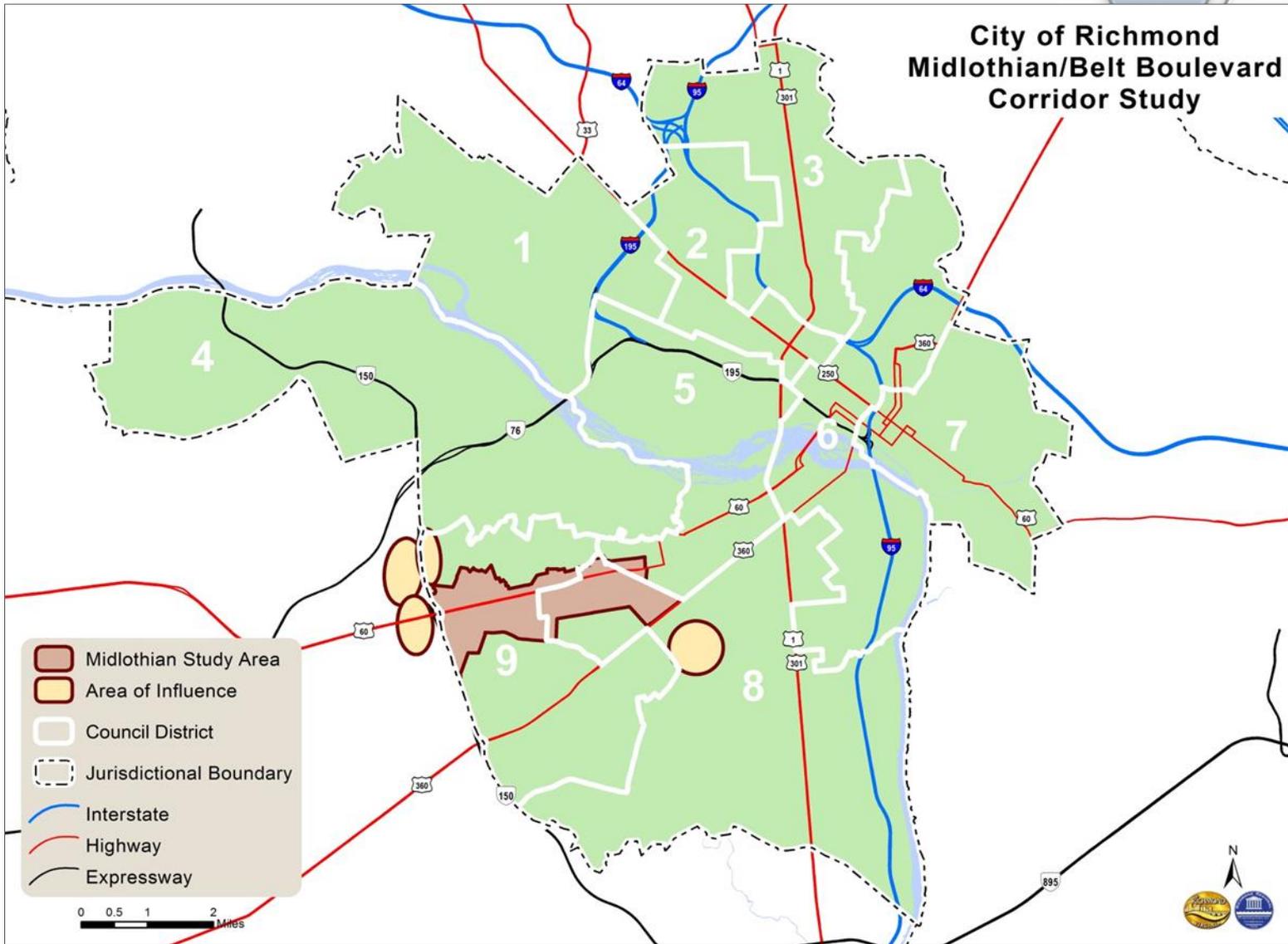
**Richmond**

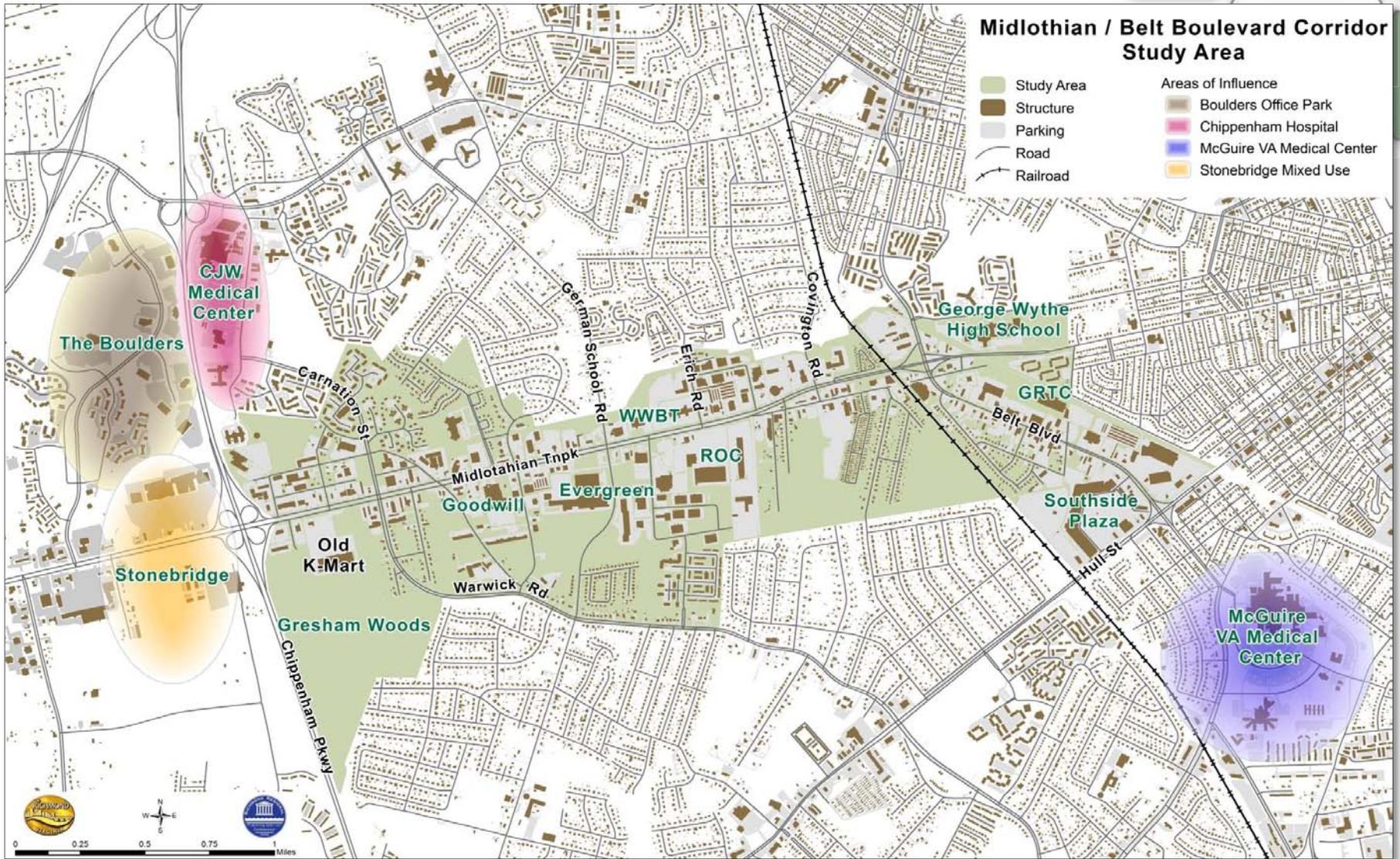
**Chesterfield**

- City of Richmond - FY14 TA
- Chesterfield County - FY15 TA
- Powhatan County - FY15 Rural Transportation TA
- Interstate
- Highway
- Expressway
- Railroad



