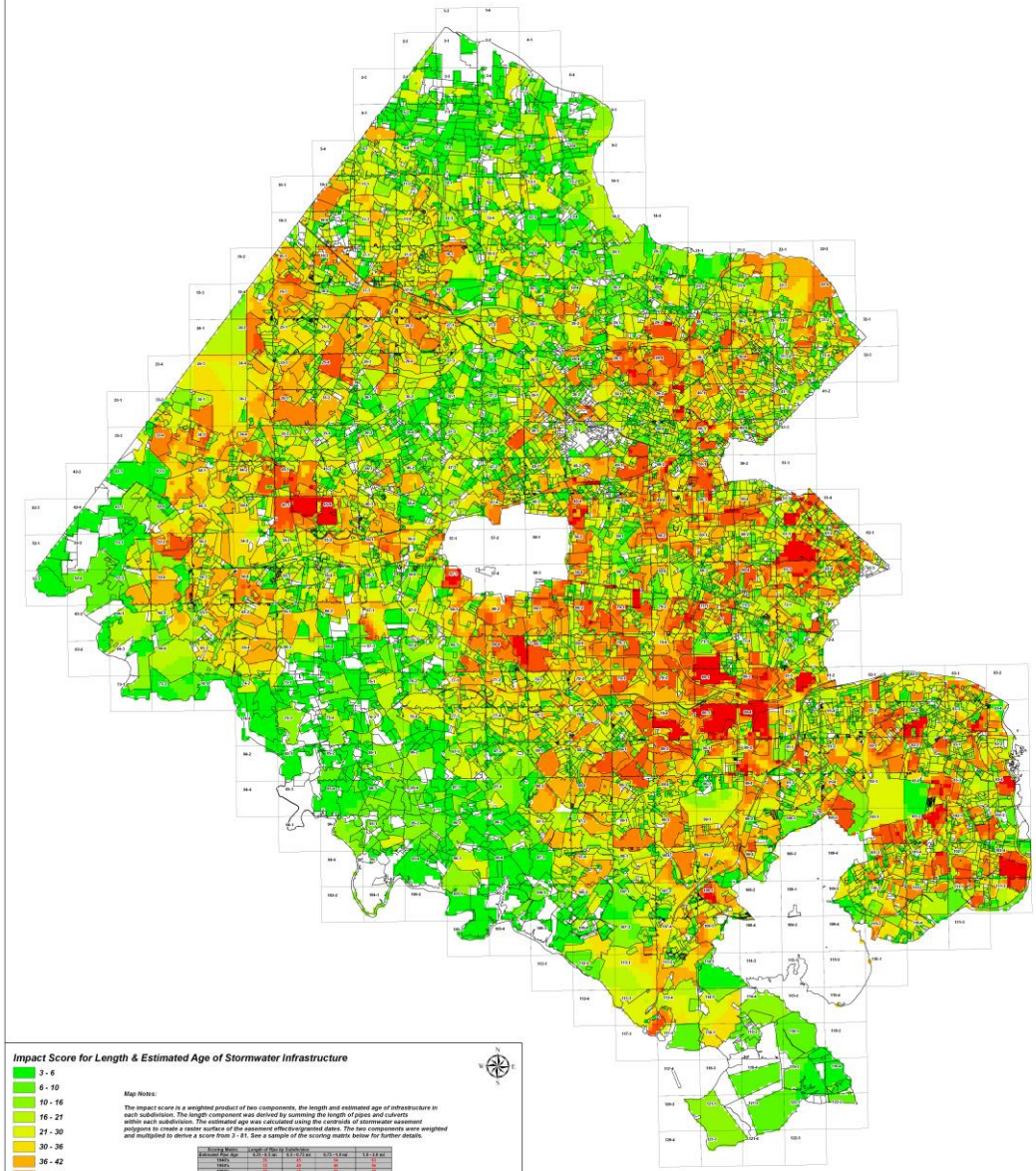
GIS Excellence Awards 2009

Fairfax County, Virginia

Length and Estimated Age of Stormwater Infrastructure by Subdivision



Impact Score for Length & Estimated Age of Stormwater Infrastructure

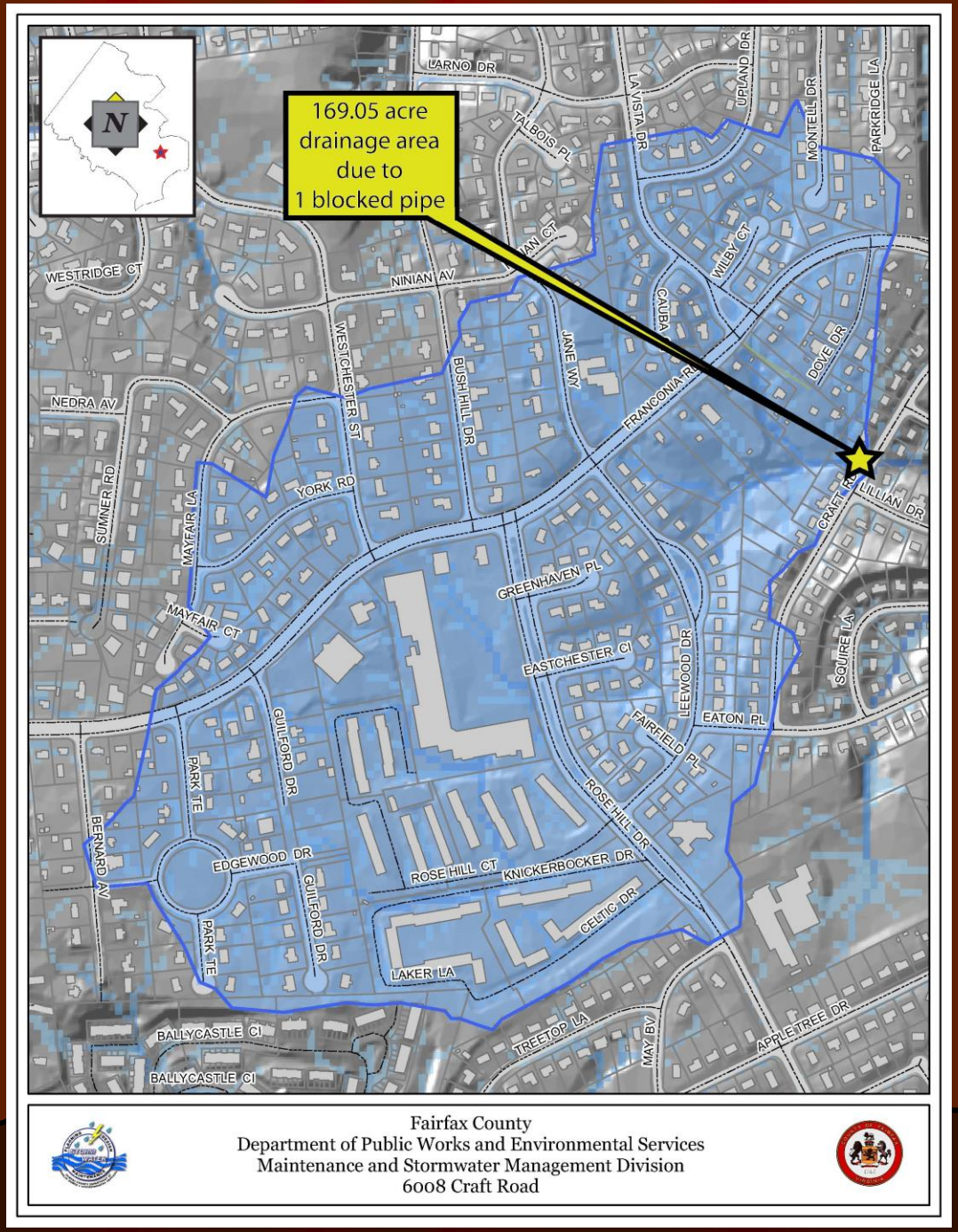
- 3 - 6
- 6 - 10
- 10 - 16
- 16 - 21
- 21 - 30
- 30 - 36
- 36 - 42
- 42 - 50
- 50 - 60
- 60 - 81
- Subdivision Boundaries

Map Notes:

The impact score is a weighted product of two components, the length and estimated age of infrastructure in each subdivision. The length component was derived by summing the length of pipes and culverts within each subdivision. The estimated age was calculated using the centroids of stormwater easement polygons to create a raster surface of the easement effective/granted dates. The two components were weighted and multiplied to derive a score from 3 - 81. See a sample of the scoring matrix below for further details.

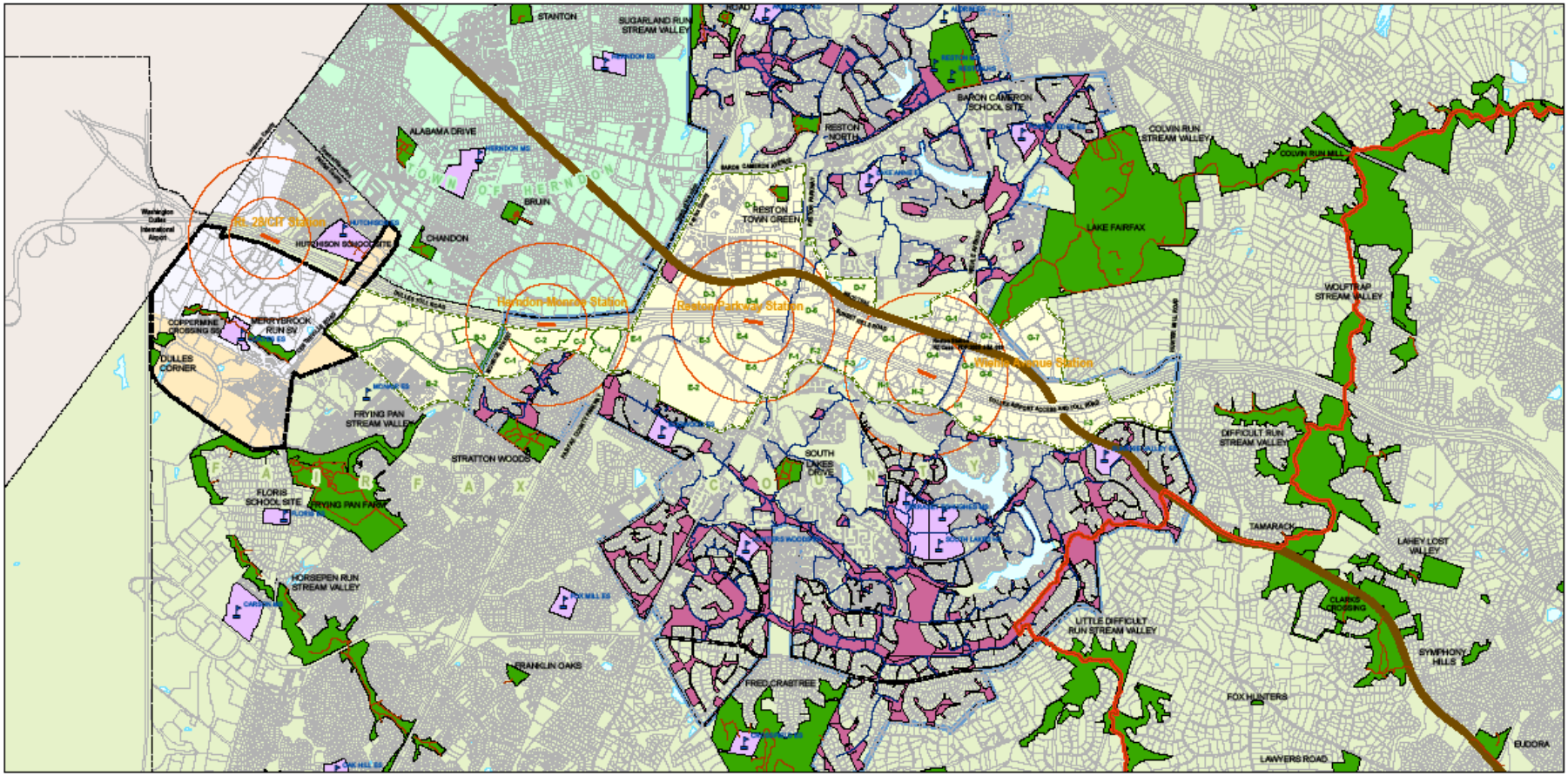
Scoring Matrix	Length of Pipe by Subdivision				
Estimated Pipe Age	0.01 - 0.1 mi	0.1 - 0.25 mi	0.25 - 0.5 mi	0.5 - 0.8 mi	
1940's	12	24	36	48	
1950's	12	24	36	48	
1960's	12	24	36	48	
1970's	12	24	36	48	
1980's	12	24	36	48	
1990's	12	24	36	48	
2000's	12	24	36	48	

0 0.5 1 2 3 Miles



Fairfax County
Department of Public Works and Environmental Services
Maintenance and Stormwater Management Division
6008 Craft Road


2009
NATIONAL
NIGHT OUT
POLICE • COMMUNITY PARTNERSHIPS
FAIRFAX COUNTY, VIRGINIA
Give Neighborhood Crime & Drugs
A GOING AWAY PARTY
196 Total Events
All Eight Police District
All Nine Board of Supervisor Districts
Block Party Event
Lights On Only Event
FAIRFAX COUNTY citizen corps
CERT
VIPS
FIRE CORPS
POLICE
FAIRFAX COUNTY VIRGINIA



Reston Master Plan Special Study
Park Analysis : Exisiting Conditions
Fairfax County, Virginia, 2009
EXHIBIT 2 : Parkland and Schools

Map prepared by FCPA
Planning & Development Division
September 2009
G:\projects\parks\mxd\0@ul_sep\Reston_Dulles\Reston-Dulles_Specisl_Study_2009.mxd

N

Legend

- Reston Boundaries
- I-3 — Reston-Herndon Suburban Center Land Units and Sub-units
  Note: Land Unit A is not part of special study. Planning responsibility for Land Unit A has reverted to the Town of Herndon.
- General Location Transit Station Platforms
  Circles denote 1/4 and 1/2 mile distances from center of station platform
- Fairfax County Park Authority Park Land
- Reston Association Park Land
- School Property
- School Facilities
- W & O D RR Trail
- Cross County Trail
- FCPA Trails
- Reston Trails

2,000 1,000 0 2,000 4,000 6,000 Feet

Integrating SketchUp and GIS to Model Density

Illustrating Proposed Intensity in the Springfield Community Business Center

The Springfield Connectivity Study Comprehensive Plan Amendment seeks to promote a more walkable environment in the Springfield Community Business Center. To visually analyze the impact of increased building intensity, these illustrations were created in SketchUp and Arc Globe, showing how redevelopment could occur with the proposed Plan changes.

This view, taken from ArcGlobe, captures the proposed intensity levels as viewed from the neighboring residential area to the north. The light-colored massings represent future buildings that would be possible under the proposed intensity levels, while dark gray massings represent existing office, retail, hotels, and residences. Medium-gray massings are parking structures.

Effective intensities for each block of Land Unit A were calculated, illustrating how density could be distributed.

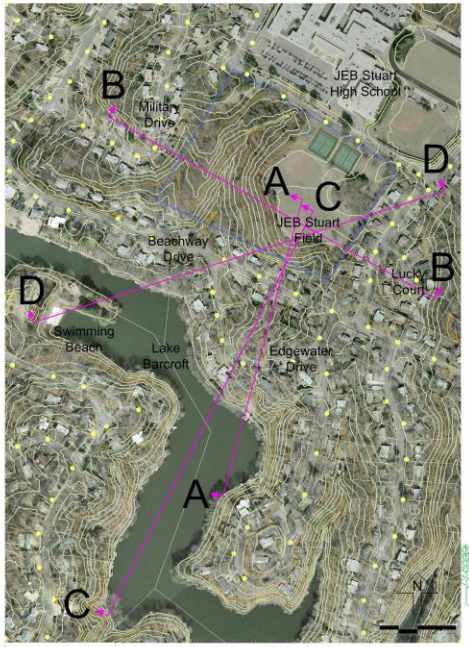
Illustration from SketchUp showing how streetscape elements can be added along Commerce Street, creating pedestrian and bicycle space.

