PROPOSED COMPREHENSIVE PLAN AMENDMENT

ITEMS: ST09-III-DS1, S07-III-UP2, S09-III-UP2
October 17, 2013

GENERAL LOCATION: Generally west of Centreville Road, south of the Town of Herndon.

SUPERVISOR DISTRICTS:
Dranesville, Hunter Mill

PLANNING AREA: Area III

PLANNING DISTRICT:
Dulles (Route 28 Corridor) Suburban Center

SUB-DISTRICT DESIGNATION:
Greater Herndon Community Sector (UP4)

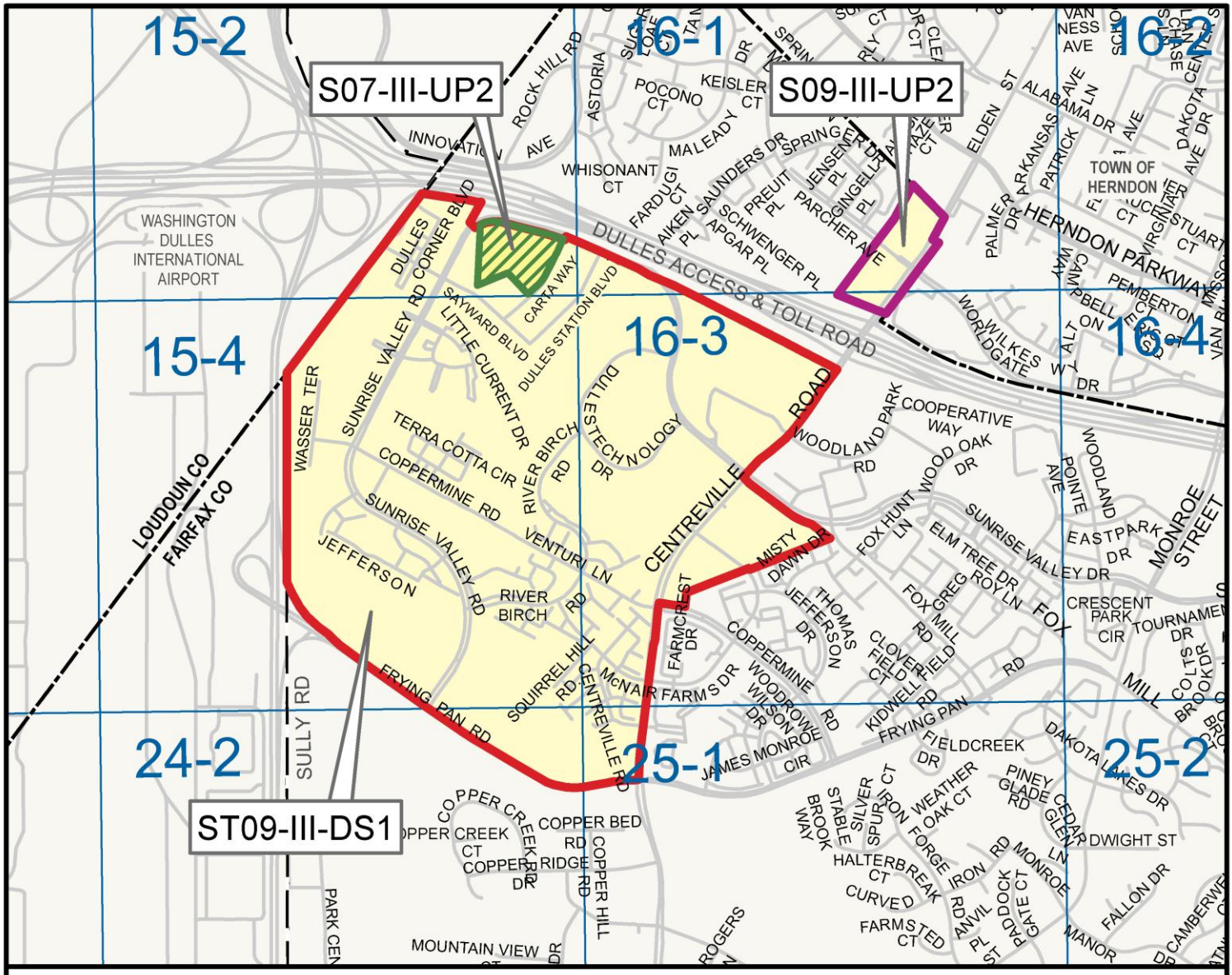
For additional information about this amendment call (703) 324-1380.