# City of Richmond Midlothian/Belt Boulevard Corridor Study







**1873**



**1960s**



**1970s**

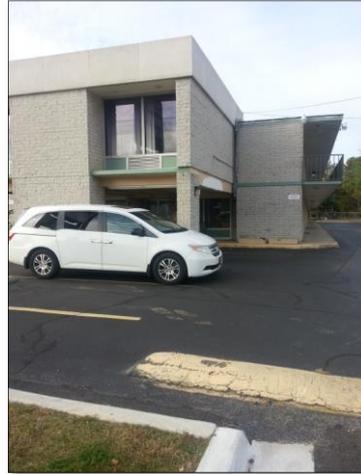


**Present**

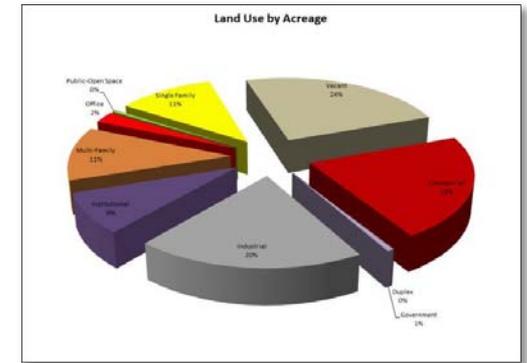
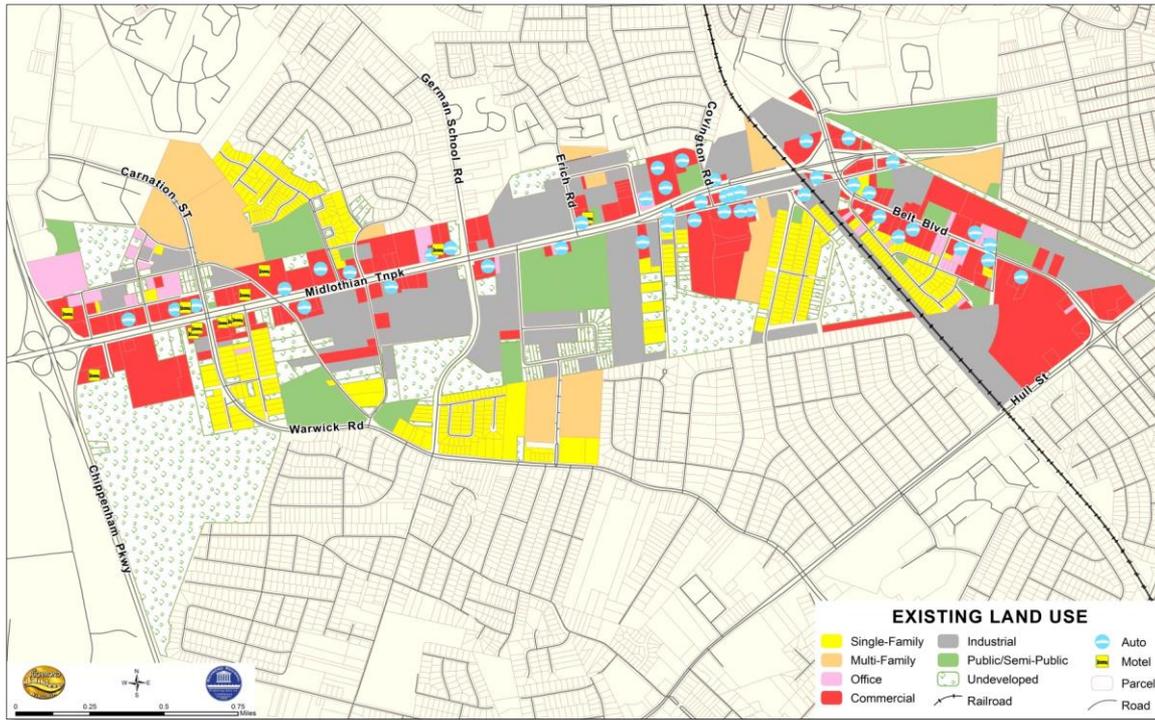
# OPPORTUNITIES