ATHLETIC FIELD LIGHTING VIEW ANALYSIS

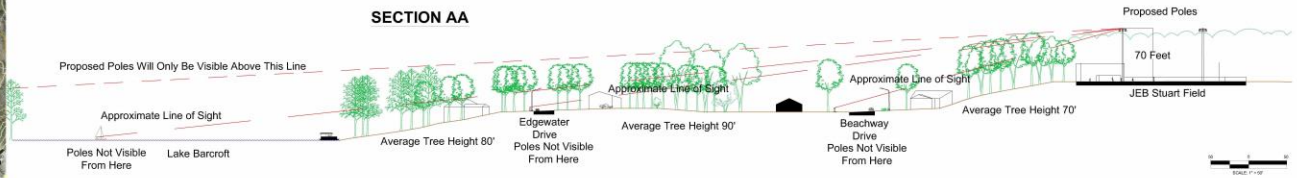
J.E.B. Stuart Park
Master Plan Amendment

Prepared by Park Planning Branch

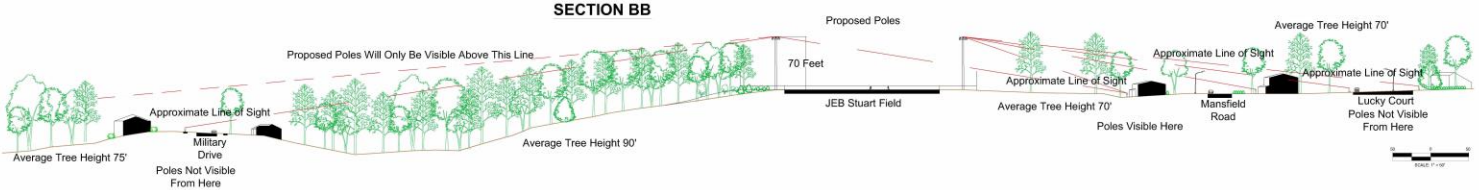
FAIRFAX COUNTY PARK AUTHORITY
12055 Government Center Parkway
Suite 406
Fairfax, VA 22035-1118



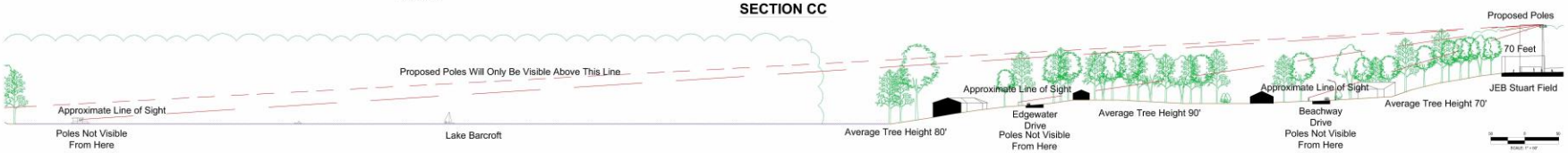
SECTION AA



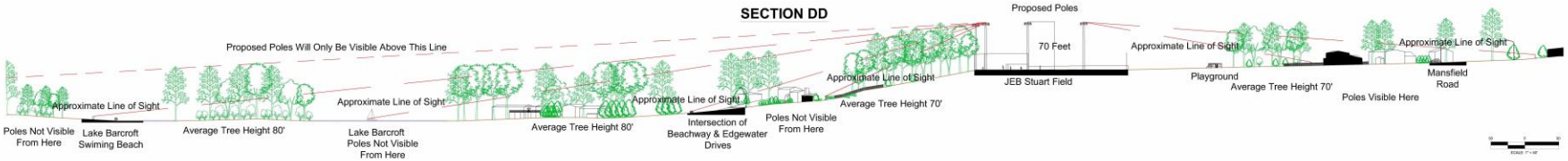
SECTION BB



SECTION CC



SECTION DD



FAIRFAX COUNTY PARK AUTHORITY
12055 Government Center Parkway Suite 406 Fairfax, VA 22035-1118

SCALE IN FEET

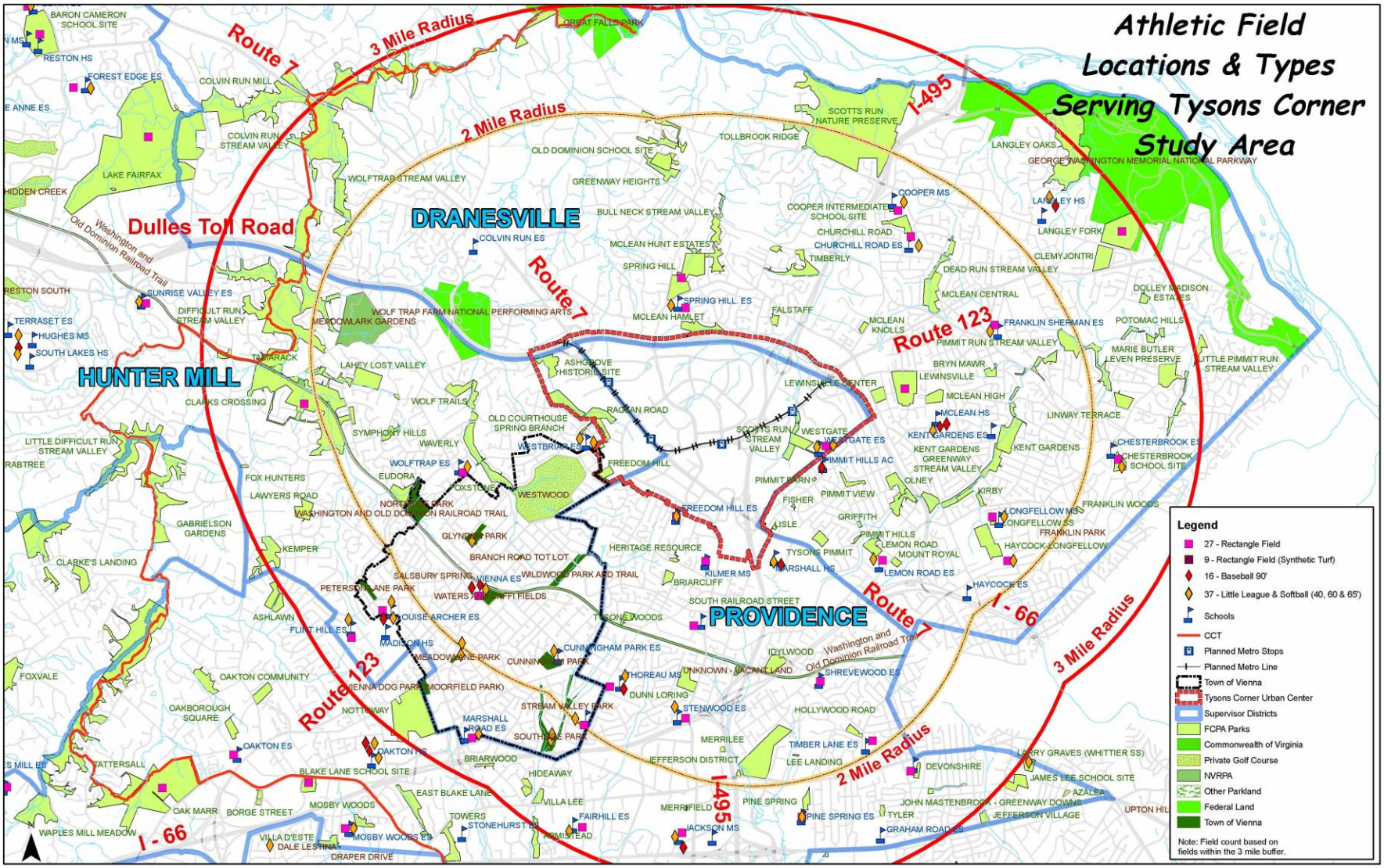
N

VIEW ANALYSIS

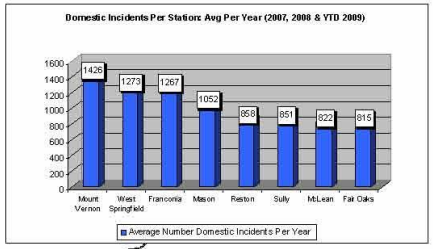
J.E.B. Stuart Park Master Plan Amendment

FAIRFAX COUNTY, VIRGINIA

1 OF 1


Athletic Field Locations & Types Serving Tysons Corner Study Area
DRANESVILLE
HUNTER MILL
PROVIDENCE
Dulles Toll Road
Route 7
Route 123
I-495
I - 66
3 Mile Radius
2 Mile Radius
Legend
27 - Rectangle Field
9 - Rectangle Field (Synthetic Turf)
16 - Baseball 90'
37 - Little League & Softball (40, 60 & 65')
Schools
CCT
Planned Metro Stops
Planned Metro Line
Town of Vienna
Tysons Corner Urban Center
Supervisor Districts
FCPA Parks
Commonwealth of Virginia
Private Golf Course
NVRPA
Other Parkland
Federal Land
Town of Vienna
Note: Field count based on fields within the 3 mile buffer.

Analysis of Domestic Incidents In Fairfax County Past 24 Months (October 2007 - September 2009)



Prepared: 10/21/09, Camie King

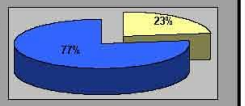
Domestic Dispute, Domestic Violence and Domestic Assualt Events pulled using LEADS.

DOMESTIC INCIDENTS IN FAIRFAX COUNTY

The following map displays domestic dispute, domestic violence and domestic assault events in Fairfax County in the past 24 months. There were 8,465 domestic incidents in Fairfax County in 2007 and 8,417 in 2008. There have been 5,963 domestic incidents between January and September 2009.

ANALYSIS OF DOMESTIC INCIDENTS IN FFX COUNTY

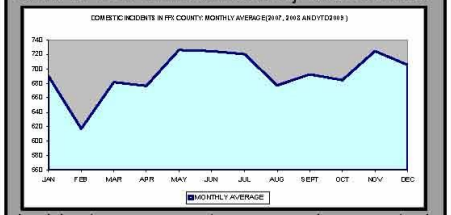
During the previous 24 months, 2,701 households (23%) experienced more than one reported domestic incident.



The stations located on the southern and eastern end of the county have more domestic related incidents per year.

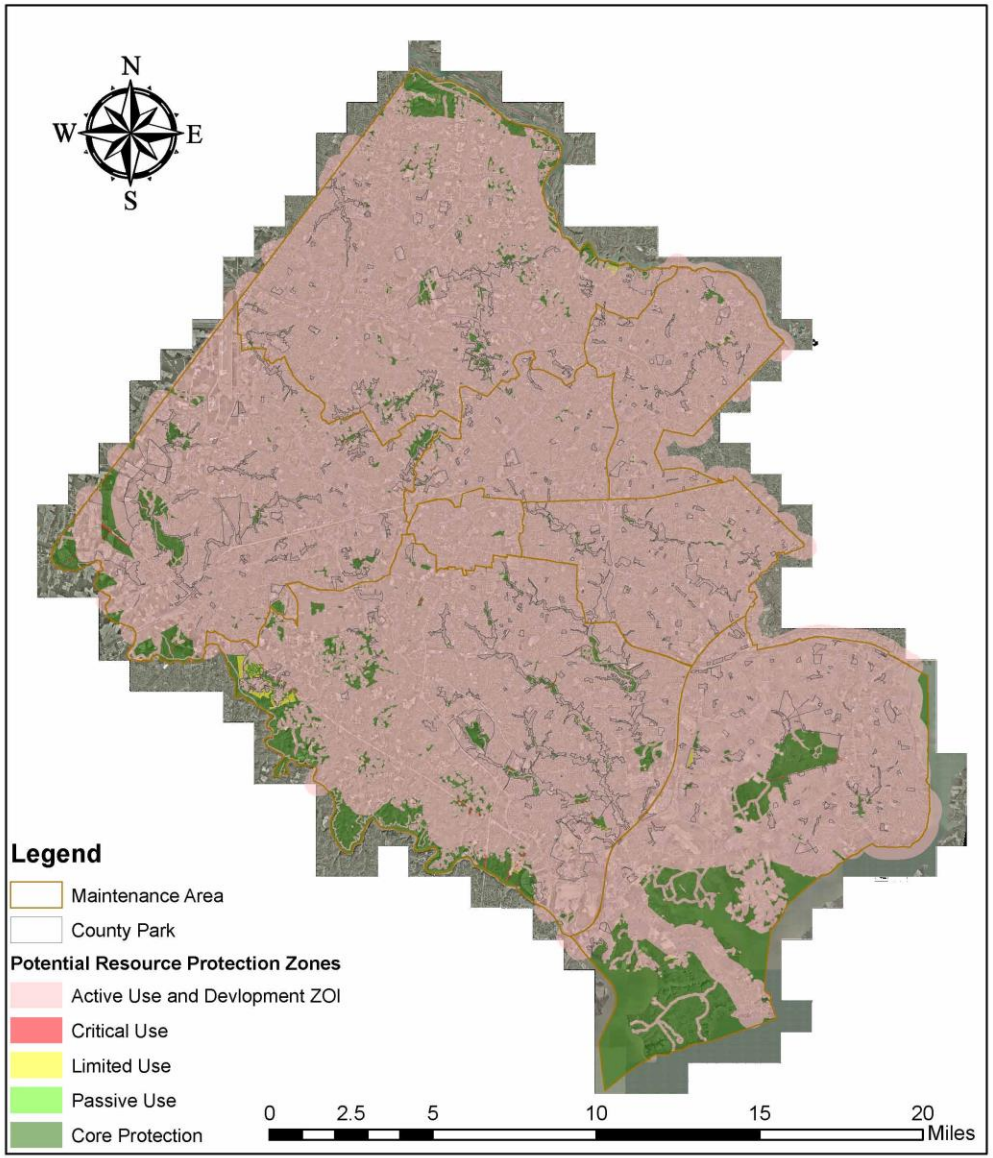
TEMPORAL ANALYSIS

Domestic Incidents show a decrease in February likely due to the decreased number of days that month. Domestic Incidents tend to increase during the summer months and then decline in August and September. This is likely due to the start of the school year. Victims tend to delay reporting as they want the family to be "intact" for the sake of their children as they start school.



Incidents are most commonly reported between 1700 and 0100 hrs. The most common hour for reports is 2100 hrs. In addition, the most common days of week for reports are Saturdays and Sundays. One may infer that these times and days are more common for reports as they relate to times when families are together (evenings and weekends).

Fairfax County
Concept Development Zone of Impact



Herndon Fire Station Alternatives: Emergency Response Performance Analysis

Planning Project

The Fairfax County Fire and Rescue Department (FRD) needed to analyze the operational impact of relocating the Herndon fire station to an alternative site.

Background:

The Herndon fire station, built in 1950, is located in the middle of the Town of Herndon and is the oldest fire station in Fairfax County, Virginia. Emergency call volume has doubled in the past 15 years and is predicted to grow. The station houses two apparatus which is insufficient to meet the future emergency service needs of the planned high density commercial and residential development along the Dulles Road Corridor.

Process:

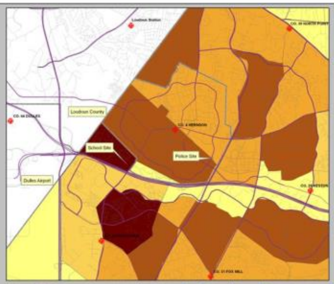
To determine the operational impact of relocation of the fire station to the two sites, several analyses were performed using a combination of GIS-based analytical tools against the current location.

Site Comparison:

The FRD was asked to evaluate a county property (school site) in addition to a Town of Herndon property (police site) and make a recommendation. For the school site, a portion of the property would be allotted for the fire station. For the police site, over $5 million would be needed to purchase a portion of the site and building demolition would be required.

Aerial Imagery, Copyright 2007 Commonwealth of Virginia

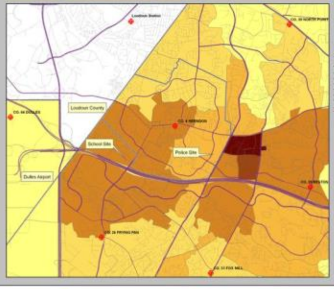
GIS Analysis



Residential Population:

In general, the larger the population the greater the number of calls for service. Many factors can influence this generality including: daytime population, transient population due to major transportation corridors, specific high-demand locations and socio-economic levels.

Data Source: IPLS TAZ Population 2010



Incident Density:

Fire and Emergency Medical (EMS) Incidents for FY2008. Choropleth Mapping of total incident count by fire box area.

4 Minute Travel Time:

National Fire Protection Association (NFPA) standards call for a first responder on scene of emergency incidents within 4 minutes travel time at least 90% of the time. FRD's goal is to maximize emergency service coverage of the county with a modeled 4 minute travel time. Each shaded polygon shows a 4 minute coverage area around an existing fire station or a proposed site. White areas depict greater than 4 minute travel times. FRD strives to minimize the white areas of the map and to reduce overlapping shaded areas where incident volumes are low.

Travel time polygons derived from roadway network speed and routing data as of May 2009

Traditional Pin Mapping:

Each Emergency Medical Service (EMS) incident (call for service) is geocoded. The major drawback of this map is that often the dots overlap each other masking the volume of EMS incidents at specific locations.

Incident data from FY08

Incident Volume:

Conversion of pin mapping to proportional circles better represents the frequency of incidents at the same address. Larger circles are high volume locations. These locations typically include nursing homes, hospitals, schools, and high volume street intersections. All structure fires are shown.

