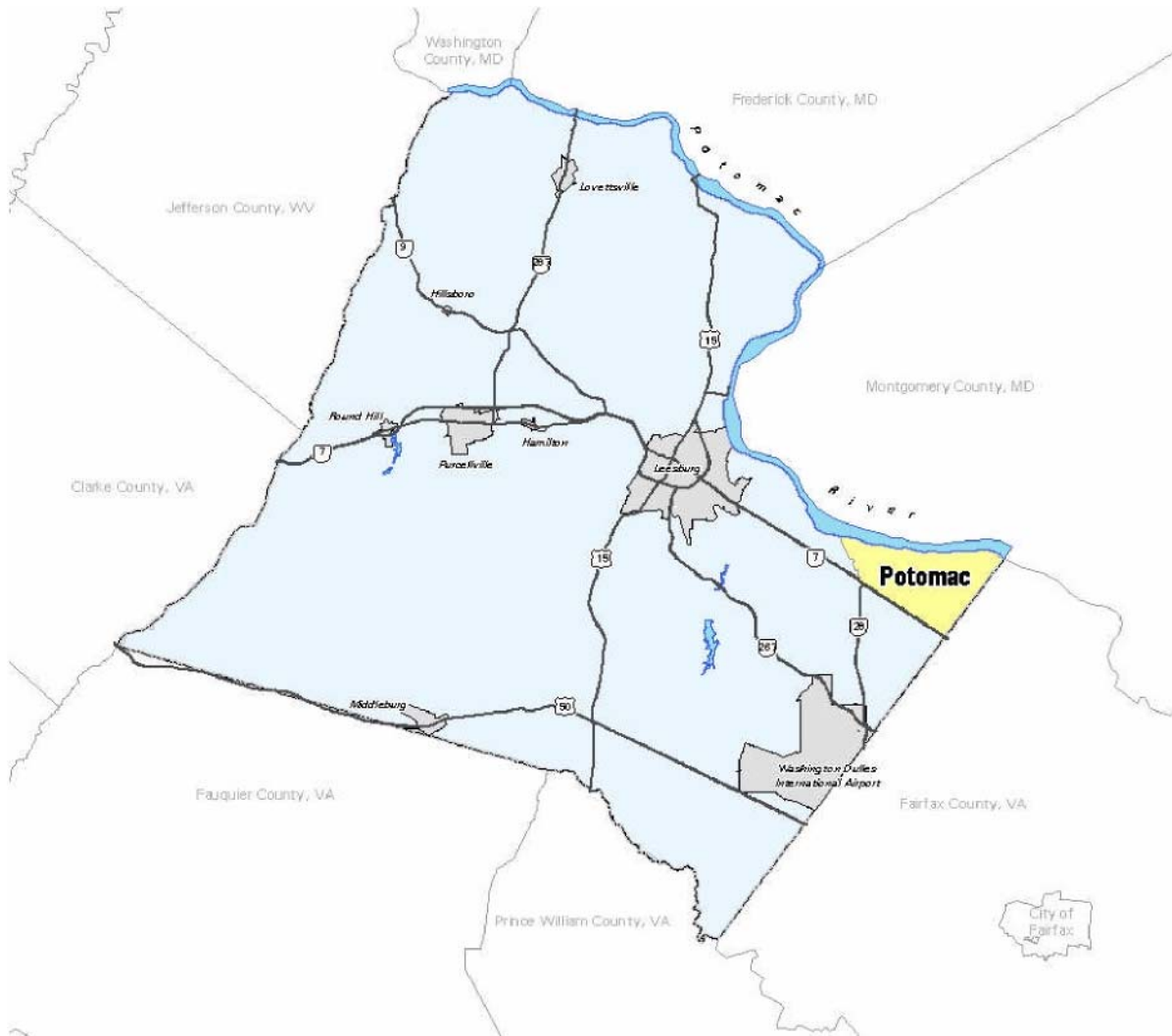


# Existing Conditions Report of the Potomac Community

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## Potomac/Sterling Community Outreach

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## Foreword

The Potomac and Sterling Communities are two of the County's oldest and most diverse communities in Loudoun County, offering a range of housing choices, economic diversity and retail opportunities. As is often common for maturing neighborhoods, however, the two communities are facing several challenges. In response, the Loudoun County Board of Supervisors has begun a community outreach project in the Potomac and Sterling Communities of Eastern Loudoun County. The purpose of the project is to engage a diverse cross-section of the public in constructive dialogue with the County. Through interactive public sessions and a community survey, citizens and other stakeholders within the community can present and discuss their key concerns and issues while also having the opportunity to suggest creative solutions that can enhance the quality of life within their neighborhoods.

The Potomac/Sterling Community Outreach project provides the opportunity to open new channels of communication between County agencies and citizens on topics that may include, but are not limited to:

- Transit/public transportation;
- Safety and community policing;
- Traffic calming;
- Pedestrian connectivity;
- Neighborhood boundaries;
- Land use conflicts;
- Potential reinvestment and revitalization areas/projects;
- Opportunities for business development;
- Location of new public facilities;
- Watershed management;
- The environment; and
- Other quality of life issues.

The results will be compiled and presented to the Board of Supervisors for their review and will assist the Board in identifying priorities for future “fine-grained” and detailed Suburban Community planning efforts.

Along with the results captured from the community process, the Existing Conditions Report is part of the package of information that will be presented to the Board. The Existing Conditions Report also provides a snapshot of the community for citizens and other stakeholders who can then use the information as a resource for their participation in the process. The County hopes you will find the information contained in this report useful. Please note the existing conditions described within this report are not an exhaustive list, but rather are highlights of certain conditions. Other conditions may exist that have not been included within this report. If you would like to provide additional comments, you can contact us at [potomac\\_sterling@loudoun.gov](mailto:potomac_sterling@loudoun.gov).

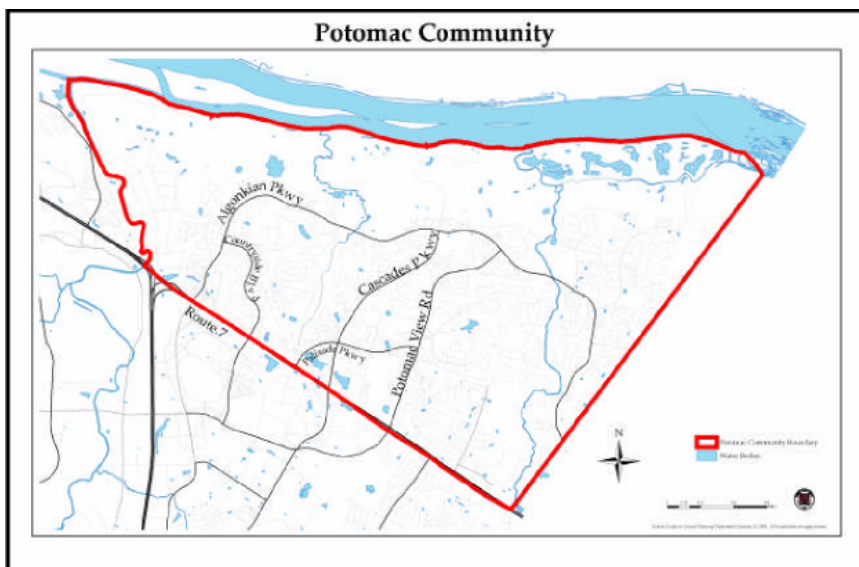
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## Introduction

The purpose of this report is to describe the existing conditions of the Potomac Community, including its natural, cultural, and social aspects. The report contains information on current land uses, zoning, existing and proposed infrastructure and transportation networks, and public facilities. It also provides a detailed description of community conditions such as population, housing, employment, and economic development. This report is intended to provide a snapshot of the community and set the framework for the Potomac and Sterling Community Outreach Project. Data for the report were collected by analyzing existing County information, researching applicable literature and websites, conducting interviews with local officials and internal County staff, reviewing historical information relating to the project, and performing field visits in the community.

## Community Boundary



The Potomac Community is located in the northeastern corner of Loudoun County and includes the area north of Route 7 between the Fairfax County line and the Broad Run stream. The Potomac River is the northern boundary of this community. Major roadways within the Potomac Community include Route 7, Algonkian Parkway, Countryside Boulevard, Cascades Parkway, Palisades Parkway, and Potomac View Road. See Attachment 4, pg. 37 for a 2007 aerial map of the community.

The Potomac Community contains approximately 8,197 acres and 13,865 parcels or portions of parcels. The majority of the parcels within the Potomac Community (78%) are a quarter acre or less. The largest parcel on record is the Lowes Island Golf Course which consists of 470 acres. The Potomac Community is comprised of the entire Sugarland Run Election District and a portion of the Potomac Election District (see the Election District map on pg. 38).

## Adjacent and Surrounding Development

The Potomac Community is located in the Suburban Policy Area, the easternmost portion of the County where the majority of the suburban-scale residential and non-residential development has occurred. It is one of four suburban communities identified in Loudoun County's Comprehensive Plan, the other three being Ashburn, Sterling, and Dulles. See the Suburban Communities map pg. 39. For additional information on Sterling, please see the Sterling Community Existing Conditions report.

Most of the surrounding area to the south and west is already developed or slated for development. Major developments include the mixed-use University Center and the approved One Loudoun developments to the west and the Dulles Town Center to the south. Several major employers are close to but not in the Potomac Community, including AOL, Verizon Business (formerly MCI/Worldcom), INOVA's Loudoun Hospital Center, the Orbital Sciences Corporation, and the Howard Hughes Medical Institute.

## Natural Environment



View of the Potomac River from Broad Run Farms

Although the Potomac Community is mostly developed, natural resource elements are prevalent throughout the area, including rivers and streams, floodplains, forested areas, and steep slopes. (See the Existing Conditions map on pg. 40). The defining natural features of the community are the three watersheds (Broad Run, Potomac Basin Number One, and Sugarland Run, all of which drain into the Potomac River) and the numerous streams which run through existing neighborhoods. (See the Major Watershed map on pg. 41). Most of these streams are well protected with large riparian buffers which are owned by the Homeowner Associations (HOA's) of the various neighborhoods.

Based on the County's Geographic Information System (GIS) records, approximately 33% percent of the total land area, or 2,655 acres, within the Potomac Community contains major or minor floodplain. In addition, steep and moderately steep slopes are present, primarily within or adjacent to the stream valleys and the Potomac River and surrounding the Hidden Lane Landfill. These steep slope areas do not take up large blocks of land, but are scattered throughout the area. However, there is an extensive amount of steep slopes located along the northeastern corner of the Community along the Fairfax County border.

At one time this area was heavily wooded but cleared substantially for early farms and settlements. Over time, as farms were abandoned, vegetation increased but in the form of poor quality (mostly cedar) forests. Approximately 36% percent of the total land area in the Potomac Community, or 2,841 acres, is classified as forested. The area that has maintained a wooded character despite development is that of Broad Run Farms.



An unnamed tributary in Broad Run Farms

The majority of the land remaining in a natural state is located adjacent to the Potomac River (including the Algonkian Regional Park which contains over 800 acres), within the open space areas of existing communities, and on a few remaining undeveloped parcels. According to County records, over 960 acres within the Potomac Community are protected within conservation easements (see the Conservation Lands map on pg. 42). In addition to Algonkian Regional Park, these easements include a 12-acre property which is located within the Broad Runs Farms community, the County-owned Potomack Lakes Sportsplex, and additional property

owned by the Northern Virginia Regional Park Authority that extends into Fairfax County.

### Water Quality

Water quality assessments for the main branch of Broad Run have been performed by the Virginia Department of Environmental Quality (DEQ). DEQ has determined that the portion of Broad Run that forms the western border of the Potomac Community is impaired based on levels of PCB's in fish tissue. The main tributaries to Broad Run and Sugarland Run have not been assessed, nor has the Potomac Basin Number One. DEQ has also determined that the main branch of Sugarland Run through the Potomac Community is impaired due to levels of E. coli. The source for these impairments has not been determined (*Virginia Department of Environmental Quality, 2006*).

An estimated 97% of the Potomac Community is supplied water by Loudoun Water (formerly the Loudoun County Sanitation Authority, or LCSA) (*County GIS records, March 2008*). According to the Loudoun County Health Department records, there are 451 domestic wells in service in the community, along with 10

non-community wells<sup>1</sup> and 13 irrigation wells<sup>2</sup>. In terms of potential groundwater pollution sites, there are 372 drainfields located in Potomac, 14 chemical storage tanks (mostly fuels), and five permitted solid waste handlers<sup>3</sup>. For those residents still relying on private wells as a source of water, groundwater quality has been an issue in both the western and southeastern parts of the Potomac Community. The communities of Broad Run Farms and Richland Acres have been particularly affected.



The Hidden Lane landfill. The landfill is the hill shown at the back of the photo.

In early 2005, the County discovered several wells in Broad Run Farms that were contaminated with Trichloroethylene (TCE). The adjacent Hidden Lane Landfill, which operated as a private, unlined landfill from 1971 to 1984, is the suspected source of the contamination (*U.S. Environmental Protection Agency, April 2008*). The 25-acre landfill, located between the Broad Run Farms and CountrySide neighborhoods, closed in 1984 when it was shown that wastes were accepted for disposal other than what was permitted, namely construction and demolition debris (see the Hidden Lane Landfill map on pg. 43). Filtration systems, funded by the State, were installed on properties within Broad Run Farms that were affected. The CountrySide community

was not affected as homes in that subdivision use public drinking water.

On March 19, 2008, the U.S. Environmental Protection Agency added the Hidden Lane Landfill site to its Superfund National Priorities List (NPL). The NPL is the list of hazardous waste sites in the United States eligible for long-term remedial action financed under the federal Superfund program. The NPL is intended primarily to guide the EPA in determining which sites warrant further investigation.

In October 2007, the Virginia Department of Environmental Quality (DEQ) identified two private wells located along Lakeland Drive in the community of Richland Acres that contained the gasoline additive Methyl Tertiary Butyl Ether, or MTBE, and three others containing amounts of Tetrachloroethylene, or PCE. A fourth homeowner who had his water privately tested also found a very low amount of PCE. Filtration systems were installed in the affected homes. The

<sup>1</sup> Wells that serve more than one household, but not the same group of people, such as churches, rest stops, camps, parks. Most of the non-community wells in Potomac are in Algonkian Regional Park.

<sup>2</sup> Wells designed and permitted for use in irrigation only, and not to be used for potable supplies. These wells do not meet design criteria for domestic or community drinking water.

<sup>3</sup> Solid waste handlers are either landfills or junkyards (autos, metals recycling, etc...)

source of the contamination has not been identified.

## Heritage Resources

The presence of major environmental features such as the Potomac River and the various streams within the area played a significant part in the early settlement and land use pattern of the Potomac Community. Although not much is known about Native American use and settlement in the area, several Native American camp sites of undetermined age have been identified in the Potomac Community. It is probable that additional archaeological sites in the Community could be discovered, particularly in the stream valleys of the Potomac, Broad Run, and Sugarland Run due to their water resources. For additional information regarding the history of the area, see the Settlement History discussion in Attachment 3.

The Virginia Department of Historic Resources Data Sharing Service (DSS) (2008) identifies nine surveyed historic sites and 133 archaeological sites in the Potomac Community. Several notable historic surveyed resources in the area include the Jackson Quarry which provided sandstone to the area from the 1700's -1900's, the first land grant in Loudoun County from Lady Culpeper and Lord Fairfax, and several historical houses ranging in date from the mid-1700's to the early 1800's. No historic districts have been designated in the Potomac Community.

There are also two cemeteries in the Potomac Community, one located on the Hidden Lane Landfill property between the CountrySide and Broad Run Farms communities and the second within the Potomac Lakes neighborhood of Cascades.



Jenkin's Cemetery on the Hidden Lane Landfill property

## Housing Types and Population

The Potomac Community was one of the first places in the County to develop, with significant growth beginning in the 1980s and continuing through 2000. (See Tables 1 and 2). Today, the Potomac Community contains a high percentage (16%) of the County's residences and population. In 2007, there were an estimated 43,176 persons and 14,963 households in the Potomac Community, compared with 271,069 residents and 95,666 households within Loudoun County as a whole. The Potomac Community is almost completely developed and population growth is expected to stabilize in the near future. Between 2007 and 2035, the population is forecasted to increase only by 2.3% (an increase of 988 persons to a total population of 44,164) and the number of households by 2.8%

(an increase of 419 households to a total of 15,382).

**Table 1: Population Trends and Forecast**

	Population	Population Change	
	#	#	%
1990	19,397	--	--
2000	39,115	19,718	101.7%
2007	43,176	4,061	10.4%
2030	44,164	988	2.3%

Source: U.S. Census Bureau, Census 1990 and 2000; Loudoun County Department of Management and Financial Services, March 2008.

**Table 2: Household Trends and Forecast**

	Households	Household Change	
	#	#	%
1990	8,241	--	--
2000	13,437	5,196	63.1%
2007	14,962	1,526	11.4%
2030	15,382	419	2.8%

Source: U.S. Census Bureau, Census 1990 and 2000; Loudoun County Department of Management and Financial Services, March 2008.

Using 2007 data, the majority (50%) of the homes within the Potomac Community consisted of single family detached dwellings, followed by 37% single family attached (townhouses) and 13% multifamily units (apartments and condos). In comparison, the County's housing unit type breakdown in 2007 consists of 54% single family detached, 29% single family attached, and 16% multifamily units. Most notable is the Potomac Community's high proportion of townhouses compared to Loudoun County as a whole.

## Affordable Housing

The Potomac Community contains some of the County's most affordable housing due to a number of factors, including the diversity of housing types and through the support of the County's Affordable Dwelling Unit (ADU) Program. The County's ADU Program enables eligible first time homebuyers with moderate income the opportunity to purchase a newly constructed or resale ADU townhouse or condominium. To be eligible, total household income must be more than 30% and less than 70% of the area median income (currently set at \$99,000) based on the Primary Washington Metropolitan Statistical Area. Prices for these homes are much lower than comparable market rate homes and typically range from approximately \$120,000 to \$180,000 (*Loudoun County Department of Family Services, 2007b*). These properties are subject to restrictive covenants related to refinancing and transfer of the property for 15 years, after which the unit can be sold at market rate with the profit being split between the seller and the County's Trust Fund. According to County records, there are currently over 110 ADUs throughout the Potomac Community.

In addition to the home ownership program, an ADU rental program is available for those earning between 30 and 50% of the area median income. Through this program, non-homeowners have the opportunity to rent an apartment from a participating apartment complex at a rent below that of similar units at the complex. Average rental rates range from approximately \$530 to \$1300 depending on the type and size of the unit, not including the cost of utilities. Unit types and sizes range from one bedroom/one bath to three bedroom/two bath units (*Loudoun County Department of Family Services, 2007b*). The rents for these units are controlled for a period of 20 years. Two apartment complexes within the Potomac Community participate in this program: The Village at Potomac Falls and The Reserve at Town Center.

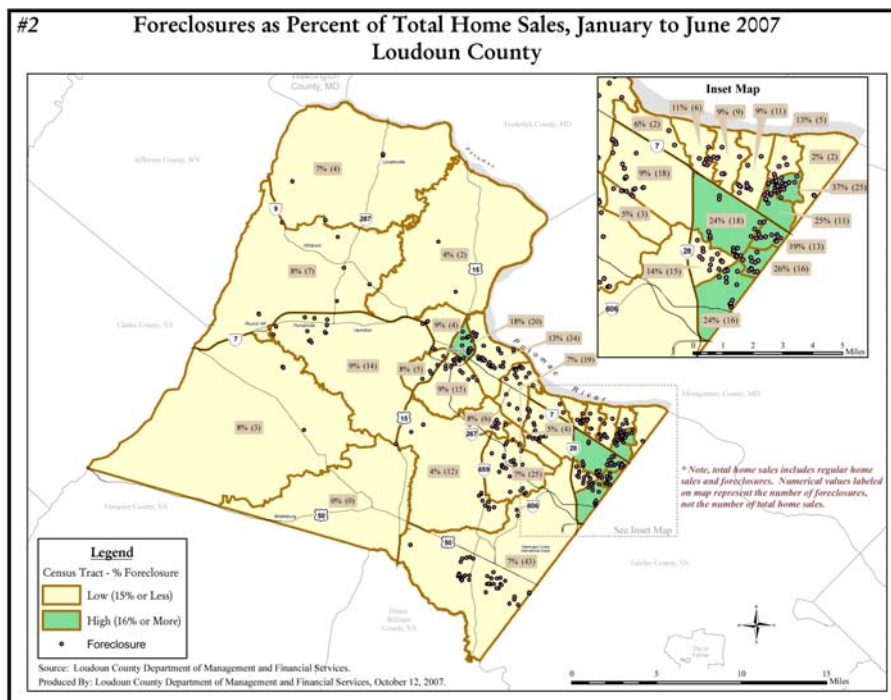
## Home Improvements

The Potomac Community includes neighborhoods with homes built during the 1960's and 1970's. The aging of this housing stock requires attention to individual property maintenance and neighborhood revitalization. Two County programs, the Loudoun County Home Improvement Program (LCHIP) and the Eastern Loudoun Revitalization Home Loan Program (LCHRP), provide funds to renovate the primary residence of low-to-moderate income homeowners in eastern Loudoun County (*Department of Family Services, 2007*). To date many of the LCHIP and LCHRP projects have been within the Sterling or Potomac Communities. Within the Potomac Community, improvements have been made to four homes in the Sugarland Run neighborhood, one home in Cascades, and

one home in CountrySide using funds from these programs. Repairs have included roofs, siding, windows, flooring updates to baths and kitchens, electrical and painting.

## Foreclosures

According to a recent County report, the Potomac Community is currently experiencing a larger percentage of residential foreclosures compared to most other areas of the County, as shown in the graphic to the left (*Loudoun County Department of*



*Management and Financial Services, 2008*). This can contribute to an accelerated deterioration of the housing stock, a depression of property values and an increase in vacancy rates.

## Land Use

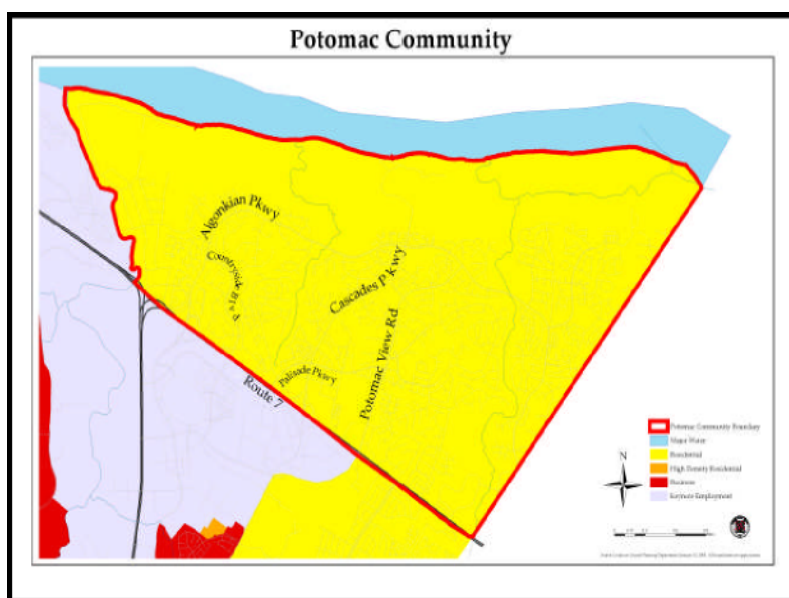
The Potomac Community has been predominantly developed with residential neighborhoods, representing approximately 60% of its total acreage (see Table 3). Some retail and employment uses are also present, mainly adjacent to either Route 7 or Algonkian Parkway. Community and civic uses, primarily schools, churches, a library, and community/HOA centers, are scattered throughout. The area is almost completely developed; only 16% of the land remains vacant and the majority of this is located within conservation easements. (See the Subdivisions map on pg. 44, the Vacant Parcels map on pg. 45, and the Conservation Lands map on pg. 42.)

**Table 3: Existing Land Uses within the Potomac Community**

Land Use	Parcel Acreage	Percent
Residential including HOA land	4,929	60.1%
Office	49	0.6%
Industrial	18	0.2%
Commercial/Retail	148	1.8%
Public/Civic	1,744	21.3%
Vacant	1,309	16.0%
Total	8,197	100%

*Estimate based on a combination of data sources, Loudoun County GIS and LMIS records. Based on actual parcel acreage, excluding right-of-way.*

## Planned Land Use



The Potomac Community has a Residential planned land use designation.

The development pattern existing in the Potomac Community is consistent with the County's Comprehensive Plan, which designates this area for Residential land use, shown in yellow in the graphic to the left. The Comprehensive Plan provides the long-range vision of the County and is the basis for evaluating land-development proposals. The *Revised General Plan* is the foundation for the County's Comprehensive Plan and can be found at

[www.loudoun.gov/planning](http://www.loudoun.gov/planning).

The Comprehensive Plan envisions that planned residential areas will incorporate a variety of housing types and lot sizes to provide options for a range of lifestyles and incomes, as well as a mix of land uses to allow residents the opportunity to work and shop nearby. Towards this end, the Plan sets forth a requirement that residential communities will incorporate public and civic uses, public parks and other open space areas, and encourages a retail and employment component (*Revised General Plan, text and Policy 2, pg. 6-17*). Residential densities up to 4 dwellings per acre are envisioned. Although the densities of individual communities vary greatly, the overall density of the Potomac Community is 3.13 dwellings per acre<sup>4</sup>.

## Zoning

Loudoun County's Zoning Ordinance is intended to implement the Comprehensive Plan and divides all the land in the County into zoning districts that specifies the types of uses allowed and required development standards for each district. Residential zoning districts dominate the Potomac Community, with over 98% of the total acreage. They include Agricultural/Residential (A-3), Countryside Residential-1 (CR1), and a variety of Planned Development-Housing (PD-H) and Residential (R) districts<sup>5</sup>. The remaining acreage consists of non-residential zoning districts, for example Planned Development – Commercial Center (PD-CC), Planned Development – General Industry (PD-GI), Planned Development – Industrial Park (PD-IP), Planned Development – Office Park (PD-OP), and Planned Development – Research and Development Park (PD-RDP) (see the Existing Zoning Map on pg. 46).

Loudoun County's Zoning Enforcement Team in the Department of Building & Development investigates alleged violations of Loudoun County's Zoning Ordinance. Potential infractions are typically investigated after someone files a complaint with the County. The top three complaints within the Potomac Community are: (1) inoperable, commercial and recreational vehicles; (2) overcrowding (per the Zoning Ordinance definition of a family and property maintenance code); and (3) businesses being operated from the home without a home occupation permit.

## Existing Residential Development

The housing stock in the Potomac Community varies greatly in size, architectural style, and age. It is dominated by single-family detached units (50%), followed by townhouses (37%) and multifamily units (13%). The apartment and condominium communities are generally located along Algonkian Parkway and adjacent to Route 7.

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<sup>4</sup> 15,436 dwelling units in 2007/4,929 acres developed with residential uses = 3.13 du/acre

<sup>5</sup> All of these residential zoning districts permit certain non-residential uses. For example, the PD-H districts are intended to support the development of mixed-use residential communities with supportive non-residential uses.

The largest residential subdivisions within the Potomac Community, in order of age, are Broad Run Farms, Sugarland Run, Richland Acres, CountrySide, and Cascades. Most of these communities have Homeowner Associations (HOA's) and community amenities such as clubhouses, swimming pools, trail networks, playgrounds, and recreational courts and fields for their residents. Other residential communities in the Potomac Community include Jefferson Knolls, Potomac Terrace, Calvert's Glen (Environs), the Arl Subdivision, Westerly, Cardinal Glen, Carters Grove and Mirror Ridge. Most of the neighborhoods within the Potomac Community have public sewer and water, with the exception of Broad Run Farms, parts of Richland Acres, Jefferson Knolls and the Arl Subdivision.



Front Entrance, Sunrise at Countryside

Three retirement communities are located in the Potomac Community - Sunrise at CountrySide, Falcon's Landing, and Central Parke at Lowes Island. Sunrise offers independent living, assisted living, and hospice services and facilities. Falcon's Landing is for retired military officers and their spouses. Central Parke at Lowes Island includes apartments and garden style duplexes for adults 55 years and older.

The age of housing in this area ranges from the 1950s to new construction. (See Attachment 2: Average Age of Housing Stock by Community.) The Potomac Community includes neighborhoods with the largest number of homes built during the 1960's and 1970's in the County. Within these older subdivisions, in particular Broad Run Farms and Sugarland Run, older homes have been either expanded and improved or replaced by more modern homes.

### ***Larger Residential Subdivisions within the Potomac Community***

**Broad Run Farms** – The first modern subdivision in the County, this neighborhood was originally subdivided in the 1950s and today contains over 300 homes. In the late 1990s, sewer service was installed in Broad Run Farms through a joint effort with the County, State and Loudoun Water to address the issue



An equestrian farm in Broad Run Farms.

of failing septic systems. The community financed and installed its own sewer service in part through an added property tax. The lien was paid off several years early and the tax has been retired. As an area much older than the surrounding recent growth, it has features unique to the region, including large lots, wooded areas with old-growth trees, a wide variety of housing styles, and a voluntary civic association. Broad Run Farms continues to rely on private wells for its water supply. In early 2005, the County discovered several wells in Broad Run Farms that were contaminated with trichloroethylene. The Hidden Lane landfill is the suspected source of the contamination. Filtration systems, at state cost, were installed on affected properties.

**Sugarland Run** – Built during the 1970s, Sugarland Run was designed as a planned community consisting of a closed loop road, bordered by a rich variety of housing types and community facilities. Lot sizes range from 8,000 to 11,000 square feet for single family neighborhoods and 1,600 to 2,000 square feet in townhouse sections. It contains over 1,800 homes. The designs and materials of these houses are typical of that era. Many of the single family homes within Sugarland Run have been upgraded with vinyl siding and replacement windows. The housing closer to Sugarland Elementary consists of townhouses and apartments, whereas single-family homes predominate the land surrounding Meadowland Elementary. The Potomac Garden Apartments are a multi-building complex comprised of four-story apartment buildings constructed in 1979. It includes a shopping center in proximity to the townhouse and multi-family portion of Sugarland Run which was constructed in the 1970s. Community amenities include a community center,



Representative townhouses in Sugarland Run



Peyton Road in CountrySide

which is situated near Willow Lake, over 26 miles of walking paths, a community swimming pool, and a playground. This community was rated as one of the best places to live on the East Coast in 2003 by CNN's Money Magazine (*CNN*, 2005).

**CountrySide** – This community, built primarily in the 1980s and completed in 1991, is a master planned community consisting of over 2,500 homes. Existing environmental features, in particular streams, and an extensive pedestrian system were integrated as

major features into the community. Community amenities include an extensive trail system, community centers with pools, other recreational facilities (tennis courts, volleyballs courts, etc.) and playgrounds.

**Richland Acres** – Like Sugarland Run, construction within Richland Acres took place mainly during the 1970s. This neighborhood features large wooded lots with single family homes, many of which are one-story ranch-style houses. Several new homes have been constructed on vacant lots and many of the older homes have been updated. Parts of Richland Acres are on public sewer, but private wells continue to supply the water. In October 2007, County inspectors identified three private wells located along Lakeland Drive in the community of Richland Acres containing the gasoline additive methyl t-butyl ether, or MTBE, and two others containing amounts of perchloroethylene, or PCE. In response, the Virginia Department of Environmental Quality (VADEQ) installed filtration systems in the affected homes. The source of the contamination has not been identified.

**Cascades** – The Cascades development consists of two neighborhoods, Potomac Lakes and Lowes Island, which in turn consist of several individual communities (Potomac Square, Potomac Terrace, Town Center at Westlakes, Potomac Lakes Town Center, Falcon's Landing, etc.). Most of the homes within Potomac Lakes were built in the 1990s. The Lowes Island development is comprised of a mix of single-family detached, single-family attached units and condominiums which were constructed from the early 1990s, with construction on remaining parcels continuing on today. Cascades is nearly built out (approximately 99%) and will include over 6,100 homes when complete (*Loudoun County 2006 Annual Growth Summary, Table F- 7, pg. 52*). Great Falls Plaza, a commercial/retail center is located in the middle of the community on the south side of Algonkian Parkway.