# CHALLENGES



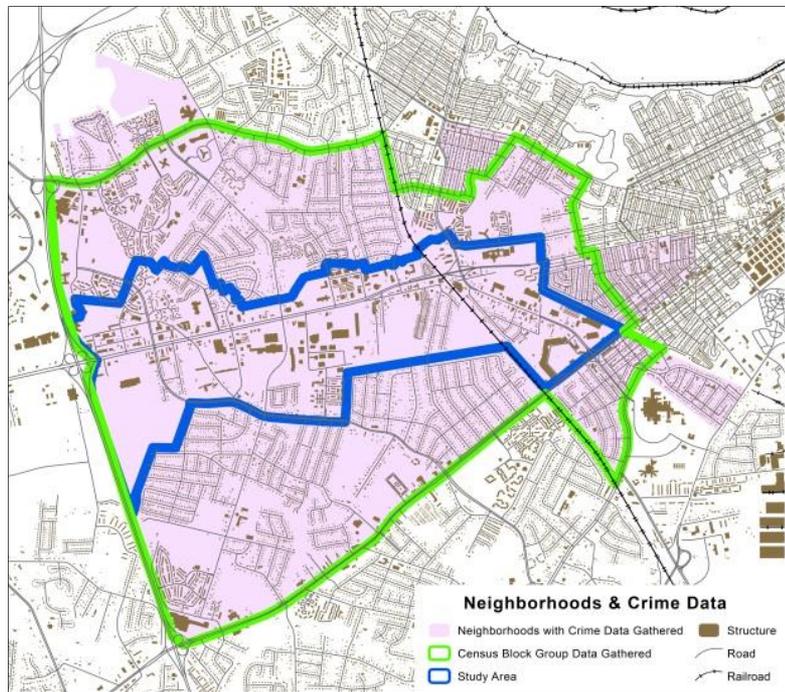
# FRAMEWORK FOR TRANSITION







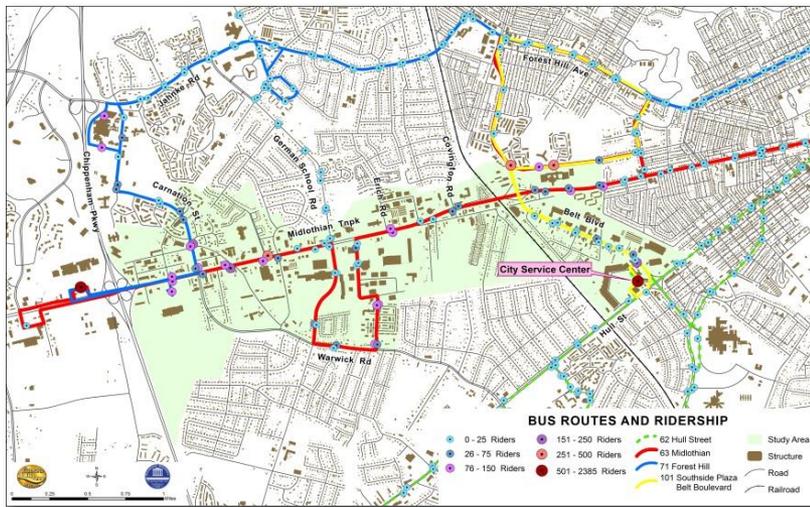
# TRENDS



- Study Area population of 22,000 –younger, more Hispanic and African-American, and less affluent than City as whole
- Employment center—1.4 jobs per resident; only 5% live & work here
- Decrease in overall crime; increase in homicides