4 Minute Travel Time & Incident Volume:

By combining the maps above it is easier to see the volume of high volume incidents in relation to the 4 minute travel areas.

LEFT: **Existing Herndon station** - 4 minute coverage includes nearly all incidents within the Town of Herndon boundaries plus many high volume incident locations in downtown Reston.

MIDDLE: **School Site** - 4 minute coverage of the Town of Herndon is poor. Many high volume incident locations are not covered within 4 minutes. No overlapping coverage of downtown Reston.

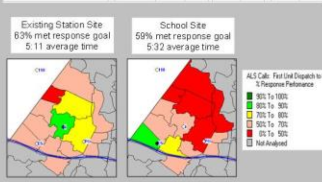
RIGHT: **Police Site** - 4 minute coverage of the Town of Herndon is not as good. Overlapping coverage for downtown Reston high volume locations is good.

Analysis of Response Performance at Alternative Sites

Analysis of Response Performance at Alternative Sites for Herndon FS 4

[illegible]

Sample maps below



Response Performance:

GIS-based apparatus deployment modeling software was utilized to compare emergency response performance at the three locations. The software models response performance based on historical incident activity (call type and actual response times).

Several performance indicators were analyzed for all three sites. For each performance indicator, the percentage that a response goal was achieved and the average response time was analyzed for the Herndon station's first due area (404) and the surrounding fire stations' first due areas. Values in **bold Red** show a decline in performance from the existing station site. Values in **bold Black** show an increase in performance from the existing station site.

Countywide, statistically there is little difference in response performance regardless of the site chosen because of the current number of existing stations and units throughout the county. Within individual fire stations' first due areas, the response differences are much more apparent.

The greatest negative impact in response performance occurs in the Herndon station's first due area (404) when alternative sites are considered.

The positive impacts in response performance occur in station first due areas receiving multiple coverage from several stations (refer to the overlapping polygons in the GIS analysis of 4 Minute Travel Time & Incident Volume).

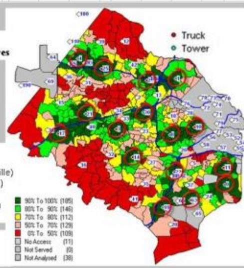
Source: Deccan ADAM - data from CY2008

Modeling Apparatus Placement

Analysis of Response Performance at Herndon Fire Station 4 Site with Additional Units

[illegible]

Optimal Placement of Trucks Based on CY2008 Structure Fires



Recommended Deployments:

TL436 to Station 4 (Frying Pan to Herndon)
T438 to Station 17 (W Centreville to Centreville)
TL440 to Station 21 (Fairfax Ctr to Fair Oaks)
T441 to Station 14 (Crosspointe to Burke)
TL424 to Station 9 (Woodlawn to Mt Vernon)
TL405 to Station 19 (Franconia to Lorton)

Countywide performance: 82% arrival within 9 minutes dispatch to onscene, 6:59 Average time

Apparatus Response Performance:

The modeling software affords the capability to model potential response performance by adding or moving apparatus such as a truck and rescue to the current Herndon fire station.

For the performance indicators shown in the table, the values in **bold Black** depict increases in response performance within Herndon's first due area and the majority of the surrounding first due areas. Values in **bold Red** show a decline in performance in a station's first due area where a unit (truck or rescue) was moved from that particular station. (For example, Truck 436 was moved out of the Frying Pan Station 36 to the Herndon Station 4).

The flexibility to add or move apparatus to the Herndon fire station 4 at the existing site is recommended for improved response coverage for incidents such as structure fires and technical rescue calls in the Town of Herndon and the surrounding areas.

Source: Deccan ADAM - data from CY2008

Optimal Apparatus Placement:

A feature of the modeling software is to determine the optimal placement of units for potential response capabilities based on historical response performance by specific incident types (medical, structure fires, or rescue calls).

Using actual structure fire data from CY2008, FRD modeled the recommended locations for 14 trucks and 8 rescue units which is the current number of active units in the fleet.

In both modeling scenarios, the Herndon fire station at the current site is a preferred station location for a truck and for a rescue unit for optimal response performance.

Map at left shows the optimized placement in Fairfax County for 16 trucks (14 county trucks, Fairfax City Truck 403, and Fort Belvoir Truck 463).

Source: Deccan ADAM - data from CY2008

Conclusions

Results of the GIS-based analysis included the following:

- The preferred station location for optimal response coverage for all emergency incidents in the Town of Herndon and the surrounding areas is at the existing site or a site in close proximity.
- The County school site is not a viable option and was eliminated from consideration.
- The Town police site is a viable alternative but is not the optimal site for coverage.
- The FRD is currently pursuing a feasibility study to build a multi-story fire station (with underground parking) with the flexibility to house additional specialty units to address the limitations of the current site.

Financial Benefits

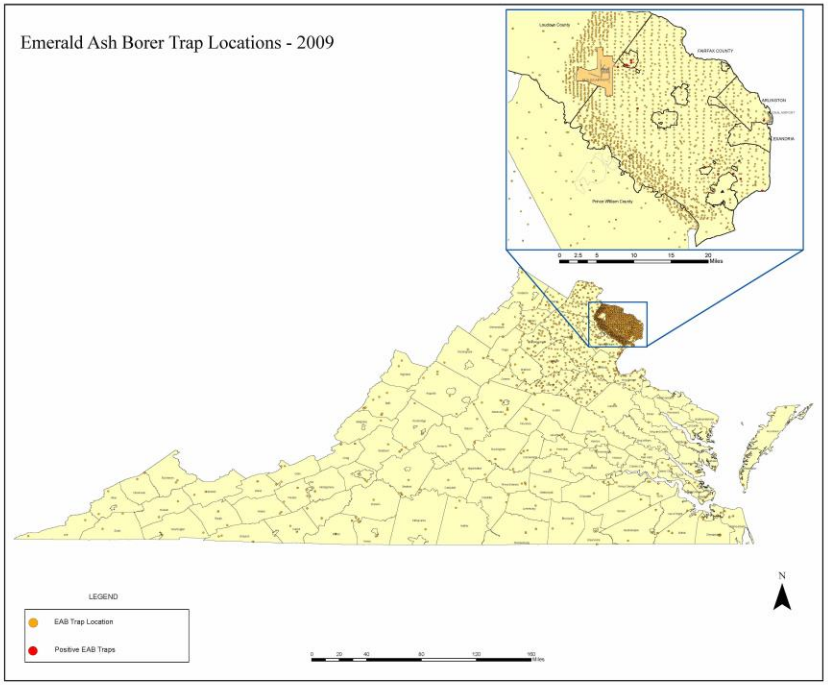
The results of this analysis provided the data and justification of potential improved response coverage which enabled the FRD to submit an application for a FEMA Fire Station Construction grant of $5 million. Furthermore, if a new station is constructed on the existing site, the County will save approximately $5.6 million in land acquisition cost.

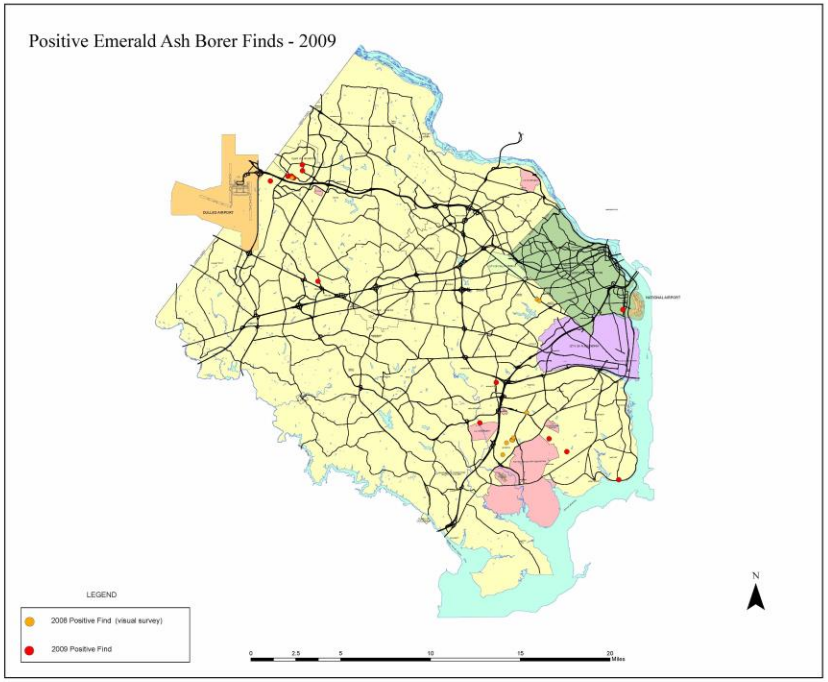
Existing Herndon Fire and Rescue Station

Virginia Cooperative Emerald Ash Borer Monitoring Project - 2009

APHIS

Virginia Department of Agriculture and Consumer Services






EAB ADULT BEETLE


EAB LARVAL GALLERY


EAB KILLED ASH


EAB TRAP

Source: Fairfax County Forest Pest Program & GIS Office

Fairfax Employer Services - Hot Lanes Outreach

Tysons Corner / I-495 / I-95
≥100 Employees, January 2009

Employer Participation Classification and Statistics within Two-Mile Beltway Buffer

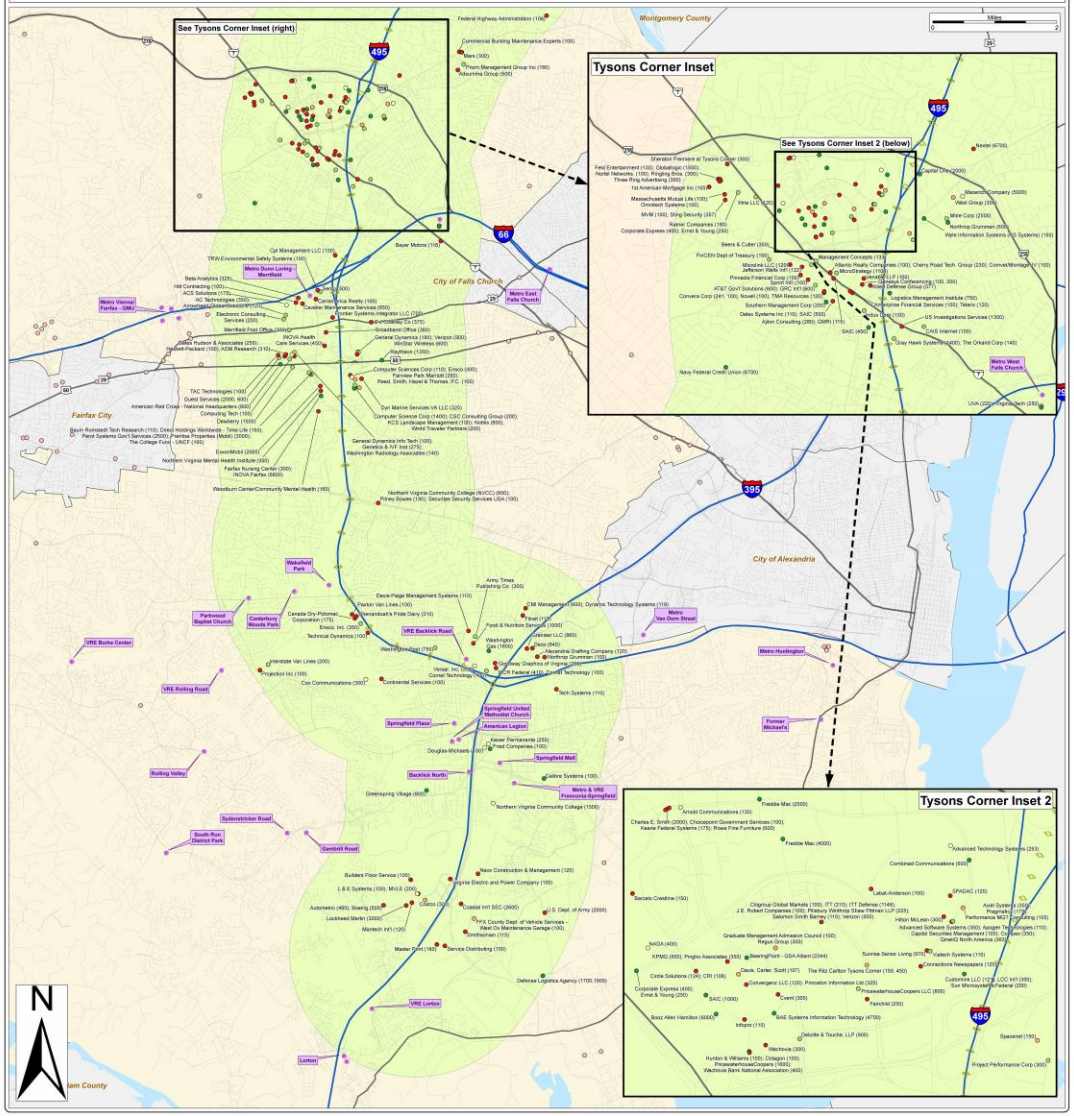
- Level 1 (16 Employers)
- Level 2 (18 Employers)
- Level 3 (44 Employers)
- Level 4 (35 Employers)
- No Level (128 Employers)

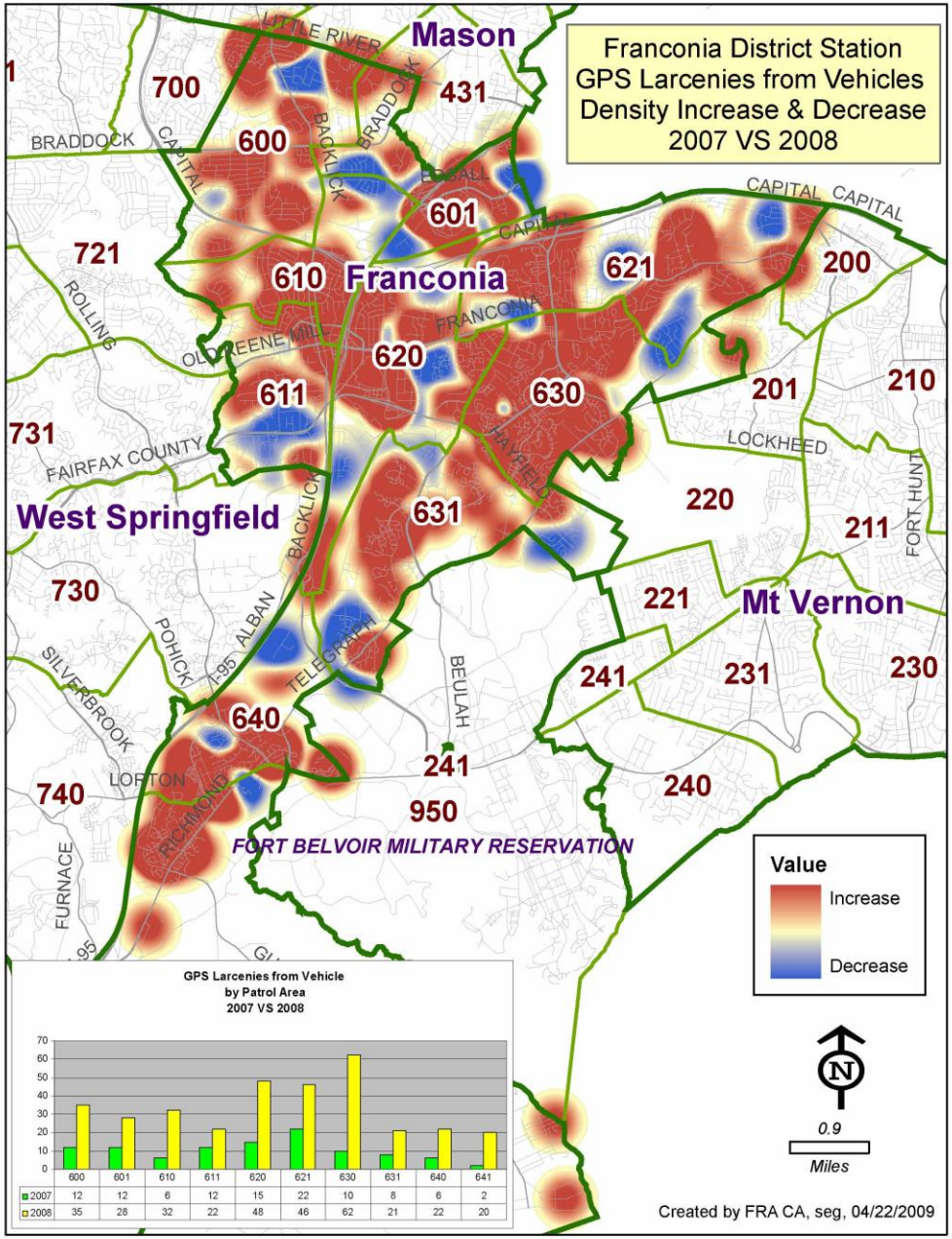
- Interstate
- Highway
- Roads
- HOT Lanes Construction
- Fairfax County Extents
- Two-Mile Beltway Buffer
- Park & Ride
- Employer Not Within Beltway Vicinity