New construction at Lowes Island



Public art at the entrance to the Regal Cinema (part of the Parc City shopping center)

## Existing Retail Development

Retail development within the Leesburg and Sterling areas accounts for more than 58 percent, or 6.7 million square feet, of Loudoun's total retail space (*Loudoun County 2006 Annual Growth Summary, Table G-3, pg. 59*). The Potomac Community, however, has over 1 million square feet of retail uses, reflective of the community's significant residential and worker

populations and the Route 7 corridor as a destination for shopping. Indeed, the majority of the retail and shopping in the Potomac Community is located along Route 7. A total of eight shopping centers are in the community, including Potomac Falls, Sterling Center, Sugarland Square, Cedar Lake Plaza, Great Falls Plaza, CountrySide Marketplace, Parc City and Cascades Marketplace, in addition to numerous freestanding businesses such as gas stations, restaurants, and large-scale retailers such as Kohl's (see Table 4).

**Table 4: Shopping Centers within the Potomac Community**

Retail Center	Size (sf)	Address/Location
<b>Convenience Centers</b> <i>(fulfills day-to-day needs; up to 30,000 sq ft)</i>		
Potomac Falls	16,023	Cascades Pkwy & Algonkian Pkwy
Sterling Center	12,400	47024 Harry Byrd Highway
Sugarland Square	9,205	Sugarland Dr at Willow Place
<b>TOTAL</b>	<b>37,628</b>	
<b>Neighborhood Centers</b> <i>(also fulfills day-to-day needs but serves a larger trade area; between 30,000 and 150,000 sq ft)</i>		
Cedar Lake Plaza	166,827	46900-46930 Cedar Lake Plaza
Richland Business Center	30,000	21430 Cedar Drive
Great Falls Plaza	96,700	20789 Great Falls Plaza
Countryside Marketplace	159,073	32 Pidgeon Hill Drive
<b>TOTAL</b>	<b>452,600</b>	
<b>Regional Centers</b> <i>(dominated by comparison shopping goods stores, such as apparel, jewelry, shoe and furniture stores)</i>		
Parc City – Heritage, Border, Regal Plazas	241,001	20921 Davenport Drive
Cascades Marketplace	314,000	Route 7 and Cascades Parkway
<b>TOTAL</b>	<b>555,001</b>	
<b>GRAND TOTAL</b>	<b>1,045,229</b>	

Source: Loudoun County Route 7 Retail Market Analysis, pg. 7, 8, & 10

The majority of the shopping in the area can be characterized as strip commercial retail which varies in age from the 1980s (CountrySide Marketplace and older parts of Parc City), the 1990s (newer parts of Parc City, Cascades Marketplace, Cedar Lake Plaza), and more recent construction (Richland Business Center). Many of the smaller, more community-oriented shopping centers are anchored by a grocery store (such as Safeways or Giant) and contain neighborhood-serving retailers such as



Cascades Marketplace

Blockbusters, dry cleaners, hair and nail salons, etc. In contrast, some of the larger shopping centers in the area (such as Cascades Marketplace and Parc City) include larger retailers that serve a more regional market, such as movie theaters, apparel, jewelry, shoe and furniture stores.

Two of the retail areas within the Potomac Community provide a design that is fairly unique to the County. The Cascades Marketplace includes a more pedestrian-oriented, “main street” design in some areas whereas the newly constructed Richland Business Center includes ground floor retail and second floor office space. Based on interviews with local bankers and a physical survey of the area, vacancy rates along the Route 7 corridor in eastern Loudoun County are very low, approximately 2 to 3 percent (*Route 7 Retail Market Analysis*, pg. 6).



The Great Falls Plaza Shopping Center

There are two shopping centers located internally to the Potomac Community rather than along Route 7 - Great Falls Plaza in the Cascades development and Sugarland Run Square Shopping Center in the Sugarland Run neighborhood. Great Falls Plaza, completed in 1996, includes a grocery store, child care facility, restaurants and daily needs establishments. A telecommunications monopole built to look like a clock tower was recently added to this shopping center. The Sugarland Run Square Shopping Center, constructed in the 1970s, is located in proximity to the townhouse and multi-family portion of Sugarland Run. It includes two convenience stores (7-11 & High Up Food Mart) and several carry out restaurants. A portion of the shopping center was recently destroyed by fire and is fenced off.



Potomac Falls Professional Center

### Existing Office Development

By 2006, there were approximately 580,000 square feet of office space within the Potomac Community (*Loudoun County, 2006 Annual Growth Summary, Table G-3, pg. 59*). The office development that has occurred in the Potomac Community is generally adjacent to Route 7 and ranges from one to several

stories high. It includes such developments as CountrySide Office & Commercial Center, Potomac Falls Commerce Center, Potomac Falls Professional Center, and Cascades Office Center. Office space was generally developed during the 1990s and 2000s, with some recent construction at Richland Business Center (second floor office over ground floor retail) and the Potomac Falls Professional Center. The tenants of the office buildings within the Potomac Community tend to be community serving, for example dentist offices, urgent care centers, title companies, chiropractors, etc. Many of the buildings also include telecommunication facilities on their roofs.

## Existing Community Facilities

Numerous community and civic facilities are present in the Potomac Community, including several owned and operated by Loudoun County. These include eleven public schools, the Cascades Library, the Cascades Senior Center, the Sugarland Sheriff/Fire Substation, several parks, three mental health or mental retardation group homes (Potomac Terrace, Mirror Ridge, and Kentwell), four community park and ride lots, and several recreational parks.

(See the Public Facilities and County Properties map on pg. 47.) In addition, a post office, several higher education facilities, and many churches are present.

### **Schools**



The Cascades Library



River Bend Middle School

Public schools in the Potomac Community include two high schools (Dominion and Potomac Falls), two middle schools (River Bend and Seneca Ridge), and seven elementary schools (CountrySide, Potowmack, Algonkian, Sugarland, Lowes Island, Meadowland, and Horizon Elementary School). Current enrollment in most of these schools is below capacity, with the exception of Potomac Falls High School which is expected to be slightly over capacity until the 2013-14 school year (*Loudoun County Public Schools, 2008*). Estimates indicate that school enrollment growth in the Potomac Community will be relatively stable over the next six years, reflective of the area's limited residential expansion potential. As such, the existing facilities are planned to serve projected student enrollments through

at least 2014. Because the Potomac Community was one of the first to experience large-scale residential development in the County, some of the school buildings are aging and have needed renovations. For example, Seneca Ridge Middle School was renovated in 1994, 2001, and 2006 and the classroom and gymnasium addition to Sugarland Elementary School was completed by the start of the 2007-08 year.

Two youth programs offered at County schools are the County After-School Activities (CASA) Program and the Youth After School (YAS) Program. CASA offers before and after school activities for elementary age students attending public schools. CASA costs \$300 per month and is offered at six of the seven elementary schools (Algonkian, Countryside, Horizon, Lowes Island, Meadowland, and Potowmack) within the Potomac Community. The YAS Program offers after school activities for middle school students. Both of the middle schools within the Potomac Community (River Bend and Seneca Ridge) participate in this program. YAS costs are currently \$20 per year, but will increase to \$25 per month beginning September 2008.

Several higher education facilities are also present in the Potomac Community, including:

- Old Dominion University, which operates a satellite campus in a three-story building located in the Signal Ridge Shopping Center at the intersection of Route 7 and Potomac View Road;
- the Northern Virginia Community College; and
- Marymount University's Loudoun Academic Center.

### ***Fire and Rescue***

Fire and Rescue Services for the Potomac Community are provided by the Sterling Volunteer Fire Company and the Sterling Volunteer Rescue Company. The Sterling Volunteer Companies operate from two stations, one in Sterling and one in Cascades. The facility that serves the Potomac community is located on Middlefield Drive. In addition, Loudoun County provides career staffing for the Sterling Volunteer Fire Company's Cascades Station for an engine company during the daytime, Monday thru Friday. Sterling Volunteer Fire Company provides sole coverage for the station during weekends and evenings. Staffing for the Sterling Rescue Company is provided solely by the Sterling Volunteer Rescue Company.

### ***Police***

A sheriff field office is located within the Potomac Community at the Sugarland Sheriff/Fire Substation. Several neighborhoods in the Potomac Community also participate in the Community Policing Program, including CountrySide and Sugarland Run (*Loudoun County Office of the Sheriff, 2008*). This program involves citizens in efforts to improve the quality of life and reduce crime in their communities. According to the Sheriff's Office's records, the top three reported

violations in the Potomac Community in 2007 are for: (1) destruction of property, (2) larceny, and (3) narcotic violations. The Potomac Community is also served by School Resource Officers (SROs) at Dominion High School, Potomac Falls High School, River Bend Middle School, and Seneca Ridge Middle School who, among other things, handle all criminal investigations originating in the schools and serve as the law enforcement liaison with the school system (*Loudoun County Office of the Sheriff, 2008b*).

### ***Recreational Uses***

The County operates three parks in the Potomac Community, including the Potomack Lakes Sportsplex, Sugarland Run Linear Park, and CountrySide Park. The Potomack Lakes Sportsplex is a 47-acre athletic complex with four lighted softball fields, six soccer fields, large playground, pavilion and concession stand. The facility hosts athletic contests from March – November as well as up to 25 tournaments per year (Department of Parks, Recreation and Community Services, 2008). The CountrySide Park contains a basketball court and the Sugarland Run Linear Park is a passive linear stream park.

Another significant recreational use in the Potomac Community is the Algonkian Regional Park, which contains over 800 acres and is owned and operated by the Northern Virginia Regional Park Authority (NVRPA). It is located adjacent to the Potomac River and includes a pool and aquatic center, a golf course, a miniature golf course, trails (including the Potomac National Scenic Heritage Trail), a boat launch, picnic shelters, and cabins and camping facilities. The Potomac Heritage National Scenic Trail runs along the Potomac River corridor and extends for seven miles within the County, from the Fairfax County border to the Keep Loudoun Beautiful Park on Goose Creek. Trailheads can be found at Algonkian Regional Park, Bles Park, Elizabeth Mills Riverfront Park, Kephart Bridge Landing, and the Keep Loudoun Beautiful Park.



The Potomac Heritage Trail in Algonkian Park

In addition to these, numerous recreational facilities are located in individual communities that are run by Homeowner Associations (HOA's), including community centers and pools, playgrounds, athletic fields, and walking trails. Soccer fields are also located on the northern portion of the Northern Virginia Community College campus. Just east of the Algonkian Regional Park, the Lowes Island Club is a private facility open to members which offers two golf

courses with a driving range, a short game area, a clubhouse, swimming and tennis facilities.

#### *Other Civic Uses*

In addition to these community facilities, other civic uses within the Potomac Community include a post office and several churches, including the Baha'i Temple, Galilee Methodist Church, Our Lady of Hope Catholic Church, Christ our Savior Lutheran Church, Community Lutheran Church, the New Life Church, and the Calvary Temple.



The Baha'i Temple on Route 7

## Infrastructure, Utilities, and Other Facilities

### Water and Sewer

Loudoun Water (formerly known as the Loudoun County Sanitation Authority, or LCSA) provides water and wastewater service to much of the Potomac Community. The source of the tap water for customers within the Potomac Community is the Potomac River through a purchase agreement with Fairfax Water and the Goose Creek in Ashburn through a purchase agreement with the City of Fairfax. The Community's wastewater is treated by the D.C. Water and Sewer Authority (DCWASA) at their Blue Plains Treatment Plant. Blue Plains, located in southwest DC, is one of the largest facilities of its kind in the world. In 2008, Loudoun Water will start operations at the Broad Run Water Reclamation Facility to supplement the capacity at Blue Plains (*Loudoun Water, 2008*).

Some of the older neighborhoods within the Potomac Community are not or are only partially served by public water and sewer. These include the Jefferson Knolls Subdivision (private wells and septic systems), the Arl Keith Subdivision (private wells and septic systems), Richland Acres (private wells and septic systems, although public sewer has been extended to many of the lots), and Broad Run Farms (private wells and public sewer). All four of these residential communities have lots with sewage disposal systems in excess of 30 years and may have reached their typical life span; these lots do not have a designated reserve area. While sometimes a new system, most likely an alternative system is able to be installed, many lots may not have enough suitable area for a new system which meets today's regulatory standards. Water contamination has also been an issue for some of the residents within the Potomac Community who still rely on private wells as source of water, particularly within the Broad Run Farms and Richland Acres developments. See the Water and Sewer Map on pg. 48 and Water Quality discussion on pg. 3 for more information.

## Stormwater Management

Within the Potomac Community, over 22% of the community's land area is covered by surfaces that do not allow water to soak into the ground. This exceeds the County-wide average of just under 9%, reflective of the extensive development that has taken place here. There is a great amount of stormwater runoff to be handled. Although the Potomac Community accounts for only 2.4% of the County in terms of area, it contains 15% of the County's stormwater infrastructure. Stormwater infrastructure carries water away from roads, buildings and parking lots through a series of pipes, culverts and open channels. Stormwater ponds, in combination with other designs, help reduce flooding and reduce the environmental impacts to streams by reducing peak flows and pollution minimization. Based on County GIS records, the Potomac Community has an estimated 107 miles of drain pipe and 46 miles of open channels designed for stormwater management. It also has 65 stormwater ponds<sup>6</sup> (45 dry ponds and 23 wet ponds).



An existing dry pond in Great Falls Chase

Since the adoption of the Stormwater Management Ordinance in 2003, the County has maintenance responsibility for all stormwater facilities that lie within County easements, with the exception of wet ponds. In the case of wet ponds, an additional agreement is created that distinguishes the responsibilities of the County from those of the property owner. Generally, the County is responsible to ensure the facilities function properly and the property owner is responsible for the aesthetics. The County is not responsible for stormwater facilities for which there is no County easement. In those cases, the County takes responsibility when

the property owner grants a proper easement.

There are no specific plans to improve or upgrade the system beyond repairing facilities that are functioning poorly. The County is made aware of problems through public input via the Stormwater Hotline and through an inspection program contracted through the Department of General Services.

## Other Utilities

Within the Potomac Community, Dominion Virginia Power overhead transmission lines are present along sections of some of the roadways and within many of the older neighborhoods and commercial areas. In the newer areas,

<sup>6</sup> Dry ponds and wet ponds are both stormwater infrastructures designed to hold stormwater to pre-development discharges. The difference is that dry ponds are designed to drain within a couple of days, while wet ponds hold their volume indefinitely.

utility lines have typically been buried. The electrical substation serving the Potomac Community is located outside of the community.

There are also approximately six wireless telecommunication facilities in the Potomac Community providing cellphone and data services to area residents and businesses (see the Telecommunications Facilities map on pg. 49). The two most recently constructed, at Great Falls Plaza and the Sterling Volunteer Fire and Rescue Station in Cascades, were built using stealth designs in order to minimize adverse aesthetic impacts on surrounding residential areas.

## Circulation and Transportation

The road network in the Potomac Community consists of a hierarchy of road facilities which, together with transit service and bicycle and pedestrian facilities, form a transportation system that serves the needs of the area's residents, businesses, commuters and visitors. The 2001 Revised Countywide Transportation Plan (2001 Revised CTP) is a companion document to the County's Comprehensive Plan. The CTP provides policy guidance and helps inform residents and employers of the County's approach to addressing mobility needs and how the future transportation system may impact a specific neighborhood or property. Major thoroughfares are part of the "regional" or "CTP" road network and form the backbone of the system; all other public roadways are categorized as local or secondary roads.



Algonkian Parkway is an example of a minor arterial

### Existing Road Network

All regional roads are classified into one of the four categories listed below (as defined by the 2001 Revised CTP) based on the roadway's function in the overall network. For a depiction of the functional classification of the existing and planned regional road network in the Sterling Community, see the 2001 CTP Roadway Functional Classification Map on pg. 52. All public roads in unincorporated areas of Loudoun County – including the Sterling Community – are maintained by the Virginia Department of Transportation (VDOT).

The regional road network consists of:

Principal Arterials are roads that primarily serve regional and intrastate traffic, with access from minor arterials and major collectors. *Route 7* is a principal arterial.

<u>Minor Arterials</u>	are roads that primarily serve commuter traffic, with access from major and minor collectors. <i>Algonkian Parkway</i> is a minor arterial.
<u>Major Collectors</u>	carry traffic through the County, providing connections between arterials. In the Potomac Community, access to major collectors is primarily via minor arterials and minor collectors. <i>Potomac View Road</i> , <i>Cascades Parkway</i> , and <i>Countryside Boulevard</i> are major collectors.
<u>Minor Collectors</u>	carry traffic from local subdivision streets to major collectors and/or arterials. <i>Palisades Parkway</i> , <i>Augusta Drive</i> , and the <i>Route 7 North Collector Road</i> (i.e., <i>Maple Leaf Place</i> and <i>Jennings Farm Drive</i> ) between <i>Augusta Drive</i> and <i>Lakeland Drive</i> are minor collectors.

The balance of the public street network is made up of local or secondary roads. Generally, these roads include all neighborhood and subdivision streets serving single family detached developments. Streets serving townhouse and multifamily developments are typically privately owned and maintained by their respective communities/owners associations as they are not eligible for inclusion into the VDOT secondary road system.



A local street within Courtland at Cascades

According to the Virginia Department of Transportation's (VDOT) most recent traffic volume estimates (Annual Average Daily Traffic, or AADT<sup>7</sup>), the roadway that carried, on average, the most daily traffic in the Potomac Community in 2006 was Route 7, followed by Algonkian Parkway (see Table 5) (*Virginia Department of Transportation, 2006*).

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<sup>7</sup> The Annual Average Daily Traffic, or AADT, is the estimate of typical daily traffic in both directions on a road segment for all days of the week, Sunday through Saturday, over the period of one year.

**Table 5: Annual Average Daily Traffic (AADT) on roads within the Potomac Community in 2006**

Roadway	AADT
Route 7	73,000
Algonkian Parkway east of Cascades Parkway to the Fairfax County border	22,000
Algonkian Parkway west of Cascades Parkway to Route 7	12,000 - 14,000
Cascades Parkway	13,000
Potomac View Rad	7,200 - 12,000
Countryside Boulevard	7,100

Please note that a range is provided when a roadway is divided in numerous segments, each of which has a different traffic volume estimate.

SOURCE: Virginia Department of Transportation (2006). *Daily Traffic Volume Estimates Including Vehicle Classification Estimates*. Jurisdiction Report 53.

## Planned Future Road Network

Virtually the entire regional road network within the Potomac Community has been constructed to their ultimate lane configurations as identified in the 2001 Revised Countywide Transportation Plan (2001 Revised CTP) (see Existing and Planned CTP Road Network map on pg. 51). The only remaining planned regional road segment that is unbuilt is a portion of the Route 7 North Collector Road between Augusta Drive and Cedar Drive; as part of the Richland Business Center rezoning in 2003, it was determined that the right-of-way for this remaining segment would be reserved for a period of 20 years to allow for possible construction of this road in the future. This roadway would be a two-lane undivided segment and would connect the existing sections of Maple Leaf Court and Jennings Farm Drive. There are currently no plans to construct this roadway.

## Ongoing Projects/Studies

The County is in the process of updating the 2001 Countywide Transportation Plan, largely through the development of corridor analyses for various major thoroughfares throughout the County. An updated draft plan was completed by the Planning Commission in December 2007. The next step in the 2001 CTP update process is a joint Planning Commission/Board of Supervisors meeting; as of this report, however, such a meeting has not been scheduled.

Additionally, a number of transportation projects and studies are underway to improve operations and safety on existing portions of the road network. The Potomac Community contains two of Loudoun's "Ten Most Dangerous Intersections" for 2007, as identified by the Loudoun County Sheriff's Office. The two intersections identified within the Potomac Community, along with the number of crashes reported in 2007, are:

- Route 7/Potomac View Road (81 crashes)
- Route 7/Sterling Boulevard-Cardinal Glen Drive (43 crashes)

Ongoing projects and studies to improve traffic operations and safety within the Potomac Community include:

### ***Algonkian Parkway Corridor Study***



The intersection of Algonkian Parkway and Countryside Boulevard

A corridor study, conducted by VDOT, is underway along the entire 6.7-mile length of Algonkian Parkway (from Route 7 in Fairfax County to Route 7 in Loudoun County, opposite Atlantic Boulevard) to identify measures to improve pedestrian safety and more effectively move traffic through the corridor. All 31 intersections along Algonkian parkway will be studied. There were two recent pedestrian fatalities at the intersection of Algonkian Parkway and Countryside Boulevard. The study will identify

pedestrian crash trends; identify locations with substandard pedestrian accommodations; and identify locations with high crash frequency. The study is scheduled to be completed in August 2008. Both short-term treatments (i.e., relatively low-cost items such as signage and markings, pedestrian accommodations, and signal timing changes) and long-term treatments (i.e., physical changes to the roadway or signal structures) will be proposed. A previously-conducted VDOT speed study indicated the need to lower the posted speed limit along the entire length of Algonkian Parkway from 45 mph to 40 mph; new signage reflecting the lower speed limit will be installed in the near future.

### ***Route 7 Traffic Flow Study***

The County and VDOT are currently in the process of conducting a study to improve traffic flow in the Route 7 corridor between Campus Drive and Lakeland Drive (the study was initially proposed to run from Countryside Boulevard to the Fairfax County line, but was later refined to include only the segment between Campus and Lakeland). Turn lanes and related improvements are being planned to improve traffic flow in this area, particularly between Potomac View Road and Sterling Boulevard. Completion of improvements by mid-2010 is anticipated.

### ***Entrance Improvements to Northern Virginia Community College***

In conjunction with the Route 7 Traffic Flow Study outlined above, the County and VDOT are working with Northern Virginia Community College (NVCC) to better accommodate traffic entering and exiting the campus. There are currently significant delays to exit the campus onto Route 7 at certain times of the day and a second ingress/egress point onto Potomac View Road is being constructed. Modifications to the existing intersection of Campus Drive and Route 7 are also being discussed, though no final decision on specific changes has been made.

## Transit Services

Two different types of transit services currently operate in the Potomac Community:

### *Commuter Bus Service*

Commuter Bus Service is operated during weekday peak periods by Loudoun County Transit. This commuter bus service uses County-owned coach buses and is managed by County staff. At the present time, there are four park and ride lots served by the County's commuter buses within the Potomac Community:

- Community Lutheran Church (Cascades) – 100 spaces
- Our Lady of Hope Catholic Church (Cascades) – 100 spaces
- Great Falls Plaza (Lowes Island) – 65 spaces
- Galilee United Methodist Church (Broad Run Farms) – 50 spaces

Commuter buses from these locations provide service to the West Falls Church Metrorail Station in Fairfax County.

### *Local Bus Service*



Commuter parking spaces at Great Falls Plaza

Local Bus Service is operated by Virginia Regional Transit (VRT) on behalf of Loudoun County. VRT currently operates two routes in the Potomac Community; these routes (“7 to 7 on 7” and the “Sterling/Countryside Connector”) converge at the nearby Dulles Town Center mall, where connections can be made to VRT’s local service to Leesburg and other parts of Loudoun County. A connection can be made from the “7 to 7 on 7” to the Fairfax Connector bus system at the Town Center Plaza shopping center (Route 7 and Dranesville Road). VRT local fixed route bus service generally operates between 7 AM and 7 PM weekdays.

Loudoun County is currently in the early stages of development of a County Transit Service and Infrastructure Plan (*Loudoun County Transit Plan*) to guide implementation of public transit alternatives over the next 20 years. The planned arrival of Metrorail is anticipated as part of these future transit plans, which will bring changes to current commuting patterns and the existing bus systems. The Board of Supervisors has recently appointed a citizen’s advisory committee to work with County staff and its consultant in development of the plan; the first meeting of this committee will take place in the near future.

## Bicycle & Pedestrian Facilities

There are numerous bicycle and pedestrian facilities within the Potomac Community, though the overall network remains incomplete. Along major



A pedestrian tunnel under Algonkian Parkway

roadways where there is no sidewalk or trail, dirt paths are often present which indicate regular pedestrian traffic. In addition to facilities along roadways, there are numerous trails within and between individual neighborhoods that typically run along streams and other drainageways. The County's *Bicycle & Pedestrian Mobility Master Plan*, adopted by the Board of Supervisors in 2003, provides the basis for County policy on non-motorized transportation. A baseline map of existing bicycle and pedestrian facilities (and gaps therein) is under development.

## Employment and Economic Development

Route 7, which forms the southern boundary of the Potomac Community, is one of the major business corridors in the County. The eastern portion of this corridor, from the Fairfax County line to Route 28, has largely been developed with retail uses. Within the Potomac Community, over a million square feet of retail uses have been developed along Route 7 in comparison to approximately 580,000 square feet of office uses. The office buildings that are present are largely occupied by community-serving tenants (such as dentist offices, urgent care centers, title companies, chiropractors, etc.) rather than large corporate offices such as those in "Class A" office space. More significant office development is anticipated just west of the Potomac Community along Route 7 as well as to the south in the Sterling Community along the Route 28 corridor. (For more information regarding the Route 28 corridor, please see the Sterling Community Existing Conditions report.)

In 2007, less than 5% of the County's total jobs were located in the Potomac Community (an estimated 6,954 jobs compared to 145,568 in the entire County). This represents a jobs to household ratio of approximately 1:2 for the



Countryside Office & Commercial Center

Potomac Community. County projections indicate that by 2035, approximately 7,960 people will work in the Potomac Community, an increase of 1,006 from 2007 to 2035, with the job to household ratio remaining the same. This represents less than 3% of the County's 300,937 total number of jobs forecasted in 2035 (*2007 Fiscal Impact Committee Guidelines, Table 5*).

A small portion of the Potomac Community is located within the Route 28 Highway Improvement Tax District (Route 28 Tax District), formed on December 21, 1987 to finance surface transportation improvements to Route 28 in Fairfax and Loudoun counties. (See the Route 28 Tax District map on pg. 52). To pay the debt service on the Transportation Bonds issued to improve Route 28, non-residential property owners within the Tax District are assessed additional real property taxes of \$.20 per \$100. Potomac Community properties located within the tax district include several residentially-developed properties around the Route 7/Algonkian Parkway interchange that are not taxed (the Loudoun Village properties which include the Village at Potomac Falls Apartments, Jefferson Village Townhouses, and The Reserve at Town Center Apartments as well as the Eden Tract) and several east of Countryside Boulevard that have been developed with retail and office uses and are taxed (including CountrySide Marketplace, CountrySide Professional Office Villas, and Parc City). The County has collected over \$72 million since the district was formed, and those funds have financed the widening of Route 28 as well as the construction of the Route 28 interchanges.

## Socio-Economic Characteristics

### Income

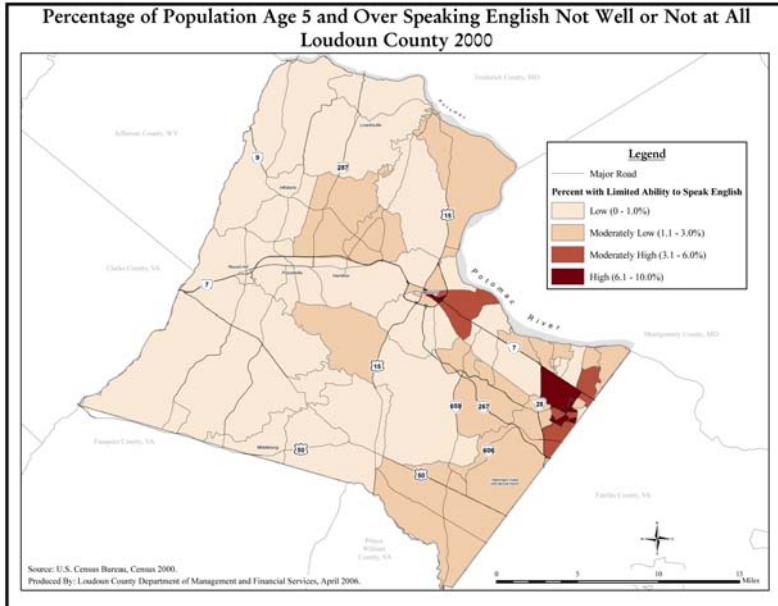
The Potomac Community in both 1989 and 1999 had an average household income greater than the entire County. The Potomac Community had an average household income of \$63,876 in 1989, compared with an average household income of \$58,126 for the entire County. The Potomac Community had an average household income of \$104,673 in 1999, compared with an average household income of \$94,815 for the entire County.

## Diversity

In Loudoun County as a whole, the percentage of the population that is foreign

born has increased from 11% in 2000 to 21% in 2006 (U.S. Census Bureau, Census 2000 and 2005-2006 American Community Survey). As shown in the map on the following page, the Potomac Community contains a moderate portion of the population that does not speak English well or not at all compared to the rest of the County. In 2006, the second most racially and ethnically diverse school in Loudoun County was located within the Potomac Community - Sugarland Run Elementary School. The most widespread racial/ethnic group in this

school is Hispanic (approximately 48% of the student body), followed by African American (13%) and Asian (11%) (*Loudoun County Public Schools*).



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## Photo Credits

All photographs in this report, unless otherwise noted, were taken by staff in the Loudoun County Department of Planning.

## Attachments

Attachment 1: Fact Sheet

Attachment 2: Average Age of Housing Stock by Community

Attachment 3: Settlement History

Attachment 4: Maps of the Sterling Community

## Attachment 1: Fact Sheet

- **Community Boundary:** The Potomac Community includes the area north of Route 7 between the Fairfax County line and the Broad Run. The Potomac River is the northern boundary of this community.
- **Acreage:** The area contains approximately 8,197 acres and 13,865 parcels or portions of parcels (based on Community Boundary Area inclusive of right-of-ways).
- **Election Districts:** The Potomac Community is comprised of the entire Sugarland Run District and a portion of the Potomac District.
- **Population:** According to the U.S. Census Bureau, the population in the year 2000 was 39,115 for the Potomac Community. In 2007, the population estimate increased by 4,061 to 43,176. By 2035, it is forecasted that the population will increase to 44,164.\*
- **Employment:** The employment estimate for 2007 is 6,954 jobs, with a jobs to household ratio of approximately 1:2. By 2035 the employment forecast is 7,960 jobs with a jobs to household ratio remaining the same. \*
- **Housing Units:** The number of housing units estimated in 2007 is 14,936, consisting of 50% single family detached, 37% single family attached, and 13% multi-family units. The number of housing units forecasted in 2035 is 15,901.\*
- **Parcel Size:** The majority of the parcels (78%) are ¼ acre or less. The average parcel size is approximately 1/2 acre. The largest parcel on record is the Lowes Island Golf Course and consists of 470 acres.
- **Watersheds:** The area is located in the Broad Run, Potomac Basin Number One and Sugarland Run watersheds which ultimately drain into the Potomac River.
- **Major and Minor Floodplain:** There is approximately 2655 acres of floodplain, or 32 % of the total land area.
- **Forested Area:** Approximately 2841 acres in the Potomac Community Subarea, or 35% percent of the total land area is classified as forested.
- **Major Developments:** Residential- Cascades, CountrySide, and Lowes Island  
Office/Industrial – Parc City Center and CountrySide Office & Commercial Center  
Retail – Regal/Parc City, Cascades/Mirror Ridge/ Potomac Run

- **Existing Land Uses:**

Land Use	Parcel Acreage	Percent
Residential including HOA land	4929	60.1%
Office	49	0.6%
Industrial	18	0.2%
Commercial/Retail	148	1.8%
Public/Civic	1744	21.3%
Vacant	1309	16.0%
<b>Total</b>	<b>8197</b>	<b>100.0%</b>

Estimate based on a combination of data sources, Loudoun County GIS and LMIS records. Based on actual parcel acreage, excluding right-of-way.

- **Planned Land Use:**

Land Use	Acreage	Percent
Residential	7963	100%
<b>Total</b>	<b>7963</b>	<b>100%</b>

Estimate based on Loudoun County GIS records. Based on acreage of Community Area Boundary

\*Source: Loudoun County, Board of Supervisors, Fiscal Impact Committee (2008).

