

Facility Management and Renewal

PROGRAM DESCRIPTION

One of the primary roles for facility management in both government and private industry is to provide for the long-term needs of the organization's capital assets. This maximizes the life of the facilities, retards their obsolescence and provides for a planned program of repairs, improvements, and restorations to make them suitable for organizational needs. Capital renewal is the planned replacement of building subsystems such as roofs, electrical systems, HVAC systems, and plumbing systems that have reached the end of their useful life. Major capital renewal investments are required in facilities to replace old, obsolete building subsystems that have reached the end of their life cycle. Without significant reinvestment in building subsystems, older facilities will fall into a state of ever decreasing condition and functionality and the maintenance and repair costs necessary to keep the doors open will increase. Renewal also includes renovations and expansions of existing County vehicle service facilities. Another role for management and renewal is in the Laurel Hill Area of Fairfax County. Much of the land there is under public ownership and is planned for park and recreation uses, public facilities and infrastructure, cultural and educational uses, and the adaptive reuse of some of the existing structures.

LINK TO THE COMPREHENSIVE PLAN

Fairfax County's Comprehensive Plan has established a number of objectives and policies in order to:

- ✓ Provide for a planned series of renovations, improvements, and repairs that will maximize the useful life of County facilities.
- ✓ Modify County facilities and environmental control systems so as to increase energy utilization efficiency.
- ✓ Provide emergency repairs to County facilities in order to correct potential safety or structural hazards.

Source: 2000 Edition of the Fairfax County Comprehensive Plan, as amended

CURRENT PROGRAM INITIATIVES

Facility Capital Renewal

The Facilities Management Department currently provides support for evaluating facilities, identifying problems and problem areas, developing costs estimates, establishing priorities, and performing the work required. Some of the major work completed annually at County facilities includes the replacement of building subsystems: HVAC and electrical system repairs and replacement, roof repairs and waterproofing, carpet replacement, parking lot resurfacing, fire alarm replacement, and emergency generator replacement.

Fairfax County presently has a facility inventory of 140 County-owned, General Fund-supported buildings (excluding schools, parks, leased space, revenue facilities, housing and human services residential facilities) with over 7.6 million square feet of space throughout the County. This inventory is expanding both with the addition of newly constructed facilities and by the acquisition of other property. With such a

large inventory, and the acquisition of additional facilities, it is critical that a planned program of repairs and restorations be maintained. In addition, the age of a major portion of this inventory of facilities is reaching a point where major reinvestments are required in the building subsystems.

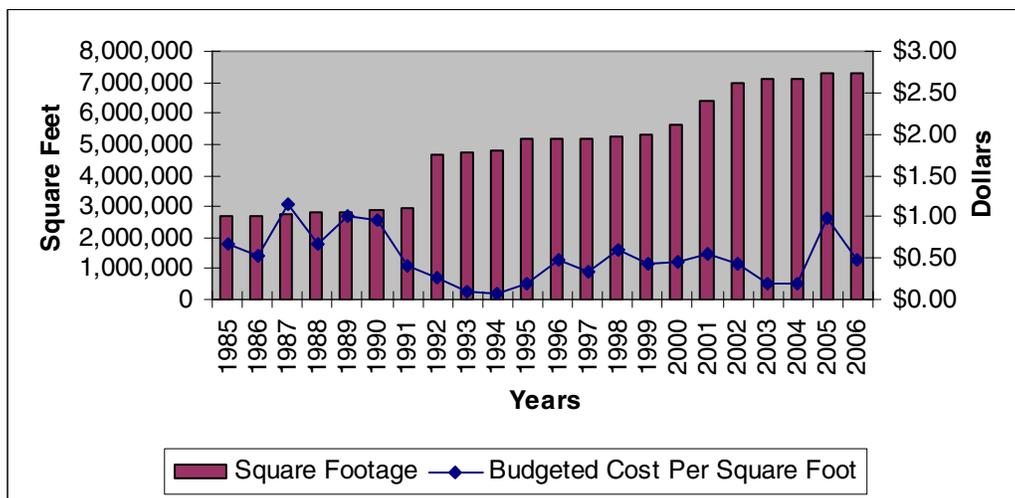
Many County facilities have outdated HVAC and electrical systems which are susceptible to failure or are highly inefficient energy users. Sites are identified and each individual project involves a two-step process normally requiring two years to complete both design and construction. Roof repairs and waterproofing are conducted in priority order after an annual evaluation of all roofs at County facilities. Based upon the results of that evaluation, critical requirements are prioritized and a five-year plan is established. Repairs and replacement of facility roofs are considered critical for avoiding serious structural deterioration caused by roof leaks. By addressing this problem in a comprehensive manner, a major backlog of roof problems can be avoided. Carpet replacement and parking lot resurfacing are evaluated annually and prioritized, based on most critical requirements for high traffic areas; however, carpet and pavement requirements are programmed based on designated cycles. In addition, emergency generators and fire alarm systems are replaced based on equipment age coupled with maintenance and performance history. Minor repairs and renovations, usually generated by customer requests, are accomplished under the category of miscellaneous building and repair. These small projects abate building obsolescence, improve facility efficiency and effectiveness and address major structural repairs.