FCDOT Serving Fairfax County for 25 Years and More

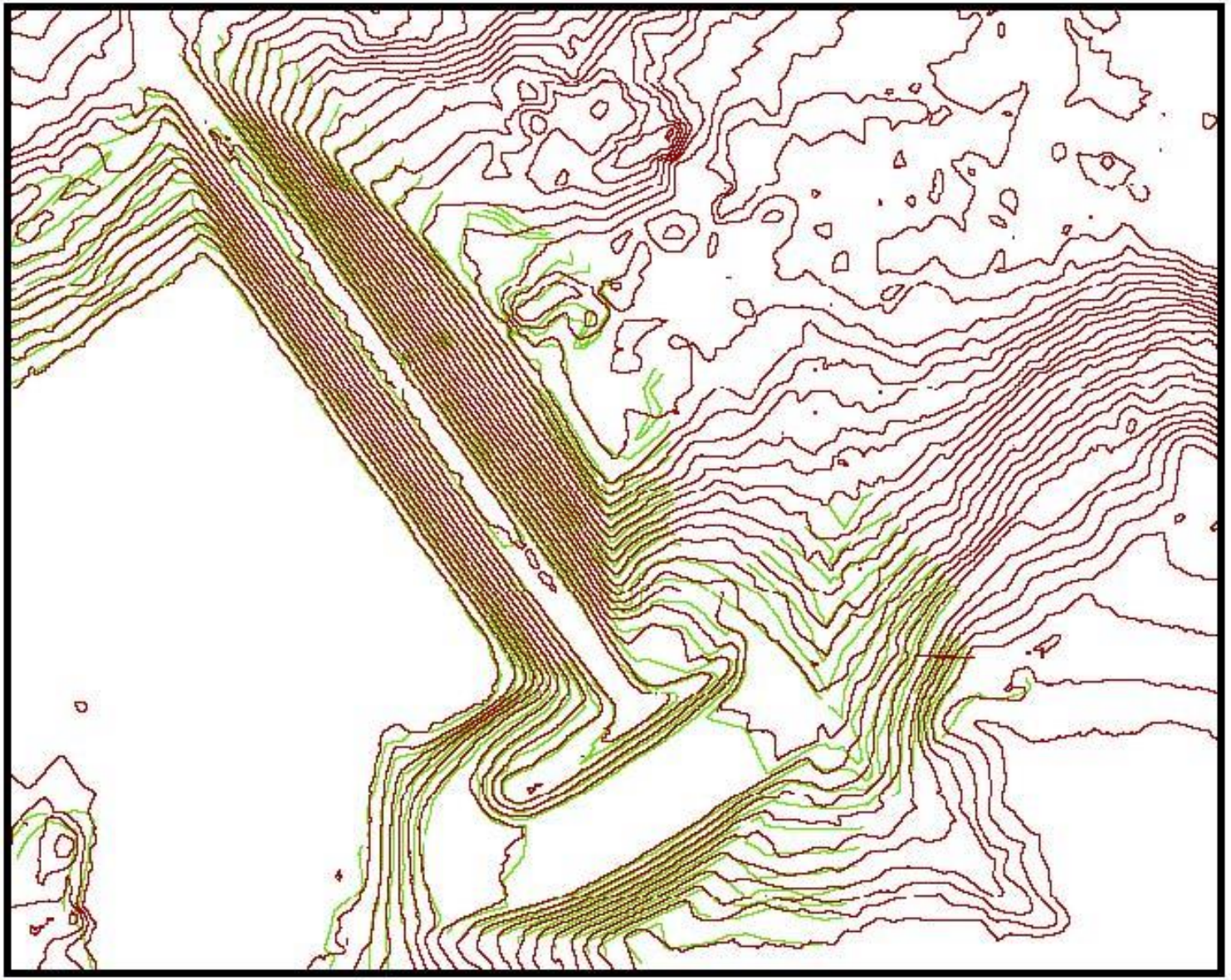
telework!va

VIRGINIA MEGAPROJECTS



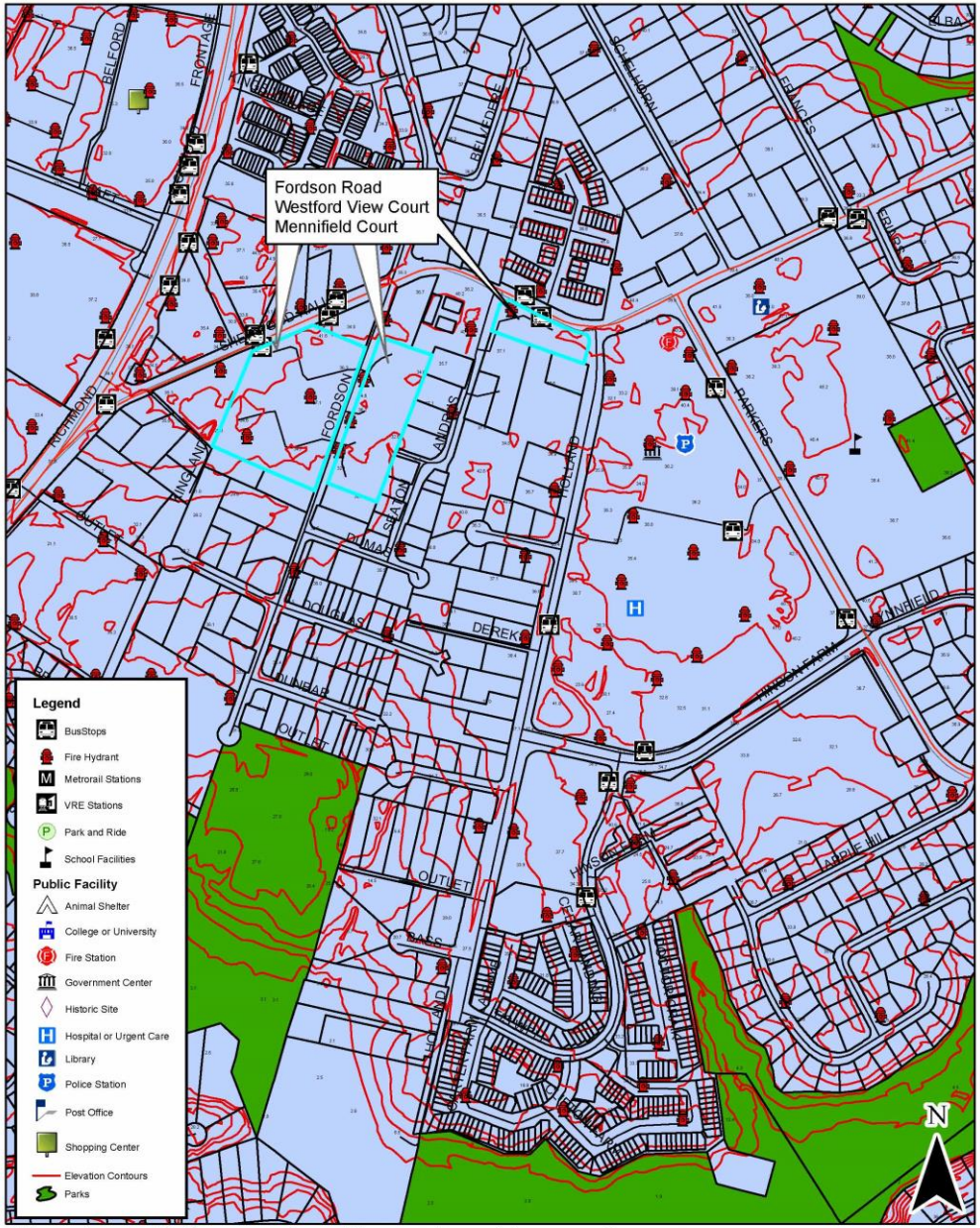

Franconia District Station
GPS Larcenies from Vehicles
Density Increase & Decrease
2007 VS 2008
Mason
Franconia
West Springfield
Mt Vernon
FORT BELVOIR MILITARY RESERVATION
700
431
600
601
721
610
621
200
620
611
630
201
210
731
220
631
211
730
221
241
231
230
640
241
740
240
950
LITTLE RIVER
BRADDOCK
CAPITAL
BACKLICK
ROLLING
OLD KEENE MILL
FRANCONIA
HAYFIELD
FAIRFAX COUNTY
LOCKHEED
FORT HUNT
POHICK
I-95
ALBAN
TELEGRAPH
BEULAH
SILVERBROOK
LORTON
RICHMOND
FURNACE
Value
Increase
Decrease
N
0.9
Miles
GPS Larcenies from Vehicle
by Patrol Area
2007 VS 2008
600 601 610 611 620 621 630 631 640 641
2007 12 12 6 12 15 22 10 8 6 2
2008 35 28 32 22 48 46 62 21 22 20
Created by FRA CA, seg, 04/22/2009

Lake Barton LIDAR evaluation - Dam Area



Westford Assessment

10/22/2009 Diane Jenkins



This map is created for the purpose of completing an environmental assessment in accodrance with the National Environmental Policy Act (NEPA).

0 0.05 0.1 0.2 Miles

Mount Vernon District Burglary

Current 10 Weeks (4/27/09 - 07/05/09)

Prepared by AAA, 8/04/09, FCPD CompStat

LAW ENFORCEMENT USE ONLY

CURR 10WK EVENT - 42

PREV 10WK EVENT - 42

0 0.3 Miles

HUNTINGTON

200

NORTH KINGS

6200 Richmond Hw

Commerical Burglary
Papa Johns Pizza

Suspect defeated alarm system, broke through a wall and cut off the safe door and took approx. $2100.

This burglary has been linked to burglaries of Papa John's in PG County (2) and Ann Arundale (1).

5/27/09
6110 Beech Tree Dr

5/28/09
2111 Woodmont Dr

Domestic Related
2309 Riverview Te

Arrested:
Aaron FIELDS
DOB: 6/23/83

Franconia

Drug Related
1901 Furman Lane

C1 advised his home was burglarized & possible suspect Andrew Hilldrup who frequents at the home. This location is frequented by drug users and dealers.

SOUTH KINGS

201

210

BEACON HILL

HARRISON

TELEGRAPH

Joseph

Restricted Info

Suspect was soliciting door to door for gas money so he could visit his mother in the hospital in Federicksburg. He would then go back to the area & commit burglaries. Prosecution was declined & cases were closed exceptional. Addt'l charges are pending for larceny by false pretense. Castellis currently in Alex City Jail on probation violation.

Domestic Related
Rollins Drive

2 brothers accused eachother of stealing furniture from their mother's home who is deceased

7210 Rebecca Dr

RICHMOND

Michael JOHNSON
DOB: 12/26/86
No fixed

Commercial Burglary
Capitol Discount Merchandise

Suspect entered via unlocked door & took cash from register. JOHNSON is considered a suspect who was arrested on and July 28th, 2009 for another similiar burglary case. He has since been released on bond.

In Feb. 09 he was arrested & charged with 4 burglaries & larcenies. In these burglaries Johnson would visit each business prior to committing the crime.

6/30/09
7684 Richmond Hw

211

6/23/09
7900 Andrus St.

FORT HUNT

Commercial Burglary
Sherwood Gourmet

Subject kicked in front door and stole candy from the store. Possible suspect is Romell Mallard - a 17 yr old runaway juvenile living as a homeless.

Domestic Related
3961 San Leandro Pl

Arrested:
Fredi ALVAREDO
DOB: 01/14/63

221

4/29/09 & 4/25/09
3749 Shannon Green Wy x2

NGWOOD

5/6/09
8472 Hallie Rose Pl

Cut Screen Series

Entry gained via rear or side window by cutting window screen and taking from the scene. Since the last burglary where owners walked in on suspect no other burglaries have occured since May 5th, 2009

241
8726-34 Richmond Hw

231

Commercial Burglaries : 5/12/09
Woodlawn Shopping Center

1.Vacant Lot- 8726 Richmond Hw
2.Terry's Dance- 8730 Richmond Hw
3.Family Dollar- 8734 Richmond Hw

Suspect gained entry through the vacant lot & broke through drywall 2 enter the adjacent locations. Suspect stole over $2000 from the safe at Family Dollar. Security video shows single B/M male on camera dragging the floor safe out of the camera view. Suspect stuck gum on camera lens that wasn't in operation

230
1910 Bridle Rd

Breakdown of 39 cases:
-26 cases were residental burglaries
-6 cases were commercial burglaries

-7 cases linked to 2 crime series
-3 cases were domestic related
-1 case was drug related.

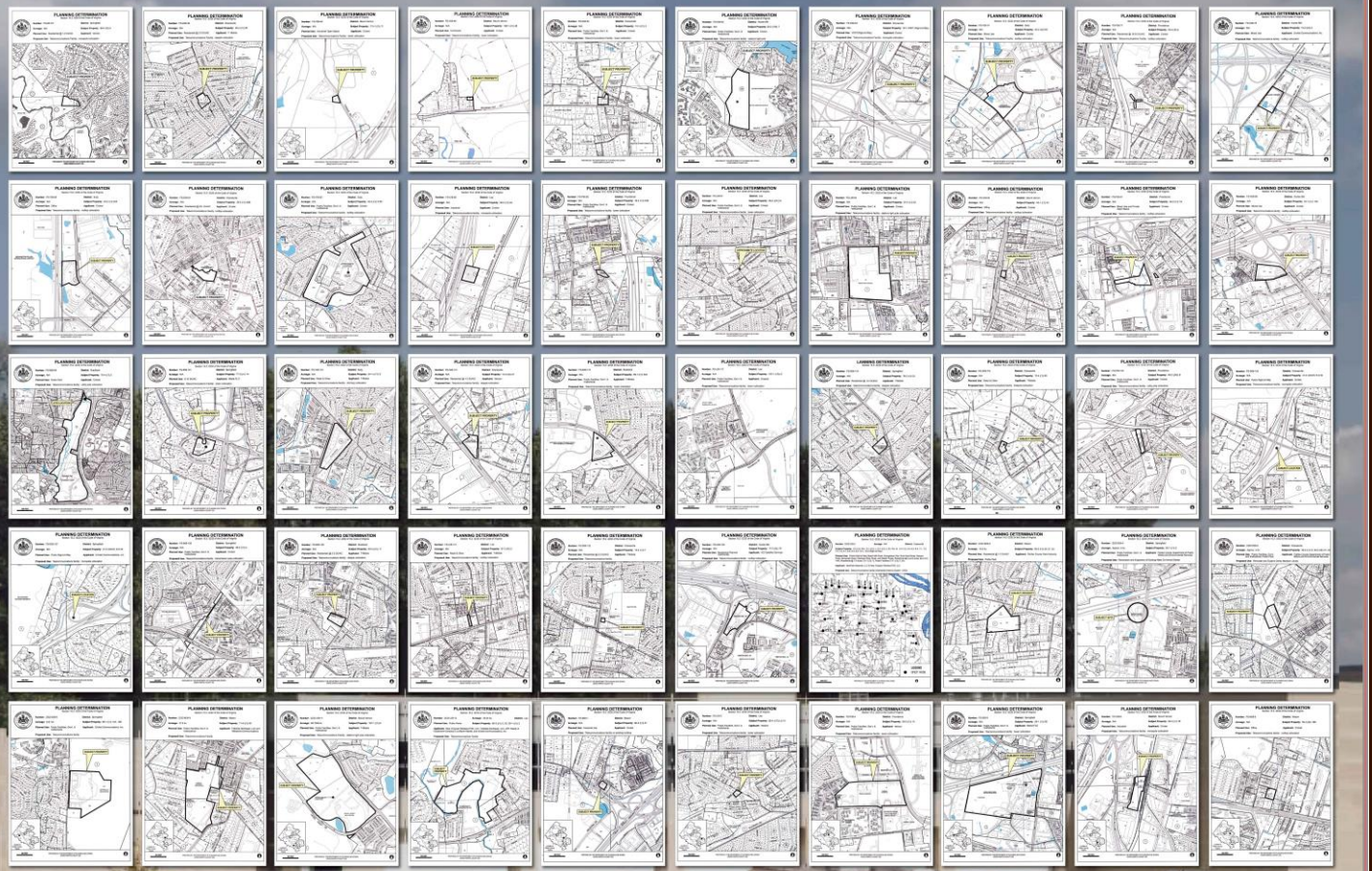
Planning Determination Maps - 2232 Review

For 95 Applications Approved from October 2008 - October 2009 - Sheet 1 of 2

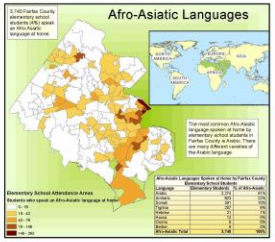
The Department of Planning and Zoning's Planning Division staff members are responsible for the production of staff reports that evaluate public facility and utility proposals such as for schools, libraries, fire stations, telecommunication facilities, etc., to determine their conformance with the Fairfax County Comprehensive Plan. Pursuant to Virginia Code Section 15.2-2232. These reports are distributed to the County Planning Commission and the public and contain two maps produced through GIS. A full-page map identifies the site of the proposed facility and its orientation to neighboring properties, and a smaller inset map provides an overview of the site's location within the County. The Planning Determination maps are generally prepared at a scale of 1 inch = 500 feet.