## Attachment 2: Average Age of Housing Stock by Community

1950's	Arl Subdivision - 1956 McCanns Division – 1959
1970's	Broad Run Farms – 1970 Jefferson Knolls – 1974 Sugarland Run – 1974 Richland Acres – 1979
1980's	Sugarland West – 1980 Cardinal Glen - 1984 CountrySide – 1985 Seneca Ridge – 1985 Seneca Chase – 1985 Great Falls Forest - 1985 Calvert Glen (Environs) – 1986 Arl-Keith Subdivision - 1986 Villas at CountrySide Condo – 1987 Nestoria Subdivision – 1987
1990's	Mirror Ridge Subdivision – 1991 Great Falls Overlook - 1993 Riverbend at Cascades – 1994 Potomac Hunt - 1994 Potomac Lakes – 1994 Richland Forest – 1995 Lowes Island Condominium - 1995 Potomac Terrace – 1996 Great Falls Chase - 1997 Hidden Acres – 1998 Westerley – 1999 Cascades Estates – 1999
2000's	Carter's Grove – 2000 River Crest – 2000 South Bank - 2000 Jefferson Village – 2001 Lowe's Point - 2001 Providence Addition to MR, 2001 EQR Lincoln & Sunnyside – 2001 Sisler Division - 2002 Eden – 2003 River Bank Woods - 2003 Thomas Avenue – 2004 Cascades Parcel B1 - 2004

### Attachment 3: Settlement History of the Potomac Community

#### *1700s to 1800*

The earliest known land grants in Loudoun County, dating from the early 1700s, were located in the northeastern part of the County adjoining the Potomac River and its tributaries (MacIntyre 1978:21). The majority of these early land grants during the colonial period were held by wealthy tidewater land speculators and/or plantation owners who cultivated tobacco on these large tracts of land. After several decades of tobacco production, the soils in eastern Loudoun had become exhausted, and by the 1770s many of the farmers had diversified to other crops and the raising of livestock (cattle and pigs).

Early means of transportation, particularly during the colonial period in eastern Loudoun, depended upon the Potomac River and inland water ways. Two early roads, Vestal's Gap and Ox Road, which bisected northeastern Loudoun, provided a vital link between the western frontier and the port cities of Alexandria and Georgetown. Originally used by Native Americans, and later traversed by early settlers, Vestal's Gap Road, also referred to as the Potomac Ridge Road or Church Road, roughly parallels or follows portions of present day Route 7. Ox Road, portions of which comprise present-day Old Ox Road (Route 606) east of Dulles Airport, was also an early trail which was later improved between 1740 and 1760 by the Carter family to transport tobacco and other produce to their warehouses and shipping near present-day Occoquan/Woodbridge on the Potomac (Poland 2005:30-31). These two roads remained the primary east-west transportation routes in northeastern Loudoun until the construction of Leesburg Turnpike, present-day Route 7.

#### *1800s to early 1900s*

Farming continued to dominate the area comprising the Potomac Community during the early 1800s. Wheat and corn remained the domination crops as tobacco declined. The transportation network in the area was significantly expanded with the establishment of the Alexandria-Leesburg Turnpike, present-day Route 7, which reached Leesburg by the 1830s. The turnpike provided an improved route and shortened travel times for the transportation of agricultural products from the west to consumers and markets in the east (Poland 2005:118). In 1832, the completion of the Chesapeake and Ohio Canal, across the Potomac River in Maryland also made shipping goods to and from Georgetown more convenient. Warehouses were established on the Virginia side of the river where boats and barges were loaded with goods for shipment. The success of the canal was overshadowed by the arrival of the railroad which provided more reliable and cheaper transportation of goods and products (Poland 2005:122).

In 1860 the first trains had reached Leesburg on the Alexandria, Loudoun & Hampshire Railroad (later the Washington and Old Dominion Railroad). The community of Old Sterling, located near the intersection of present day Route 28 and Church Road, was established in 1860 as a stop on the railroad known as "Guilford Station". Guilford Station, in the years following the Civil War, became a small regional business and commerce center which catered to the needs of the surrounding farming community. The railroad transported farm products from the area into Washington, carried mail for the

Federal government, and provided freight service. The area continued to be referenced as Guilford Station until 1887 when the name of the station was changed to Sterling following the purchase of railroad by New York investors, who also renamed the railroad the Washington and Old Dominion (W&OD). Many of the agricultural products produced in the Potomac Community were transported by road to the rail station at Sterling for shipment (McCabe 1994: 6-7).

Loudoun County, located only 25 miles from Washington D.C., became a border county of divided loyalties during the Civil War years of 1861-1865. No major battles occurred in the Potomac Community during the Civil War however the area was occupied by both Union and Confederate forces. Agricultural recovery came quickly during the Reconstruction period following the Civil War. The County was listed in the 1880 U.S. census as the leading county in Virginia in the “production of corn, butter, eggs, wool, numbers of milch (sic) cows and sheep, and second only to Fauquier County in the number of stock cattle” (Head 1908:88).

The area comprising the Potomac Community around the turn-of-the century was made up of predominately large family farms involved in either dairy and/or cattle production. The growth of the dairy industry in Loudoun County during this period was a direct result of the presence of the railroad and the ability to transport milk, cream and butter daily to markets in Washington. Loudoun throughout the first half of the twentieth-century was ranked among the leading dairy producing Counties in Virginia and by 1949 was reportedly producing 20,000 gallons of milk daily for shipments to markets in and around Washington. The majority of farmers in the County were involved in either dairy cooperatives and/or breeder’s cooperatives which collectively negotiated and established market prices for products with distributors (Poland 2005:322). Farming technology during World War II continued to advance as the federal government encouraged the use of tractors and other mechanical equipment to increase crop yields per acre. Tractors, ride-on plows, combines and threshing machines all became common sights on farms in the County. New milking machines were also made available, allowing for greater milk production with fewer laborers (Poland 2005:357).

### ***1950s to today***

The development boom of the 1950s and 1960s expanded rapidly from Washington, DC through Fairfax County into eastern Loudoun County. The first modern subdivision in the County was Broad Run Farms, began in 1952, by Robert Barnes Young. Broad Run Farms, located north of Route 7 and running to the Potomac River, encompassed a former 706-acre dairy farm (Miskel Farm) that was subdivided into 302 lots. The subdivision included 40-foot-wide state maintained paved roads, and common access to the Potomac and Broad Run which were considered innovative features for a neighborhood at the time. Prices for a one-half to one acre lot were \$1,200, and ten acre riverside lots were \$10,000. By 1958 all the lots within the subdivision had been sold (Wenger 2006). These original lots were all served by onsite wells and drainfields until 1994 when a special tax district, established through an effort initiated by the residents with assistance from Loudoun County and the State of Virginia, financed the installation of sewers in Broad Run Farms.

The construction of Dulles Airport and a major interceptor sewer leading to the Blue Plains Treatment Plant in 1959 significantly altered the existing development patterns and landscape of the County, allowing for the creation of master-planned communities with greater concentrated residential densities such as Sterling Park and Sugarland Run. By 1960, 28.6 percent of the employed Loudoun residents commuted to work outside of the County. By 1970 that number increased to 40.6 percent. In the 1960s and 1970s the Loudoun commuter was becoming increasingly a suburbanite who lived in a planned community. These residents were attracted to the lower property taxes and rural living with close proximity to urban conveniences of eastern Loudoun made possible by the automobile. The property taxes in Loudoun County during this period were nearly half of those in neighboring Fairfax County (Poland 2005:342).

In the summer of 1962, after months of controversy and changes to the zoning ordinance the Board of Supervisors approved the first “planned community” in Loudoun - Sterling Park on 1,762 acres south of Route 7 near the boundary with Fairfax County. The Sterling Park development would include 3,562 houses and 3,645 apartments with land set aside for schools and churches, recreation facilities, and a centrally located shopping center (Scheel 2002).

In 1970, based on the success of Sterling Park and the continued demand for housing in eastern Loudoun, a second major planned community- Sugarland Run was approved by the Board of Supervisors. Sugarland Run located on the north side of Route 7, was projected to have a population of about 7,800 people residing in more than 1,000 single-family homes, 658-town-houses and over 500 “garden apartment units” (Poland 2005:368). The development included a closed loop road, Sugarland Run Drive, with a series of interconnected pedestrian trails. The development is centered on a man-made lake and community facilities, consisting of a large pool and meeting hall. Other residential developments within the Potomac Community include Richland Acres (1970s), CountrySide (1980s) and Cascades Development (1990s).

In 1975, following Loudoun’s membership into the Northern Virginia Regional Park Authority, (NVRA) Algonkian Regional Park was opened on the banks of the Potomac River. The 800-acre tract was formerly the Potomac Edison Power Corporation Golf and Country Club. The park features a pool and aquatic center, par 72 golf course, miniature golf, trails, boat launch, picnic shelters, and camping facilities.

In 1971, Route 7 in Loudoun County was completed as a four-lane median divided highway from Herndon Junction to Leesburg. Subsequent improvements funded by developers, the County and the State of Virginia throughout the years have expanded the roadway to a six lane divided highway with constructed interchanges.

Route 28 was a dual lane road throughout the 1960s and 1970s following the construction of Dulles International Airport. The roadway was not improved until the late 1980s following the formation of the Route 28 Tax District in 1988. The Route 28 Tax District was created through legislation adopted by the Virginia General Assembly permitting the creation of special taxing districts for transportation. The Route 28 Tax District was comprised of landowners in both Loudoun and Fairfax County who agreed to fund and

pay for improvements to the corridor through a special tax district. The funds from the tax district along with developer, county, state and federal funding have paid for the expansion of the roadway and removal of at grade intersections in an effort to create a limited access highway.

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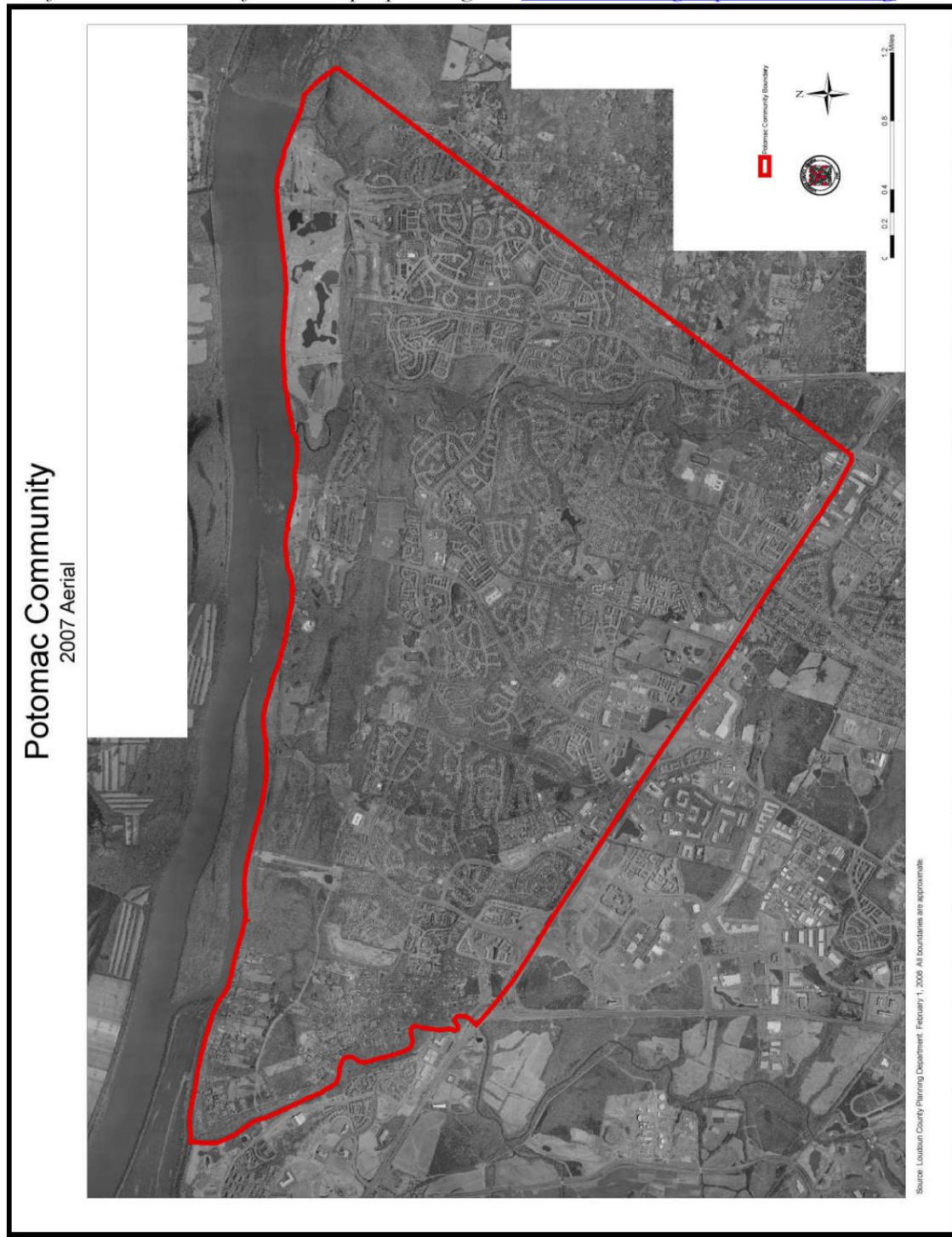
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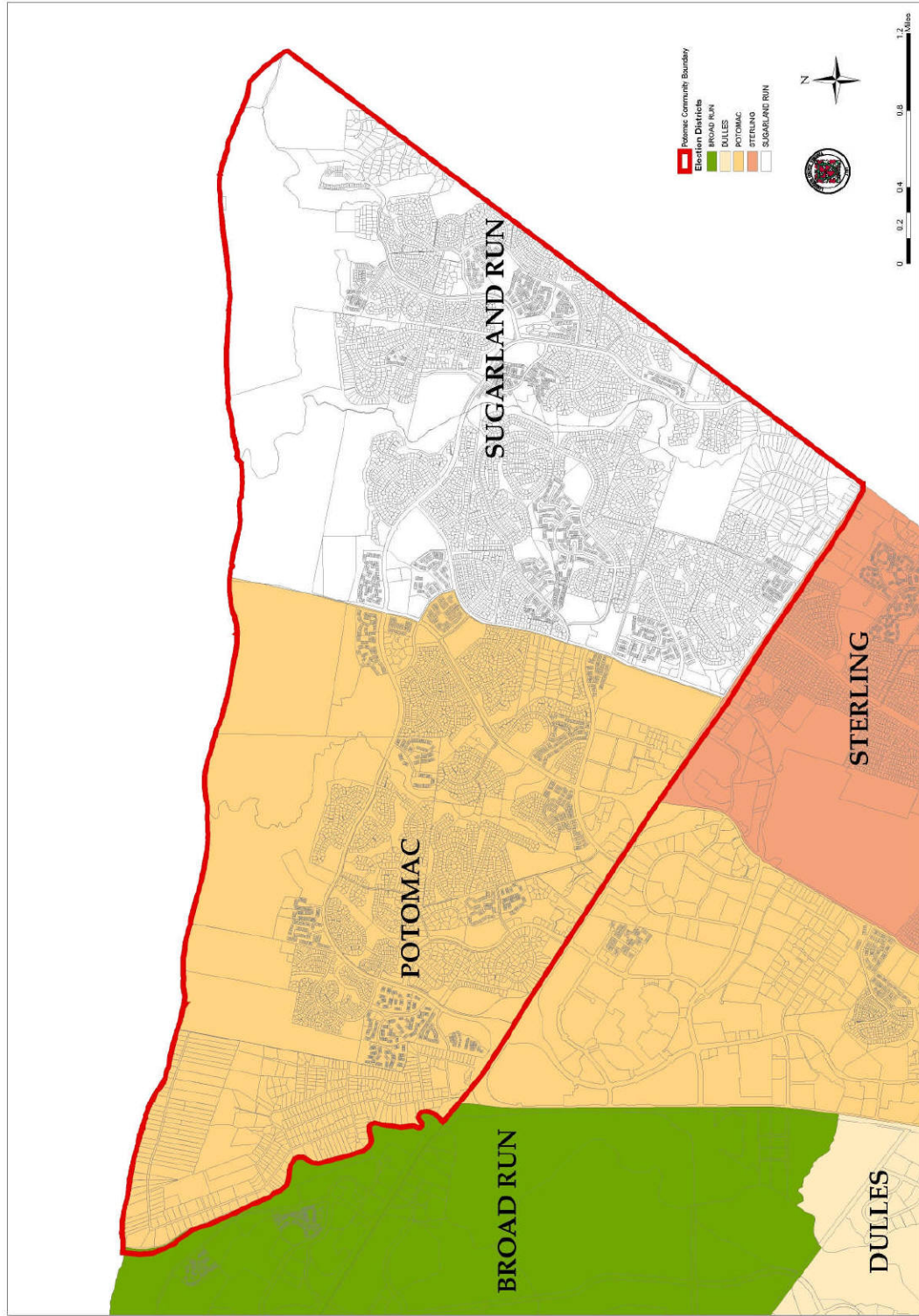
Wenger, Tracy. (2006). *History of Broad Run Farms*. Press Release #1.

## Attachment 4: Maps of the Potomac Community

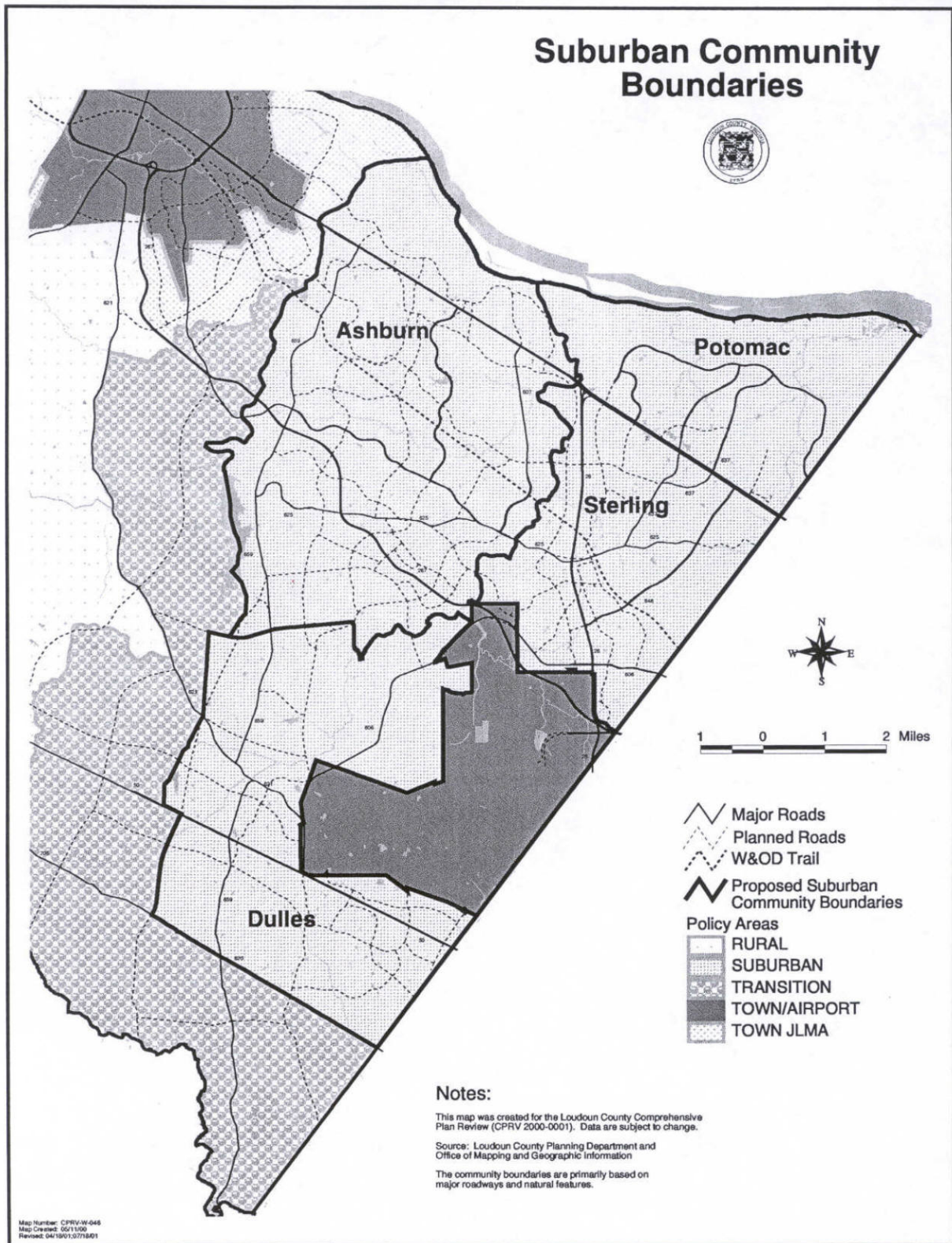
For full-size versions of these maps, please go to [www.loudoun.gov/potomac-sterling](http://www.loudoun.gov/potomac-sterling)



## Potomac Community Election Districts

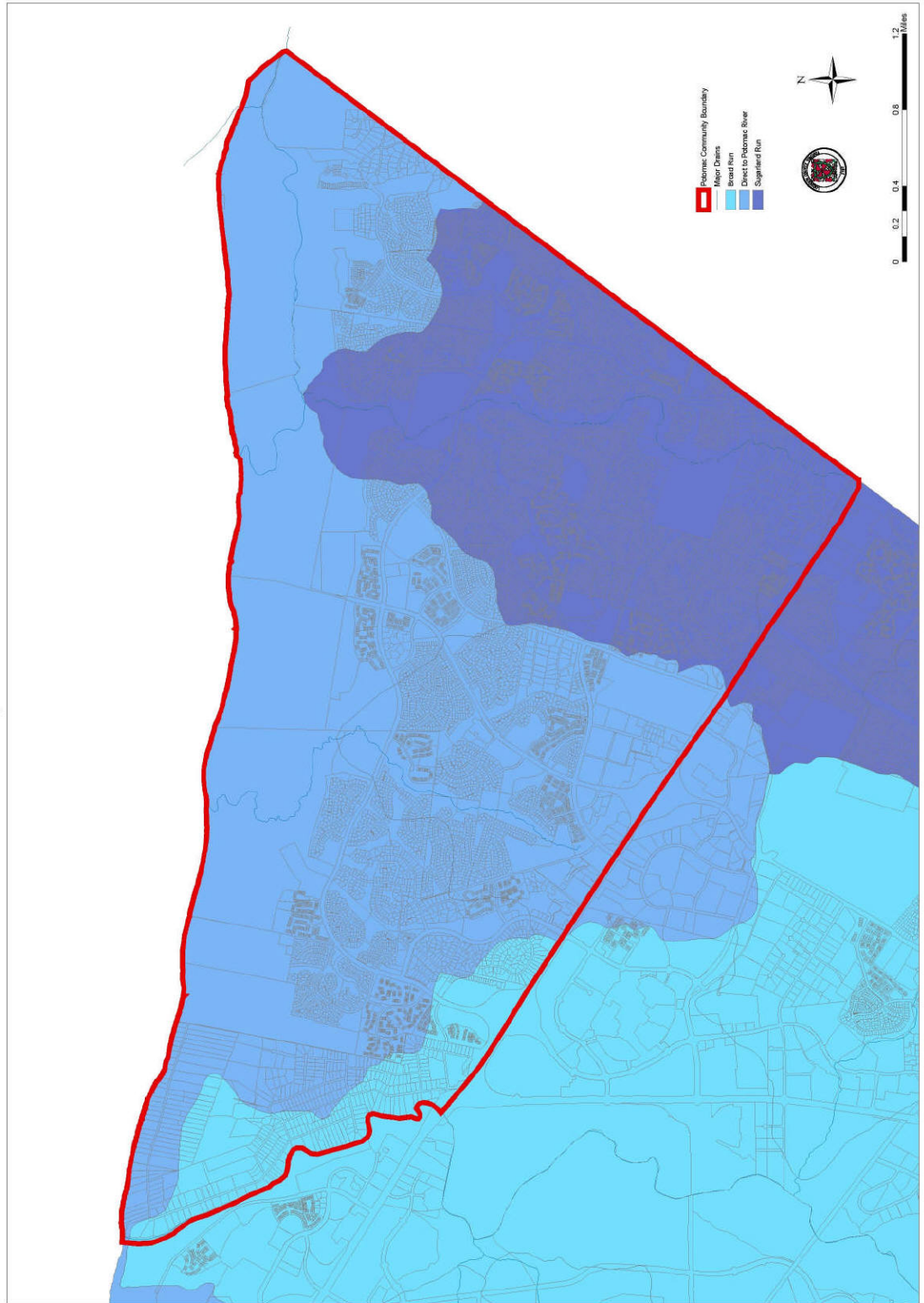


Source: Loudoun County Planning Department, February 1, 2008. All boundaries are approximate.





# Potomac Community Major Watersheds

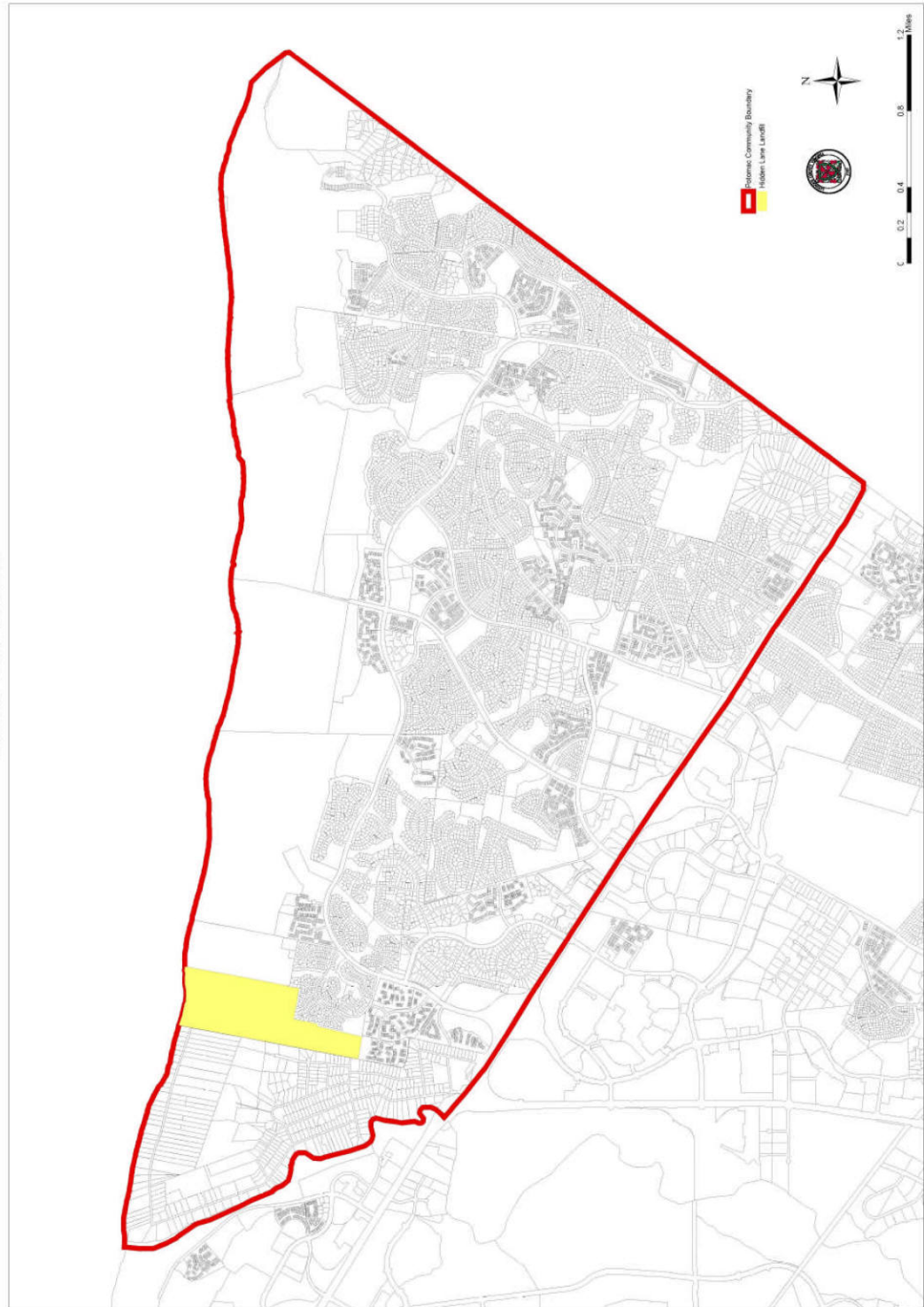


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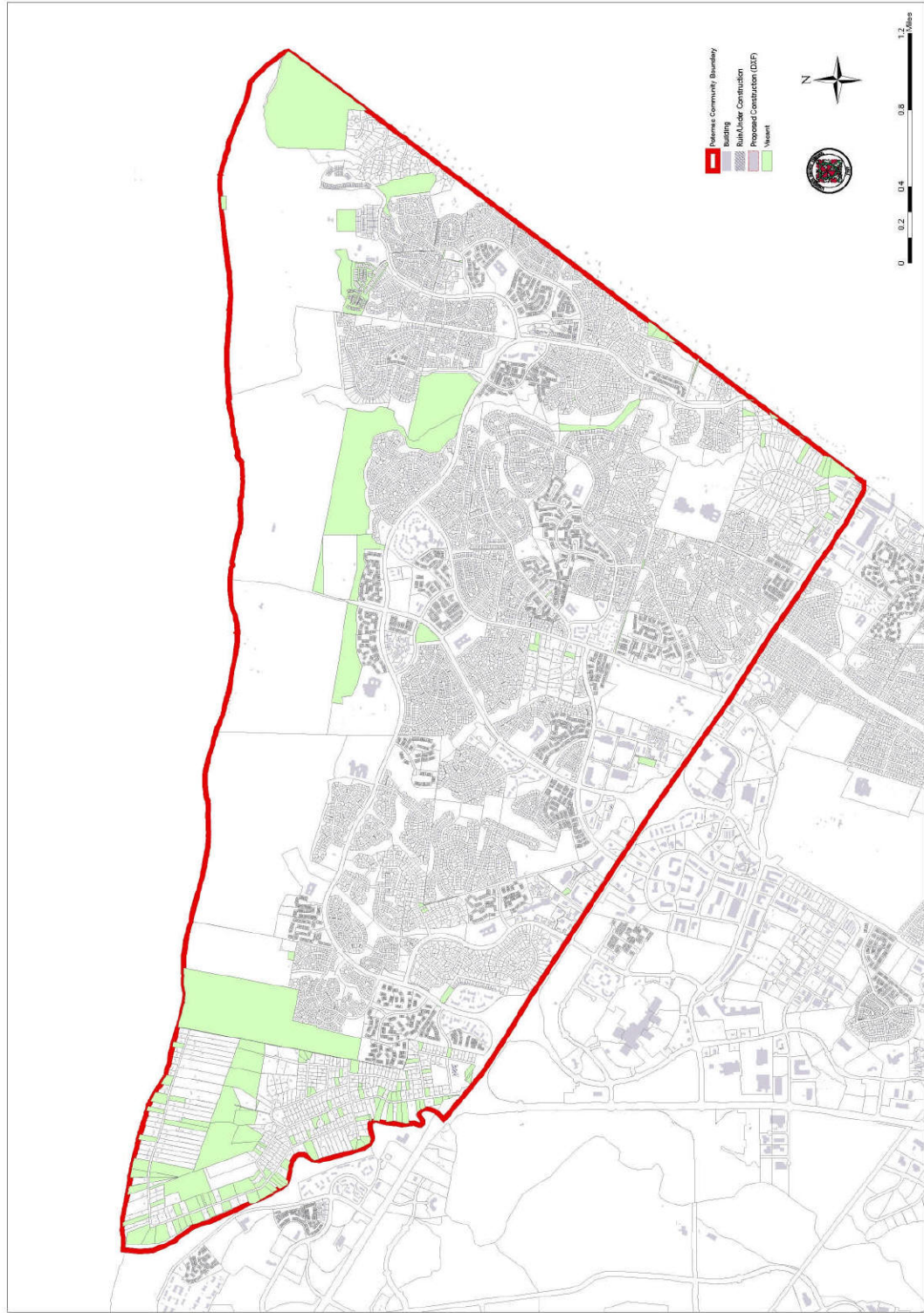
## Potomac Community