In order to better define the County's capital renewal needs, a comprehensive facilities condition assessment has been conducted on 92 building sites (approximately 4.2 million square feet of space). The assessment included a complete visual inspection of roofs and all mechanical and electrical components for each facility. Maintenance and repair deficiencies were identified and funding requirements developed. The results indicate over \$80 million will be needed through FY 2010. Another 1.4 million square feet of parking garage facilities have also been assessed and the results indicate another \$3.9 million will be needed through FY 2013. The following table outlines the expected service life of building subsystems used to project capital renewal requirements, coupled with the actual condition of the subsystem component:

**GENERAL GUIDELINES FOR EXPECTED SERVICE LIFE
OF BUILDING SUBSYSTEMS**

ROOFS	20 years
ELECTRICAL	
Lighting	20 years
Generators	25 years
Service/power	25 years
Fire alarms	15 years
CONVEYING SYSTEMS	
Elevator	25 years
Escalator	25 years
HVAC	
Equipment	20 years
Boilers	15 to 30 years
Building Control Systems	10 years
PLUMBING	
Pumps	15 years
Pipes and fittings (supply)	30 years
Fixtures	30 years
FINISHES	
Broadloom Carpet	7 years
Carpet Tiles	15 years
Systems Furniture	20 to 25 years
SITE	
Paving	15 years

The following graph depicts the increase in the County facility square footage for the last 20 years and the corresponding budgeted capital subsystem renewal funding. Since 1985, the County floor area increased from 2.6 million square feet to over 7.0 million in 2003. This increase includes significant square footage associated with the construction of the main Government Center building and the acquisition of the Pennino and Herry buildings in 1992. As County square footage has increased, funding to support capital renewal has not kept pace. The industry standard for capital renewal investment is currently 2 percent of replacement value. Based on current average replacement values of \$150 per square foot, 2 percent would equate to capital renewal requirements of \$3.00 per square foot. Budgeted renewal funds have not reached this level. This may be due to the fact that much of the square footage added in the early 90s was in the form of new facilities and thus has not yet required major capital renewal and subsystem replacement. However, this infrastructure is now aging and appropriate action must be taken to avoid system failures leading to potential disruptions in County services. Funding challenges will be addressed by studying options such as increased pay-as-you-go financing, bond funding, creating a sinking fund (similar to the vehicle replacement program) and other possible mechanisms. The spike in the chart in FY 2005 is due to the availability of \$5 million for capital renewal included in the fall 2004 bond referendum.



Vehicle Services

The Department of Vehicle Services (DVS) has four maintenance facilities: The Jermantown and West Ox facilities are located in the western part of the County, and the Newington and Alban facilities are in the southeastern part. These facilities provide timely, responsive, and efficient vehicle repairs/services, including effective towing and road services at competitive prices. The Jermantown Road garage and the Newington garage have undergone renovations and expansion. Renovations at the West Ox facility to accommodate vehicles from the Fairfax County Park Authority and the Fire and Rescue Department were completed in FY 2005. Proposed major modifications to the maintenance bays at the Alban facility will improve the efficiency of vehicle maintenance, and an expansion of the existing parking lot will provide parking to accommodate the increased capability to maintain additional vehicles at the facility. In addition, future requirements may include appropriately located alternative fuel facilities that may provide Liquefied Natural Gas (LNG), Ultra Low Sulfur Diesel, or other alternative fuel sites in an effort to improve local and regional air quality.