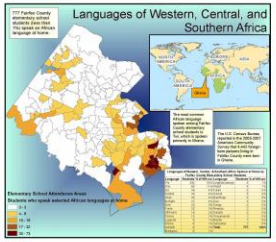
From October 1, 2008 - October 22, 2009, 95 (ninety-five) applications have been approved by the Planning Commission. During this time period, the Department of Planning and Zoning accepted 159 applications for review of public facility and utility proposals. Most of the applications filed were for telecommunication facilities.

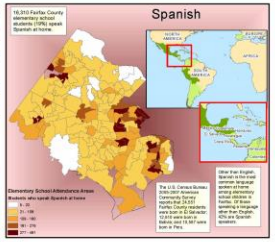
Each year, the number of 2232 applications submitted for review, varies. Using GIS as a mapping tool helps staff to produce accurate and up-to-date maps in a timely manner. Generally, a master template, containing the parcel layers, tax map layers, tax map annotation, street centerlines, street names, etc., is used to prepare each map.

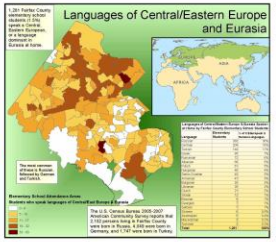


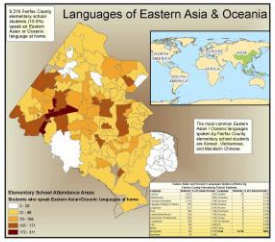
FAIRFAX COUNTY
DEPARTMENT OF
PLANNING
& ZONING

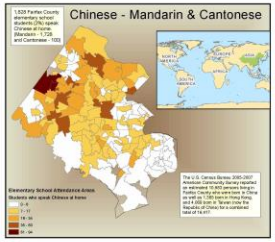


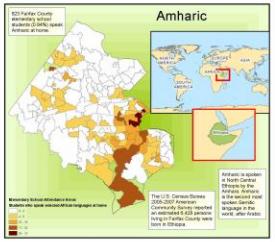


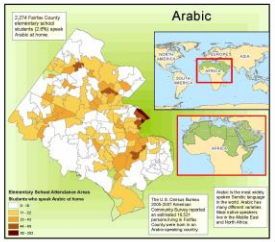


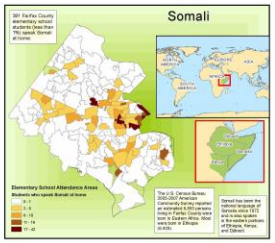


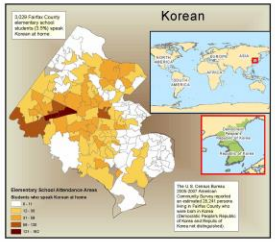


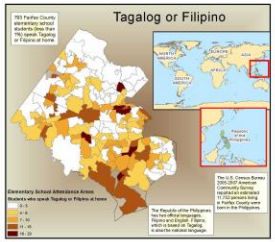


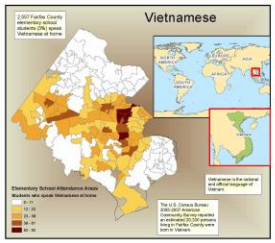


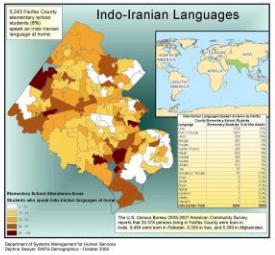


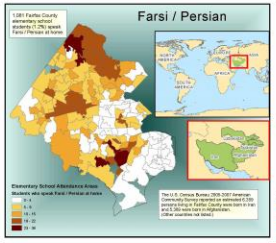


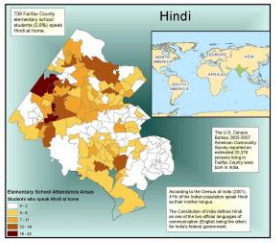


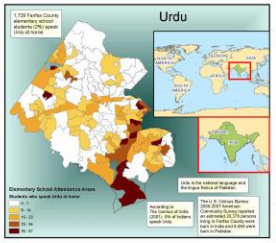


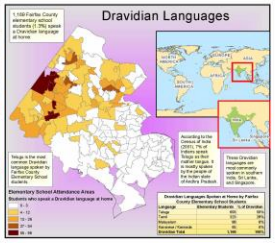


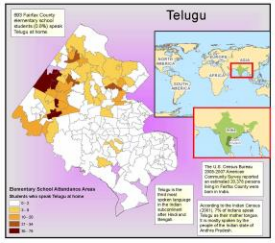












Students who Speak a Language Other than English at Home
Fairfax County Elementary School Districts
May 2009

38,760 Fairfax County elementary school students (44%) speak a language other than English at home.

The U.S. Census Bureau 2005-2007 American Community Survey reports that approximately 278,498 persons living in Fairfax County are foreign born This accounts for about 28% of the total county population.

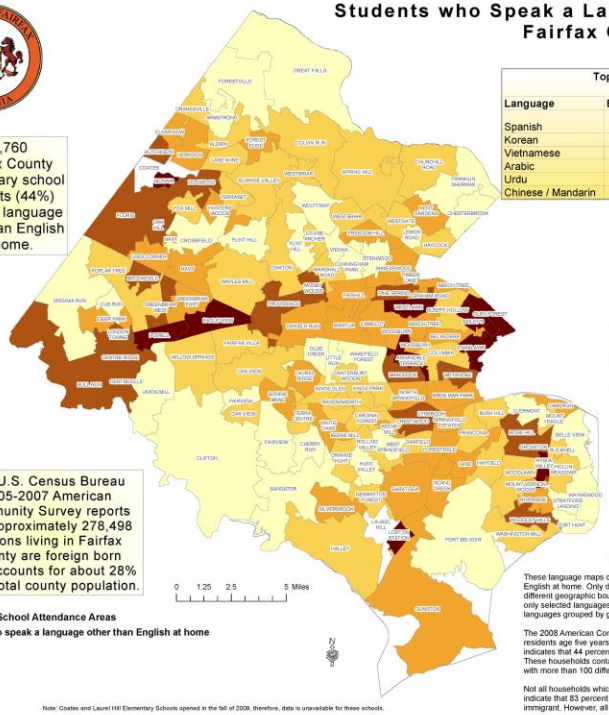
Top Five Languages (Other than English) Spoken by Elementary School Students at Home

Language	Elementary Students	% of All Students	% of Non-English
Spanish	16,310	19%	42%
Korean	3,029	3%	8%
Vietnamese	2,557	3%	7%
Arabic	2,274	3%	6%
Urdu	1,729	2%	4%
Chinese / Mandarin	1,728	2%	4%

Foreign-Born Population in Fairfax County by Continent

Continent	All Persons	% of Foreign-Born
Asia	140,161	50%
Latin America	83,867	30%
Africa	26,644	10%
Europe	24,296	9%
Other	3,530	1%

The world maps shown depict the most prominent geographic distribution of the languages spoken.



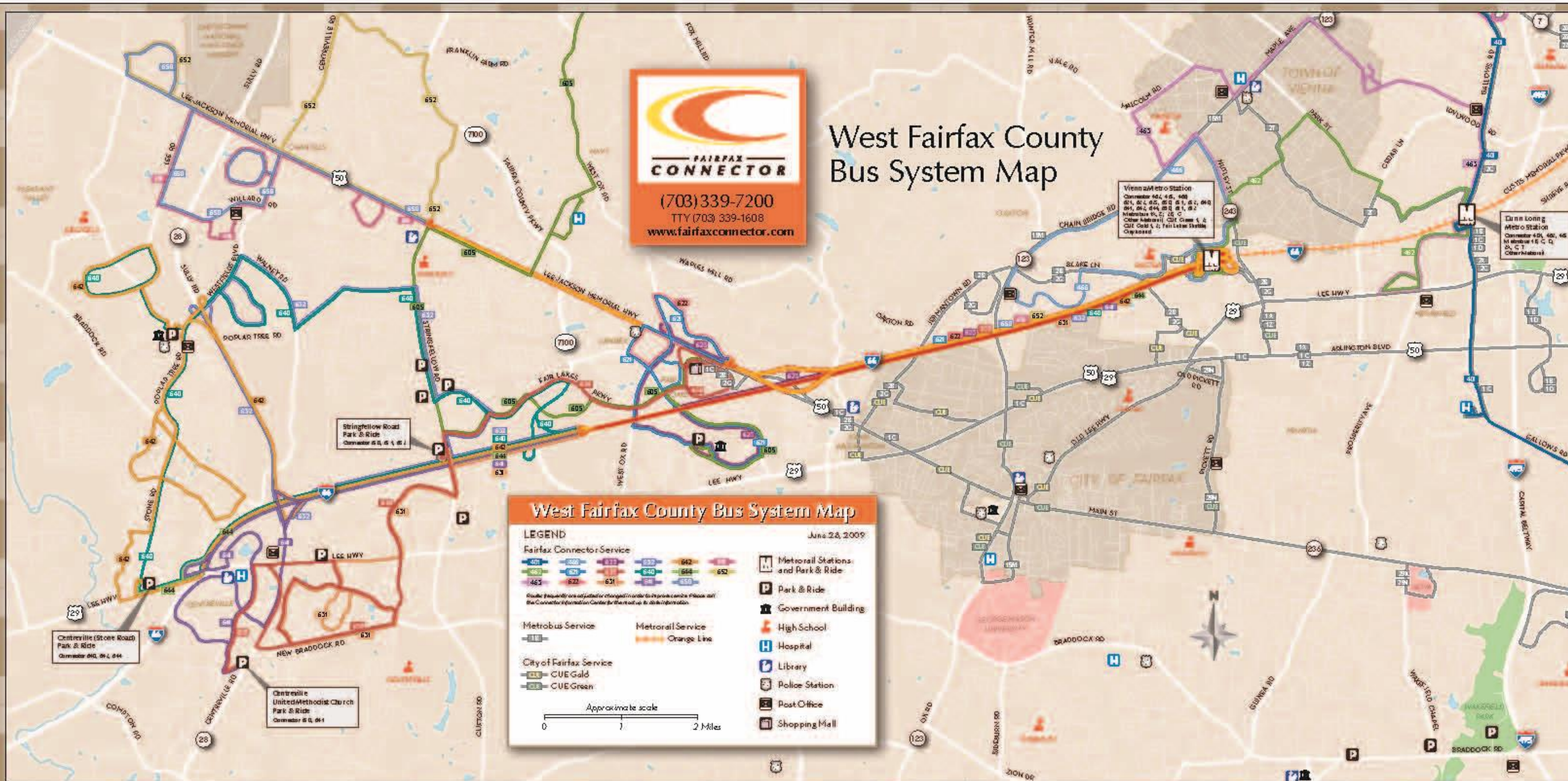
Note: Coates and Laurel Hill Elementary Schools opened in the fall of 2009, therefore, data is unavailable for these schools.

These language maps depict the geographic distribution of Fairfax County elementary students who speak languages other than English at home. Only data for elementary school students are used in these analyses because the secondary schools have different geographic boundaries from which they draw students. Due to the large number of languages spoken in Fairfax County, only selected languages and language groups are shown. The surrounding smaller maps illustrate groups of language families, languages grouped by geographic region, and individual languages as noted with coordinating background colors.

The 2008 American Community Survey conducted by the U.S. Census Bureau indicated that 29 percent of Fairfax County's residents age five years and older spoke a language other than English at home. Fairfax County Public Schools information indicates that 44 percent of all elementary school students spoke a language other than English at home as of May 2009. These households containing elementary students who speak languages other than English at home form a very diverse group with more than 100 different languages being spoken.

Not all households which speak a language other than English contain members who are immigrants. Data from the 2000 Census indicate that 83 percent of the households that spoke a language other than English at home had at least one member who was an immigrant. However, all of the household members were native-born citizen in 17 percent of these households.

Department of Systems Management for Human Services
Daphne Sawyer, RAPID Demographics - October 2009

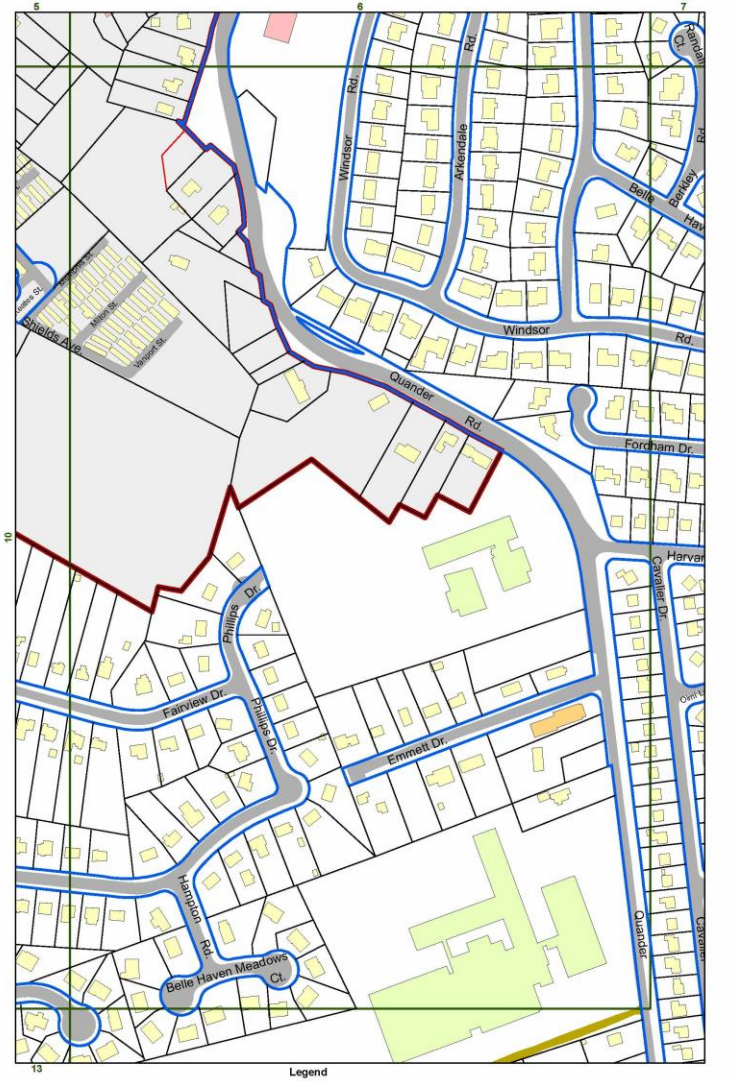


FAIRFAX CONNECTOR
(703) 339-7200
TTY (703) 339-1608
www.fairfaxconnector.com
West Fairfax County
Bus System Map
West Fairfax County Bus System Map
LEGEND
June 28, 2009
Fairfax Connector Service
Metrobus Service
Metrorail Service
Orange Line
City of Fairfax Service
CUE Gold
CUE Green
Approximate scale
0
1
2 Miles
Metrorail Stations and Park & Ride
Park & Ride
Government Building
High School
Hospital
Library
Police Station
Post Office
Shopping Mall
Stringfellow Road Park & Ride
Centreville (Stone Road) Park & Ride
Centreville United Methodist Church Park & Ride
Vienna Metro Station
Dunn Loring Metro Station
LEE-JACKSON MEMORIAL HWY
LEE HWY
ARLINGTON BLVD
MAIN ST
NEW BRADDOCK RD
BRADDOCK RD
FAIR LAKES PKWY
POPLAR TREE RD
WEST OX RD
CHAIN BRIDGE RD
CITY OF FAIRFAX