Hidden Lane Landfill



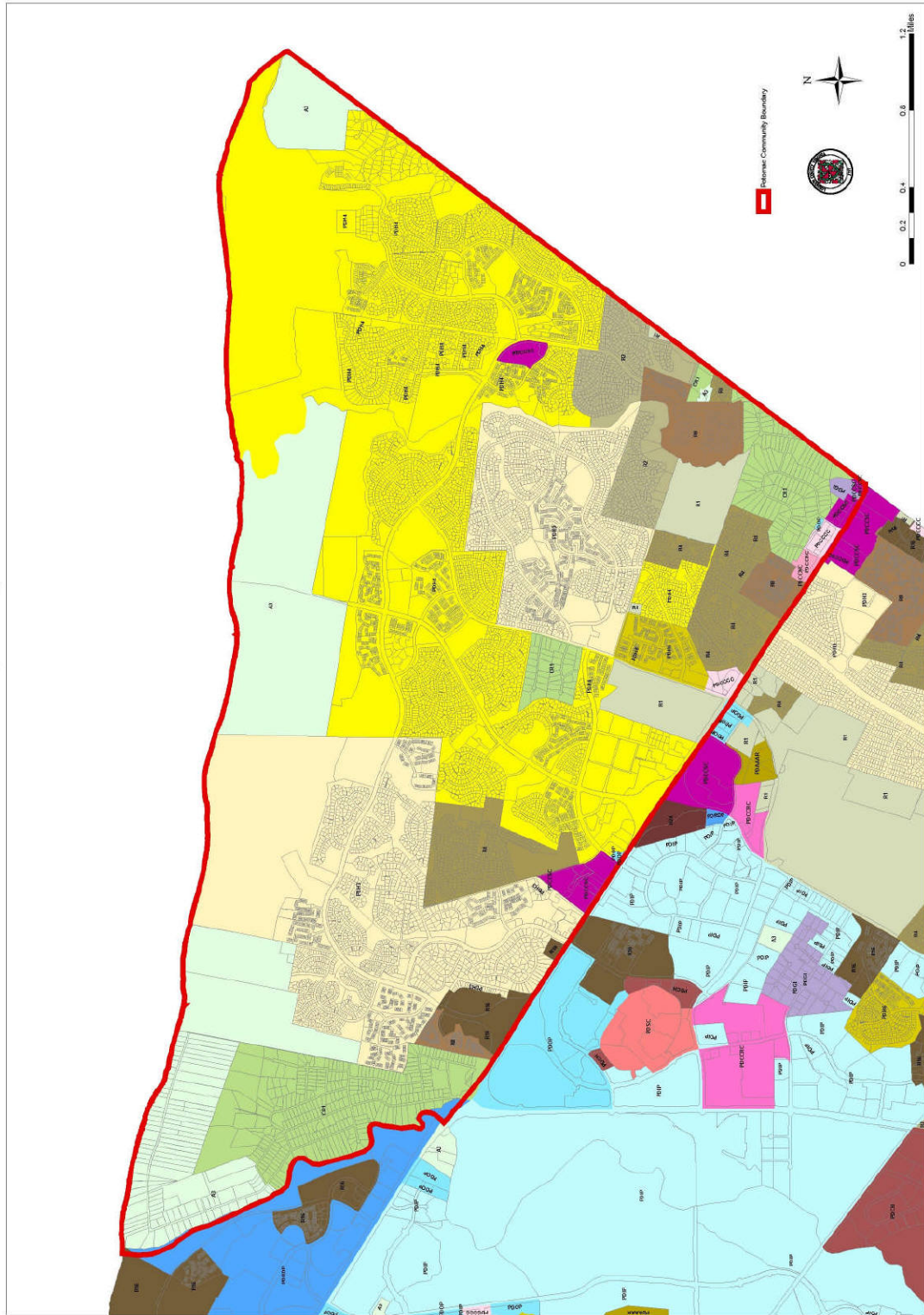


# Potomac Community Vacant Parcels

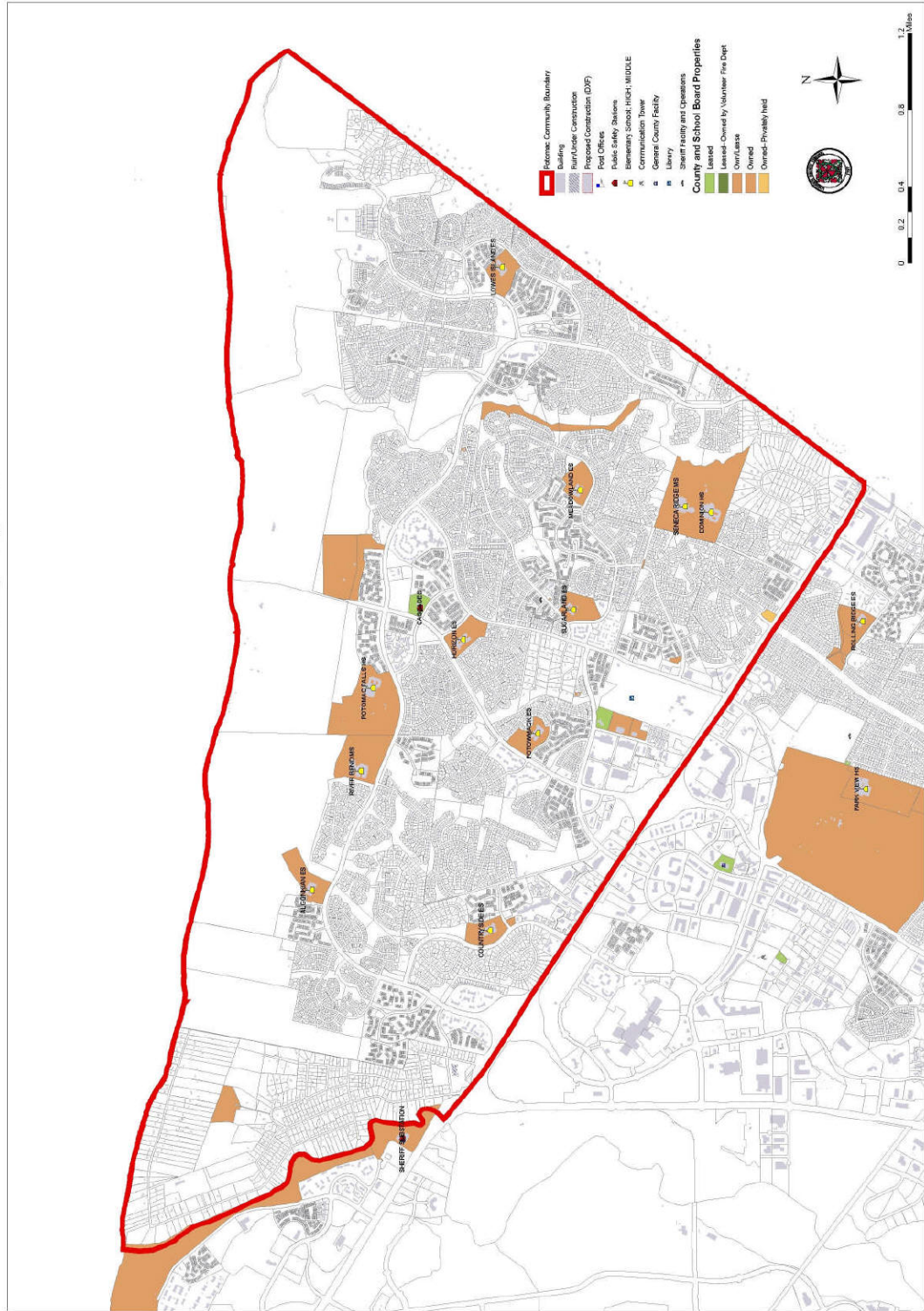


Source: Loudoun County Planning Department, February 13, 2008. All boundaries are approximate.

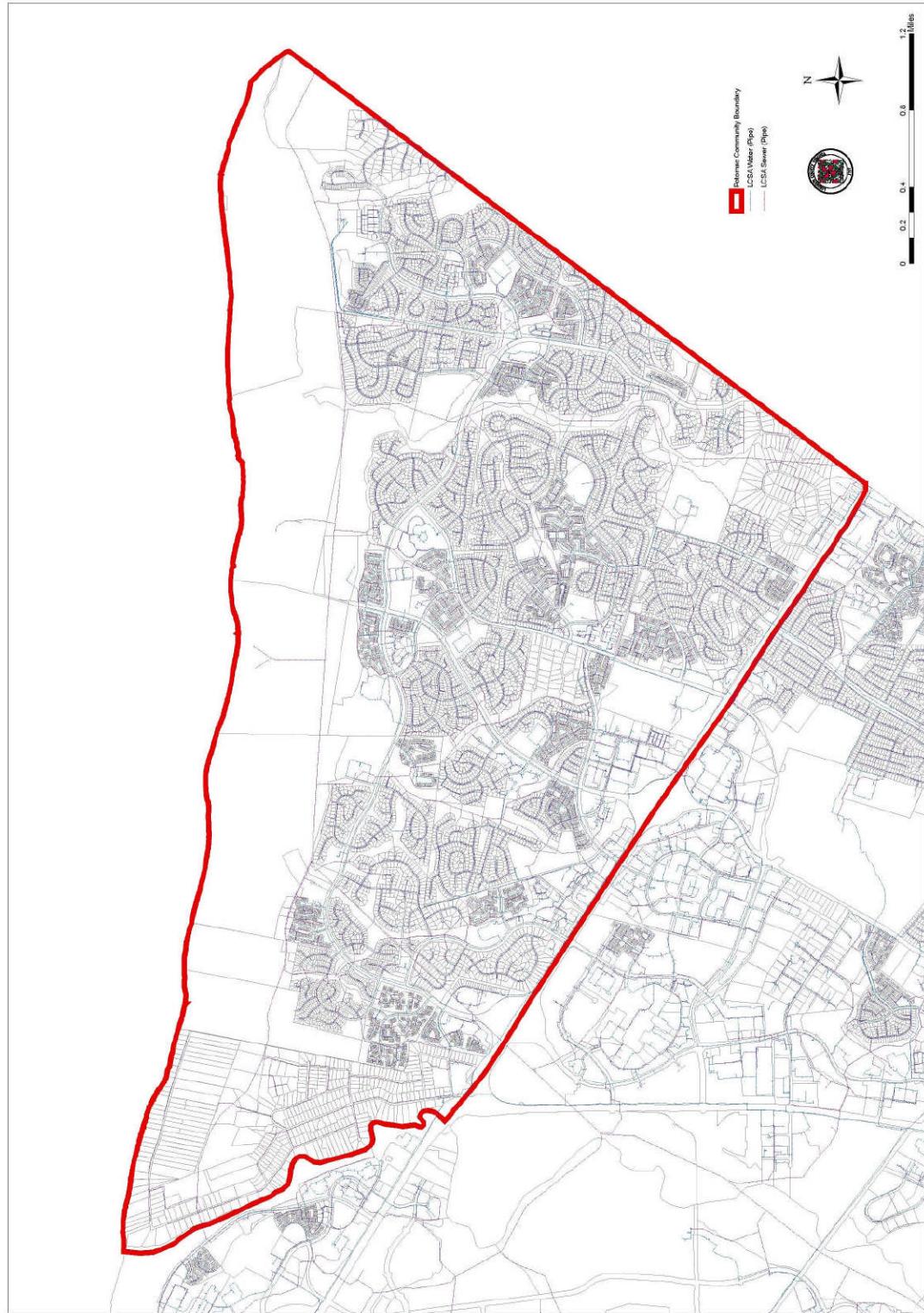
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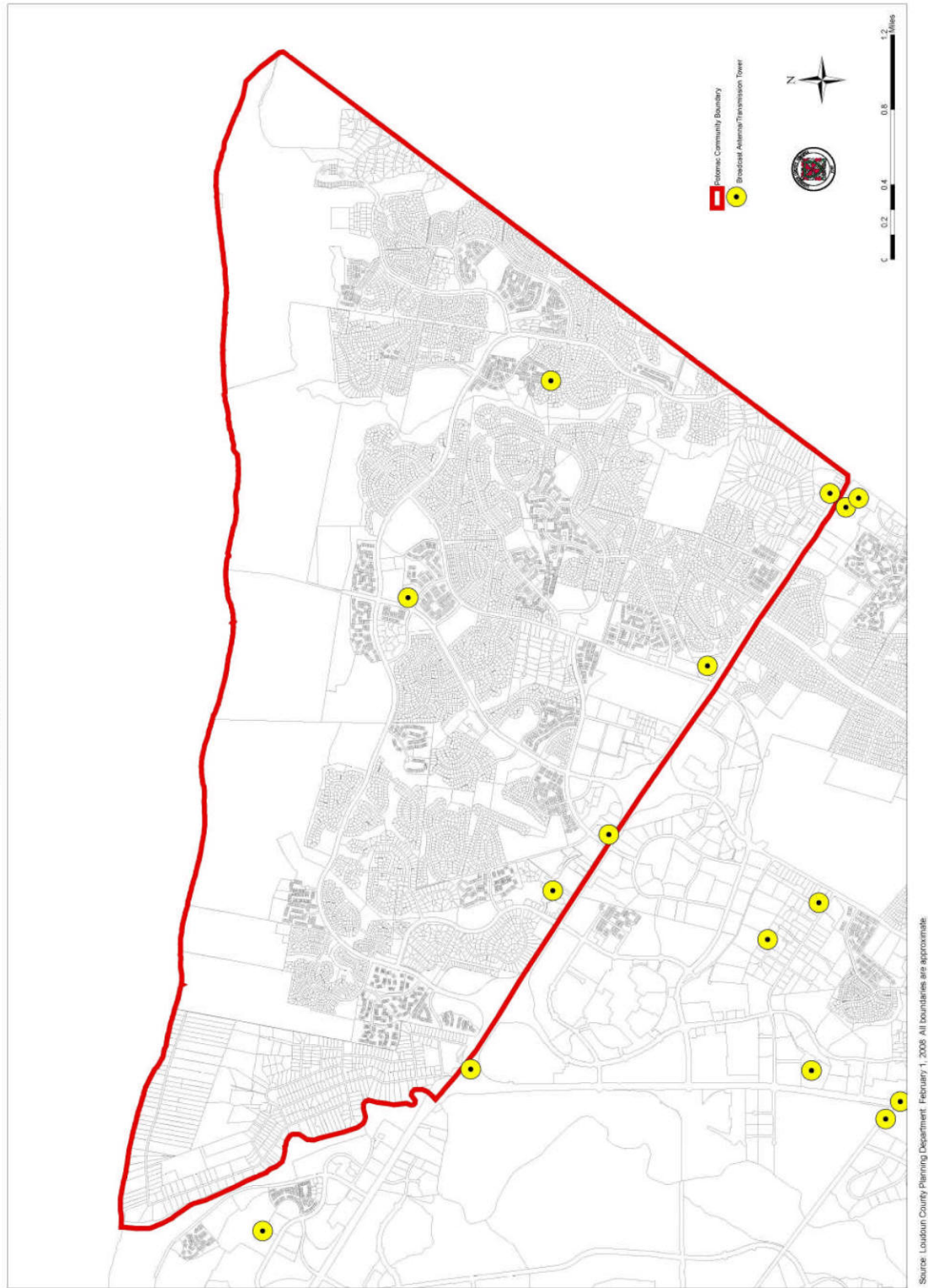
# Potomac Community Public Facilities and County Properties

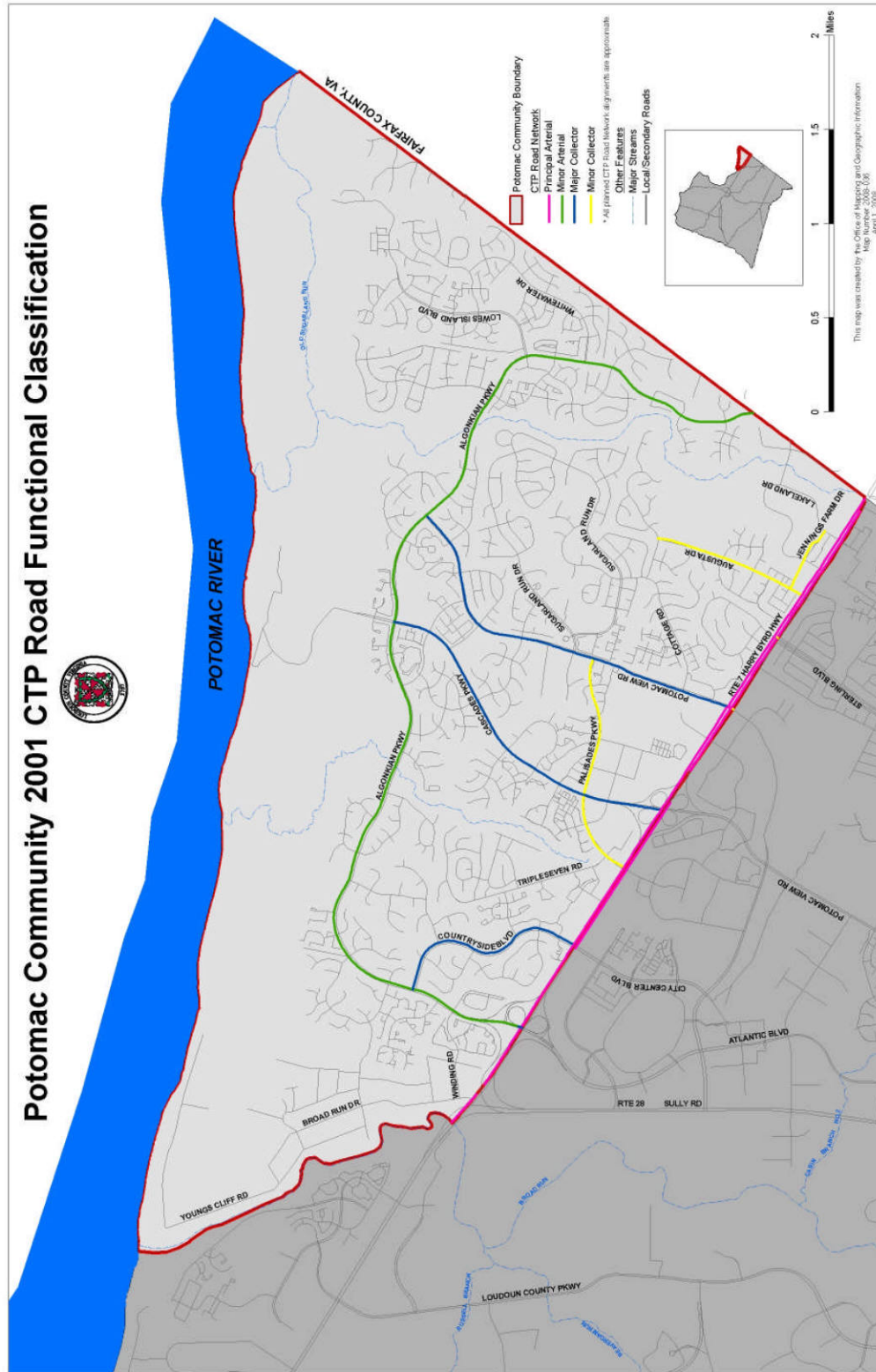


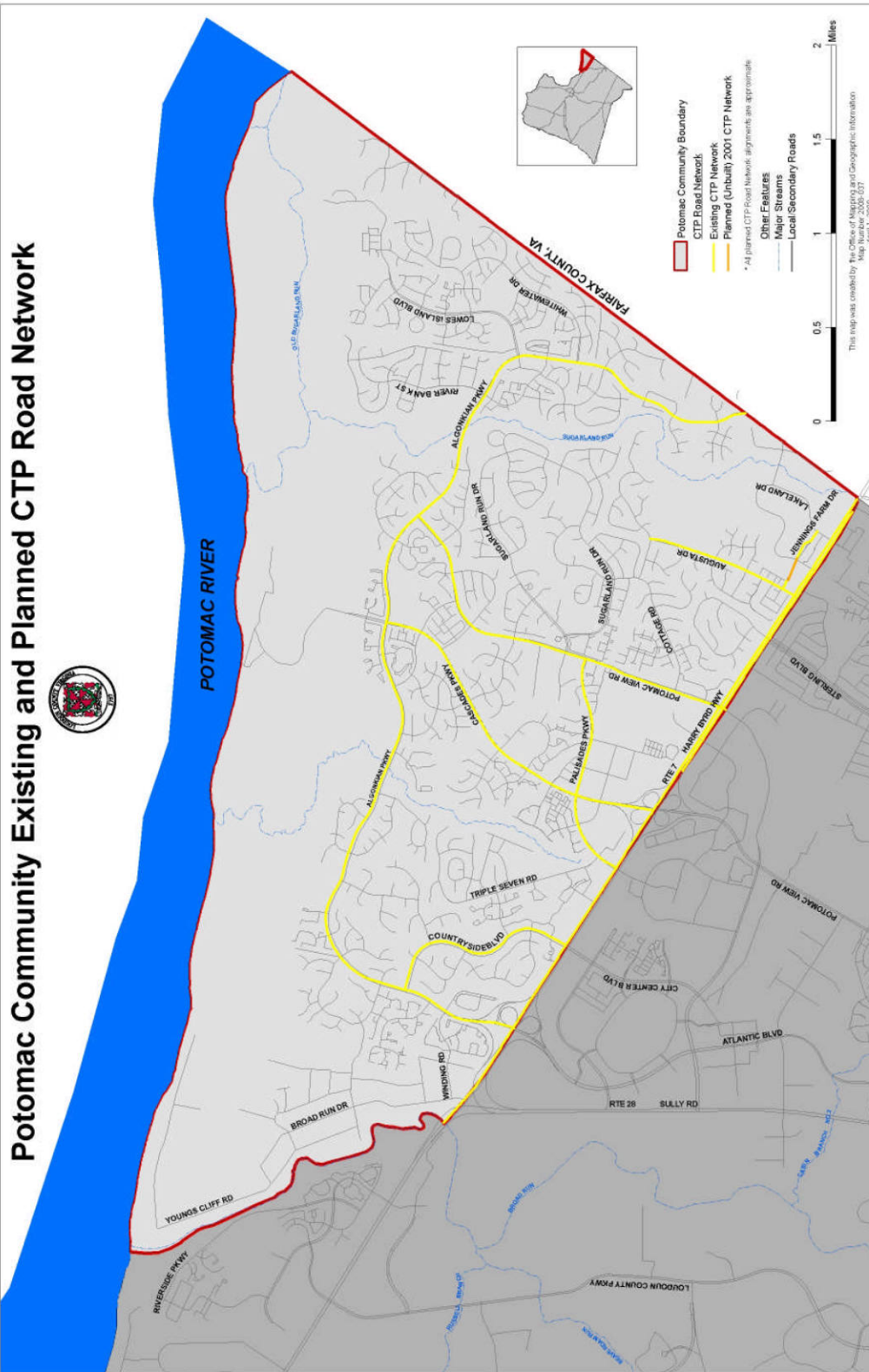
## Potomac Community Water and Sewer



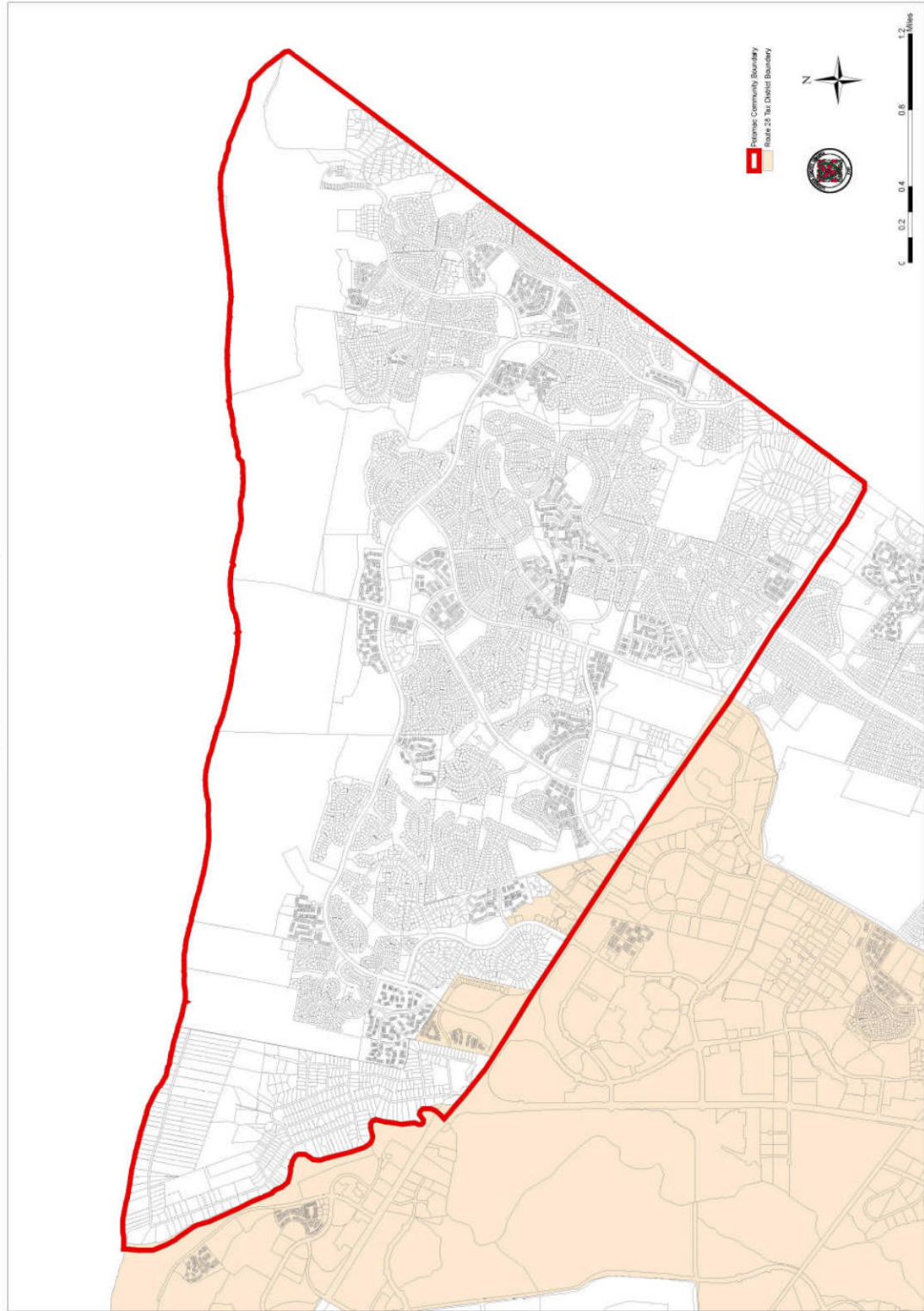
## Potomac Community Telecommunication Facilities







## Potomac Community Route 28 Tax District

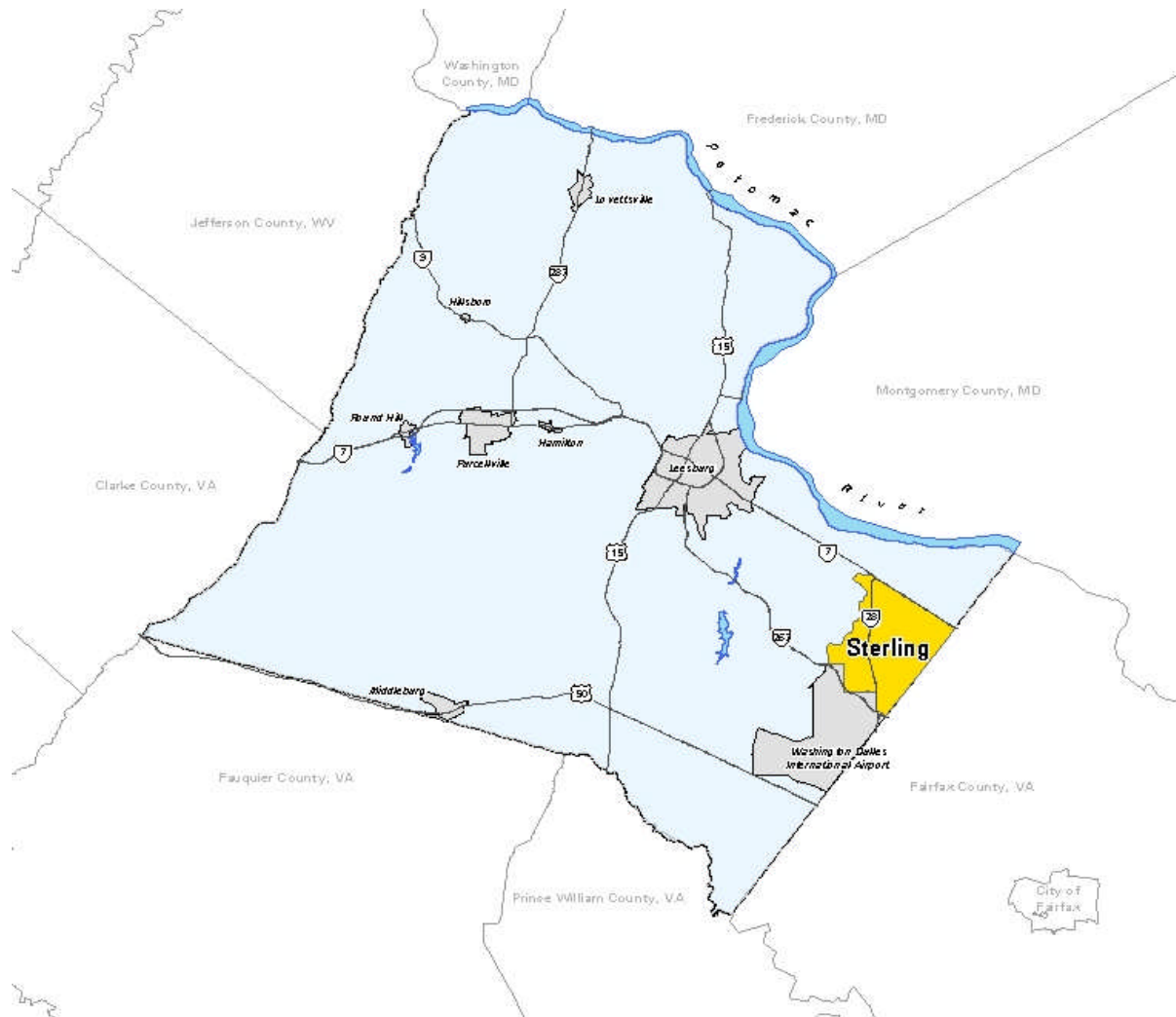


# Existing Conditions Report of the Sterling Community

April 2008

Revised as of May 21, 2008

Revised as of October 14, 2008



## Potomac/Sterling Community Outreach

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## Foreword

The Potomac and Sterling Communities are two of the County's oldest and most diverse communities in Loudoun County, offering a range of housing choices, economic diversity and retail opportunities. As is often common for maturing neighborhoods, however, the two communities are facing several challenges. In response, the Loudoun County Board of Supervisors has begun a community outreach project in the Potomac and Sterling Communities of Eastern Loudoun County. The purpose of the project is to engage a diverse cross-section of the public in constructive dialogue with the County. Through interactive public sessions and a community survey, citizens and other stakeholders within the community can present and discuss their key concerns and issues while also having the opportunity to suggest creative solutions that can enhance the quality of life within their neighborhoods.