PLANNING COMMISSION PUBLIC HEARING:
Wednesday, October 30, 2013 @ 8:15 PM

BOARD OF SUPERVISORS PUBLIC HEARING:
Tuesday, December 3, 2013 @ 4:00 PM

PLANNING STAFF DOES RECOMMEND THIS ITEM FOR PLAN AMENDMENT

Reasonable accommodation is available upon 48 hours advance notice. For additional information about accommodation call (703) 324-1334.



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STAFF REPORT

Route 28 Station Area -South (ST09-III-DS1)
Rocks (S07-III-UP2)
Elden Street (S09-III-UP2)

BACKGROUND

On December 3, 2007, the Board of Supervisors authorized the Rocks Comprehensive Plan amendment S07-III-UP2 for parcels 15-2((1))13 and 15-4((5))5B. The Plan amendment was to consider appropriate transit-oriented development in coordination with the design of the south side of the Innovation Center Metrorail Station and associated transit facilities. On July 13, 2009 the Board of Supervisors expanded the area of study (ST09-III-DS1) to include all of Land Unit A in the Dulles Suburban Center, as well as a portion of Land Unit B east of Centerville Road that includes the Village Center at Dulles Shopping Center. As a part of the same motion, the commercial area north of the Dulles Toll Road and west of Elden Street was included for review (S09-III-UP2.)

The Department of Planning and Zoning conducted a planning study called the Route 28 Station-South Study and has worked with a group of stakeholders and property owners that were initially appointed by the Hunter Mill District Supervisor in the spring of 2010. As a result of redistricting, the area is now almost entirely in the Dranesville Supervisor District. After a hiatus pending the results of transportation analyses, the Dranesville District Supervisor reconvened an expanded Work Group in June of 2012. A record of the Work Group effort including presentations and meeting summaries can be viewed on the study webpage: http://www.fairfaxcounty.gov/dpz/projects/route28.htm