MAP NUMBER: 10

Feet
0 100 200

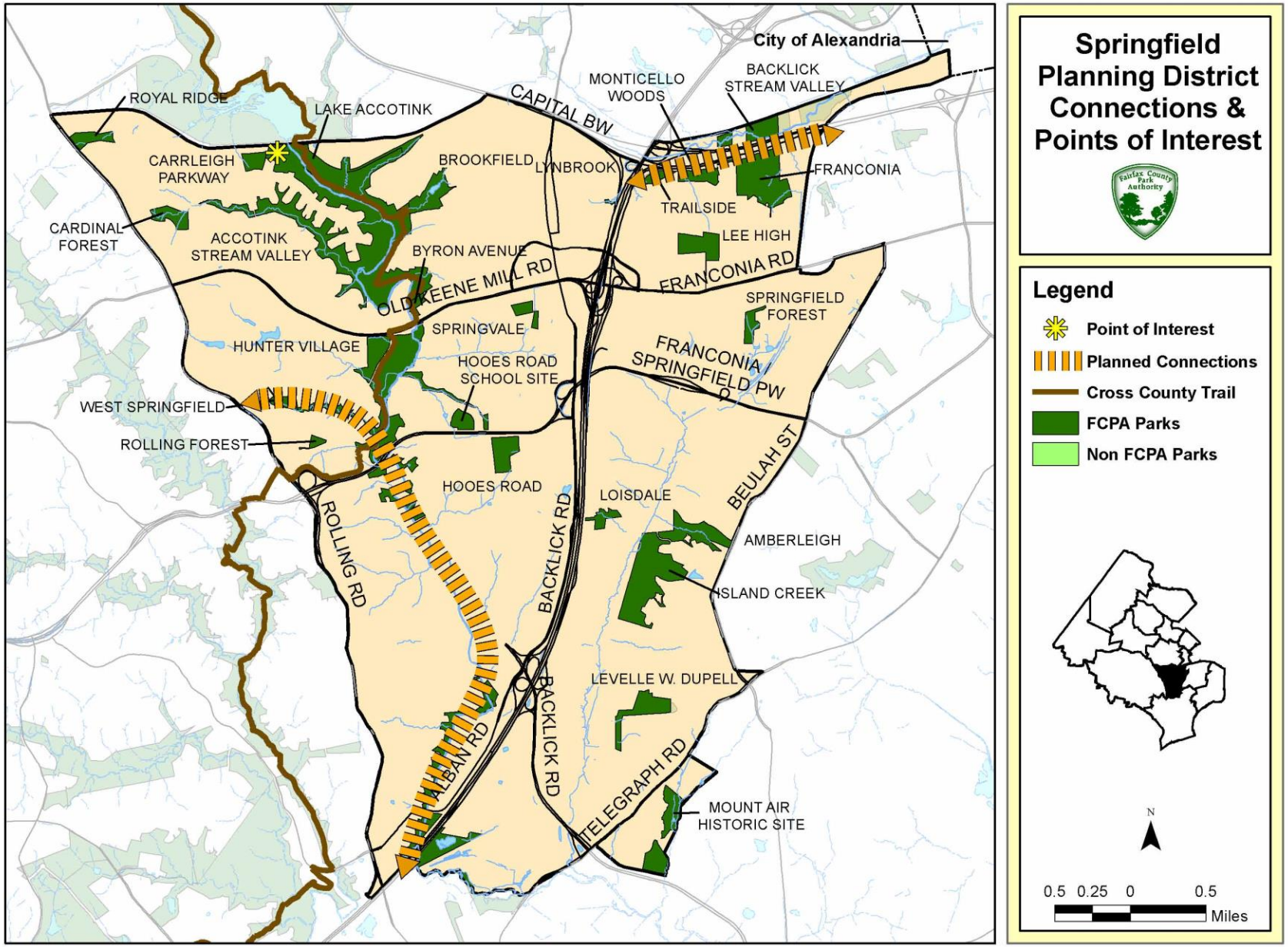
Map Produced by Fairfax County OCRR.
Map Printed: Feb 10, 2009

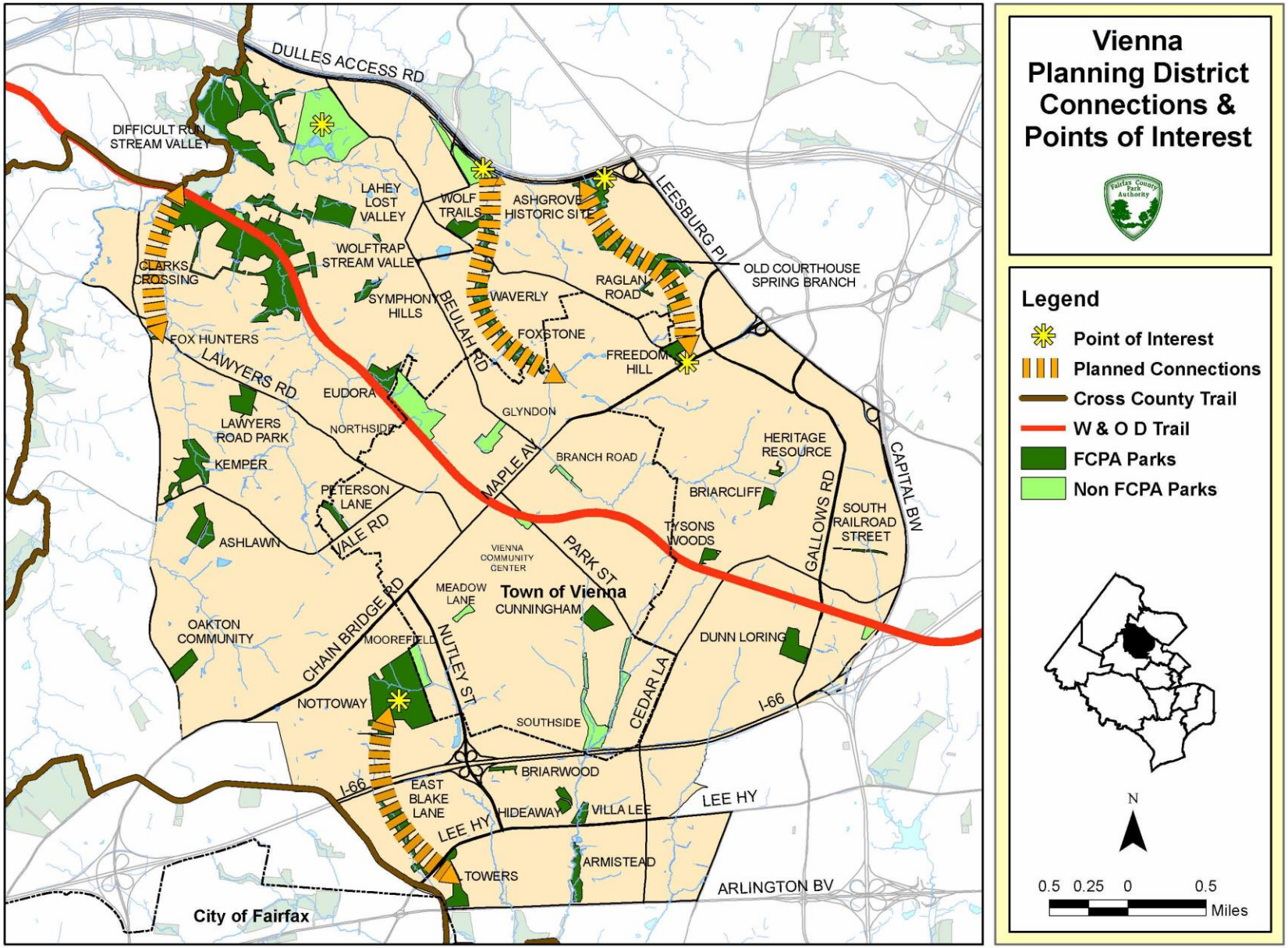


MAP NUMBER: 11

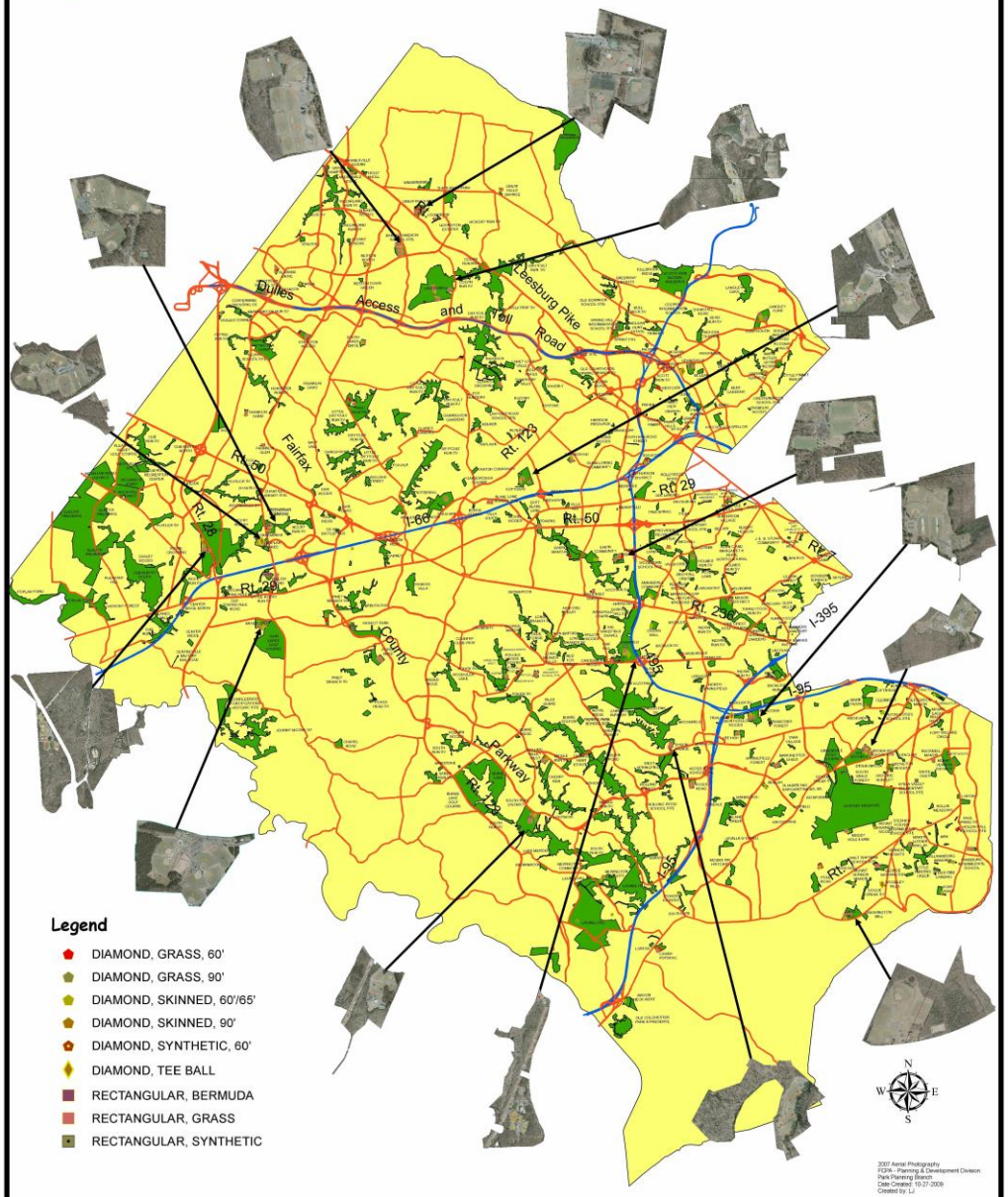
Feet
0 100 200

Map Produced by Fairfax County OCRR.
Map Printed: Feb 10, 2009


City of Alexandria
ROYAL RIDGE
LAKE ACCOTINK
CAPITAL BW
MONTICELLO WOODS
BACKLICK STREAM VALLEY
CARRLEIGH PARKWAY
BROOKFIELD
LYNBROOK
FRANCONIA
TRAILSIDE
CARDINAL FOREST
ACCOTINK STREAM VALLEY
BYRON AVENUE
LEE HIGH
OLD KEENE MILL RD
FRANCONIA RD
SPRINGFIELD FOREST
SPRINGVALE
HUNTER VILLAGE
HOOES ROAD SCHOOL SITE
FRANCONIA SPRINGFIELD PW
WEST SPRINGFIELD
ROLLING FOREST
HOOES ROAD
LOISDALE
BEULAH ST
ROLLING RD
BACKLICK RD
AMBERLEIGH
ISLAND CREEK
LEVELLE W. DUPELL
ALBAN RD
TELEGRAPH RD
MOUNT AIR HISTORIC SITE
Springfield Planning District Connections & Points of Interest
Fairfax County Park Authority
Legend
Point of Interest
Planned Connections
Cross County Trail
FCPA Parks
Non FCPA Parks
N
0.5 0.25 0 0.5
Miles


Vienna Planning District Connections & Points of Interest
Legend
Point of Interest
Planned Connections
Cross County Trail
W & O D Trail
FCPA Parks
Non FCPA Parks
N
0.5 0.25 0 0.5
Miles
DULLES ACCESS RD
DIFFICULT RUN STREAM VALLEY
LAHEY LOST VALLEY
WOLF TRAILS
ASHGROVE HISTORIC SITE
LEESBURG PI
OLD COURTHOUSE SPRING BRANCH
WOLFTRAP STREAM VALLE
CLARKS CROSSING
SYMPHONY HILLS
BEULAH RD
WAVERLY
RAGLAN ROAD
FOXSTONE
FREEDOM HILL
FOX HUNTERS
LAWYERS RD
EUDORA
GLYNDON
LAWYERS ROAD PARK
NORTHSIDE
KEMPER
MAPLE AV
BRANCH ROAD
HERITAGE RESOURCE
CAPITAL BW
PETERSON LANE
BRIARCLIFF
GALLOWS RD
SOUTH RAILROAD STREET
VALE RD
ASHLAWN
TYSONS WOODS
VIENNA COMMUNITY CENTER
PARK ST
MEADOW LANE
Town of Vienna
CUNNINGHAM
CHAIN BRIDGE RD
OAKTON COMMUNITY
MOOREFIELD
NUTLEY ST
DUNN LORING
CEDAR LA
NOTTOWAY
I-66
SOUTHSIDE
BRIARWOOD
EAST BLAKE LANE
HIDEAWAY
VILLA LEE
LEE HY
TOWERS
ARMISTEAD
ARLINGTON BV
City of Fairfax

PARK ATHLETIC FIELDS MAP WITH MAJOR FIELD COMPLEXES



Presenting Fairfax County's Heritage Resources

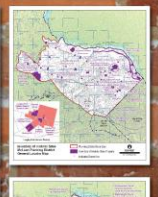
Fairfax County's Historic Overlay Districts and Inventory of Historic Sites are now presented in two closely related Web sites containing suites of maps and historical information. The users of the maps of the Historic Overlay Districts and the Inventory of Historic Sites include the general public, county staff, consultants, and researchers.

To create these maps and databases, all paper records were first organized and inconsistencies resolved. Then historical information was entered into an SQL server database created to rationalize the underlying data and facilitate its analysis and presentation. Current and historic photos were added. Shapefiles were generated from parcel lists. Cartographers designed map formats that would work for both Web and print presentation. Maps were compositied in ArcGIS. After an extensive editing and approval process, the maps were posted on the Web as pdfs and made available in print. Supporting information for individual historic sites was formatted into a document now viewable to staff online and which will soon be printed and distributed to libraries and other users.