The Potomac/Sterling Community Outreach project provides the opportunity to open new channels of communication between County agencies and citizens on topics that may include, but are not limited to:

- Transit/public transportation;
- Safety and community policing;
- Traffic calming;
- Pedestrian connectivity;
- Neighborhood boundaries;
- Land use conflicts;
- Potential reinvestment and revitalization areas/projects;
- Opportunities for business development;
- Location of new public facilities;
- Watershed management;
- The environment; and
- Other quality of life issues.

The results will be compiled and presented to the Board of Supervisors for their review and will assist the Board in identifying priorities for future "fine-grained" and detailed Suburban Community planning efforts.

Along with the results captured from the community process, the Existing Conditions Report is part of the package of information that will be presented to the Board. The Existing Conditions Report also provides a snapshot of the community for citizens and other stakeholders who can then use the information as a resource for their participation in the process. The County hopes you will find the information contained in this report useful. Please note the existing conditions described within this report are not an exhaustive list, but rather are highlights of certain conditions. Other conditions may exist that have not been included within this report. If you would like to provide additional comments, you can contact us at [potomac\\_sterling@loudoun.gov](mailto:potomac_sterling@loudoun.gov).

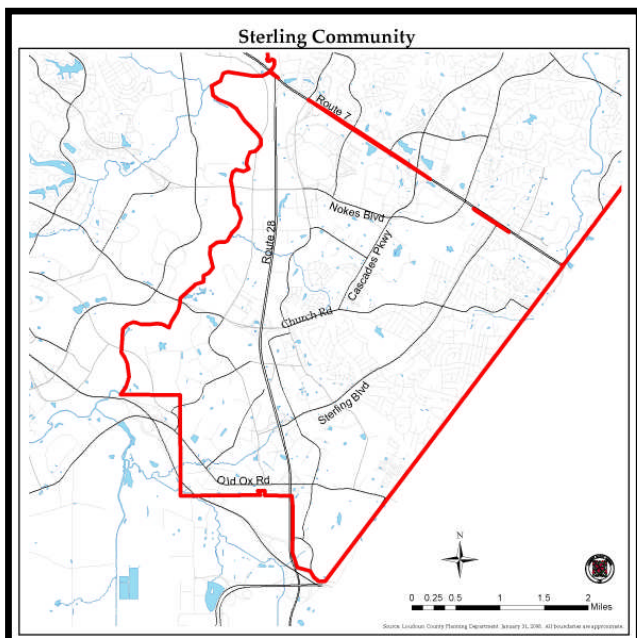
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## Introduction

The purpose of this report is to describe the existing conditions of the Sterling Community, including its natural, cultural, and social aspects. The report contains information on current land uses, zoning, existing and proposed infrastructure and transportation networks, and public facilities. It also provides a detailed description of community conditions such as population, housing, employment, and economic development. This report is intended to provide a snapshot of the community and set the framework for the Potomac and Sterling Community Outreach Project. Data for the report were collected by analyzing existing County information, researching applicable literature and websites, conducting interviews with local officials and internal County staff, reviewing historical information relating to the project, and performing field visits in the community.

## Community Boundary



The Sterling Community is located in the eastern portion of Loudoun County and includes the area from the Washington Dulles International Airport north to Route 7 between the Fairfax County line and the Broad Run stream. Major roadways within the Sterling Community include Route 7, Route 28, Nokes Boulevard, Potomac View Road, Cascades Parkway, Church Road, Waxpool Road, Sterling Boulevard, and Old Ox Road. See Attachment 3, pg. 38, for an aerial map of the community.

The Sterling Community contains approximately 9,134 acres and 8,692 parcels or portions of parcels. The majority of the parcels within the Sterling Community (43%) are a quarter acre or less. The largest parcel on record is Claude Moore Park which consists of 350 acres.

The Sterling Community is one of four suburban communities defined in Loudoun County's Comprehensive Plan, the other three being Ashburn, Potomac, and Dulles (See the [Revised General Plan](#), Suburban Community Boundaries Map on pg. 39). The Sterling Community is comprised of the entire Sterling Election District and portions of the Broad Run, Dulles, and Potomac Election Districts (See the Election Districts Map on pg. 40).

## Adjacent and Surrounding Development

The Sterling Community is located in the Suburban Policy Area, the easternmost portion of the County where the majority of the suburban-scale residential and non-residential development has occurred. It is surrounded by the Ashburn Community to the west, the Potomac Community to the north, the Washington Dulles International Airport to the south, and Fairfax County to the east. (For additional information on Potomac, please see the Potomac Community Existing Conditions report.)

Most of the surrounding area to the north and west is already developed or slated for development. Major surrounding developments include the Verizon campus (formerly MCI/Worldcom), Beaumeade Corporate Park, and the approved mixed-use One Loudoun development to the west, the mixed-use University Center to the north, the Howard Hughes Medical Institute to the northwest, and the National Air and Space Museum located to the south in Fairfax County. Also located to the south and the west of the Sterling Community is the Route 606 (Old Ox Road) and Route 772 (Ryan Road) planned Metrorail transit stations.

## Natural Environment



Broad Run

The Sterling Community contains several natural resources including, rivers and streams, ponds, forested areas, and steep slopes (See the Existing Conditions Map on pg. 41). The defining natural features of the community are the three watersheds (Broad Run, Potomac Basin Number One, and Sugarland Run), all of which drain into the Potomac River and the numerous streams which run through existing neighborhoods and non-residential areas (See the Major Watersheds Map on pg. 42).

Based on the County's Geographic Information System (GIS) records, approximately 825 acres, or 9% percent of the total land area, contains major or minor floodplain. In addition, steep and moderately steep slopes are present, primarily within or adjacent to the stream valleys and quarry areas. These steep slope areas do not take up large blocks of land, but are scattered throughout the area. However, there is a concentrated amount of steep slopes located in the southeastern portion of the Community, south of Old Ox Road (Route 606) surrounding the Loudoun Quarry.

The Sterling Community contains some soil types that are categorized as having very poor development potential due to wetness, plasticity and rock. Diabase, actively quarried at the Loudoun Quarry is a hard, brittle rock used as a base



Loudoun Quarry

component for construction of roads and for building foundations. Approximately 145 acres of land is quarried at the Loudoun Quarry (See the Quarry Map on pg. 43).

At one time this area was heavily wooded but was cleared substantially for early farms and settlements. Over time, as farms were abandoned, vegetation increased but in the form of poor quality (mostly cedar) forests. Approximately 270 acres in the Sterling Community, or 2% percent of the total land area, is classified as forested.

The majority of the land remaining in a natural state is associated with Claude Moore Park, which contains approximately 350 acres; within the open space areas and natural drainage ways of existing residential and non-residential developments; and on the remaining undeveloped parcels within the community. According to County records, over 570 acres are protected within conservation easements (See the Conservation Lands Map on pg. 44). In addition to Claude Moore Park, these easements include the County-owned Briar Patch Park, the Northern Virginia Regional Park Authority owned W&OD Trail, and Sterling Park Recreation Center.

## Water Quality

Water quality assessments for the main branch of Broad Run have been performed by the Virginia Department of Environmental Quality (DEQ). DEQ has determined that the portion of Broad Run that forms the western border of the Sterling Community is impaired based on levels of PCBs (Polychlorinated Biphenyls) in fish tissue. The source for the impairment has not been determined. The main tributaries to Broad Run, Sugarland Run and the Potomac Basin Number One in the Sterling Community have not been assessed (*Virginia Department of Environmental Quality, 2006*).

The majority of the Sterling Community is supplied water by Loudoun Water (formerly Loudoun County Sanitation Authority or LCSA). However, according to Loudoun County Health Department records, there are 151 domestic wells in service in the community, along with 26 non-community wells<sup>1</sup> (mostly at

<sup>1</sup> Well that serves more than one household, but not the same group of people, such as churches, rest stops, camps, parks. Most of the non-community wells in Sterling are located in the Route 606 corridor.

churches, parks, and commercial sites), seven irrigation wells<sup>2</sup> and three industrial wells. In terms of potential groundwater pollution sites, there are 155 drainfields located in the Sterling Community, 30 chemical storage tanks (mostly fuels), and eight permitted solid waste handlers<sup>3</sup>. Lots served by onsite wells and septic are older facilities and may not meet current construction methods and setbacks to potential pollution sources.

## Heritage Resources

The presence of environmental features such as the Potomac River and Broad Run played a significant part in the early settlement and land use pattern of the Sterling Community (See Attachment 2, Settlement History). Although not much is known about Native American use and settlement in the area, several Native American camp sites of undetermined age have been identified in the Sterling Community. It is probable that additional archaeological sites in the Community could be discovered, particularly in the stream valleys of the Broad Run due to its historical importance as a water resource.

The Virginia Department of Historic Resources Data Sharing Service (DSS) (*Virginia Department of Historic Resources, 2008*) identifies 42 surveyed historic sites and 54 identified archaeological sites in the Sterling Community. Several notable historic surveyed resources in the area include a portion of pre-revolutionary Vestal's Gap Road, several homes dating back to the late 1700's, and the Sterling School (currently the Sterling Annex Community Center) built in the 1930's. Additionally, the bed of the Washington & Old Dominion Railroad, currently owned by the Northern Virginia Regional Park Authority, transverses the Sterling Community. The National Register-listed W&OD Regional Park (053-0276) is the east-west regional multi-use trail in Northern Virginia, connecting Purcellville with Alexandria. No historic districts have been designated in the Sterling Community.



Tippetts Hill Cemetery

There are also six cemeteries in the Sterling Community. The Tippetts Hill Cemetery located off of Moran Road was originally located on the Tippetts Hill plantation for the interment of African-American slaves. The cemetery is now a community cemetery and is still in use today.

<sup>2</sup> Wells designed and permitted for use in irrigation only, and not to be used for potable supplies. These wells do not meet design criteria for domestic or community drinking water.

<sup>3</sup> Solid waste handlers are either landfills or junkyards (autos, metals recycling, etc.).

## Housing Types and Population

The Sterling Community was one of the first places in the County to develop. Significant growth began in the 1970s and continued through 2000 (*See Tables 1 and 2*). Today, the Sterling Community contains a high percentage of the County's residences and population. In 2007, the Sterling Community comprised 11% of the County's total population with an estimated 30,852 persons and 11,169 households, compared with 271,069 residents and 95,666 households within Loudoun County as a whole. The Sterling Community is largely "built out" except for a few large parcels. The community is expected to be completely built out by 2030. The population is forecasted to be 33,961 persons, an increase of 3,109 (10.1%) between 2007 and 2030. Similarly, the number of households are forecasted to be 12,529, an increase of 1,360 (12.2%) between 2007 and 2030.

**Table 1: Population Trends and Forecast**

	Population	Population Change	
	#	#	%
1990	20,737	--	--
2000	27,464	6,727	32.4%
2007	30,852	3,388	12.3%
2030	33,961	3,109	10.1%

Source: U.S. Census Bureau, Census 1990 and 2000; Loudoun County Department of Management and Financial Services, March 2008.

**Table 2: Household Trends and Forecast**

	Households	Household Change	
	#	#	%
1990	7,025	--	--
2000	9,748	2,723	38.8%
2007	11,169	1,421	14.6%
2030	12,529	1,360	12.2%

Source: U.S. Census Bureau, Census 1990 and 2000; Loudoun County Department of Management and Financial Services, March 2008.

Using 2007 data, the majority (43%) of the homes within the Sterling Community consisted of single family detached, followed by 34% single family attached (townhouses), and 23% multi-family units (apartments and condos). In comparison, the County's housing unit type breakdown in 2007 as a whole consists of 54% single family detached, 29% single family attached, and 16% multifamily units. Most notable is the Sterling Community's proportion of apartments and condos compared to the County as a whole.

### Affordable Housing

The Sterling Community contains some of the County's most affordable housing

due to a number of factors, including the diversity of housing types and through the support of the County's Affordable Dwelling Unit (ADU) Program. The County's ADU Program enables eligible first time homebuyers with moderate income the opportunity to purchase a newly constructed or resale ADU townhouse or condominium. To be eligible, total household income must be more than 30% and less than 70% of the area median income (currently set at \$99,000) based on the Primary Washington Metropolitan Statistical Area. Prices for these homes are much lower than comparable market rate homes and typically range from approximately \$120,000 to \$180,000 (*Loudoun County Department of Family Services, 2007b*). These properties are subject to restrictive covenants related to refinancing and transfer of the property for 15 years, after which the unit can be sold at market rate with the profit being split between the seller and the County's Trust Fund. According to County records there are over 150 ADUs throughout the Sterling Community.

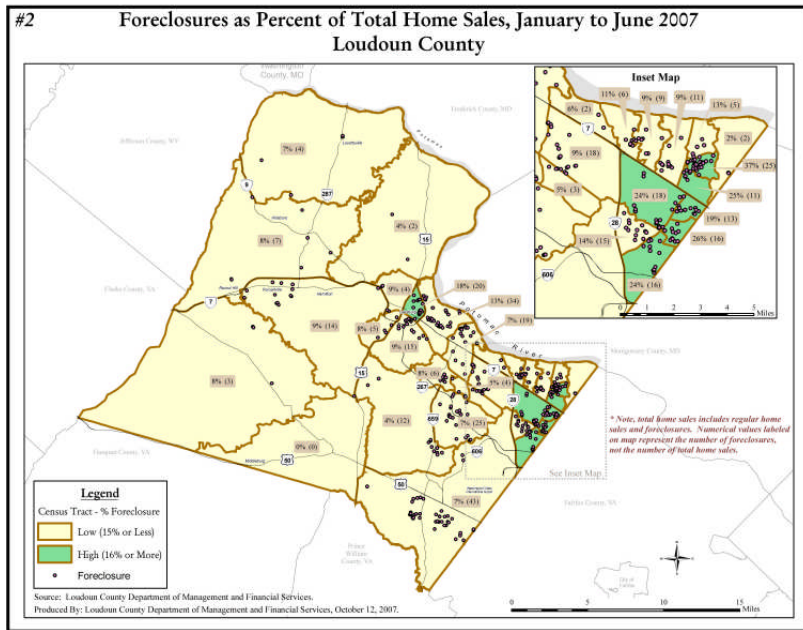
In addition to the home ownership program, an ADU rental program is available for those earning between 30% and 50% of the area median income. Through this program, non-homeowners have the opportunity to rent an apartment from a participating apartment complex at a rent below that of similar units at the complex. Average rental rates range from approximately \$530 to \$1300 depending on the type and size of the unit, not including the cost of utilities. Unit types and sizes range from one bedroom/one bath to three bedroom/two bath units (*Loudoun County Department of Family Services, 2007b*). The rents for these units are controlled for a period of 20 years. As of July 5, 2007, two apartment complexes within the Sterling Community participated in this program: The Fields at Cascades and Chatham Commons.

The William Waters House, a United States Department of Housing and Urban Development (HUD) tenant based rental assistance program, is also located within the Sterling Community. This tenant based rental assistance program is a type of federally subsidized housing provided by HUD for low income families and individuals. Under this program, eligible families and individuals pay a portion of the rent based on income, generally no more than 30% of the family or individual's income. The Public Housing Authority pays the balance of the rent, subject to a cap referred to as "Fair Market Rent" determined by HUD.

### Home Improvements

The Sterling Community includes neighborhoods with homes built during the 1960's and 1970's. The aging of this housing stock requires attention to individual property maintenance and neighborhood revitalization. Two County programs, the Loudoun County Home Improvement Program (LCHIP) and the Eastern Loudoun Revitalization Home Loan Program (LCHRP), provide funds to renovate the primary residence of low-to-moderate income homeowners in eastern Loudoun County (*Department of Family Services, 2007*). To date many of the LCHIP and LCHRP projects have been within the Sterling or Potomac

Communities. Within the Sterling Community, improvements have been made to three homes within Sterling Park using funds from these programs. Repairs have included roofs, siding, windows, flooring updates to baths and kitchens, electrical and painting.



## Foreclosures

According to a recent County report, the Sterling Community is currently experiencing a larger percentage of residential foreclosures compared to most other areas of the County, as shown in the graphic to the left (*Loudoun County Department of Management and Financial Services, 2008*). This can contribute to an accelerated deterioration of the housing stock, a depression of property values and an increase in vacancy rates.

## Land Use

The Sterling Community contains a mixture of uses including residential, public and civic, retail and commercial service, office, and industrial (light and heavy) with 2,742 acres or 32% of the land vacant as shown in the table below (See the Subdivisions Map and Vacant Parcels Map on pp. 45 & 46 and Table 3).

**Table 3: Existing Land Uses within the Sterling Community**

Land Use	Parcel Acreage	Percent
Residential including HOA land	2,418	28%
Office	641	7%
Industrial	1,087	13%
Commercial/Retail	837	10%
Public/Civic	864	10%
Vacant	2,742	32%
<b>Total</b>	<b>8,589</b>	<b>100%</b>

*Estimate based on a combination of data sources, Loudoun County GIS and LMIS records. Based on actual parcel acreage, excluding right-of-way.*

## Planned Land Use

The Comprehensive Plan provides the long-range vision of the County and is the basis for evaluating land-development proposals. The Revised General Plan is the foundation for the County's Comprehensive Plan and can be found at

[www.loudoun.gov/planning](http://www.loudoun.gov/planning).

The Sterling Community has five different planned land uses (Residential, High Density Residential, Business, Keynote Employment, and Industrial) in addition to a Destination Retail Overlay along the Route 7 and Route 28 Corridors, an Urban Center designation at the Route 7/Route 28 interchange, and the Transit-Related Employment Center (TREC) designation associated with the Route 606 planned Metrorail transit station (See the Planned Land Use Map on pg. 47 and Table 4). Areas planned for non-residential uses comprise 66% of the Sterling Community.

The area surrounding the airport is planned for industrial uses and other non-residential development to support the continued growth and expansion of the Dulles Airport as well as to take advantage of the regional and national market visibility offered by the Airport (*Revised General Plan, Economic Development Policies*, p. 4-9). In addition, the Transit-Related Employment Center (TREC) associated with the Route 606 planned Metrorail transit station is located north of Dulles Airport within the southwest portion of the Sterling Community. The TREC is planned as a compact, high-intensity employment center and/or a Special Activity use to support and serve the transit service planned for this area. The TREC encompasses an area no larger than ½ mile north of the proposed transit station.

The Sterling Community also has a Destination Retail Overlay which provides an additional development option for properties located within these areas. The Overlay is located along the Route 28 Corridor in the Dulles Town Center/Dulles Town Crossing area and extends south past the Waxpool Road and Church Road intersection as well as two locations along the Route 7 Corridor, adjacent to the Dulles Town Center and the Potomac Run Shopping Center.

Residentially planned areas are primarily located north of the W&OD Trail and east of Cascades Parkway and Potomac View Road. Residential densities within the Sterling Community are permitted up to 4 dwelling units per acre in areas planned for Residential land uses, up to 8 (Pearson Reserve) and 10 (Victoria Station) dwelling units per acre in High-Density Residential areas, and up to 24 dwelling units per acre at the Urban Center, depending upon bus transit facilities serving the area (*Revised General Plan, Policies 2, 3, and 6, pp. 6-17 and 6-21*).

**Table 4: Sterling Community Land Use Matrix**

Land Use*	Definition
Keynote Employment	Large-scale regional office developments, including office parks, research-and-development parks, and corporate headquarters (example, AOL, Orbital)
Regional Office	Variety of office uses (example, Loudoun Tech Center)
Light Industrial	Lowrise (primarily two-story or less) development, includes flex warehouse and small-scale manufacturing (example, Trans Dulles)
General Industrial	Labor intensive industrial and commercial uses (example, Loudoun Quarry, North Dulles Business Center)
Urban Center	Intensive, large-scale mixed-use development; density phased contingent upon the availability of transit.
Transit Node: Transit-Related Employment Center	Compact employment-based development at densities to support transit.
Destination Retail	Retail uses that act as destinations, attracting customers from a regional market (example, Dulles Town Center, Dulles Town Crossing)
Residential	Mixed-type housing neighborhoods. Allows for mix of residential supportive uses (example, Sterling Park, Dominion Station).
High-Density Residential	Single-family attached and multi-family housing. Allows for mix of residential and supportive uses (example, Parc Dulles at Dulles Town Center).

\* The Plan sets forth a requirement that each of the planned land uses incorporate public and civic uses, public parks and other open space areas. With the exception of the Urban Center and Transit-Related Employment Center, which require a retail and personal service component, the planned land uses permit a retail and personal service component to serve the employees and residents (*Revised General Plan, Land Use Mix Policies*, pp. 6-17 – 6-31).

A large portion of the Sterling Community is located within the Route 28 Highway Improvement Tax District (Route 28 Tax District), formed on December 21, 1987 to finance surface transportation improvements to Route 28 in Fairfax and Loudoun counties (See the Route 28 Tax District Map on pg. 48). To pay the debt service on the Transportation Bonds issued to improve Route 28, non-residential property owners within the Tax District are assessed additional real property taxes of \$.20 per \$100. Only those properties zoned or used for commercial and industrial purposes are subject to the Tax District's special tax. The County has collected over \$72 million since the district was formed, which has been used to finance the widening of Route 28 as well as the construction of the Route 28 interchanges.

Plan policies encourage the development of non-residential uses within the Route 28 Tax District to support transportation improvements in the corridor, which in turn broaden economic benefits for the County. Residential development within the Route 28 Tax District is limited to three specific locations (the Old Sterling planning area, the Oak Grove area, and the Eden Tract and Loudoun Village properties) as well as areas designated as high density residential on the planned land use map (*Revised General Plan, Policy 3*, p. 6-17).

## Zoning

Loudoun County's Zoning Ordinance is intended to implement the Comprehensive Plan and divides all the land in the County into zoning districts that specify the types of uses allowed and required development standards for each district.

Non-residential zoning districts comprise 66% of the total acreage within the Sterling Community and consist of C-1 (Commercial), I-1 (Industrial), PD-CC (Planned Development – Commercial Center), PD-SC (Planned Development – Shopping Center), PD-CH (Planned Development – Commercial Highway), PD-GI (Planned Development – General Industrial), PD-IP (Planned Development – Industrial Park), PD-OP (Planned Development – Office Park), and PD-RDP (Planned Development – Research and Development Park). The C-1, I-1, PD-SC, and PD-CH are all under the 1972 Zoning Ordinance and are only found within the Route 28 Tax District. Residential, including High Density Residential zoning districts, comprise 34% of the total acreage and include Agriculture/Residential (A-3), Countryside Residential (CR-1), Planned Development Active Adult Age Restricted (PD-AAAR), and a variety of Planned Development Housing (PD-H) and Residential (R) districts<sup>4</sup>. See the Existing Zoning Map on pg 49.

## Zoning Enforcement

Loudoun County's Zoning Enforcement Team in the Department of Building & Development investigates alleged violations of Loudoun County's Zoning Ordinance. Potential infractions are typically investigated after someone files a complaint with the County. The top three complaints within the Sterling Community are: (1) inoperable, commercial and recreational vehicles; (2) overcrowding (per the Zoning Ordinance definition of a family and property maintenance code); and (3) businesses being operated from the home without a home occupation permit. Due to the large number of complaints received in the Sterling Community, the Board of Supervisors initiated a proactive zoning enforcement pilot project. The project began the week of January 21, 2008 for all properties located on North Argonne Avenue and Williamsburg Road within Sterling Park. Staff facilitated two public information sessions regarding the enforcement effort on January 10, 2008 at Park View High School. The six month project is expected to conclude on June 16, 2008.

## Employment Uses

By 2006, there were over 8.5 million square feet of employment space (includes office, light industrial and industrial uses) within the Sterling Subarea<sup>5</sup> (*Loudoun County, 2006 Annual Growth Summary, Table G-3, p. 59*).

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<sup>4</sup> All of these residential zoning districts permit non-residential uses. For example, the PD-H districts are intended to support the development of mixed-use residential communities with supportive non-residential uses.

<sup>5</sup> Please note the Sterling Subarea does not extend west of Route 28.

Office development within the Sterling Community is concentrated along the Route 7, Route 28, and Route 625 corridors. Developments consist of corporate headquarters like that of AOL, located within the Broad Run Business Center, Orbital Sciences, located within Steeplechase Industrial Park, and one story to multi-story buildings within areas such as Loudoun Tech Center. The area also contains community-serving professional office buildings like the medical offices located within Sterling Park.



AOL within the Broad Run Business Center

Light industrial uses, including flex warehouse and smaller-scale manufacturing uses, are typically one to two-stories and are located closer to Dulles International Airport, taking advantage of business opportunities associated with proximity to the airport. Many of these uses are located within industrial parks, which also include a mix of office uses. Heavier industrial uses are primarily located along the Route 606 corridor; however, there are some industrial uses located along Woodland Road within the Woodland Road

Industrial Park and the Shaw Road corridor. Industrial uses are mostly airport- and construction-related businesses that often accommodate heavy trucks and construction equipment. Other industrial uses within the Sterling Community include the Loudoun Quarry and numerous auto related uses.



Sterling Park Business Center – Mix of office and flex industrial

Major office and industrial parks within the Sterling Community include Bryant Dulles Industrial Park West, Bay Dulles/Power, Broad Run Business Center, Bryant Industrial Park, Burgers Industrial, Commonwealth Center-Sterling, Concorde Industrial Park, Dulles International Park, Dulles North Corporate Park, Dulles Summit, Dulles Town Center, Dulles Trade Center, Four Corners, Highpoint Corporate Park, Loudoun Business Park, Loudoun Center, Loudoun Gateway, Loudoun Tech Center, Oak Grove Industrial Park, Oakbrook, Prologis Park, Prospect Industrial Park, Staverton/Severn, Steeplechase, Sterling Park Business Center, TransDulles Centre, Vintage Park, Waterside, and Woodland Road Industrial Park.

## Retail and Commercial Service Development

Retail development within the Leesburg and Sterling areas accounts for more than 58 percent (6.7 million square feet) of Loudoun's retail space. The Sterling Subarea itself has over 3 million square feet of retail uses,<sup>6</sup> reflective of the area's significant residential and worker populations and the Route 7 and Route 28 corridors as a destination for shopping (*Loudoun County, 2006 Annual Growth Summary, Table G-3, p. 59*).

Retail development within the Sterling Community consists of neighborhood-serving retail like that found at Sterling Plaza as well as destination retail uses like those at Dulles Town Center and Dulles Town Crossing. The Community contains a total of sixteen shopping centers (Cascades Plaza, Church Plaza, Dulles 28 Centre, Dulles Square, Dulles Town Center, Dulles Town Crossing, Enterprise Center, Oak Grove Village Center, Potomac Run, Rock Hill Center, Sterling Plaza, Sterling Shopping Mall, Sterling Town Center, Sterling Village Center, Sugarland Crossing, and Village Center on Seven,) (*see Table 5*) as well as several freestanding businesses such as hotels, gas stations, restaurants, and large-scale retailers such as Costco and Lindsay Volkswagen.

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<sup>6</sup> The Sterling Subarea does not extend west of Route 28.

**Table 5: Shopping Centers within the Sterling Community**

Retail Center	Size (sf)	Address/Location
<b>Convenience Centers</b> <i>(fulfills day-to-day needs; up to 30,000 sq ft)</i>		
Cascades Plaza	20,500	21944 Cascades Parkway
Church Plaza	13,500	45665 Church Road
Enterprise Center	14,000	156 Enterprise Street
Oak Grove Village Center	23,745	23070 Oakgrove Road
Rock Hill Center	15,250	46000 Old Ox Road
Sterling Village Center	24,400	45529 West Church Road
<b>TOTAL</b>	<b>111,395</b>	
<b>Neighborhood Centers</b> <i>(also fulfills day-to-day needs but serves a larger market area; between 30,000 and 150,000 sq ft)</i>		
Sterling Plaza	154,000	22330 South Sterling Blvd.
Sterling Town Center	127,100	21800 Towncenter Plaza
Sterling Park Shopping Mall	107,700	301 Enterprise Street
Dulles Square	45,200	22237-22267 Shaw Road
<b>TOTAL</b>	<b>434,000</b>	
<b>Community Centers</b> <i>(also fulfills day-to-day needs and may also feature comparison goods stores, such as small or discount clothing store and specialty shops; typically 150,000 to 500,000 square feet)</i>		
Dulles 28 Centre	359,513	NW Corner of Rt. 28 and Waxpool Rd.
Potomac Run	486,100	46220 Potomac Run Plaza
Sugarland Crossing	263,079	47100 Community Plaza
Village Center on Seven	161,300	46950 Community Plaza
<b>TOTAL Built</b>	<b>1,269,992</b>	
Dulles 28 Centre (Unbuilt)	473,487	Waxpool Road
<b>TOTAL Built and Unbuilt</b>	<b>1,743,479</b>	
<b>Super Regional Centers</b> <i>(dominated by comparison shopping goods stores, typically indoor climate-controlled malls)</i>		
Dulles Town Center	1,650,000	21000-21090 Dulles Town Circle
Dulles Town Crossing	743,058	45415-45430 Dulles Crossing Plaza
<b>TOTAL Built</b>	<b>2,393,058</b>	
Dulles Town Center (Unbuilt)	200,000	Dulles Town Circle
Dulles Town Crossing (Unbuilt)	456,942	Dulles Town Plaza
<b>TOTAL Built and Unbuilt</b>	<b>3,050,000</b>	
<b>GRAND TOTAL</b>	<b>5,338,874</b>	

Source: Route 7 Retail Market Analysis, 2006, pg. 7, 8, 9, & 11

The larger retail centers within the Sterling Community are located in areas planned for Destination Retail uses (Dulles 28 Centre, Dulles Town Center, Dulles Town Crossing, and Potomac Run). The remainder of the retail in the area can be characterized as strip commercial with concentrated areas located along Route 7 adjacent to the County boundary (Village Center on Seven, Sugarland Crossing, and Sterling Town Center) and along Sterling Boulevard (Sterling Plaza, Sterling Park Shopping Center, and Enterprise Center). The retail centers along Route 7 tend to draw from a larger market than just the surrounding neighborhoods, while the retail uses along Sterling Boulevard tend to serve the surrounding neighborhoods, primarily Sterling Park. Sterling Plaza, Sterling Park

Shopping Center, and Enterprise Center together constitute 274,700 square-feet of retail space anchored by a Safeway grocery store, as well as other retailers



Dulles Town Center Mall

such as Laser Nation, CVS Pharmacy, McDonalds, Blockbuster, Jerry's Subs, ABC, Coin Laundry, Hancock Fabrics, Dollar King, Ann's Nails, Liz's Hair Design and Sterling Barber.

Based on interviews with local bankers and a physical survey of the area, vacancy rates along the Route 7 corridor in eastern Loudoun County are very low, approximately 2 to 3 percent (*Route 7 Retail Market Analysis, 2006, pg. 6*).

## Residential Development

The residential neighborhoods within the Sterling Community are nearly "built out".

The housing stock in the area varies in size, architectural style, and age of construction (See Attachment 2, Settlement History). The area is dominated by single-family detached units (43%), followed by townhouses (34%) and multifamily units (23%). The age of housing in this area ranges from the 1960s to new construction.

### *Larger Residential Subdivisions within the Sterling Community*

**Sterling Park** – As the first "planned community" in the County in the 1960's, Sterling Park is the largest residential community in the Sterling Community. The development contains a variety of housing types and lot sizes. Generally,



Sterling Park

single-family lot sizes have increased with later additions to the original development. This is reflected in the overall density pattern of 3 to 4 dwelling units per acre in the older sections and 1 to 2 dwelling units per acre in the more recent subdivisions such as Forest Ridge and Spring Grove.

Sterling Park contains a golf and swim club, a community center and library, several schools, businesses, churches, and parks. Sterling Park does not have a Homeowners Association (HOA); however, the Sterling Foundation is a non-profit organization dedicated to improving the quality of life in Sterling Park and its surrounding communities.

**Peace Plantation/Dominion Station** – The Peace Plantation/Dominion Station residential communities, developed in the mid-to late 1990s are located west of Cascades Parkway and north of Church Road. Residential development in the area also consists of the Tall Oaks residential community and the approved but unbuilt Victoria Station. The Victoria Station property is approved for 116 multi-family units (7.3 dwelling units per acre). Overall, the area contains a mix of housing types and lot sizes with densities ranging from 5 to 15 dwelling units per acre. Amenities serving these residential neighborhoods include a community center, pools, tennis courts, active recreation areas, including tot lots, and trails. Development surrounding this area consists of industrial development within the Woodland Road Industrial Park to the north; light industrial uses, retail uses, and recreational uses (Claude Moore Park) to the east; office, light industrial, retail, and civic uses to the west.