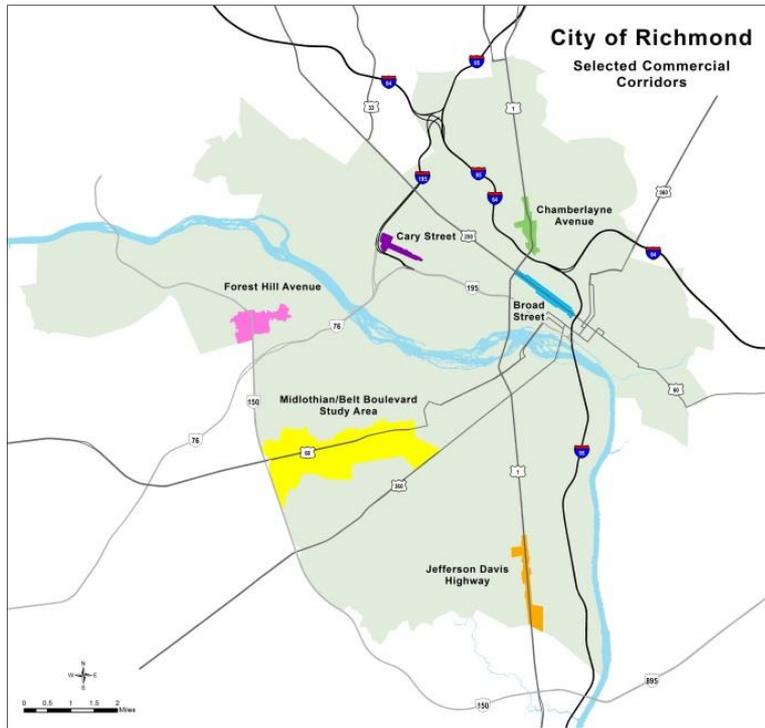
# TRENDS



- 4 intersecting transit routes with 59 different stops; 4 highest use stops have amenities; 3 bus pull-outs on south side of Midlothian
- Decrease in vehicular accidents in improved portion of Midlothian