DVS is developing a proposal to transform the existing Newington facility into a more productive structure to support current and future vehicle maintenance needs for County vehicles. The Newington facility was built in 1968 when the requirements to maintain vehicles were approximately 1/3 of the number of vehicles and services currently needed to meet local, State, and Federal requirements. Over the years, maintenance bays, a motorcycle shop, and other additions have been made in an effort to keep pace with the increased number of vehicles and demands for inspections and services. However, improvements are needed to enhance production and capacity for the current fleet of 1,850 vehicles that includes school buses, public safety vehicles, and heavy equipment in support of the Department of Public Works and Environmental Services and other departments.

Laurel Hill

Laurel Hill in the southeastern part of the County, once the location of the former District of Columbia Department of Corrections Facility, is emerging as a resource of unequalled diversity and opportunity. Laurel Hill was transferred to the County by the Federal Government in 2002, and includes approximately 2,340 acres of land and 1.48 million square feet of building space. Although some land north and south of Silverbrook Road is planned for residential use, most of the Laurel Hill area is under public ownership and will be planned for passive park uses and active recreation uses. Some land will be reserved for other public facilities such as a fire station, public schools, public infrastructure such as arterial roadways, and a major greenway trail system. Institutional uses to support cultural and higher educational facilities also are planned. Some of the existing former correction facilities will be considered for adaptive reuses to support residential, retail, commercial, and educational development. The proposed land uses in the area will help fulfill the following goals and objectives for making Laurel Hill a world-class environment for Fairfax citizens and visitors:

- Preserve the essential historical core – physical and symbolic – of the Workhouse and Reformatory/Penitentiary sites;
- Promote socially positive and acceptable reuses that compliment other development on site and in the surrounding community;
- Provide opportunities for active and passive recreation, environmental conservation and celebration of the historic and cultural resources in the area.

Several public improvement projects underway or planned for the Laurel Hill area are described below:

- A transportation study assessing the road network in the Laurel Hill area, especially Lorton Road and Furnace Road, will recommend road improvements and future design and construction activities.
- The County is investing in projects to improve weatherization and stabilization of buildings at the Occoquan Workhouse to prepare the site for use by the Lorton Arts Foundation. The Foundation will make site improvements, adaptively reuse existing buildings, and construct new facilities as part of their plan.
- The County is removing hazardous asbestos from buildings and stabilizing structures at the former Reformatory and Penitentiary in preparation of adaptive reuse development on the site. These buildings will ultimately be used for retail, residential, and educational activities.
- The County intends to preserve the historic Laurel Hill house and interpret the history of the house and surrounding property. Elements of the house date to the mid-18th century, and its owner – Major John Lindsay – served under General George Washington in the Revolutionary War.
- Ongoing stormwater management projects include the development of innovative storm water treatment methods for Laurel Hill and the implementation of a watershed management plan. Increased development in the Laurel Hill area necessitates the early planning for water runoff mitigation.

The Fairfax County Park Authority (FCPA) is currently working with several interested user groups to plan and develop some of the large park areas in Laurel Hill to possibly include the following facilities:

- The non-profit Fairfax 4 Horses is interested in developing an equestrian center in the Park Authority's Laurel Hill Park. In addition to promoting public riding lessons and boarding horses, the group is interested in bringing therapeutic riding to Laurel Hill.
- The Cold War Museum group is interested in developing a museum dedicated to the Cold War era, which would be located in the former Nike Missile Launch Site. The Park Authority is reviewing the proposal. The group anticipates construction to begin in FY 2007.
- The Laurel Hill Sports Foundation is a non-profit youth sports group interested in developing a Sportsplex in Laurel Hill Park. A proposal is under evaluation, and construction is anticipated to begin in 2007.
- Several other smaller groups also are interested implementing development in Laurel Hill Park.