**Oakgrove** – The Oakgrove area is located in the southeastern portion of the Sterling Community, north of Route 606 and extends to the County boundary. Residential development within this area includes Grovewood, Parkside at Dulles, Rock Hill Estates, and the Brooks Property ranging in density from 2 dwelling units per acre up to 14 dwelling units per acre. Additionally, the Hall Road Property and Townes at Autumn Oaks residential communities have been approved for 42 townhouse units (10 dwelling units per acre) and 179 townhouse units (7.5 dwelling units per acre) respectively, but have not yet been built. The area has a mix of single-



Brooks Property

family detached and townhouse units. Development surrounding the Oakgrove area consists of industrial and retail uses to the south and light industrial and residential uses to the north. There is residential development within Fairfax County located to the east of the Oakgrove area.

The Grovewood residential community, built in the late 1990s includes amenities such as a clubhouse, a swimming pool, tennis courts, and tot lots. The other residential communities surrounding the Grovewood residential community include tot lots and trails.

**Woodstone/Fox Creek** – The Woodstone/Fox Creek residential communities, developed in the late 1980s and early 1990s are located south of Route 7, close to the County boundary. These developments include townhouse units at a density of approximately 7 dwelling units per acre. Development surrounding the area is residential to the south and east, retail development to the north, and residential and civic uses to the west. Amenities within the Woodstone/Fox Creek area include a clubhouse, swimming pools, tot lots, and tennis courts.



Cascades Village

Other residential communities in the Sterling Community include Cabin Branch Forest, Chatham Green, Collonade at Dulles Town Center, Connemara Woods, Five Oaks, Guilford Crossing, Muirfield Woods, Norwood, Old Sterling Gables, Parc Dulles at Dulles Town Center, Remmington at Dulles Town Center, Rolling Ridge, Spring Grove Farm, Trailside, and Woodland Village. The area also contains the William Waters House, a HUD tenant based rental assistance program as well as two retirement communities, Sommerset and Cascades Village. Sommerset offers independent living for active seniors. While there is

no age limit for residents within the rental community, the building, services, and amenities are designed for senior adults. Cascades Village offers independent living and assisted living for seniors. Cascades Village has an additional 105 approved but unbuilt independent living units. The Gatherings at Cascades Overlook is an additional approved but unbuilt residential development within the Sterling Community approved for 440 active adult age restricted multi-family units.

### Community Facilities

Loudoun County owns and operates several facilities within the Sterling Community, including the Sterling Group Home, a mental retardation facility; the Sterling Library; two parks, Claude Moore Park and Briar Patch Park; two community centers, Claude Moore Park and the Sterling Park Community Center; and two community park-and-ride lots, at the Sterling Park Shopping Center and Shaw Road (See the Public Facilities and County Properties Map on pg. 50). The County leases a communication tower within Woodland Industrial Park, property at the Sterling Park Shopping Center and Dulles Town Center mall for sheriff field offices, and property located at Ridgetop Circle, which houses the Loudoun County Treasurer and Commissioner of Revenue, the Eastern Loudoun Mental Health Center, and County training facilities. The County also operates a recycling drop off center located at Park View High School. The proceeds from newspapers and magazines collected at the Park View Recycling Center directly benefit The Sterling Foundation, a non-profit organization dedicated to improving the quality of life in Sterling Park and its surrounding communities. The Eastern Loudoun Sheriff Substation is an approved but unbuilt facility located within the Sterling Community east of Briar Patch Park. A park-and-ride lot is also being considered in the vicinity of the Dulles Town Center mall.

## *Recreation*



Claude Moore Recreational Center

A major recreational use in the Sterling Community is the 350 acre Claude Moore Park located east of Cascades Parkway. Facilities at Claude Moore Park include a recreation center, an Olympic-sized indoor pool, an indoor recreational pool with 2-story slide, a community center, athletic fields, trails, historic buildings, the Heritage Farm Museum, and the Vestal's Gap Visitors' Center. Briar Patch Park is another recreational facility within the Sterling Community located east of Sterling Boulevard with facilities including playground equipment, an open field, volleyball and basketball courts, picnic pavilions, and a gazebo. Another recreational

amenity within the Sterling Community is Discovery Park at Sully Elementary School. Discovery Park is a community-built project offering playground facilities with an emphasis on science. The Sterling Community Center, which shares its building with the Sterling Library, is located off Sterling Boulevard and offers a gymnasium, conference room, classrooms, a game room, fitness room and a park with pavilion, playground, picnic tables, and grills. The Sterling Annex Community Center located east of Shaw Road is an old school house built in the 1930s that provides a ball field and playground facilities for the area. However, at the February 19, 2008 Business Meeting, the Board of Supervisors directed staff to (1) begin the process for rezoning the property from R-4 (Residential) to PD-IP (Planned Development – Industrial Park) and process a Special Exception to permit the following uses: childcare center, medical care facility, private school, civic, social, fraternal association meeting place, and recreation establishment (indoor or outdoor); (2) enter into negotiations with the adjoining property owner to resolve the encroachment issue; and (3) enter into negotiations for a public process to compete the property as a ground lease rather than a sale.

Private recreational facilities are also located within the Sterling Community. The Dulles SportsPlex, located within Steeplechase offers several indoor athletic fields. The Sterling Park Golf and Swim Club located west of Sterling Boulevard offers a golf course with a driving range and practice putting green, a sport's lounge, and swimming and tennis facilities. The Lower Loudoun Little League's athletic fields (Bill Allen Field, Bill Washington Field, and Jack Jennings Field), located south of the Sterling Park Golf and Swim Club, offers athletic playing fields. In addition to these, numerous recreational facilities such as community centers with pools, playgrounds, and walking trails are included in individual communities that are run by Homeowners' Associations (HOAs).

### ***Schools***



Rolling Ridge Elementary School

The Sterling Community is served by seven public schools, including five elementary schools (Forest Grove, Guilford, Rolling Ridge, Sterling, and Sully), one middle school (Sterling), and one high school (Park View). Current enrollment in the schools within the Sterling Community is below capacity (*Loudoun County Public Schools, 2008*). Estimates indicate that school enrollment growth in the Sterling Community will be relatively stable over the next six years, reflective of the area's limited residential expansion potential. As such, the existing facilities are planned to serve projected student enrollments through at least 2014. Because the Sterling Community was one of the first to experience large-scale residential development in the County, some of the school buildings are aging and have needed renovations. For example, Sterling Middle School was renovated in 1994, 2001, and 2006 with additional renovations scheduled to be completed by fall 2008.

Two youth programs offered at County schools are the County After-School Activities (CASA) Program and the Youth After School (YAS) Program. CASA offers before and after school activities for elementary age students attending public schools. CASA costs \$300 per month and is offered at two of the five elementary schools (Forest Grove and Sully) within the Sterling Community. The YAS Program offers after school activities for middle school students. Sterling Middle School, the only middle school within the Sterling Community does not offer a YAS Program at this time. YAS costs are currently \$20 per year, but will increase to \$25 per month beginning September 2008.

### ***Fire and Rescue***

Fire and Rescue Services for the Sterling Community are provided by Sterling Volunteer Fire Company and the Sterling Volunteer Rescue Company. The Sterling Volunteer Companies operate from two stations, one in Sterling and one in Cascades. The facility that serves the Sterling Community is located on Commerce Street.

In addition, Loudoun County provides career staffing for the Sterling Volunteer Fire Company's Sterling Station for an engine and truck company during the daytime, Monday through Friday. Sterling Volunteer Fire Company provides sole coverage for the station during weekends and evenings. Staffing for the Rescue Company is provided solely by the Sterling Volunteer Rescue Company.

### ***Police***

As stated previously, two sheriff field offices are located within the Sterling Community at the Dulles Town Center mall and within the Sterling Park Shopping Center. The Dulles Town Center Team is comprised of one sergeant

and four deputies responsible for all aspects of law enforcement at the Dulles Town Center mall (*Loudoun County Office of the Sheriff, 2008*). The Sterling Park Shopping Center site is the home of the Sheriff Field Office Community Policing Program (*Loudoun County Office of the Sheriff, 2008b*). The Community Policing Program involves citizens in efforts to improve the quality of life and reduce crime in their communities. According to the sheriff's office records, the top three reported violations in the Sterling Community are for (1) larceny, (2) destruction of property, and (3) shoplifting. A Sheriff Substation has recently been approved east of Briar Patch Park.

The Sterling Community is also served by School Resource Officers (SROs) serving Park View High School and Sterling Middle School who among other things handle all criminal investigations originating in the schools and serve as the law enforcement liaison with the school system (*Loudoun County Office of the Sheriff, 2008*).

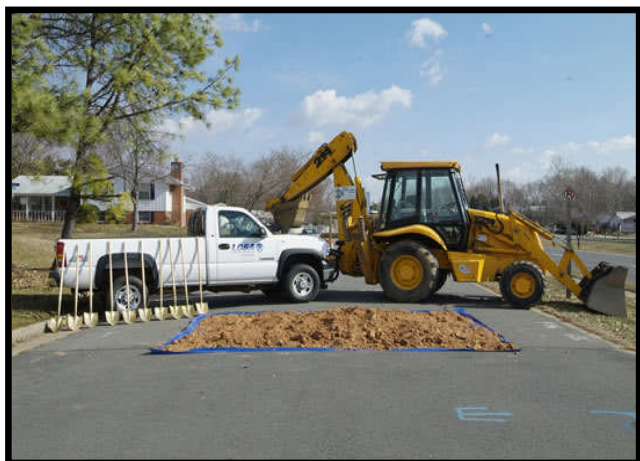
#### ***Other Civic Uses***

In addition to these public facilities, other civic uses located within the Sterling Community include a United States Post Office distribution center; the Sterling Post Office; the Virginia Department of Motor Vehicles; several churches, including Christ the Redeemer Roman Catholic Church, Covenant Christian Church, Faith Bible Church, First Baptist Church, Forest Ridge Church, Guilford Baptist Church, Iglesia De Dios Fuente De Luz, Iglesia Galilea Asambleas De Dios, Oakgrove Church, Saint Matthews Episcopal Church, Sterling United Methodist Church, Wat Yarnna Ransee Thai Buddhist Monastery; and the Knights of Columbus.

## **Infrastructure, Utilities, and Other Facilities**

### **Water and Sewer**

Loudoun Water (formerly known as the Loudoun County Sanitation Authority or LCSA) provides water and wastewater service to the Sterling Community. The source of the tap water for customers within the Sterling Community is the Potomac River through a purchase agreement with Fairfax Water and the Goose Creek in Ashburn through a purchase agreement with the City of Fairfax. The Community's wastewater is treated by the D.C. Water and Sewer Authority (DCWASA) at their Blue Plains Wastewater Treatment Plant. Blue Plains, located in southwest DC, is one of the largest facilities of its kind in the world. In 2008, Loudoun Water will start operations at the Broad Run Water Reclamation Facility, located west of the Sterling Community, to supplement capacity at the Blue Plains facility (*Loudoun Water, 2008*).



Sterling Blvd. Water Main Project – Groundbreaking Ceremony  
*Photo courtesy of Loudoun Water*

The existing water main that runs the length of Sterling Boulevard is currently undersized to provide adequate service to the Sterling Community. To address this issue, Loudoun Water began a project in 2004 to replace the 40-year-old water main. Replacement of the four-mile-long main will improve the transmission of water through Sterling and increase the water system's reliability. The installation of the new main began in March 2006 and will be completed in phases. Phase 1 was completed in May 2007. Most of the new main was placed in the right-of-way of the west service road along Sterling Boulevard from Route 7 to West Holly Avenue. Construction of the second phase of the water main, from West Holly Avenue to Davis Drive has begun. Loudoun Water's landscape

restoration efforts for the Sterling Boulevard Water Main Project include reseeded all of the disturbed areas in the grass medians, tree replacement along the west service road, and providing funding to the Sterling Foundation for the planting of additional trees and plantings within the median of Sterling Boulevard. The Sterling Foundation will be planting trees along Sterling Boulevard from Route 7 to Holly Avenue in the Spring of 2008.

### Stormwater Management

Within the Sterling Community, over 29% of the community's land area is covered by surfaces that do not allow water to soak into the ground. This exceeds the County-wide average of just under 9%, reflective of the extensive development that has taken place here. There is a great amount of stormwater runoff to be handled. Although the Sterling Community accounts for only 2% of the County in terms of area, it contains 21% of the County's stormwater infrastructure. Stormwater infrastructure carries water away from roads, buildings and parking lots through a series of pipes, culverts and open channels. Stormwater ponds, in combination with other designs, help reduce flooding and reduce the environmental impacts to streams by reducing peak flows and minimizing pollution. Based on County GIS



Stormwater Management Pond within the Trailside Community

records, the Sterling Community has an estimated 140 miles of drain pipe and 56 miles of open channels designed for stormwater management. It also has 143 stormwater ponds<sup>7</sup> (110 dry ponds and 33 wet ponds).

Since the adoption of the Stormwater Management Ordinance in 2003, the County has maintenance responsibility for all stormwater facilities that lie within County easements, with the exception of wet ponds. In the case of wet ponds, an additional agreement is created that distinguishes the responsibilities of the County from those of the property owner. Generally, the County is responsible for ensuring that facilities function properly and the property owner is responsible for the aesthetics. The County is not responsible for stormwater facilities for which there is no County easement. In those cases, the County takes responsibility when the property owner grants a proper easement.

There are no specific plans to improve or upgrade the system beyond repairing facilities that are functioning poorly. The County is made aware of problems through public input via the Stormwater Hotline and through an inspection program contracted through the Department of General Services.

### Other Utilities



Davis Drive Substation

Within the Sterling Community, Dominion Virginia Power overhead transmission lines are present along sections of some of the roadways, along the W&OD Trail, and within many of the older neighborhoods and commercial areas. In the newer areas, utility lines (electric, cable, telephone) have typically been buried. The electrical substation serving the Sterling Community is located along Davis Drive.

There are also approximately thirteen wireless telecommunication facilities in the Sterling Community providing cell phone and data services to area residents and businesses (See the Telecommunication Facilities Map on pg. 51). Telecommunications facilities found in the Community include four monopoles, one lattice tower, one stealth tower, and six facilities located on existing tall structures (three rooftop and three on overhead utility lines along the W&OD Trail).

## Circulation and Transportation

The road network in the Sterling Community consists of a hierarchy of road facilities which, together with transit service and bicycle and pedestrian facilities,

<sup>7</sup> Dry ponds and wet ponds are both stormwater infrastructures designed to hold stormwater to pre-development discharges. The difference is that dry ponds are designed to drain within a couple of days, while wet ponds hold their volume indefinitely.

form a transportation system that serves the needs of the area's residents, businesses, commuters and visitors. The 2001 Revised Countywide Transportation Plan (2001 Revised CTP) is a companion document to the County's Comprehensive Plan. The CTP provides policy guidance and helps inform residents and employers of the County's approach to addressing mobility needs and how the future transportation system may impact a specific neighborhood or property. Major thoroughfares are part of the "regional" or "CTP" road network and form the backbone of the system; all other public roadways are categorized as local or secondary roads.



Sterling Boulevard is an example of a minor arterial

### Existing Road Network

All regional roads are classified into one of the four categories listed below (as defined by the 2001 Revised CTP) based on the roadway's function in the overall network. For a depiction of the functional classification of the existing and planned regional road network in the Sterling Community, see the 2001 CTP Roadway Functional Classification Map on pg. 52. All public roads in unincorporated areas of Loudoun County – including the Sterling Community – are maintained by the Virginia Department of Transportation (VDOT).

The regional road network consists of:

- |                            |  |
|----------------------------|--|
| <u>Principal Arterials</u> | are roads that primarily serve regional and intrastate traffic, with access from minor arterials and major collectors. <i>Routes 7 and 28</i> are principal arterials.   |
| <u>Minor Arterials</u>     | are roads that primarily serve commuter traffic, with access from major and minor collectors. <i>Sterling Boulevard</i> is a minor arterial.   |
| <u>Major Collectors</u>    | carry traffic through the County, providing connections between arterials. <i>Examples of major collectors include the Route 28 parallel roads (Atlantic Boulevard/Davis Drive and Pacific Boulevard (south of the W &amp; OD Trail)); Old Ox Road (Route 606); Innovation Avenue; Moran Road; portions of Cedar Green Road; Waxpool Road; Church Road (west of Cascades Parkway); Nokes Boulevard; and City Center Boulevard.</i> |
| <u>Minor Collectors</u>    | carry traffic from local subdivision streets to major collectors and/or arterials. <i>Examples of minor collectors</i>   |

*include Rock Hill Road (south of Route 606); Shaw Road; Potomac View Road; Woodland Road; and portions of Pacific Boulevard (north of the W & OD Trail)); Church Road (east of Cascades Parkway); and Sugarland Road.*

The balance of the public street network is made up of local or secondary roads. Generally, these roads include all neighborhood and subdivision streets serving single family detached developments. Streets serving townhouse and multifamily developments are typically privately owned and maintained by their respective communities/owners associations as they are not eligible for inclusion into the VDOT secondary road system.

According to the Virginia Department of Transportation's (VDOT) most recent traffic volume estimates (Annual Average Daily Traffic, or AADT<sup>8</sup>), the roadway that carried, on average, the most daily traffic in the Sterling Community in 2006 was Route 28 south of Route 625 to the Fairfax County border, followed by Route 7 and Waxpool Road (Route 625) west of Route 28 (see Table 6) (Virginia Department of Transportation, 2006).

**Table 6: Annual Average Daily Traffic (AADT) on roads within the Sterling Community in 2006**

Roadway	AADT
Route 28 south of Route 625 to Fairfax County border	106,000
Route 7	73,000
Waxpool Road (Route 625)	46,000
Route 28 north of Route 625	41,000
Old Ox Road (Route 606)	30,000 – 33,000
Sterling Blvd	19,000 – 27,000
Church Road (Route 625)	8,900 – 24,000
Cascades Parkway	13,000 – 24,000
Shaw Road	9,800 – 14,000
Potomac View Road	7,300

*Please note that a range is provided when a roadway is divided in numerous segments, each of which has a different traffic volume estimate.*

*SOURCE: Virginia Department of Transportation (2006). Daily Traffic Volume Estimates Including Vehicle Classification Estimates. Jurisdiction Report 53.*

## Planned Future Road Network

Much of the regional road network within the Sterling Community has been completed, but several key gaps remain unbuilt in the network as identified in the 2001 Revised CTP (See the Existing and Planned CTP Road Network Map on pg. 53).

*Planned new regional roadways/connections to be constructed in the future include:*

<sup>8</sup> The Annual Average Daily Traffic, or AADT, is the estimate of typical daily traffic in both directions on a road segment for all days of the week, Sunday through Saturday, over the period of one year.

<u>Atlantic Boulevard</u>	between Magnolia Drive and Church Road (opposite Davis Drive)
<u>Belfort Park Area</u>	additional road connections/realignment of existing roads in the area bounded by Route 28, Church Road, Davis Drive, and Sterling Boulevard
<u>Davis Drive</u>	between Yeager Court and Route 606
<u>Nokes Blvd./Gloucester Parkway</u>	between Route 28 and Broad Run (in conjunction with a portion of Pacific Boulevard described below)
<u>Pacific Boulevard</u>	between Russell Branch Parkway at Broad Run and Auto World Circle (just south of the W & OD Trail)
<u>Pacific Boulevard</u>	between Dresden Street and Cedar Green Road
<u>Route 789 Extended</u>	between Loudoun County Parkway (west of Broad Run) to existing Lockridge Road just north of the existing Lockridge/Moran Road intersection (this road will provide an additional connection across Broad Run between the existing Waxpool Road and the Dulles Greenway crossings)
<u>Shaw Road</u>	from just south of Route 606 to Innovation Avenue

*Existing regional roads planned to be widened in the future include:*

<u>Route 28</u>	planned to be widened from a six-lane to an eight-lane facility for its entire length within Loudoun County
<u>Route 606</u>	planned to be widened from a four-lane to a six-lane facility west of Pacific Boulevard
<u>Sterling Boulevard</u>	planned to be widened from a four-lane to a six-lane facility from Davis Drive west to Pacific Boulevard

Other existing regional roads, including segments of Rock Hill Road, Shaw Road, Moran Road, Cedar Green Road, Church Road, and Sugarland Road, are planned for widening from two-lane to four-lane facilities.

### Ongoing Projects/Studies

The County is in the process of updating the 2001 Countywide Transportation Plan, largely through the development of corridor analyses for various major thoroughfares throughout the County. An updated draft plan was completed by the Planning Commission in December 2007. The next step in the 2001 CTP update process is a joint Planning Commission/Board of Supervisors meeting; as of this report, however, such a meeting has not been scheduled.

Additionally, a number of transportation projects are underway to further complete the regional road network in the Sterling Community, as well as several ongoing studies to improve operations and safety on existing portions of the road network. The Sterling Community contains five of Loudoun's "Ten Most Dangerous Intersections" for 2007, as identified by the Loudoun County Sheriff's Office. The five intersections identified within the Sterling Community, along with the number of crashes reported in 2007, are:

- Route 7/Potomac View Road (81 crashes)
- Route 28/Route 606 (52 crashes)
- Route 7/Sterling Boulevard-Cardinal Glen Drive (43 crashes)
- Route 28/Waxpool Road (40 crashes)
- Waxpool Road/Pacific Boulevard (37 crashes)

Ongoing projects and studies to improve traffic operations and safety within the Sterling Community include:

#### ***Route 28 Corridor Improvements***

This public/private partnership was initiated in October 2002, and has constructed interchanges along Route 28 at Route 606, Sterling Boulevard, Waxpool/Church Roads, and a partial interchange at Innovation Avenue. An interchange at Nokes Boulevard – the final interchange on Route 28 to be built in Loudoun County – is currently under construction, and is estimated to be completed in June 2009. Certain segments of the Route 28 parallel roads also have been or are in the process of being constructed in conjunction with the project (e.g., the remainder of Davis Drive between Church Road and Sterling Boulevard; segments of Pacific Boulevard between Sterling Boulevard and Cedar Green Road and between Severn Way and Gloucester Parkway/Nokes Boulevard). Once the Nokes Boulevard interchange and necessary portions of the parallel roads are completed, all traffic signals along Route 28 will be removed and the road will become a limited access highway. The Route 28 corridor improvements are partially funded through a real estate tax surcharge on commercial properties

within a special tax district in the Route 28 corridor which has been in place since the late 1980s. Funds from this tax district were also used to finance the initial widening of Route 28 and the construction of the Route 28 interchanges at Route 7 and at the Dulles Toll Road in the early 1990s.

#### ***Pacific Boulevard***

VDOT is currently in the design/build process for the segment of Pacific Boulevard between Auto World Circle (just south of the W & OD Trail) and Severn Way. The proposed roadway will be a four-lane divided facility and will include a bridge over the W & OD Trail; completion of this project is anticipated in early 2010. When completed and coupled with the segment of Pacific Boulevard (between Severn Way and Gloucester Parkway/Nokes Boulevard described above), this road will provide an additional ingress/egress option for the Dulles 28 Center development and will provide access to parcels on the west side of Route 28 once that road becomes limited access.

#### ***Atlantic Boulevard***

VDOT is currently in the design/build process for the segment of Atlantic Boulevard between Magnolia Drive (just south of the Orbital campus) and Church Road (opposite Davis Drive). The proposed roadway will be a four-lane divided facility and will include a bridge over the W & OD Trail. When finished, this road will complete the Atlantic Boulevard/Davis Drive corridor from Route 7 south to Sterling Boulevard, providing additional north-south access along the east side of Route 28. The road will also alleviate cut-through traffic on Magnolia Drive within the Dominion Station community as an additional connection to Church Road will be provided. Completion is anticipated in early 2010.

#### ***Belfort Park Area***

Changes to the existing and planned road network in the Belfort Park area (defined as the area bounded by Route 28, Church Road, Davis Drive, and Sterling Boulevard) are currently being discussed by the Belfort Park Task Force. The Task Force, comprised of representatives from businesses and residential communities in the area, as well as County officials, was formed by the Board of Supervisors in February 2008 to address access issues resulting from the construction of the Route 28 interchange at Waxpool and Church Roads, increased traffic due to the completion of Davis Drive between Church Road and Sterling Boulevard, and VDOT's planned closure of Cedar Green Road to/from northbound Route 28. Specific proposed improvements to the road network have been presented to the Task Force, which is currently meeting on a monthly basis.

#### ***Waxpool Road Corridor Study***

VDOT is conducting a corridor study on Waxpool Road between Route 28 and Loudoun County Parkway to identify measures to more effectively move traffic through the area. The study will identify locations with high crash frequency;

identify areas and times of congestion; review turning movements at intersections; and review all signage leading to the Route 28 interchange. The study is scheduled to be completed in May 2008 and will propose changes including signage, physical barriers, pavement markings, signal timing, and pedestrian accommodations. Suggested future road improvements to improve traffic operations and pedestrian safety will also be included.

#### ***Route 7 Traffic Flow Study***

The County and VDOT are currently in the process of conducting a study to improve traffic flow in the Route 7 corridor between Campus Drive and Lakeland Drive (the study was initially proposed to run from Countryside Boulevard to the Fairfax County line, but was later refined to include only the segment between Campus and Lakeland). Turn lane and related improvements are being planned to improve traffic flow in this area, particularly between Potomac View Road and Sterling Boulevard. Completion of improvements by mid-2010 is anticipated.

#### ***Church Road & North Lincoln Avenue Improvements***

Traffic safety and calming measures to improve operations at the intersection of Church Road and North Lincoln Avenue in Sterling are currently under review by VDOT and the County. The project would be funded with Highway Safety Improvement Program (HISP) funds. At the present time, no final decision on specific improvements has been made.

### **Transit Services**

Two different types of transit services currently operate in the Sterling Community:

#### ***Commuter Bus Service***

Commuter Bus Service is operated during weekday peak periods by Loudoun County Transit to the West Falls Church Metrorail Station in Fairfax County and to locations within the core of the Washington, DC metropolitan area. Limited reverse commute service is also provided from the West Falls Church Metrorail Station to major employers within the Sterling Community (such as AOL). This commuter bus service uses County-owned coach buses and is managed by County staff. At the present time, there are no park-and-ride lots served by the County's commuter buses within the Sterling Community, although the Dulles North Transit Center, a regional park-and-ride lot with approximately 750 spaces, is located just outside of the Sterling Community at the intersection of Lockridge Road and Moran Road on land owned by Dulles Airport. Commuter buses from the Dulles North Transit Center provide service to the West Falls Church Metrorail Station, Rosslyn, the Pentagon, and numerous locations in the District of Columbia. An additional park-and-ride lot is being considered in the vicinity of the Dulles Town Center mall. Other park-and-ride lots proximate to the Sterling Community that are served by the County's commuter buses are located in nearby areas of the Potomac Community (*see Potomac Community Existing*

*Conditions Report*) at Cascades, Lowes Island, and Broad Run Farms; service from these locations runs to the West Falls Church Metrorail Station.

### **Local Bus Service**

Local Bus Service is operated by Virginia Regional Transit (VRT) on behalf of Loudoun County. VRT currently operates four routes in the Sterling Community; three of these four routes (“7 to 7 on 7”, the “Dulles 2 Dulles Connector”, and the

“Sterling/Countryside Connector”) converge at the Dulles Town Center mall, where connections can be made to VRT’s local service to Leesburg and other parts of Loudoun County. VRT’s fourth route in the Sterling Community, the “Ashburn Village Connector”, provides service to the Dulles 28 Centre development near Wegmans. A connection can be made from the “7 to 7 on 7” to the Fairfax Connector bus system at the Town Center Plaza shopping center (Route 7 and Dranesville Road), and a connection from the “Dulles 2 Dulles Connector” to the Metrobus system can be made at Dulles Airport. VRT local fixed route bus service generally operates between 7 AM and 7 PM weekdays, with limited weekend service provided within the Route 28 corridor.



Bus Shelter at Steeplechase along VRT’s “Sterling/Countryside Connector” Route

Loudoun County is currently in the early stages of development of a County Transit Service and Infrastructure Plan (*Loudoun County Transit Plan*) to guide implementation of public transit alternatives over the next 20 years. The planned arrival of Metrorail is anticipated as part of these future transit plans, with the proposed Route 606 station (adjacent to the location of the existing Dulles North Transit Center) likely to have the most significant affect on parts of the Sterling Community in terms of commuting patterns and deployment of local feeder bus service to the station. The Board of Supervisors has recently appointed a citizen’s advisory committee to work with County staff and its consultants in the development of the Plan; the first meeting of this committee will take place in the near future.

### **Bicycle & Pedestrian Facilities**

There are numerous bicycle and pedestrian facilities within the Sterling Community, though the overall network remains incomplete as is evidenced by worn dirt paths indicating the presence of regular foot traffic along several roadways, for example, Cascades Parkway. The Washington & Old Dominion (W & OD) Trail is perhaps the most significant non-motorized facility in Eastern Loudoun and in the Sterling Community in particular, providing connections along its route to various neighborhoods and businesses. The County’s



W&OD Trail

*Bicycle & Pedestrian Mobility Master Plan*, adopted by the Board of Supervisors in 2003, provides the basis for County policy on non-motorized transportation. A baseline map of existing bicycle and pedestrian facilities (and gaps therein) is under development.

## Employment and Economic Development

Loudoun County experienced success in attracting businesses and developers during the 1990s economic expansion. Loudoun County has six distinct corridors zoned for predominately office and industrial uses. There are portions of four of these corridors, Route 7, Route 28, Route 625, and Route 606 within the Sterling Community.

The Route 28 Corridor is Loudoun's major north-south corridor accessing Washington Dulles International Airport and is planned for high end office and business uses. The corridor is home to Orbital Sciences, AOL, Dulles Town Center, M.C. Dean, and Discovery Communications. There are 794 acres and 8.4 million square feet of office and industrial uses developed within the corridor at a density of 0.24 FAR (floor area ratio). Of the 1,127 usable vacant acres within the corridor, 550 acres, or 49 percent, are classified as developer/build only and typically are not available for sale. The portion of the Route 7 corridor within the Sterling Community is planned for high end office and business uses and is home to Loudoun Tech Center and Cascades Business Center. The corridor contains other uses as well including retail, residential, and civic uses. The portion of the Route 7 corridor within the Sterling Community consists of 2.7 million square feet of office and industrial uses developed at a density of 0.29 FAR.

In 2007, 32% of the County's total jobs were located in the Sterling Community (an estimated 46,939 jobs compared to 145,568 jobs in the entire County). This represents a jobs to household ratio of approximately 4:1 and reflects the County's vision for Route 28 as a major employment corridor. County projections indicate that by 2030, approximately 73,500 people will work in the Sterling Community, an increase of 26,561 from 2007 to 2030. The increase in jobs from 2007 to 2030 will be directly related to the large amount of land within the Sterling Community designated commercial that can still to be developed or that has plans in the pipeline. The total number of jobs in the entire County is forecasted to be 285,065 in 2030. (*2007 Fiscal Impact Committee Guidelines and Department of Management and Financial Services*)

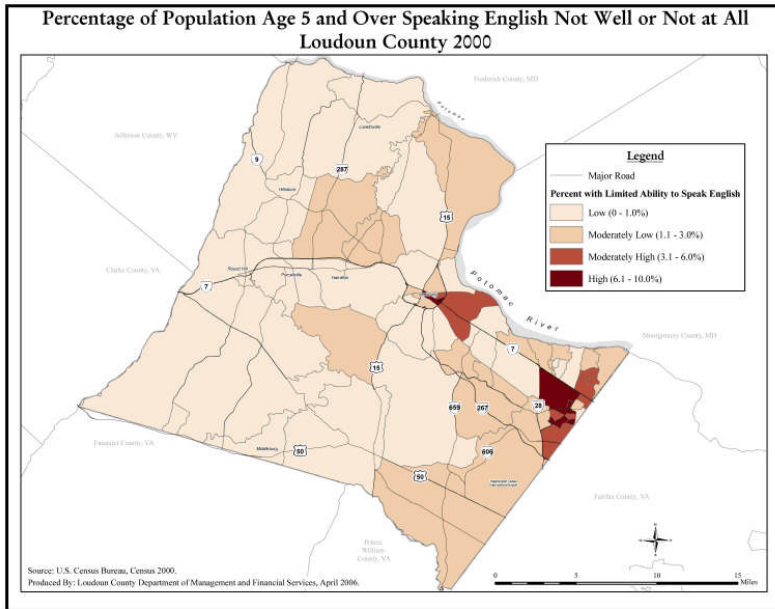
## Socio-Economic Characteristics

### *Income*

Average household income within the Sterling Community from 1989 to 1999 has not kept pace with the overall average countywide. In 1989, the average

household income within the Sterling Community was approximately \$59,000, which was very similar to the average household income of \$58,126 for the entire County. In 1999, the average household income for the Sterling Community was approximately \$76,000, compared with an average household income of \$94,815 for the entire County.