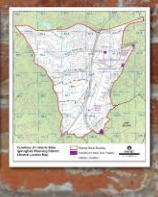











Stream Bank Debris
near Norton Road


1
Yard debris: tree limbs and grass clippings


2
Yard debris: tree limbs and grass clippings


3
Grass clippings


4
Ladder and framing poles


5
Yard debris: tree limbs and leaves


6
Yard debris and anchored shipping pallets


7
Yard debris and unauthorized bridge


8
Yard debris and anchored shipping pallets


9
Yard debris: tree limbs


10
Yard debris and lumber


11
Yard debris: tree limbs and grass clippings


12
Yard debris: tree limbs and grass clippings


13
Yard debris: tree limbs and grass clippings


14
Yard debris: tree limbs and grass clippings

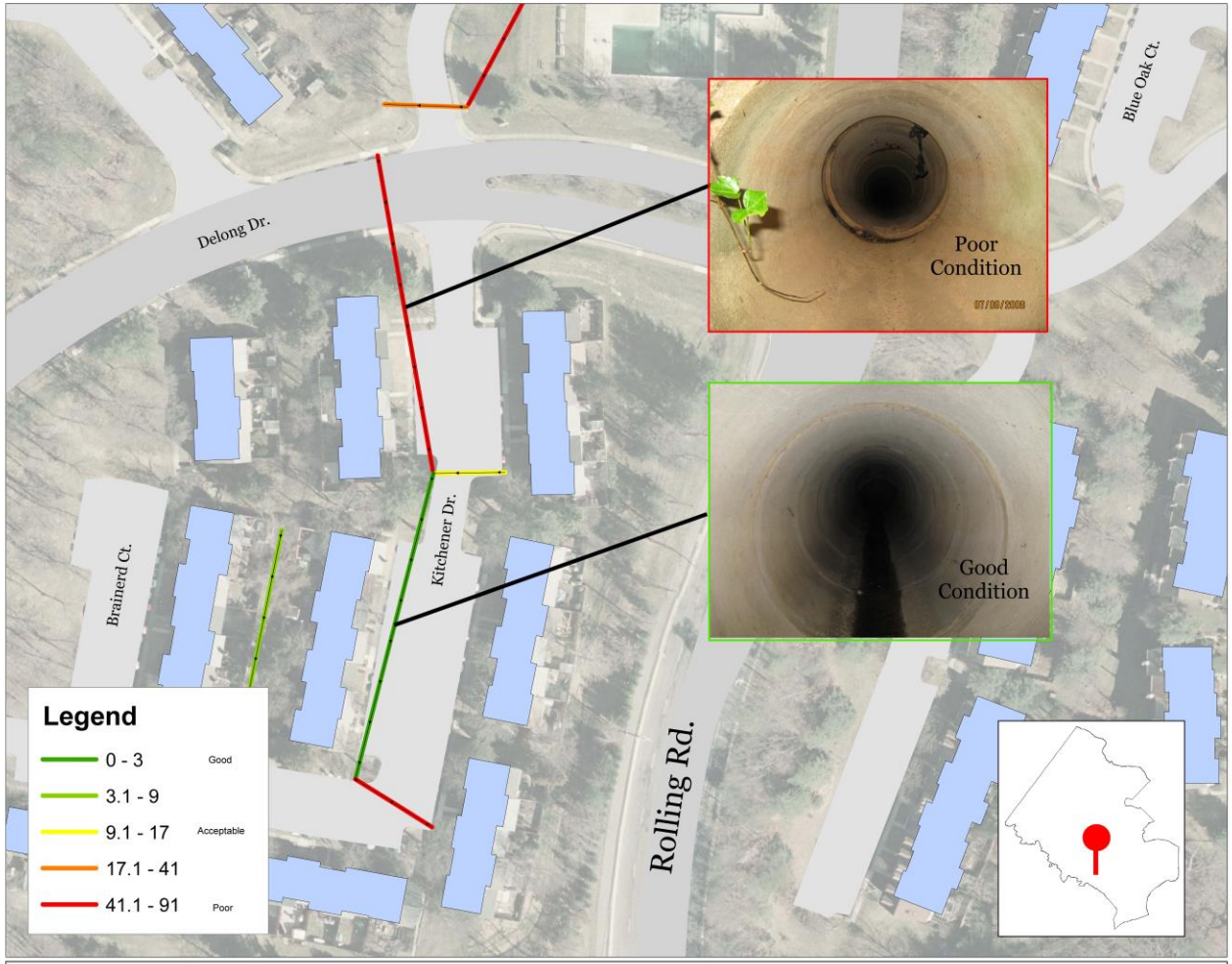

15
Metal cabinets and boards


16
Yard debris: tree limbs and grass clippings

Fairfax County
Department of Public Works and Environmental Services
Maintenance and Stormwater Management Division
Norton Road

0822 13 A
Cameron Run Watershed
Tax Map - 82-2

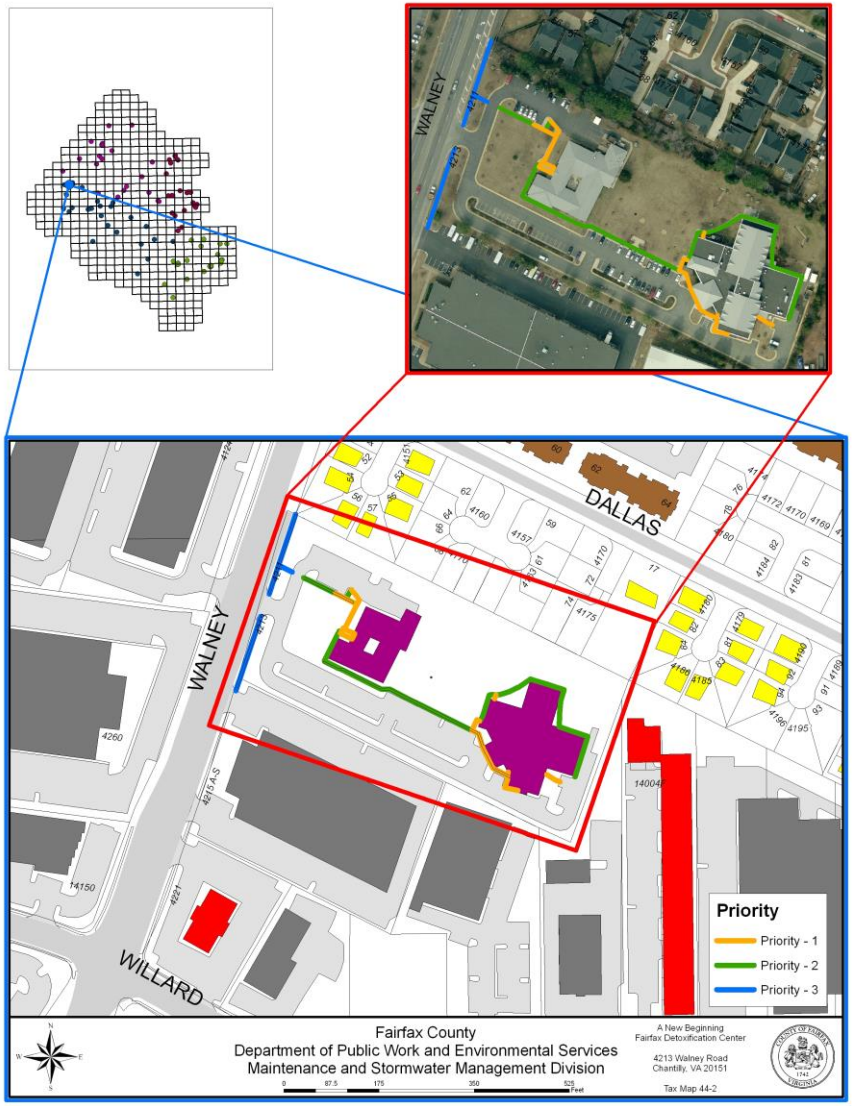
Pipe Integrity Scale



Fairfax County
Department of Public Works and Environmental Services
Maintenance and Stormwater Management Division
Pipe Integrity Scale

0 20 40 80 Feet

Snow Removal Maps



Fairfax County
Department of Public Work and Environmental Services
Maintenance and Stormwater Management Division

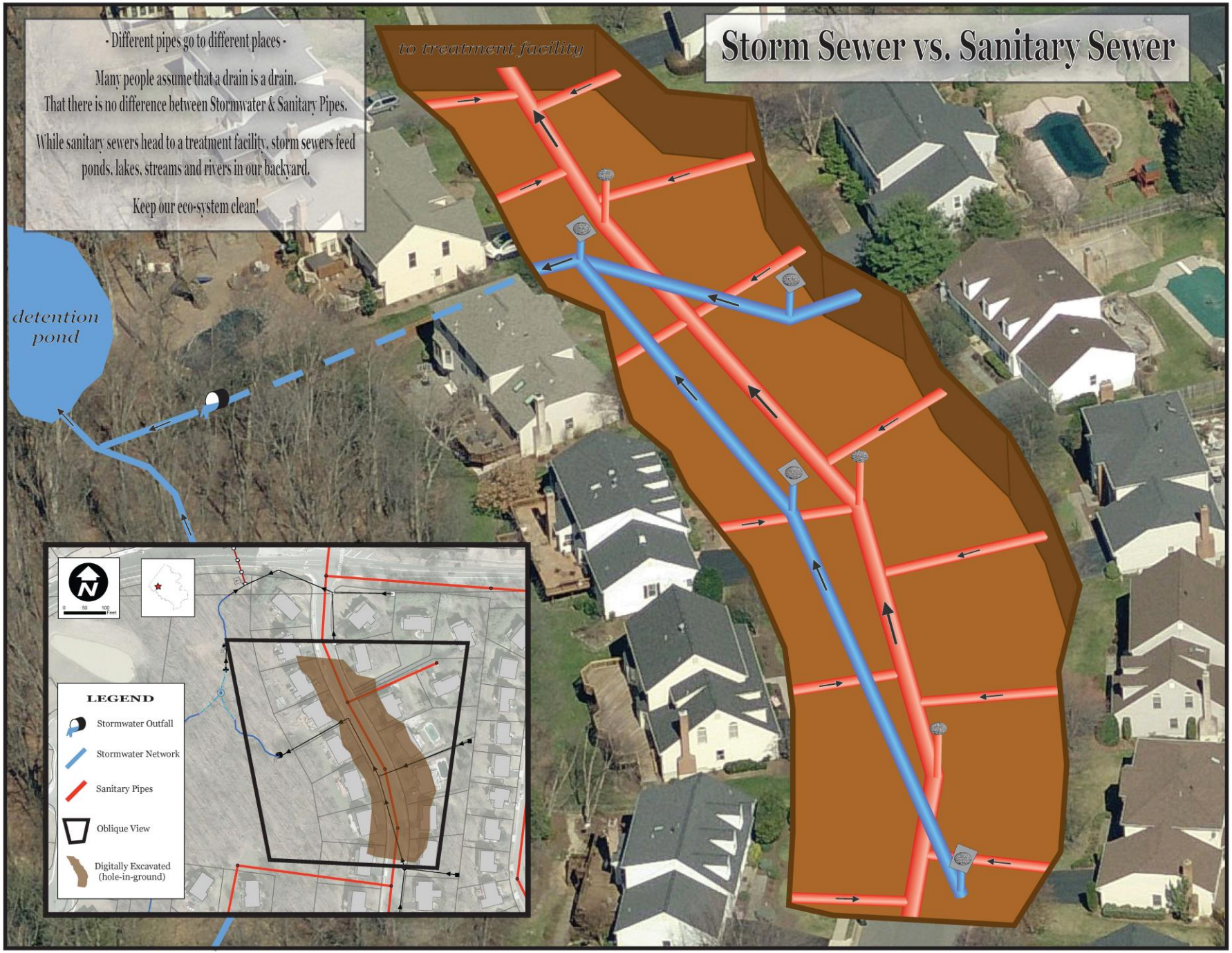
Storm Sewer vs. Sanitary Sewer

- Different pipes go to different places -

Many people assume that a drain is a drain.
That there is no difference between Stormwater & Sanitary Pipes.

While sanitary sewers head to a treatment facility, storm sewers feed ponds, lakes, streams and rivers in our backyard.

Keep our eco-system clean!



COUNTY OF FAIRFAX
COMMONWEALTH OF VIRGINIA

LOCAL ATTRACTIONS


Burke Lake


Lake Accotink


Lake Fairfax

Fairfax Corner Shopping · Tysons Corner Shopping · Fair Oaks Mall · Springfield Mall


Meadowlark Gardens


Fairfax Station Railroad Museum


Smithsonian National Air and Space Museum Steven F. Udvar-Hazy Center


Frying Pan Farm Park


Green Spring Garden & Horticultural Center


Fairfax County Government Center


George Washington's Mount Vernon Estate & Gardens


Workhouse Arts Center


Fairfax County Courthouse


Gunston Hall


Woodlawn


Sully Historic Site


Chantilly Battlefield


Claude Moore Colonial Farm


George Mason University


Colvin Run Mill

Northern Virginia Community College

Ft. Belvior Military Base


Great Falls National Park


Reston Town Center


Huntley Meadows


Collingwood Library & Museum on Americanism


Wolf Trap National Park for the Performing Arts

All the Way to the Chesapeake Bay...

Did you know that raindrops like me, on our way to the storm drain, pick up pollutants like trash, fertilizer, dog waste, and oil? Yuk! Then we end up in the Chesapeake Bay and make our wildlife sick. 1

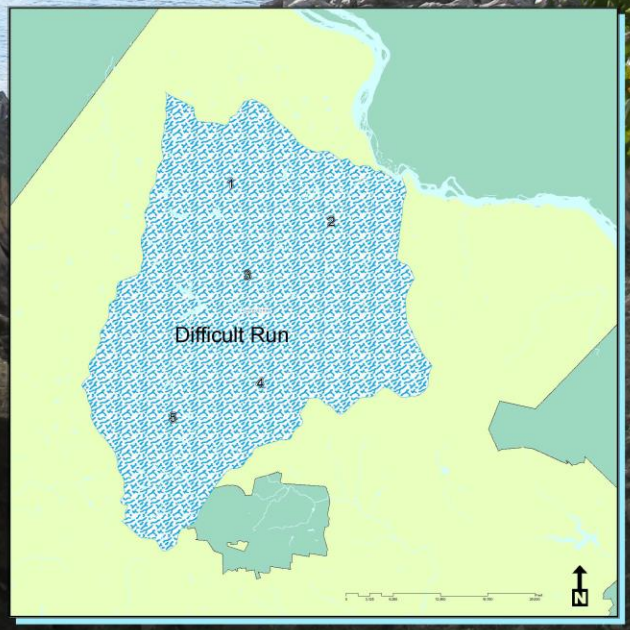
Have you seen one of these signs? Our Stormwater facilities help catch pollutants to prevent them from ending up in our streams. This one is in the north-central portion of Fairfax County and drains directly to the Potomac River, which then makes its way to the Chesapeake Bay. 2

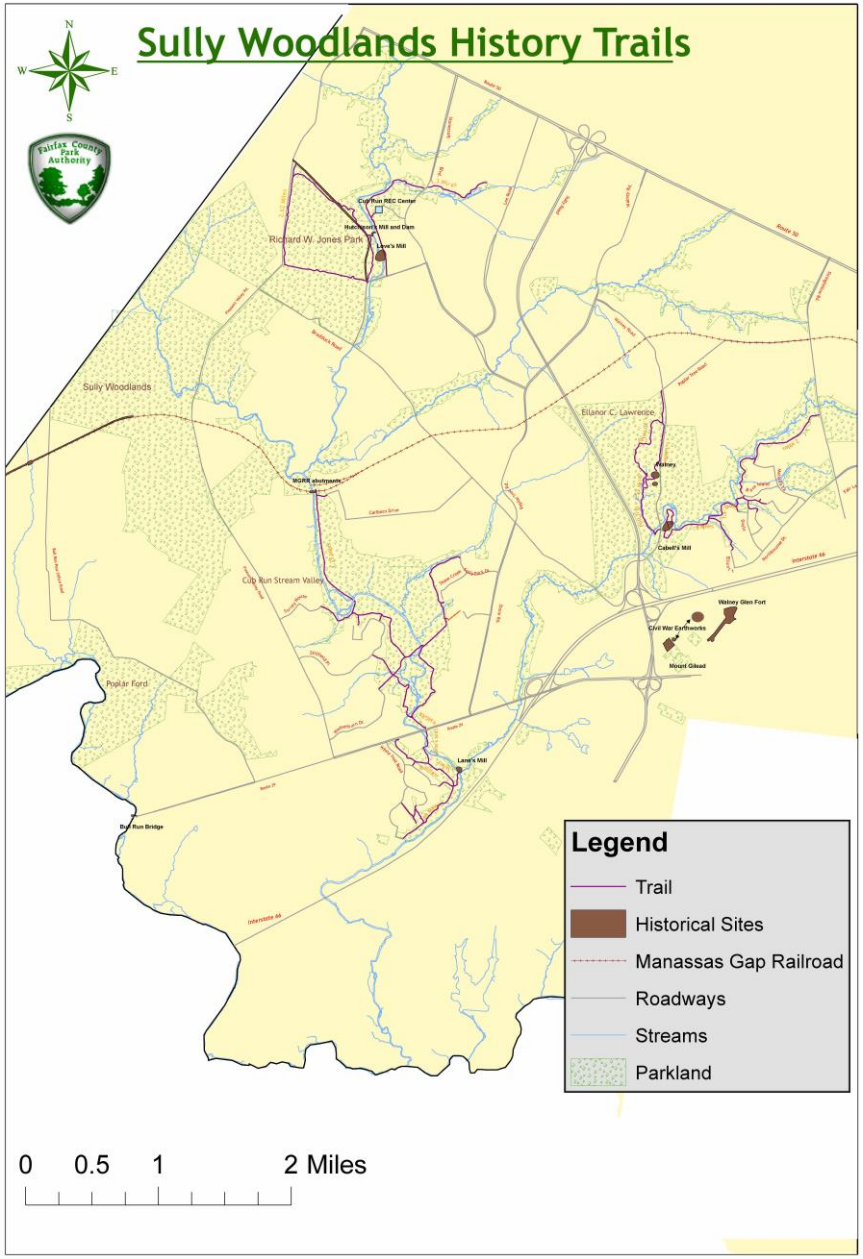
Will you help me keep our lakes, ponds, streams and rivers clean? 3