CURRENT PROJECT DESCRIPTIONS

FACILITY MANAGEMENT AND RENEWAL

1. **Emergency Building Repairs.** This is a continuing project for the repair, renovation, remodeling and upgrading of various facilities throughout the County. Requirements include abatement of health or safety hazards and emergency or unanticipated repairs of building systems or components.
2. **HVAC/Electrical Systems.** This is a continuing project for the repair, renovation and upgrading of mechanical and electrical systems in various facilities throughout the County.
3. **Roof Repairs and Waterproofing.** This is a continuing project for the repair and replacement of facility roofs and waterproofing systems at County buildings.
4. **Fire Alarm System Replacements.** This is a continuing project for the replacement of fire alarm systems based on age, and difficulty in obtaining replacement parts and service, and condition assessment. This program provides for the replacement of fire alarm systems which are 15 to 30 years old, have exceeded their useful life, and experience frequent failure when tested.
5. **Parking Lot Resurfacing.** This is a continuing project for the repair and maintenance to parking lots and sidewalks at various facilities throughout the County. Parking lot and sidewalk surfaces are removed, the base re-compacted and a new surface course installed. In some cases, asphalt paving is milled down and resurfaced.
6. **Carpet Replacement.** This is a continuing project for carpet replacement at various County facilities where the existing carpet has deteriorated beyond repair or is in an unserviceable condition.
7. **Emergency Generator Replacement.** This is a continuing project for generator replacements at 70 various sites throughout the County. Requirements are programmed based on equipment age coupled with maintenance and performance history.
8. **Library Facilities Capital Renewal.** This is a partially bond funded project for replacement of HVAC/Plumbing/Electrical systems, roofs, fire alarms, parking lot paving and carpet at various different libraries. Minor interior renovations and security improvements will also be included.
9. **Human/Juvenile Services Facilities Capital Renewal.** This is a partially bond funded project for replacement of HVAC/Plumbing/Electrical systems, roofs, fire alarms, parking lot paving, and carpet at various different facilities. Minor interior renovations and security improvements will also be included.
10. **Public Safety Facilities Capital Renewal.** This is a bond funded project for replacement of HVAC/Plumbing/Electrical systems, roofs, fire alarms, parking lot paving, and carpet at various different facilities. Minor interior renovations and security improvements will also be included.
11. **System Furniture Replacements.** This is a proposed continuing project to begin in FY 2011 for the time-phased replacement of over 4,700 workstations over a 20 year period and costing nearly \$40,000,000.
12. **Security Improvements.** This is a proposed continuing project to provide security improvements to County facilities as developed by a security consultant conducting comprehensive evaluations of County facilities. This project is still in the formulation stage and will need to be refined over the next year.

VEHICLE SERVICES

13. **West Ox DVS Maintenance Facility Expansion.** \$6,220,000 for the expansion of the West Ox Department of Vehicle Services maintenance facility to accommodate the collocation of County Vehicles Services, Park Authority and Fire and Rescue vehicles and trailers. Construction of this project was completed in FY 2005, with the exception of the final phase that includes a storage addition to be completed in FY 2006.
14. **Alban Maintenance Facility.** \$2,000,000 for construction of improvements to the Alban Maintenance Facility, to include construction of new offices and training room, upgrades and renovations to service bays, and expansion of parking lot.

LAUREL HILL

15. **Laurel Hill Development.** This is a continuing project to address property management, planning, and development in the Laurel Hill area. Funding will be provided for the following projects associated with development of Laurel Hill to address the needs in this area: planning; security, structural maintenance, and utilities at existing buildings; area road network study; weatherization and stabilization of the Occoquan Workhouse; asbestos removal from the former Reformatory and Penitentiary; preparation of buildings for adaptive reuse; preservation of Laurel Hill House; and stormwater management improvements. Park projects in the Laurel Hill area will include: working with several interested user groups to plan and develop an equestrian center, a Cold War Museum, and a Sportsplex. FCPA also will conduct public outreach; provide standard park amenities; conduct market and traffic studies for the proposed Sportsplex; make trail and bridge improvements; demolish unserviceable buildings; develop graphic design and landscape guidelines; and maintain athletic fields.
16. **Laurel Hill Cemetery Study.** \$75,000 for a feasibility study for a new County cemetery to be located on property in Laurel Hill. Although the current County cemetery has been full for over 10 years, the County has continued to support indigent burials through a vendor contract with a private cemetery. Because there is concern regarding how much longer the vendor will be able to provide available burial space, a County-owned cemetery may be a more reasonable option for the future.