### Diversity



In Loudoun County as a whole, the percentage of the population that is foreign born has increased from 11% in 2000 to 21% in 2006. As can be seen in the map to the left, the Sterling Community contains a large portion of the population that does not speak English well or not at all compared to the rest of the County. (*U.S. Census Bureau, Census 2000 and 2005-2006 American Community Survey*).

In 2006, five of the nine most racially and ethnically diverse schools in Loudoun County were located within the Sterling Community (Sully, Guilford, and Rolling Ridge Elementary Schools, Sterling Middle School, and Park View High School). Of these five schools the

most widespread racial/ethnic group is Hispanic, ranging from 30 to 50% of the student population followed by Asian and African-American (*Loudoun County Public Schools*).

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## Photo Credits

All photographs in this report, unless otherwise noted, were taken by staff in the Loudoun County Department of Planning.

## Attachments

Attachment 1: Fact Sheet

Attachment 2: Settlement History

Attachment 3: Maps of the Sterling Community

## Attachment 1: Fact Sheet

- **Community Boundary:** The area is bounded to the south by Washington Dulles International Airport, the north by Route 7, the east by the Fairfax County line and the west by Broad Run. This boundary differs from the Sterling Planning Subarea boundary as identified in the Annual Growth Summary.
- **Acreage:** The area contains approximately 9,134 acres and 8,692 parcels or portions of parcels (based on Community Boundary Area inclusive of right-of-ways).
- **Election Districts:** The Sterling Community is comprised of the entire Sterling District and portions of the Dulles, Potomac and Broad Run Districts.
- **Population:** According to the U.S. Census Bureau, the population in the year of 2000 was 27,464 for the Sterling Community. In 2007, the population estimate increased by 3,388 to 30,852. By 2030, it is forecasted that the population will increase to 33,961.
- **Employment:** The employment estimate for 2007 is 46,939, with a jobs to household ratio of approximately 4:1. By 2030, the employment forecast is 73,500.
- **Housing Units:** The number of housing units estimated in 2007 is 11,169, consisting of 43% single family detached, 34% single family attached, and 23% multi-family units. The number of housing units forecasted in 2030 is 12,529.
- **Parcel Size:** The majority of the parcels (43%) are ¼ acre or less. The average parcel size is approximately .92 acres. The largest parcel on record is Claude Moore Park and consists of 344 acres.
- **Watersheds:** The area is located in the Broad Run, Potomac Basin Number One and Sugarland Run watersheds which ultimately drain into the Potomac River.
- **Major and Minor Floodplain:** There is approximately 825 acres of floodplain, or 9% of the total land area.
- **Forested Area:** There is approximately 270 acres of forested area, or 3% of the total land area.
- **Quarries:** Approximately 145 acres of land is quarried, or 2% of the total land area.
- **Major Developments:** Residential - Sterling Park and Dominion Station/Peace Plantation  
Office/Industrial - Loudoun Tech Center and Broad Run Business Center  
Retail - Dulles Town Center and Dulles Town Crossing
- **Existing Land Uses:**

Land Use	Parcel Acreage	Percent
Residential including HOA land	2418	28%
Office	641	7%
Industrial	1087	13%
Commercial/Retail	837	10%
Public/Civic	864	10%
Vacant	2742	32%
<b>Total</b>	<b>8589</b>	<b>100.00%</b>

Estimate based on a combination of data sources, Loudoun County GIS and LMIS records. Based on actual parcel acreage, excluding right-of-way.

- **Planned Land Use:**

Land Use	Acreage	Percent
Residential	3002	33%
High Density Residential	41	1%
Keynote Employment	3816	41%
Business	1646	18%
Industrial	629	7%
<b>Total</b>	<b>9134</b>	<b>100.00%</b>

Estimate based on Loudoun County GIS records. Based on acreage of Community Area Boundary, including right of way.

Source: 2007 Fiscal Impact Committee Guidelines and Department of Management and Financial Services

## Attachment 2: Settlement History

### *1700s to 1800*

The earliest known land grants in Loudoun County, dating from the early 1700s, were located in the northeastern part of the County adjoining the Potomac River and its tributaries (MacIntyre, 1978:21). The majority of these early land grants during the colonial period were held by wealthy tidewater land speculators and/or plantation owners who cultivated tobacco on these large tracts of land. After several decades of tobacco production, the soils in eastern Loudoun had become exhausted, and by the 1770s many of the farmers had diversified to other crops and the raising of livestock (cattle and pigs).

Agricultural recovery came quickly to Loudoun County during the Reconstruction period following the Civil War. The County was listed in the 1880 U.S. census as the leading county in Virginia in the “production of corn, butter, eggs, wool, numbers of milch (sic) cows and sheep, and second only to Fauquier County in the number of stock cattle” (Head, 1908:88).

Early means of transportation, particularly during the colonial period in eastern Loudoun, depended upon the Potomac River and inland water ways. Two early roads, Vestal’s Gap and Ox Road, which bisected northeastern Loudoun, provided a vital link between the western frontier and the port cities of Alexandria and Georgetown. Originally used by Native Americans, and later traversed by early settlers, Vestal’s Gap Road, also referred to as the Potomac Ridge Road or Church Road, roughly parallels or follows portions of present day Route 7. Ox Road, portions of which comprise present-day Old Ox Road (Route 606) east of Dulles Airport, was also an early trail which was later improved between 1740 and 1760 by the Carter family to transport tobacco and other produce to their warehouses and shipping near present-day Occoquan/Woodbridge on the Potomac. These two roads remained the primary east-west transportation routes in northeastern Loudoun until the construction of Leesburg Turnpike, present-day Route 7.

### *1800s to early 1900s*

The area comprising the Sterling Community around the turn-of-the century was made up of predominately large family farms involved in either dairy and/or cattle production. The growth of the dairy industry in Loudoun County during this period was a direct result of the presence of the railroad and the ability to transport milk, cream and butter daily to markets in Washington. Loudoun throughout the first half of the twentieth-century was ranked among the leading dairy producing Counties in Virginia and by 1949 was reportedly producing 20,000 gallons of milk daily for shipments to markets in and around Washington. The majority of farmers in the County were involved in either dairy cooperatives and/or breeder’s cooperatives which collectively negotiated and established market prices for products with distributors (Poland, 2005:322). Farming technology during World War II continued to advance as the federal government encouraged the use of tractors and other mechanical equipment to increase crop yields per acre. Tractors, ride-on plows, combines and threshing machines all became common sights on farms in the County. New milking machines were also made available, allowing for greater milk production with fewer laborers (Poland, 2005:357).

Originally called the Alexandria-Leesburg Turnpike, present-day Route 7 was built in the early 1800s and reached Leesburg by the 1830s. The turnpike provided an improved route and shortened travel times for the transportation of agricultural products from the west to consumers and markets in the east. In 1832, the completion of the Chesapeake and Ohio Canal, across the Potomac River in Maryland also made shipping goods to and from Georgetown more convenient. Warehouses were established on the Virginia side of the river where boats and barges were loaded with goods for shipment. The success of the canal was overshadowed by the arrival of the railroad which provided more reliable and cheaper transportation of goods and products (Poland, 2005:122).

In 1860 the first trains had reached Leesburg on the Alexandria, Loudoun & Hampshire Railroad (later the Washington and Old Dominion Railroad). The community of Old Sterling, located near the intersection of present day Route 28 and Church Road, was established in 1860 as a stop on the railroad known as “Guilford Station”. Guilford Station, in the years following the Civil War, became a small regional business and commerce center which catered to the needs of the surrounding farming community. The railroad transported farm products from the area into Washington, carried mail for the Federal government, and provided freight service. The area continued to be referenced as Guilford Station until 1887 when the name of the station was changed to Sterling following the purchase of railroad by New York investors, who also renamed the railroad the Washington and Old Dominion (W&OD). Present day Ruritan Circle Road, then called Railroad Street served as the main street for the community, the post office, station, a mill, and several businesses were located on the street.

### ***1950s to today***

The construction of Dulles Airport and a major interceptor sewer leading to the Blue Plains Treatment Plant in 1959 significantly altered the existing development patterns and landscape of the County, allowing for the creation of master planned communities with greater concentrated residential densities such as Sterling Park. By 1960, 28.6 percent of the employed Loudoun residents commuted to work outside of the County. By 1970 that number increased to 40.6 percent. In the 1960s and 1970s the Loudoun commuter was becoming increasingly a suburbanite who lived in a planned community (Poland, 2005:342). These residents were attracted to the lower property taxes and rural living with close proximity to urban conveniences of eastern Loudoun made possible by the automobile. The property taxes in Loudoun County during this period were nearly half of those in neighboring Fairfax County. Dulles Airport would become an economic stimulus in the area and prompt the construction of Route 28 during the 1960s to provide access to the airport.

In the fall of 1961, after acquiring 1,762 acres in 14 parcels for just over \$2.1 million the Broyhill family led by Marvin T. Broyhill, Sr. and mostly financed by the United States Steel Corporation (U.S. Steel), presented the Loudoun County Board of Supervisors with the first “planned community” in Loudoun - Sterling Park. Mr. Broyhill’s marketing thoughts for “the New City at Sterling” as it was proposed to be named, were “to put together a prefabricated home, marketed by U.S. Steel, and sell it for about \$17,000. All homes would have air-conditioning and homeowners were to have access without membership fees to golf and tennis

courts and pools” (Scheel, 2002). The development would include 3,562 houses and 3,645 apartments with land set aside for schools and churches, 70 acres of recreation facilities including an 18-hole par 3 golf course and swimming pool, and a centrally located shopping center with twenty-stores and a 500 seat theatre. The development would be bisected by Sterling Boulevard, a divided roadway, and all the utilities in the development would be placed underground, a first for the Washington D.C. area. Mr. Broyhill also offered to make a one-time payment of \$250 for each household in the “new city” to the County school board, known as the first proffer in the County’s history. After months of controversy and changes to the zoning ordinance the Board of Supervisors finally approved “Broyhill’s Addition to Sterling Park” on June 21, 1962 (Scheel, 2002).

The first houses in Sterling Park were occupied in February 1963 with purchase prices ranging from \$14,800 to \$22,500 (Scheel, 2002). The houses offered a range of styles from a small three-bedroom 1 ½-story Cape Cods to larger two-story Colonials. Other semi-detached houses, townhouses and apartments were also constructed within development. Many of the homes featured steel building components, including framing, doors and windows supplied by U.S. Steel, which represented the first widespread use of steel for residential construction in the United States. U.S. Steel in its marketing of the homes in Sterling Park emphasized the strength and durability of steel, plus the benefits of all steel studs for constructing houses which were perfectly straight and square, as well as resistant to insects and fire (Scheel, 2002). In 1964, U.S Steel bought out the Broyhill’s interest in Sterling Park and took over the development. Other subsequent entities would continue to manage the development and market the homes in Sterling Park until the late 1970s when the original development was finally built-out. Other newer residential subdivisions and shopping centers have been constructed around the periphery of the original Sterling Park Development as the area has become increasingly suburban in character.

The Dulles Town Center, located at the intersection of Route 28 and Route 7 was developed by the Lerner Enterprises and opened in August 1999. The indoor shopping mall encompasses 1,400,000 square feet and has two floors. The mall is anchored by major national retailers and caters to the growing population of eastern Loudoun and western Fairfax Counties. Surrounding the mall are other retailers and big box retailers.

In 1971, Route 7 in Loudoun County was completed as a four-lane median divided highway from Herndon Junction to Leesburg. Subsequent improvements funded by developers, the County and the State of Virginia throughout the years have expanded the roadway to a six-lane divided highway with constructed interchanges.

Route 28 was a dual lane road throughout the 1960s and 1970s following the construction of Dulles International Airport. The roadway was not improved until the late 1980s following the formation of the Route 28 Tax District in 1988. The Route 28 Tax District was created through legislation adopted by the Virginia General Assembly permitting the creation of special taxing districts for transportation. The Route 28 Tax District was comprised of landowners in both Loudoun and Fairfax County who agreed to fund and pay for improvements to the corridor through a special tax district. The funds from the tax district along with developer, county,

state and federal funding have funded expansion of the roadway and removal of at grade intersections in an effort to create a limited access highway.

## References

Head, James W. (1908). *History and Comprehensive Description of Loudoun County, Virginia*. Park View Press.

MacIntyre, Carl Franklin (1978). *Proprietary Land Grants in Eastern Loudoun County*. May 19 *Loudoun Easterner*.

Poland, Charles P. Jr. (2005). *From Frontier to Suburbia*. Heritage Books Inc., Westminster Maryland.

Scheel, Eugene M (2002). With “*The Park*” *County’s Growth Battle Were Just Beginning*. Washington Post June 16.

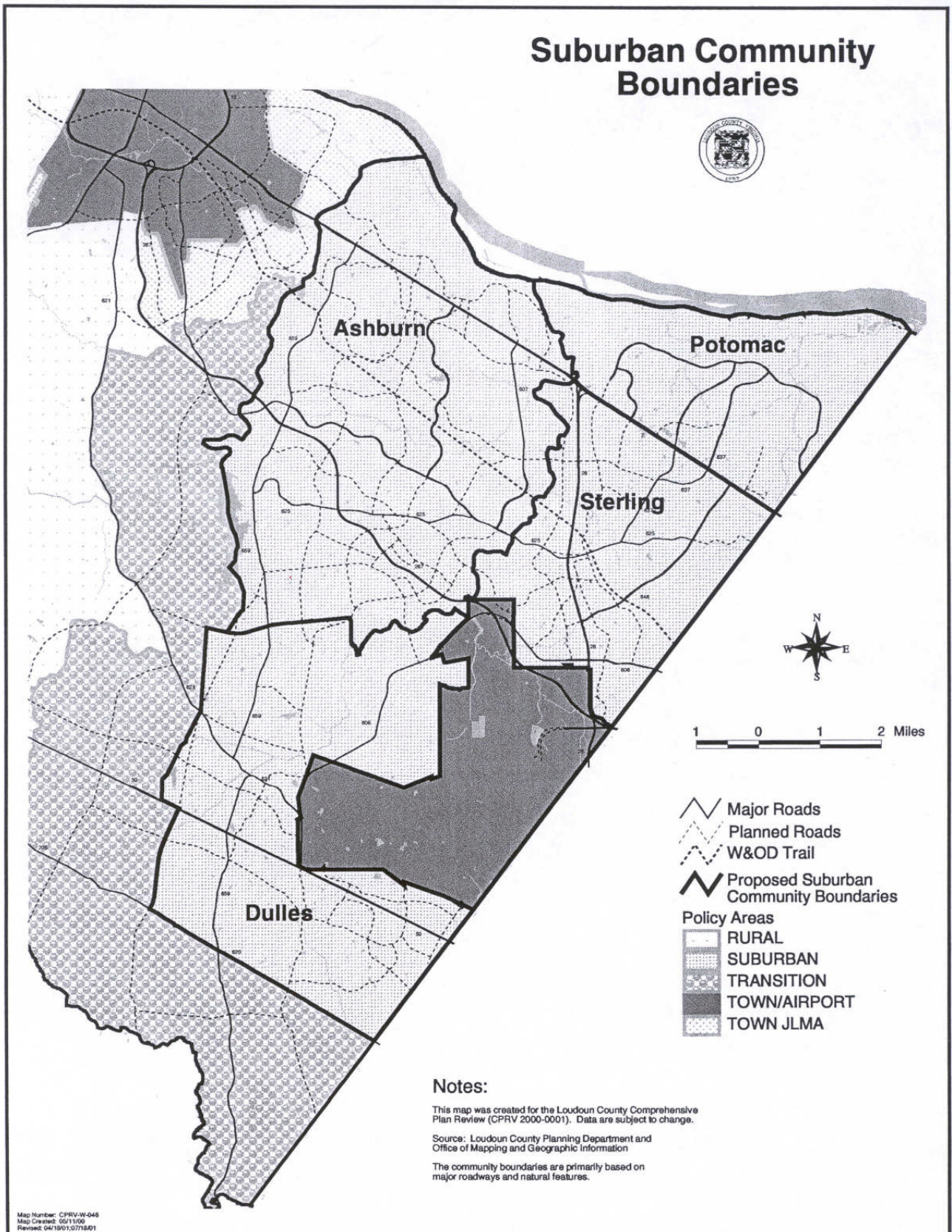
### Attachment 3: Maps of the Sterling Community

For full-size versions of these maps, please go to [www.loudoun.gov/potomac-sterling](http://www.loudoun.gov/potomac-sterling)

## Sterling Community 2007 Aerial

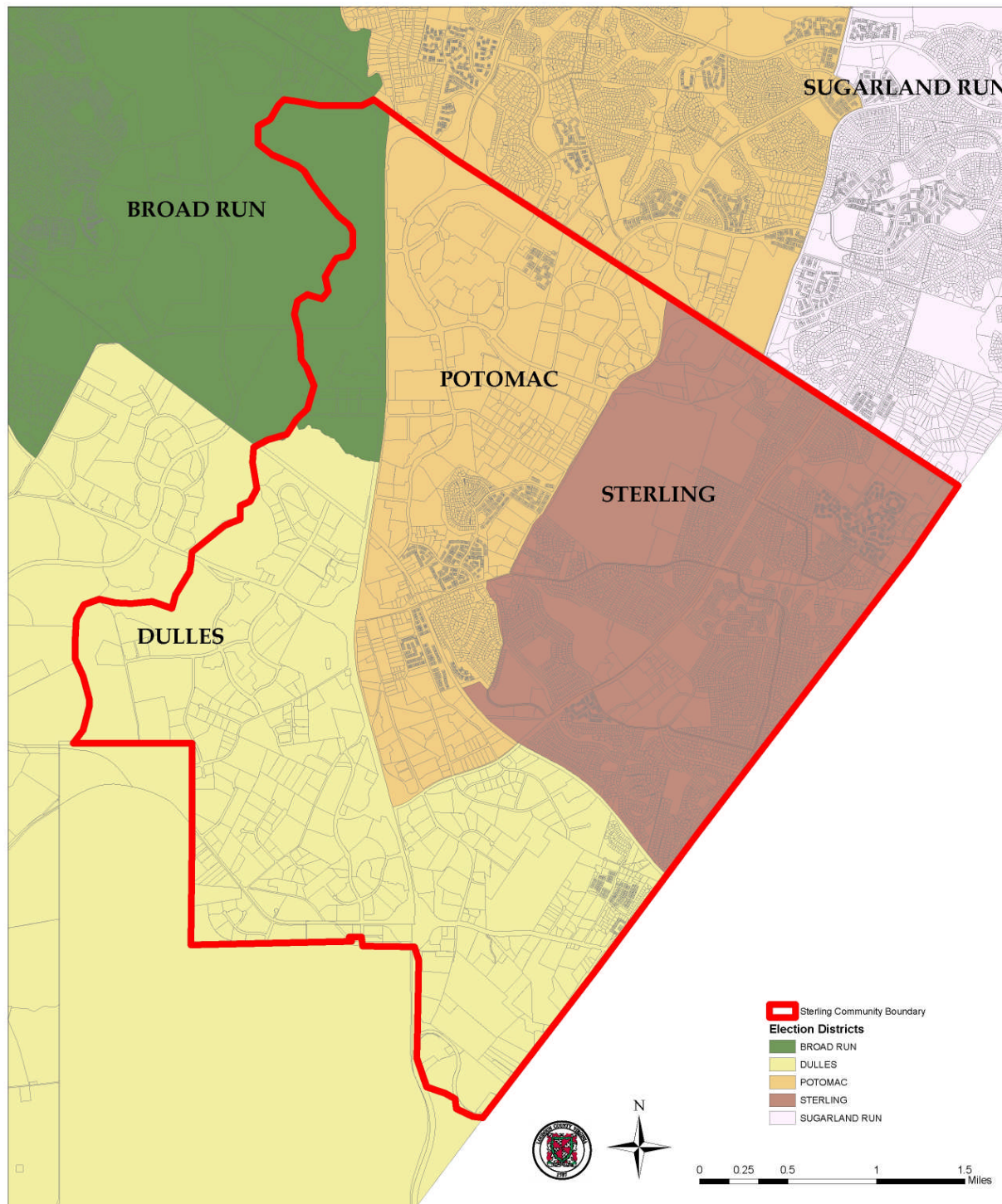


Source: Loudoun County Planning Department, April 16, 2008. All boundaries are approximate.



# Sterling Community

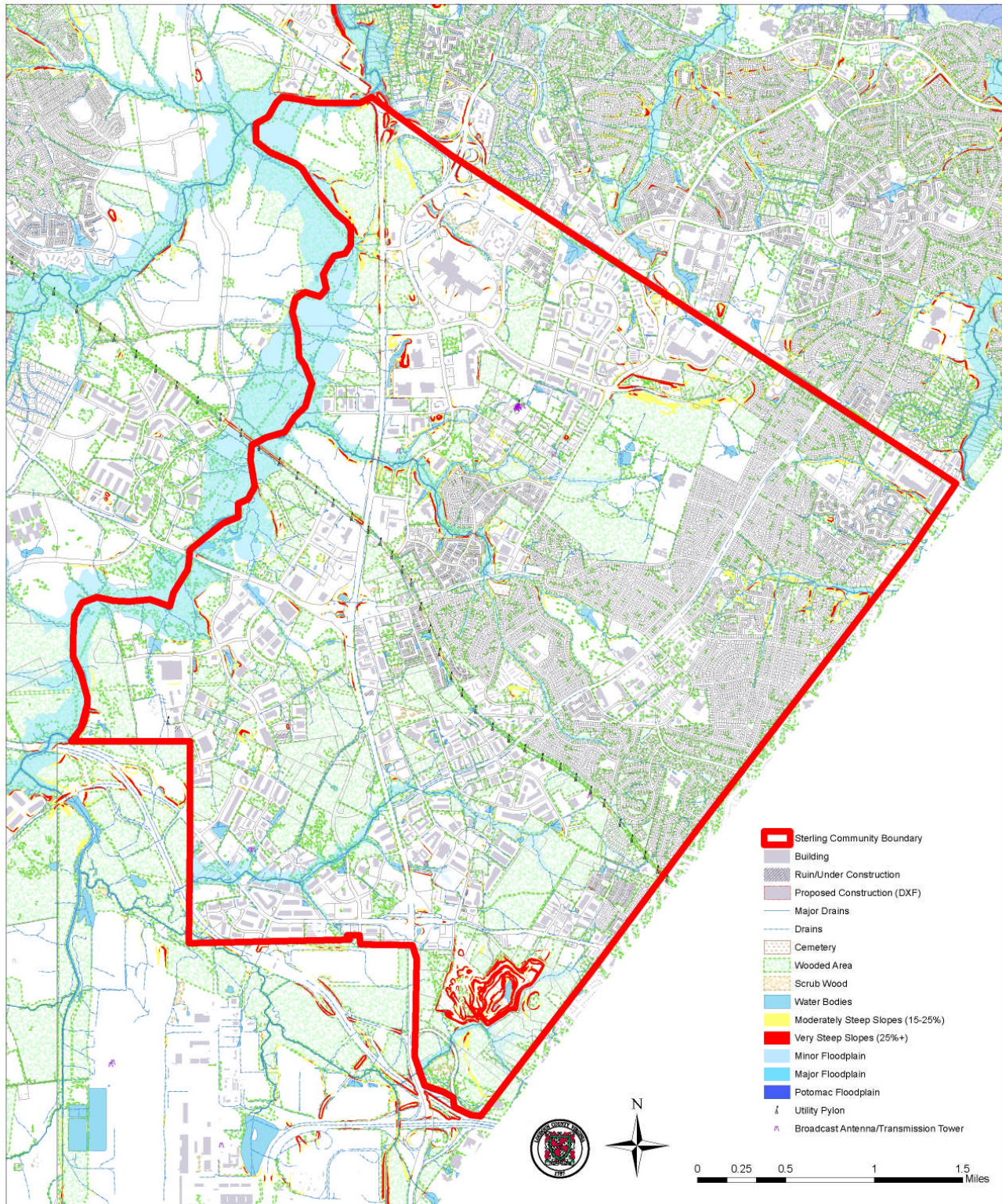
## Election Districts



Source: Loudoun County Planning Department. November 26, 2007. All boundaries are approximate.

# Sterling Community

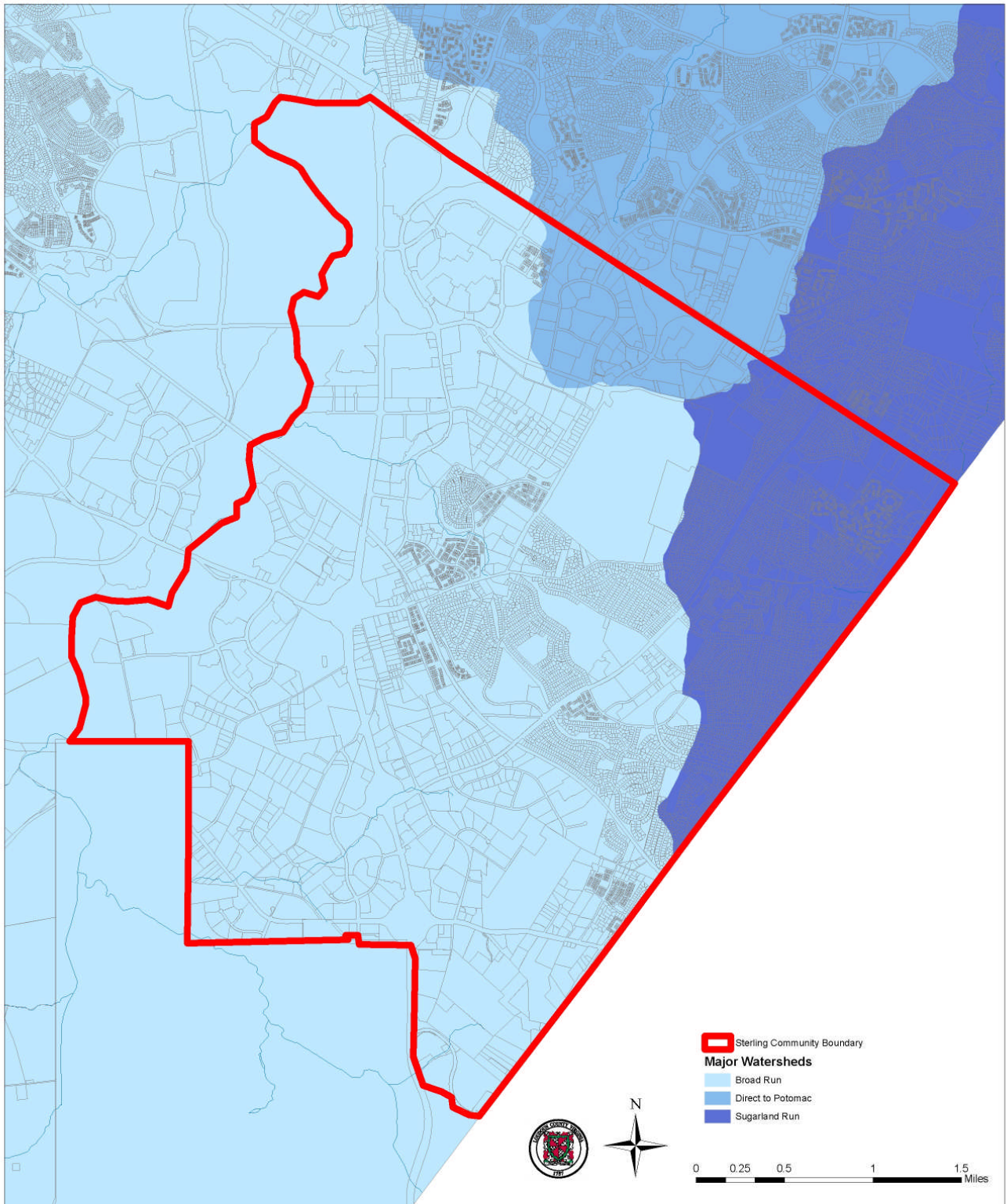
## Existing Conditions



Source: Loudoun County Planning Department. November 26, 2007. All boundaries are approximate.

# Sterling Community

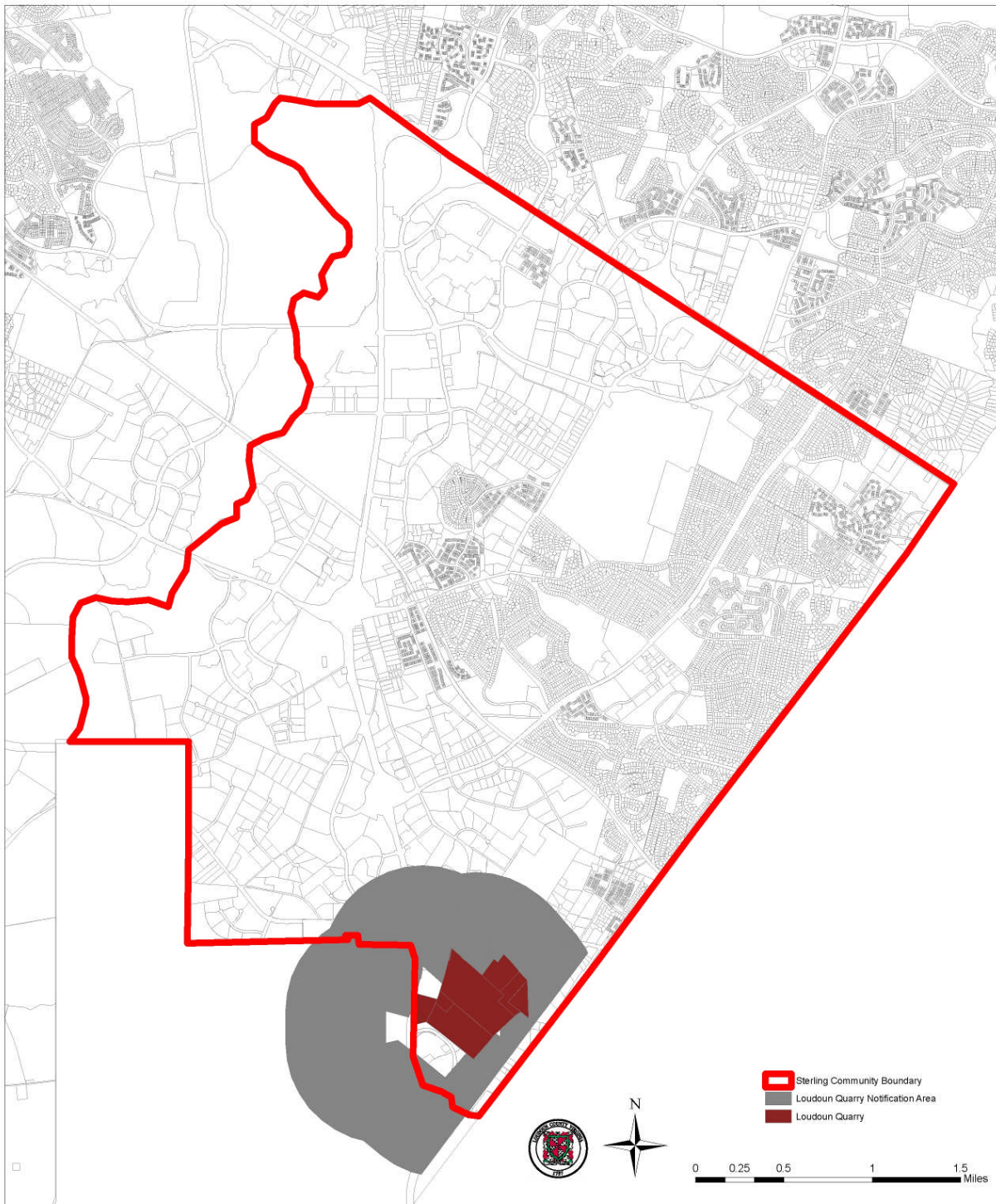
## Major Watersheds



Source: Loudoun County Planning Department. November 26, 2007. All boundaries are approximate.