# MARKET TRENDS

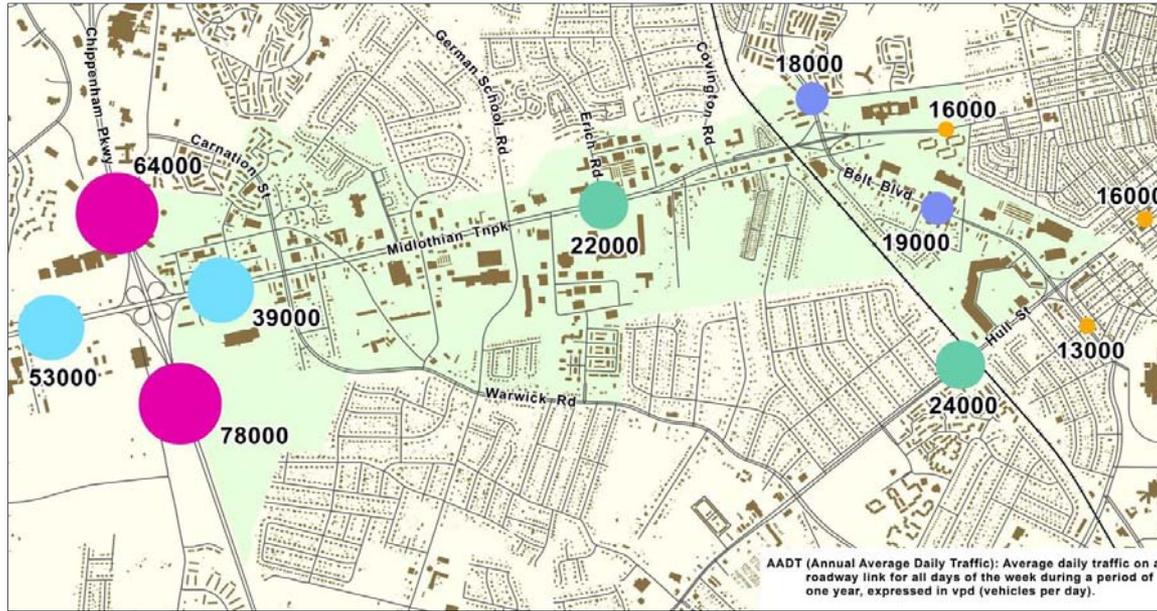


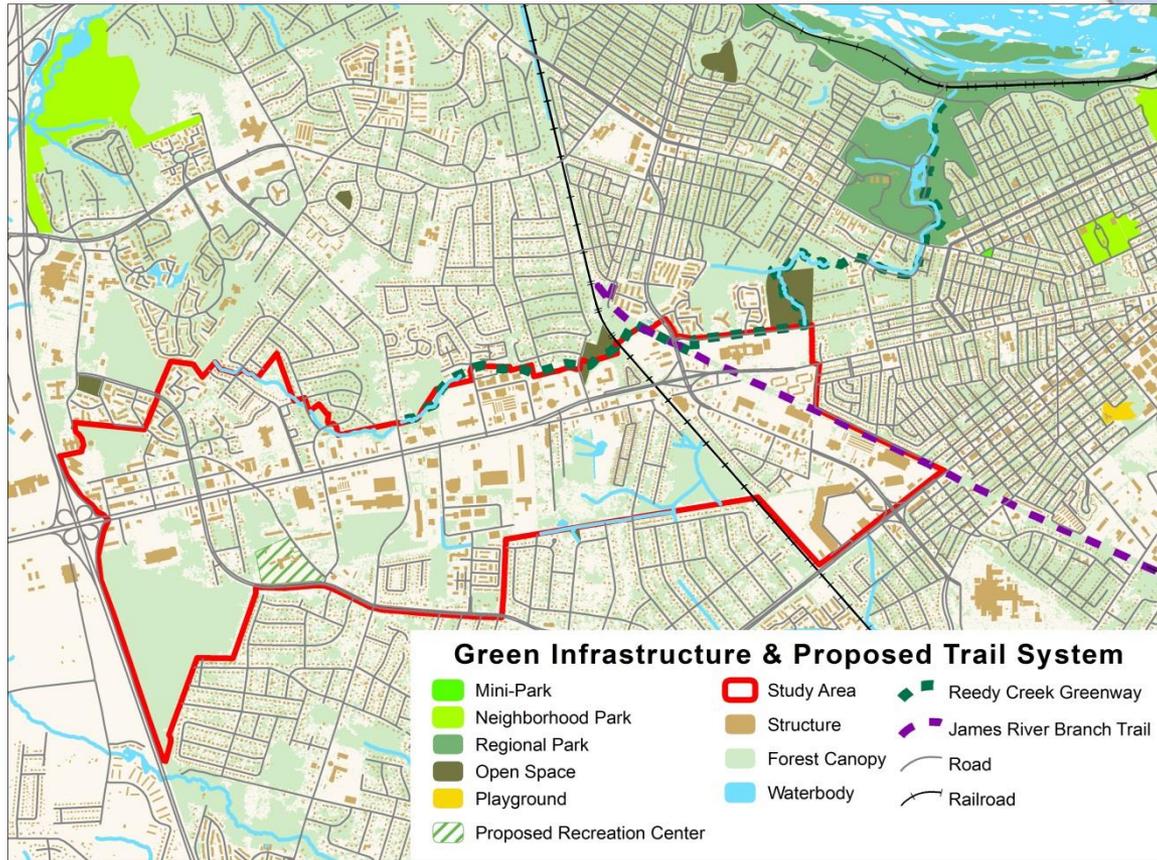
Selected Commercial Corridors	Assessed Values
Broad St – Belvidere to I-95	\$6.6 million/acre
Cary St – I-95 to Boulevard	\$5.0 million/acre
Forest Hill Ave – Walmart to Stratford Hills SC	\$1.1 million/acre
Chamberlayne – Brook to Lombardy	\$559,000/acre
Jeff Davis – Rt. 1 Walmsley to Terminal	\$441,000/acre
Midlothian Study Area	\$365,000/acre

	Retail	Industrial	Office
Monthly Rent	↓	↑	↑
Vacancy	↑	↓	↑



# BUILDING COMMUNITY AND MAXIMIZING POTENTIAL





# FOR DISCUSSION

- What common issues do you think our jurisdictions have in planning for and along major highway arterials?
- What are some of the major challenges?
- What are the opportunities?
- Are there ways the jurisdictions along the Route 60 corridor can work cooperatively on these challenges and opportunities?
- Are there major developments coming to your own section of the Route 60 corridor?
- Are there other corridors in the Region that you feel could benefit from this type of conversation at a future RRPDC meeting?