OTHER

17. **Northern Virginia Community College Contribution.** \$1,007,000 for Fairfax County's contribution to the continued construction and maintenance of various capital projects on college campuses. Fairfax County participates with eight other jurisdictions to provide funds for required capital improvements in the Northern Virginia Community College system.
18. **Amphitheater at the Government Center.** \$50,000 for needs assessment and preliminary planning for a future amphitheater on the grounds of the Fairfax County Government Center. It is anticipated that additional funds will be provided at the completion of this assessment and planning study.
19. **Phone Systems.** \$229,775 for telecommunications systems at several new facilities, including: Crosspointe Fire Station, Fairfax Center Fire Station, Providence District Supervisor's Office, Katherine K. Hanley Family Shelter, Oakton Library, and Mott Community Center.
20. **Americans with Disabilities Act (ADA) Compliance.** This project provides funding for County compliance with the Americans with Disabilities Act of 1990. Title II of the ADA prohibits discrimination on the basis of disability by public entities and requires that each program, service, or activity conducted by a public entity be readily accessible to and usable by individuals with disabilities. This project supports the continued ADA compliance on County-owned facilities.

**PROJECT COST SUMMARIES
FACILITY MANAGEMENT AND RENEWAL
(\$000's)**

Project Title/ Project Number	Source of Funds	Authorized to be Expended Thru FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Total FY2007-FY2011	Total FY2012-FY2016	Total Project Estimate
FACILITY CAPITAL RENEWAL										
1. Emergency Building Repairs / 003099	G	<i>C</i>	500	500	500	500	500	2,500	3,600	6,100
2. HVAC/Electrical Renovation / 009151	G	<i>C</i>	1,180	50	500	500	500	2,730	8,000	10,730
3. Roof Repairs & Waterproofing / 009132	G	<i>C</i>		220	220	220	220	880	2,500	3,380
4. Fire Alarm System Replacements / 003100	G	<i>C</i>	260	260	260	260	260	1,300	1,500	2,800
5. Parking Lot Resurfacing / 009136	G	<i>C</i>	100	100	100	100	100	500	3,000	3,500
6. Carpet Replacement / 009133	G	<i>C</i>	275	150	150	150	150	875	4,000	4,875
7. Emergency Generator Replacement / 009431	G	<i>C</i>	134	143	196	80	80	633	1,000	1,633
8. Library Facilities Capital Renewal / 009480	B, U	2,500		3,500				3,500		6,000
9. Human/Juvenile Services Facilities Capital Renewal / 009481	B, U	2,500		4,500				4,500		7,000
10. Public Safety Facilities Capital Renewal	B, U	<i>O</i>	5,000	14,000	7,000			26,000		26,000
11. Systems Furniture	U	<i>O</i>		200	200	200	400	1,000	5,500	6,500
12. Security improvements	U	<i>C</i>		500	500	500	500	2,000	2,000	4,000
FACILITY CAPITAL RENEWAL Subtotal		5,000	7,449	24,123	9,626	2,510	2,710	46,418	31,100	82,518
VEHICLE SERVICES										
13. West Ox DVS Maintenance Facility Expansion / 88AO15	B, G	5,720	500					500		6,220
14. Alban Maintenance Facility Improvements	G, X		200	1,800				2,000		2,000
VEHICLE SERVICES Subtotal		5,720	700	1,800	0	0	0	2,500		8,220
LAUREL HILL AREA										
15. Laurel Hill Development / 009444	G	<i>C</i>	3,183					3,183		3,183
16. Laurel Hill Cemetery Study / 009478	G		75					75		75
LAUREL HILL AREA Subtotal		0	3,258	0	0	0	0	3,258		3,258
OTHER										
17. Northern Virginia Community College Contribution / 008043	G	<i>C</i>	1,007					1,007		1,007
18. Amphitheater at the Government Center / 009483	G	50						0		50
19. Phone Systems / 009432	G		230					230		230
20. Americans with Disabilities Act (ADA) Compliance / 009406	G	<i>C</i>								
OTHER Subtotal		50	1,237	0	0	0	0	1,237		1,287
TOTAL		\$10,770	\$12,644	\$25,923	\$9,626	\$2,510	\$2,710	\$53,413	\$31,100	\$95,283