# Sterling Community

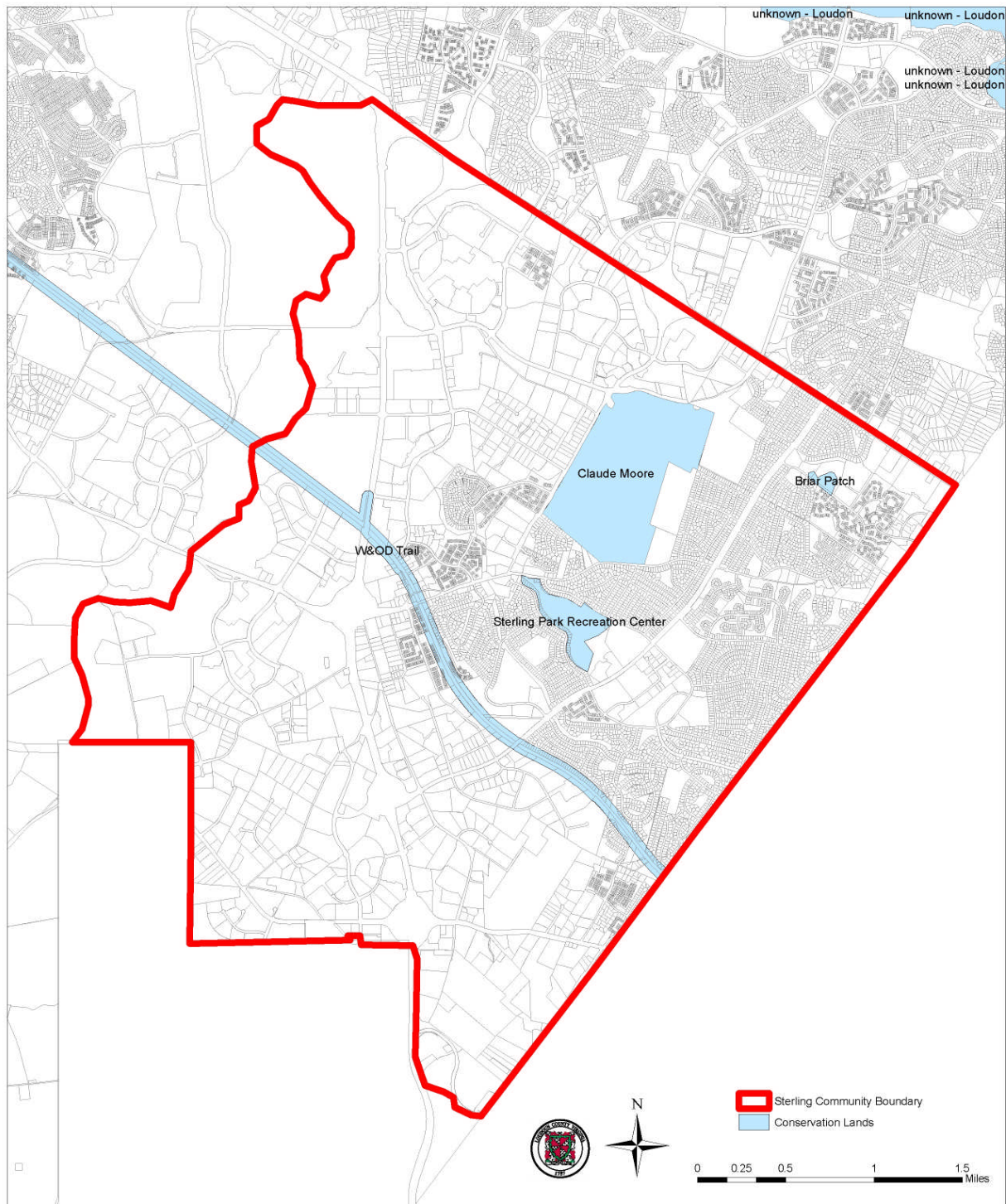
## Loudoun Quarry



Source: Loudoun County Planning Department. November 26, 2007. All boundaries are approximate.

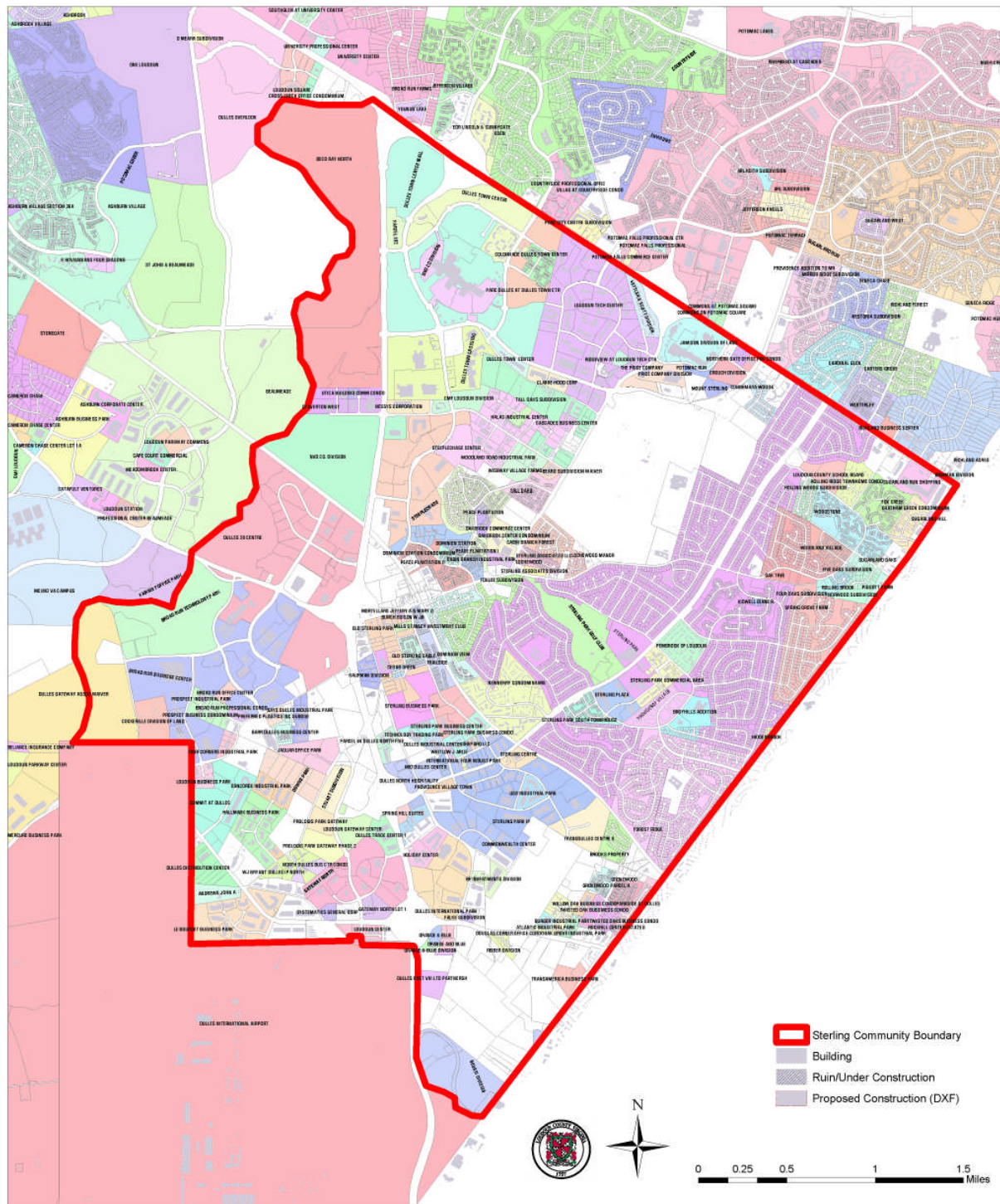
# Sterling Community

## Conservation Lands



# Sterling Community

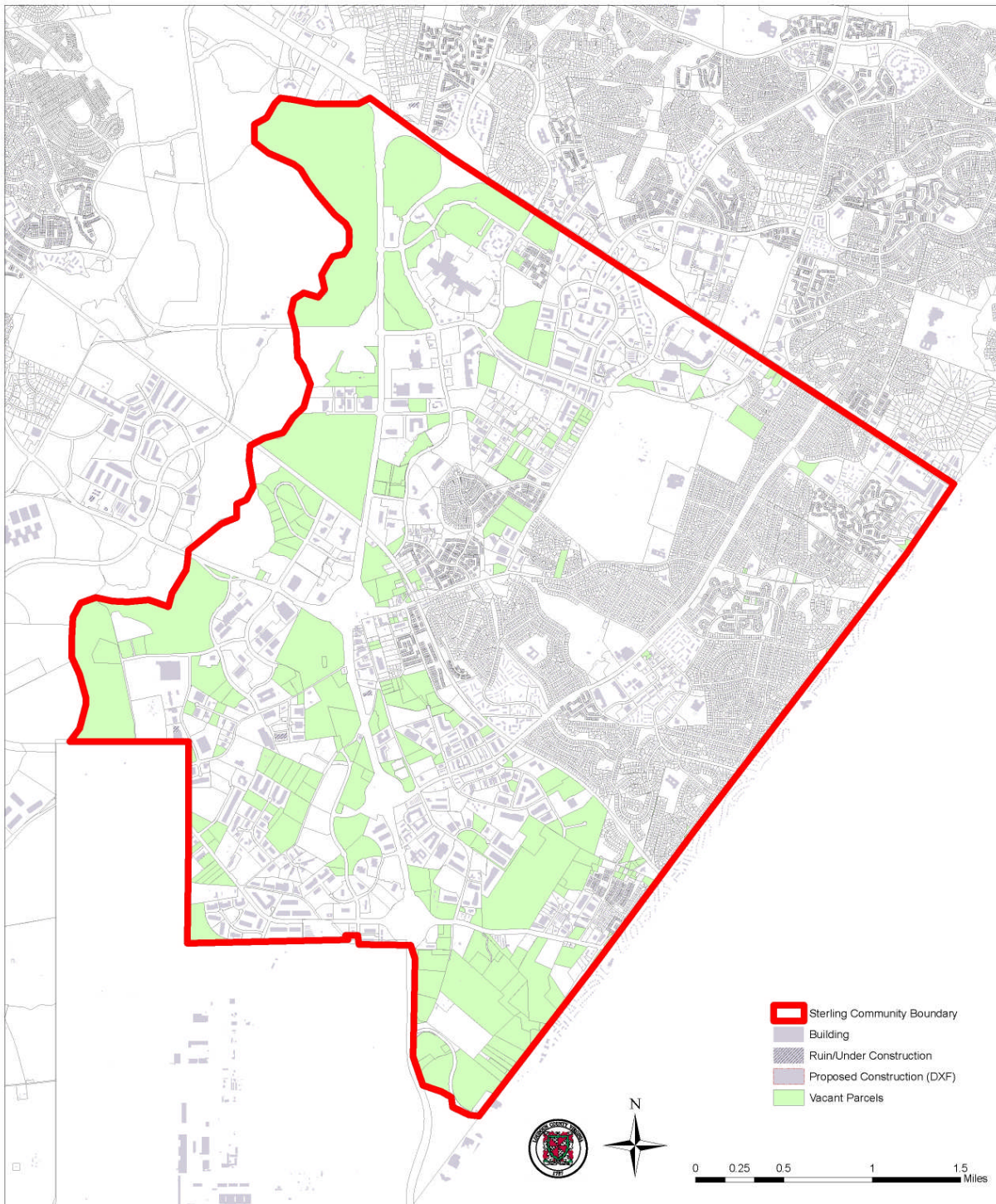
## Subdivisions



Source: Loudoun County Planning Department. November 26, 2007. All boundaries are approximate.

# Sterling Community

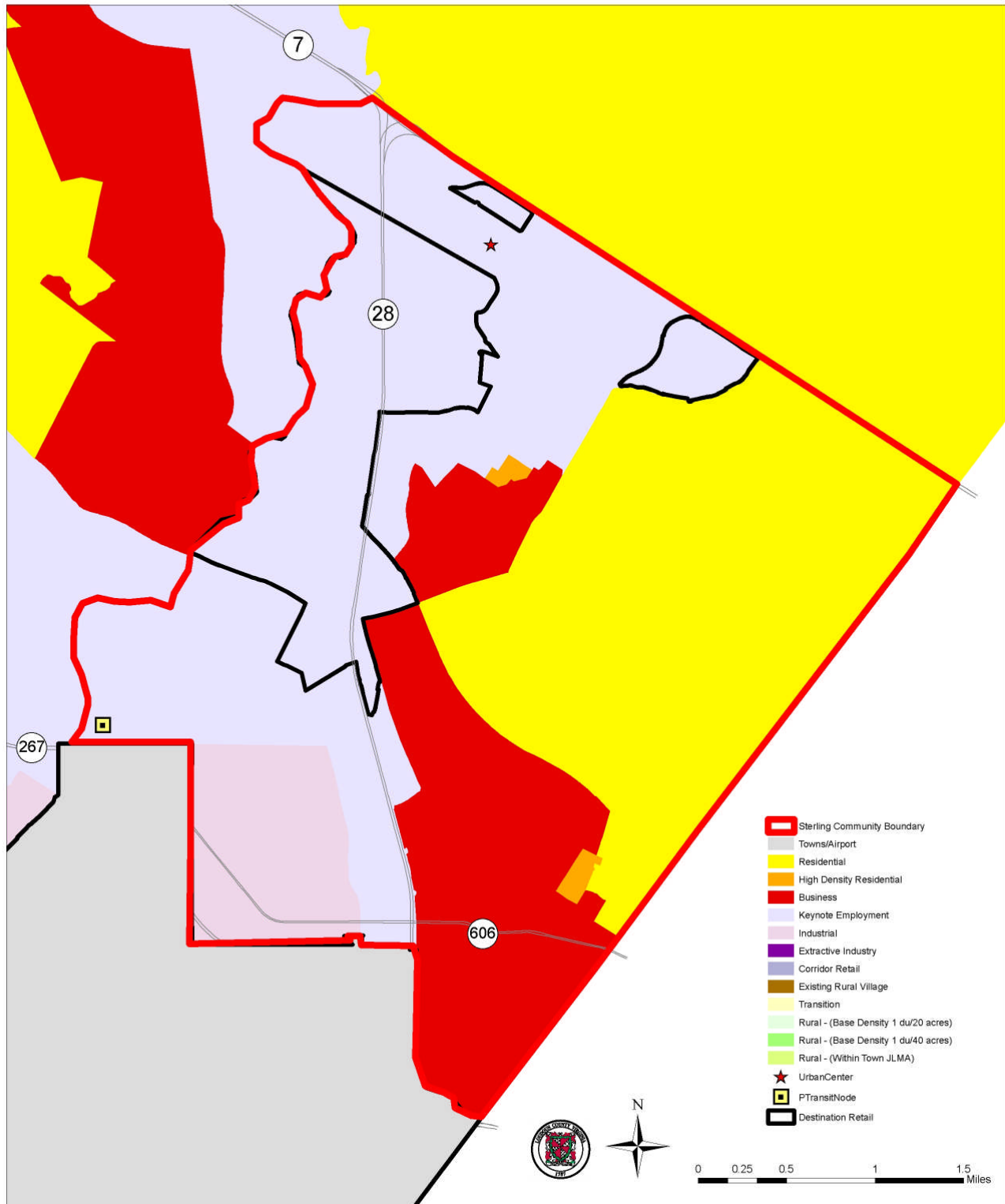
## Vacant Parcels



Source: Loudoun County Planning Department. November 26, 2007. All boundaries are approximate.

# Sterling Community

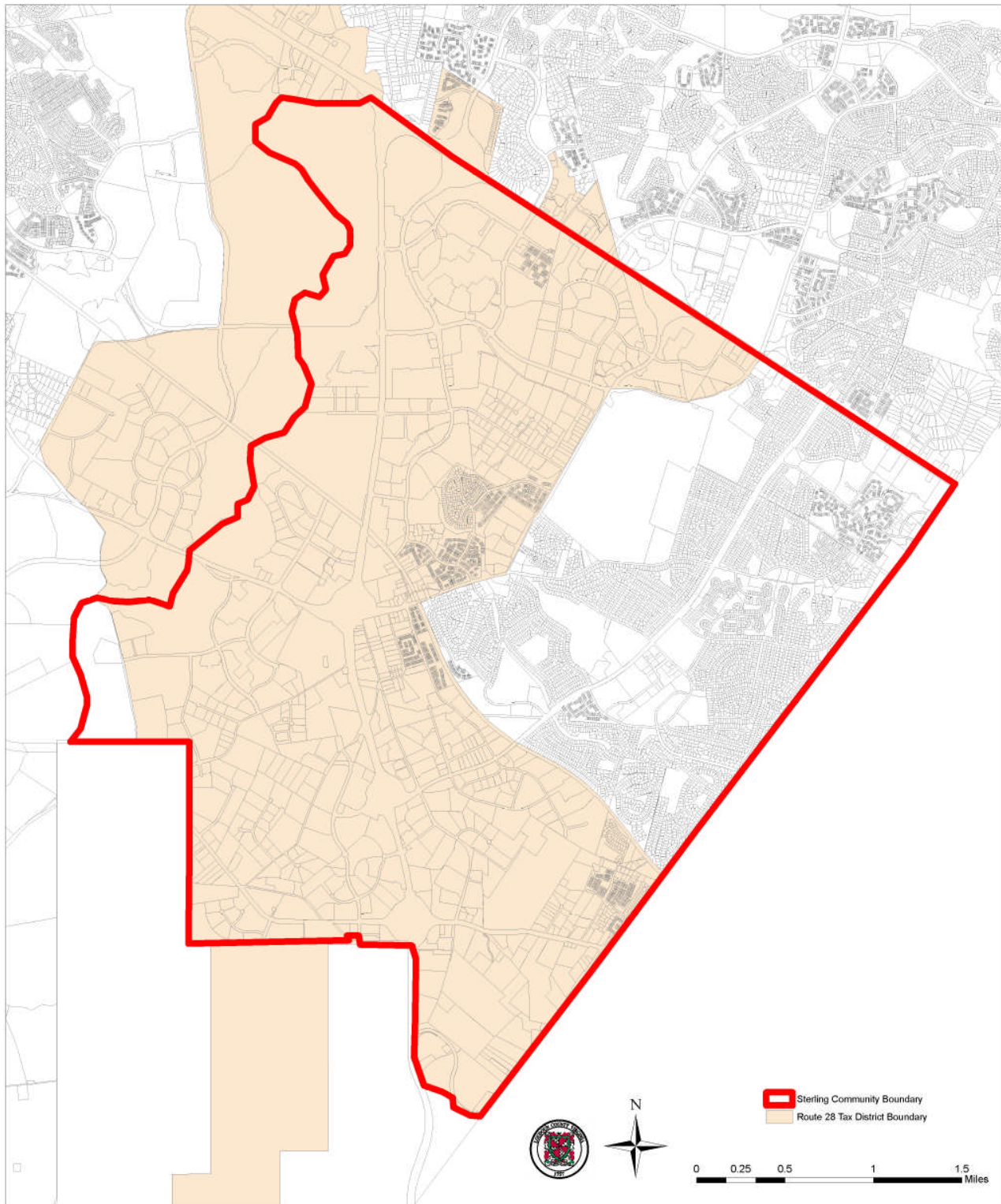
## Planned Land Use



Source: Loudoun County Planning Department. November 26, 2007. All boundaries are approximate.

# Sterling Community

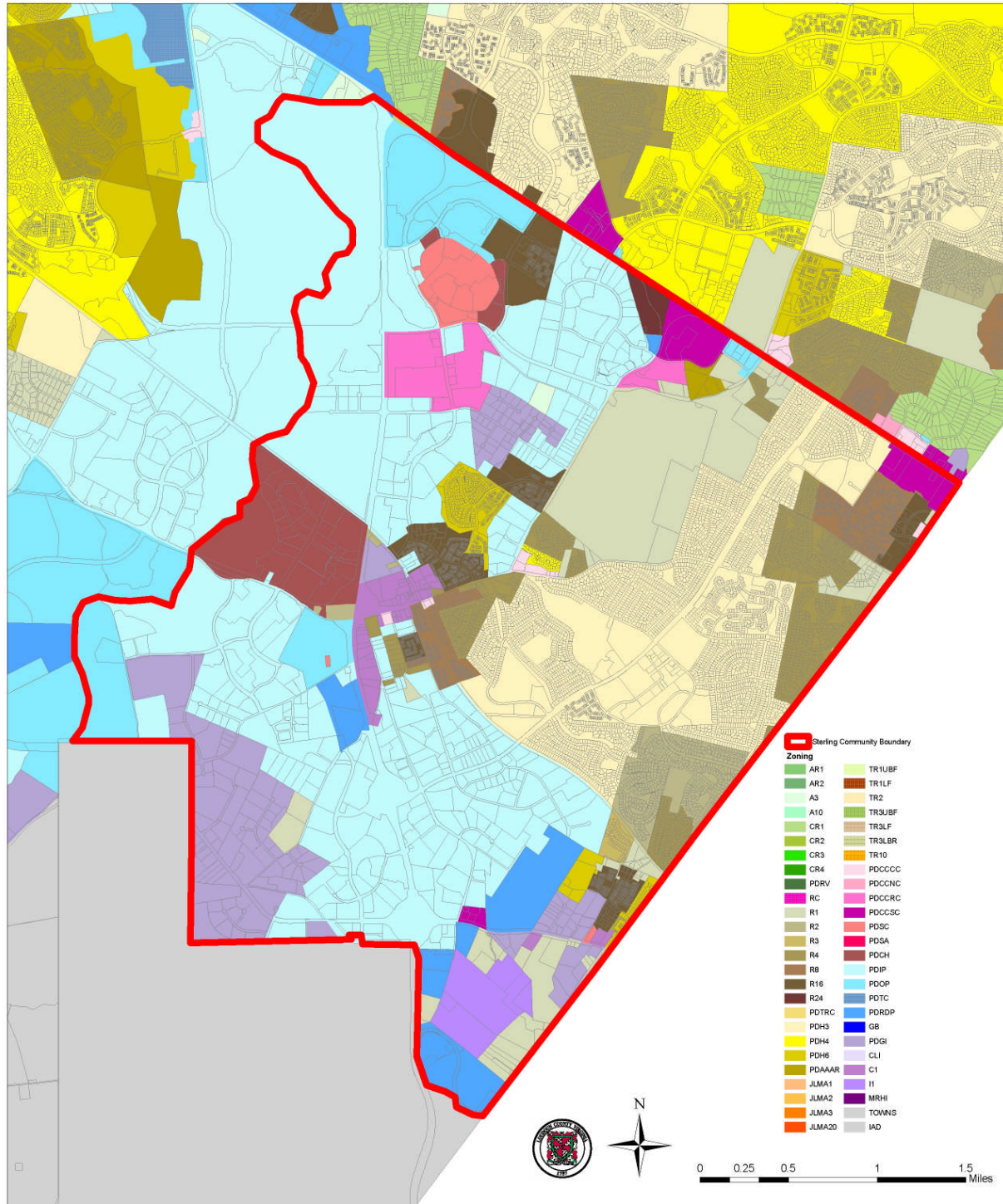
## Route 28 Tax District



Source: Loudoun County Planning Department. November 26, 2007. All boundaries are approximate.

# Sterling Community

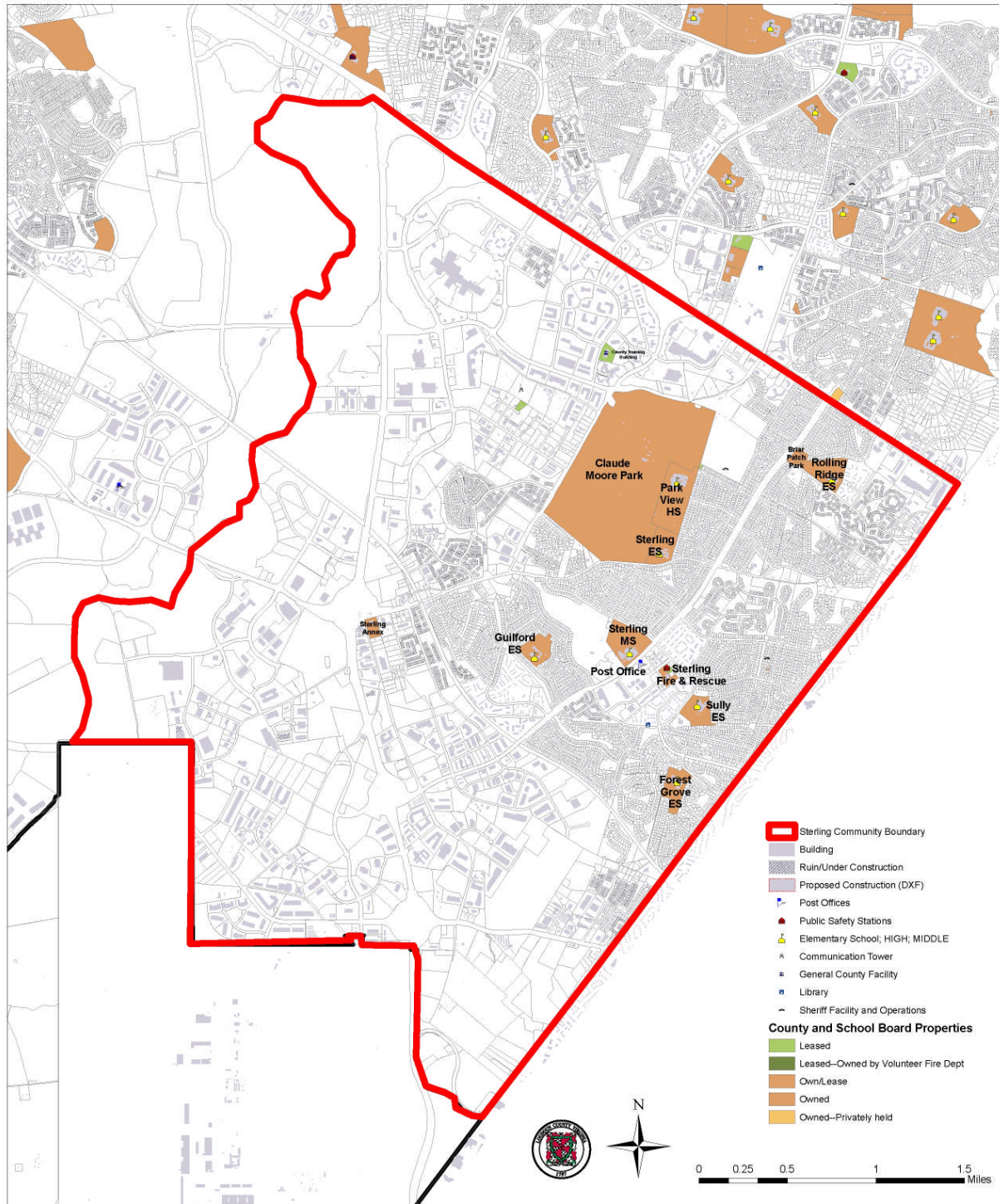
## Existing Zoning



Source: Loudoun County Planning Department. November 26, 2007. All boundaries are approximate.

# Sterling Community

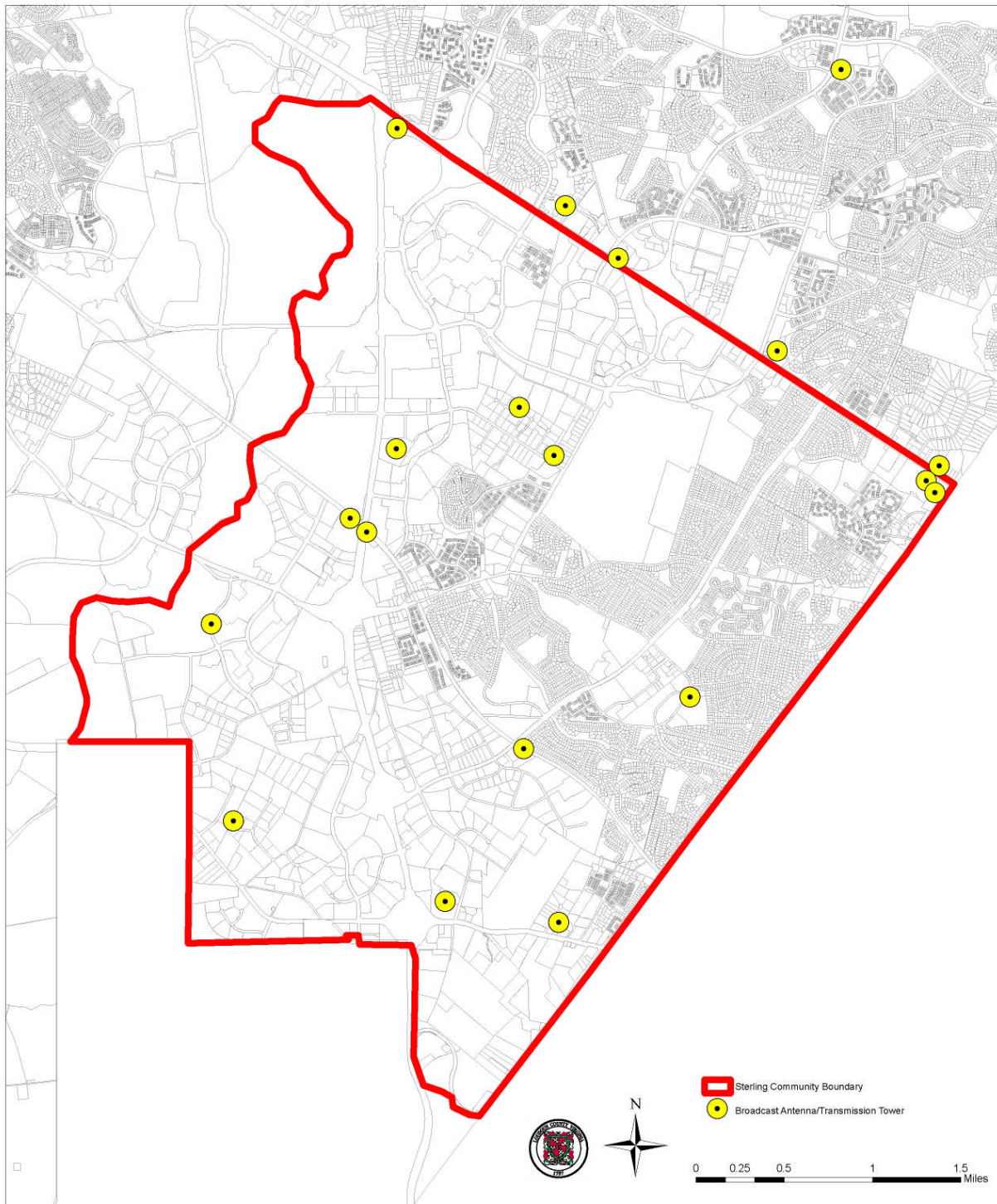
## Public Facilities and County Properties



Source: Loudoun County Planning Department. November 26, 2007. All boundaries are approximate.

# Sterling Community

## Telecommunication Facilities



Source: Loudoun County Planning Department, November 26, 2007. All boundaries are approximate.