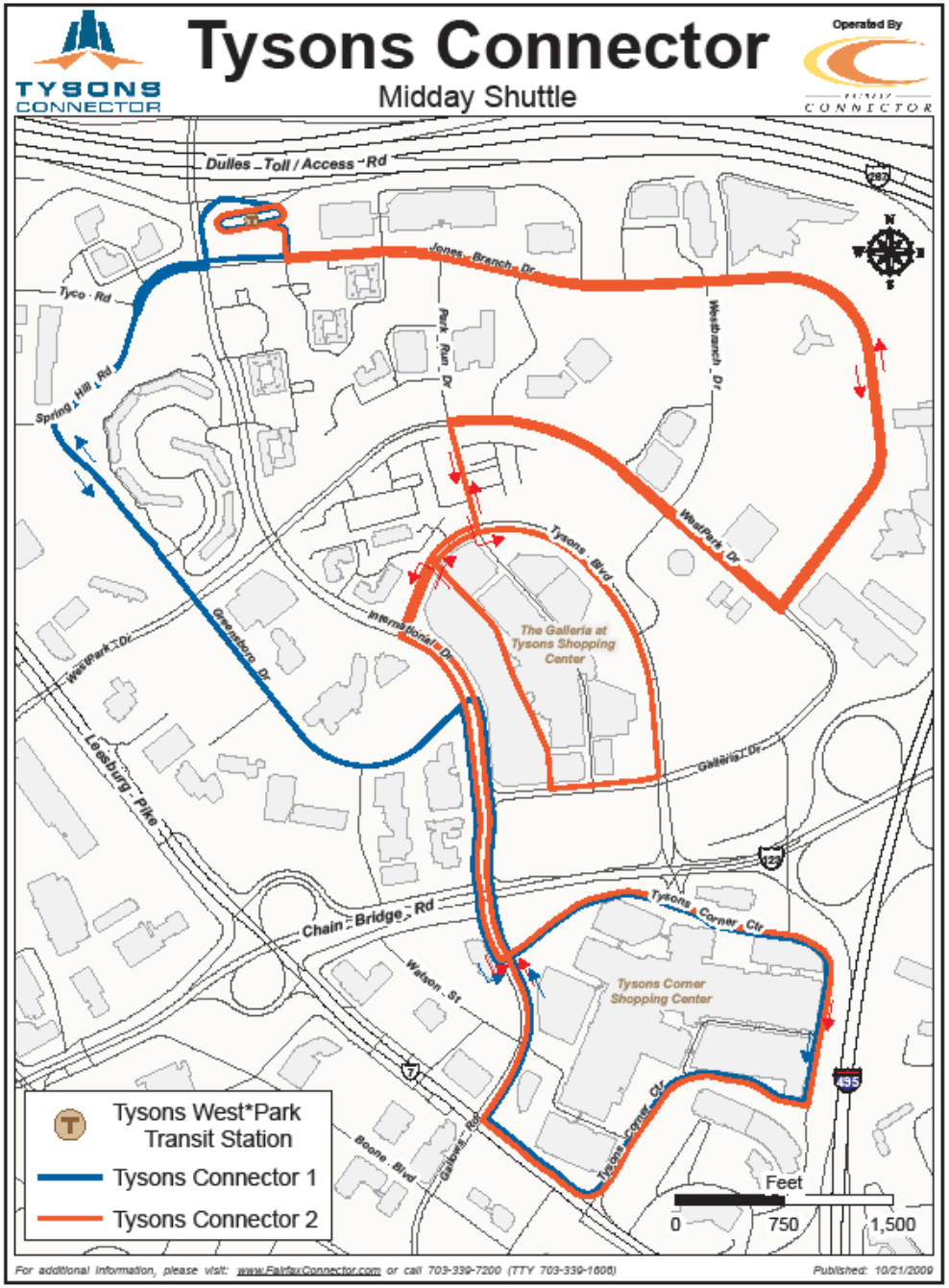
Please keep our storm drains free of debris and litter. Never dump pet waste, used motor oil, paint, chemicals or other substances into a storm drain. 4

Keep up the good work! See you next time! 5

Greetings from Stormy the Raindrop!
Take a ride with me into the world of Stormwater Management in Fairfax County.




Sully Woodlands History Trails
N
W
E
S
Fairfax County Park Authority
Richard W. Jones Park
Sully Woodlands
Eleanor C. Lawrence
Cub Run Stream Valley
Poplar Ford
Cub Run REC Center
Historic Mill and Dam
Lane's Mill
Walney
Cabell's Mill
Walney Glen Fort
Civil War Earthworks
Mount Gilead
Bull Run Bridge
Legend
Trail
Historical Sites
Manassas Gap Railroad
Roadways
Streams
Parkland
0
0.5
1
2 Miles


Tysons Connector
Midday Shuttle
TYSONS CONNECTOR
Operated By
CONNECTOR
Dulles Toll / Access Rd
Jones Branch Dr
Tyco Rd
Spring Hill Rd
Park Run Dr
Westbranch Dr
WestPark Dr
Tysons Blvd
The Galleria at Tysons Shopping Center
International Dr
Greensboro Dr
Leesburg Pike
Galleria Dr
Chain Bridge Rd
Tysons Corner Ctr
Tysons Corner Shopping Center
Welson St
Boone Blvd
Gallows Rd
Tysons Corner Ctr
Tysons West*Park Transit Station
Tysons Connector 1
Tysons Connector 2
Feet
0
750
1,500
For additional information, please visit: www.FairfaxConnector.com or call 703-339-7200 (TTY 703-339-1608)
Published: 10/21/2009

Enhancing a Routable Centerline for Enterprise GIS

Department of Fire and Rescue (FRD) committed extensive resources to improve the enterprise centerline. Routable street networks have always been important to the FRD because of the business emphasis on response times. Previous to this initiative, the department maintained its own street centerline with speed limits. This was very time consuming and wasn't as accurate as desired. With the County's adoption of the Intergraph Computer Aided Dispatch (CAD) System which uses proximity based dispatch, there was a definite need for an improved routable centerline.

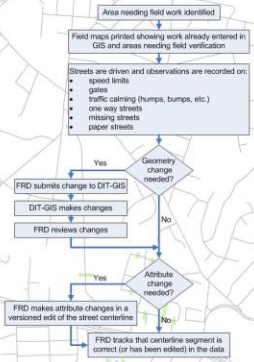
Streets were driven by light-duty Firefighters, information was collected, vehicle drivers in the fire stations were interviewed, and GIS Analysts made attribute changes & forwarded geometry changes to DIT-GIS.

The improvements to the centerline included adjusting speed limits to match signage and correct data errors; locating street connection problems of unconnected streets and unbuilt (paper) streets; adding data for impediments to travel such as restrictions, gates and traffic calming devices; and adding oneway data.

Various stages of preparing data for routing are possible.
I. Distance based only. Routing is based on proximity only.
II. Travel time based on road classification. For example, all interstates are 55 and all local roads are 25. In relatively urban Fairfax county, there is too much variability among road classes to assign a single speed limit.
III. Field verified speed limits. In Fairfax County, the majority of streets with speed limit signs have been field verified.
IV. Other source verification for unposted streets. Aerial imagery and driving unposted streets is helping FRD assign speed limits to streets without signs
V. Impediments to full travel speed. FRD is also factoring in changes in travel speed based on traffic calming devices and barriers such as gates.
VI. Fully integrating turns and stops. At this time, turn restrictions, turn impedances, and intersection impedances are beyond our scope.

Currently, the Fire & Rescue Department has taken the centerline data from stage II to stage V. This has been a labor intensive process involving uniformed firefighters and civilian GIS staff.

Verification & Editing Process



SPEED LIMIT 35

12'-6"

WEIGHT LIMIT 10 TONS

add cautionary speed

set restricted access

adjust speed limit

designate & flip one ways

street connection needed

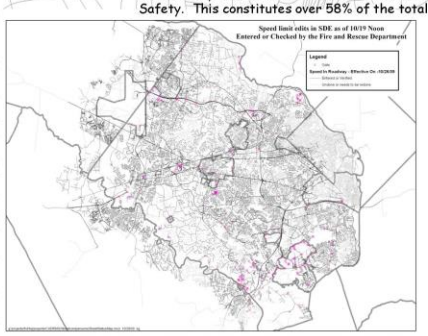
enter road restrictions

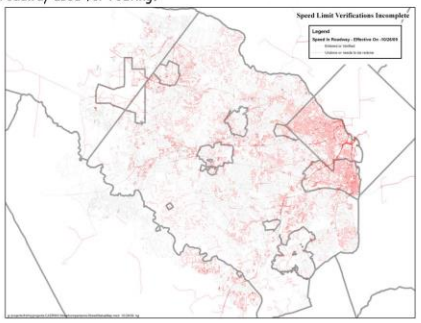
disconnect street needed

traffic calming

adjust for gates and barriers

In the last year, FRD has verified or reviewed over 4,200 miles of roadway used for Public Safety. This constitutes over 58% of the total roadway used for routing.



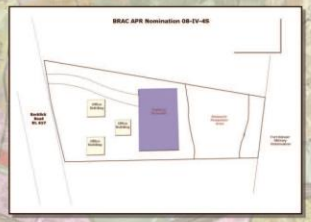


Massing Models for Site Density

BRAC APR Nominations

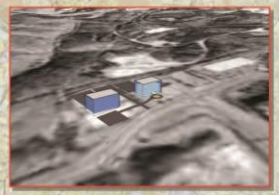
Arc GIS was used to create Feature Classes for the basis of the Models.

The SketchUp Plug-in for ArcGIS was an integral part of getting the shapes into a useful format.

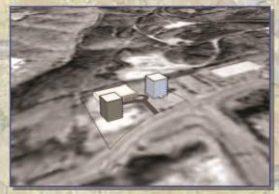


Additional GIS layers can be overlaid to provide accurate depictions of the site. In the example above the RPA was overlaid to define the developable site.

.50 Floor Area Ratio

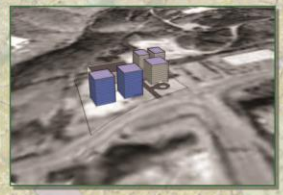


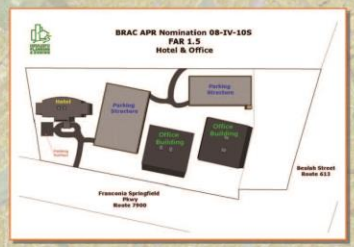
.75 Floor Area Ratio

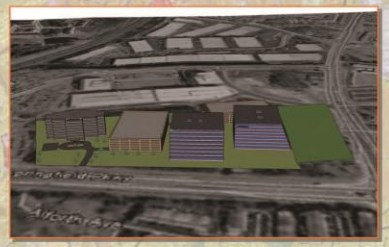


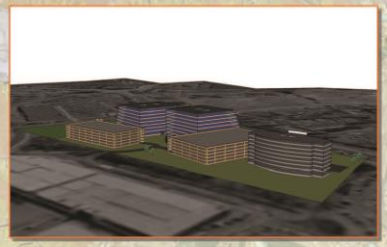
Maximum Floor Area Ratio

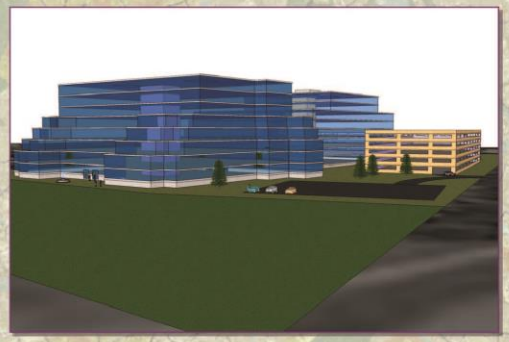
Under Current Zoning Regulations

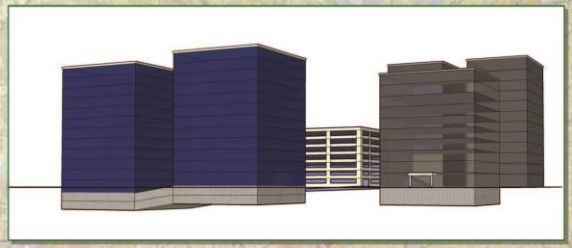


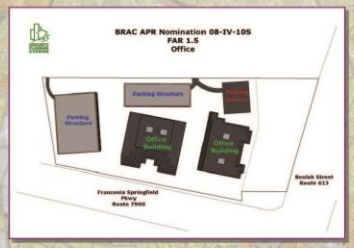


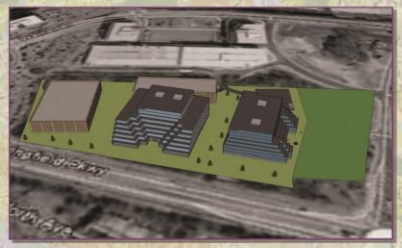












Created by: Daniel White

Pohick Creek Dam #4

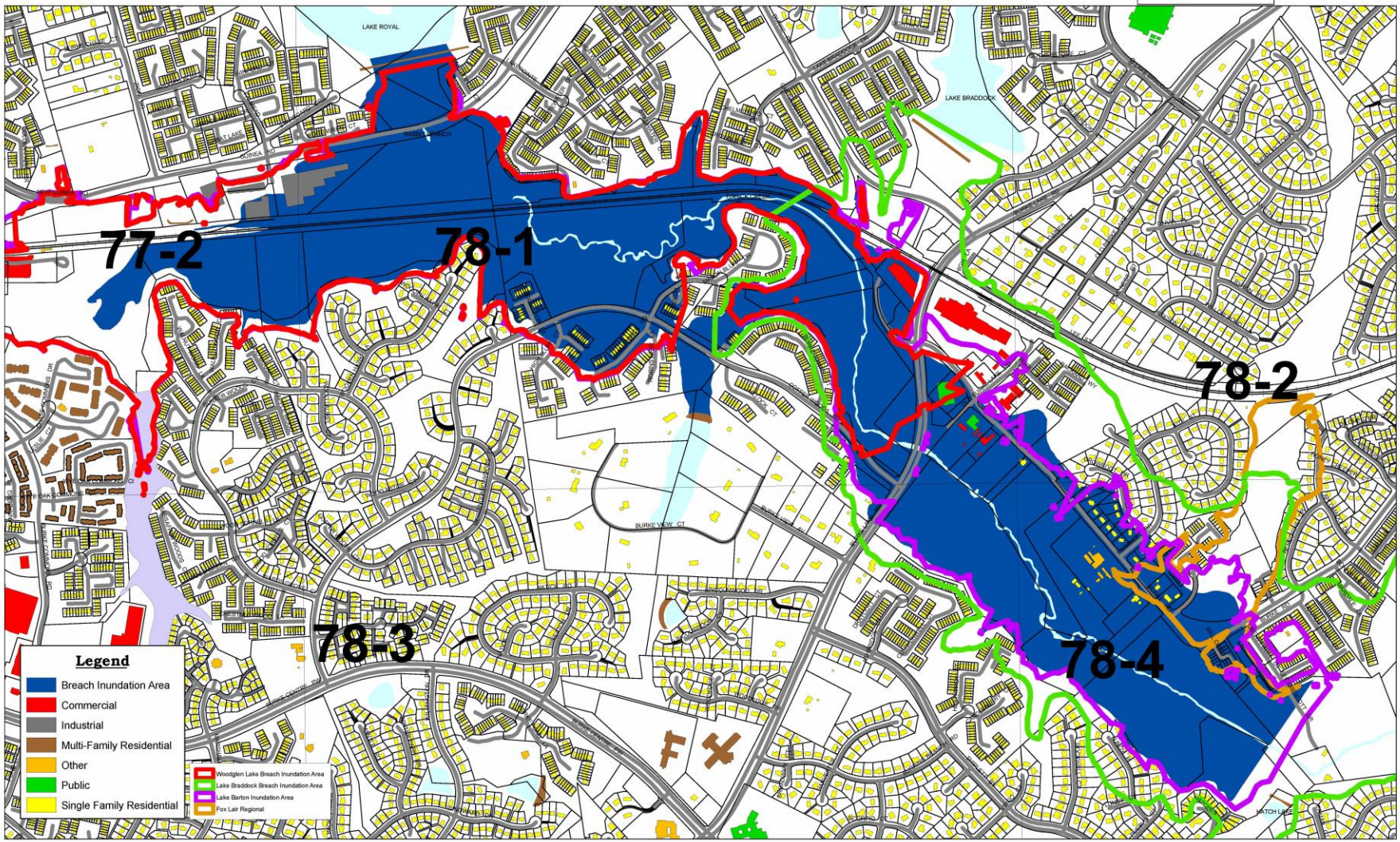
Dam Break Inundation Zone

Craig Carinci
Director of Stormwater Planning
12000 Government Center Parkway
Fairfax, Virginia 22035

703-324-5500

Dam Hazard Class: I (High)

3



(April 2009)

0 750 1,500 3,000 Feet