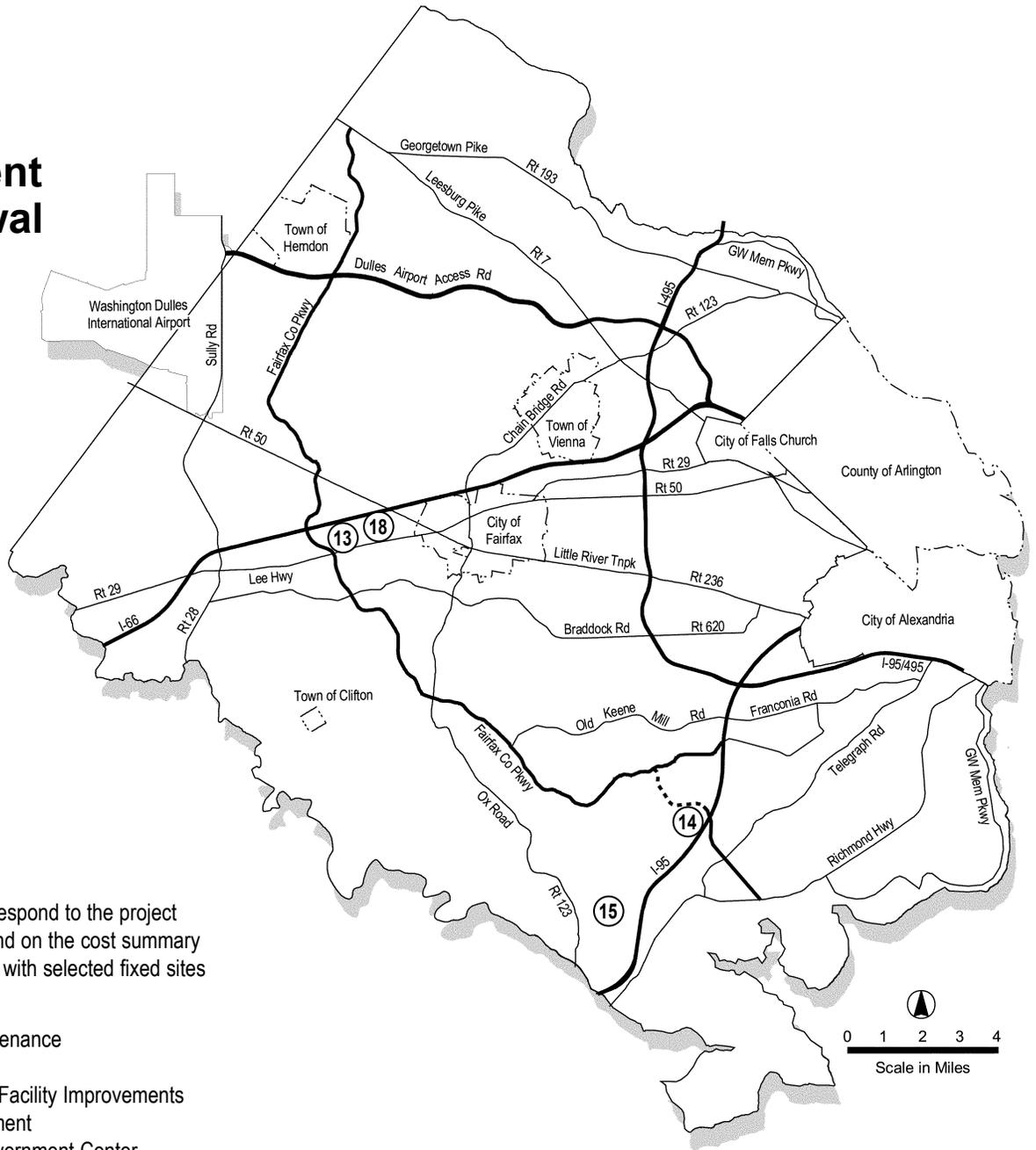
Key: Stage of Development	
	Feasibility Study or Design
	Land Acquisition
	Construction

Notes:
Numbers in **bold italics** represent funded amounts.
A "*C*" in the "Authorized to be Expended Thru FY 2006" column denotes a continuing project.

Key: Source of Funds	
B	Bonds
G	General Fund
S	State
F	Federal
X	Other
U	Undetermined

Facility Management and Renewal

Location of CIP Projects



Note: Map numbers correspond to the project descriptions in the text and on the cost summary tables. Only CIP projects with selected fixed sites are shown on the map

- 13. West Ox DVS Maintenance Facility Expansion
- 14. Alban Maintenance Facility Improvements
- 15. Laurel Hill Development
- 18. Amphitheater at Government Center