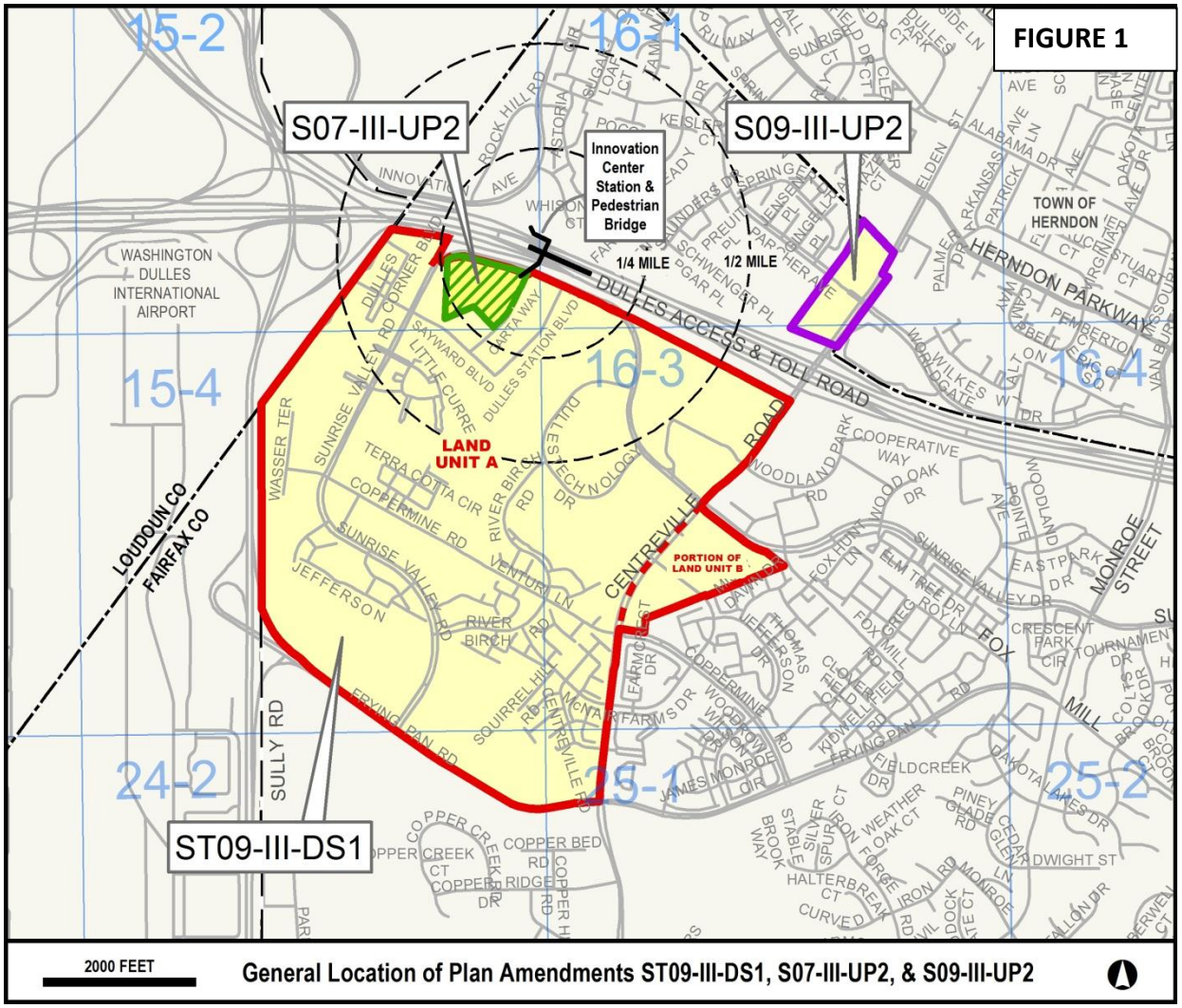
LOCATION AND CHARACTER OF THE AREA

Land Unit A of the Dulles Suburban Center consists of approximately 645 acres located south of the Innovation Center Metrorail Station. It is bounded on the north by the Dulles Airport Access Road and Toll Road (DAAR, Route 267), on the east by Centreville Road, on the south by Frying Pan Road, and on the west by Route 28, Washington Dulles International Airport and the Loudoun County boundary. The majority of the land unit is located in the Route 28 Highway Transportation Improvements and the Phase 2 Dulles Rail Transportation Improvements Tax Districts. Figure 1 illustrates the relationship of Land Unit A with the planned Innovation Center Station platform, including ¼ and ½ mile distances from the station platform. Existing development includes a mix of office, retail, hotel and multi-family and townhouse residential uses. Institutional uses include several churches and the Lutie Lewis Coates Elementary School. There is relatively little vacant land in this area; the vacant land that exists is primarily located near the Metrorail station (30 acres) and more located along Frying Pan Road (80 acres.) The

Merrybrook Run Stream Valley traverses the land unit and provides a natural open space and park amenity for the area.

A commercial portion of Land Unit B is included in the study area. This area consists of approximately 30 acres that is bounded on the west by Centreville Road, on the north by Sunrise Valley Drive, on the south by Coppermine Road, and on the east by the McNair Farms apartment and townhouse residential community. This area is developed with local and community serving commercial uses at the Village Center at Dulles.

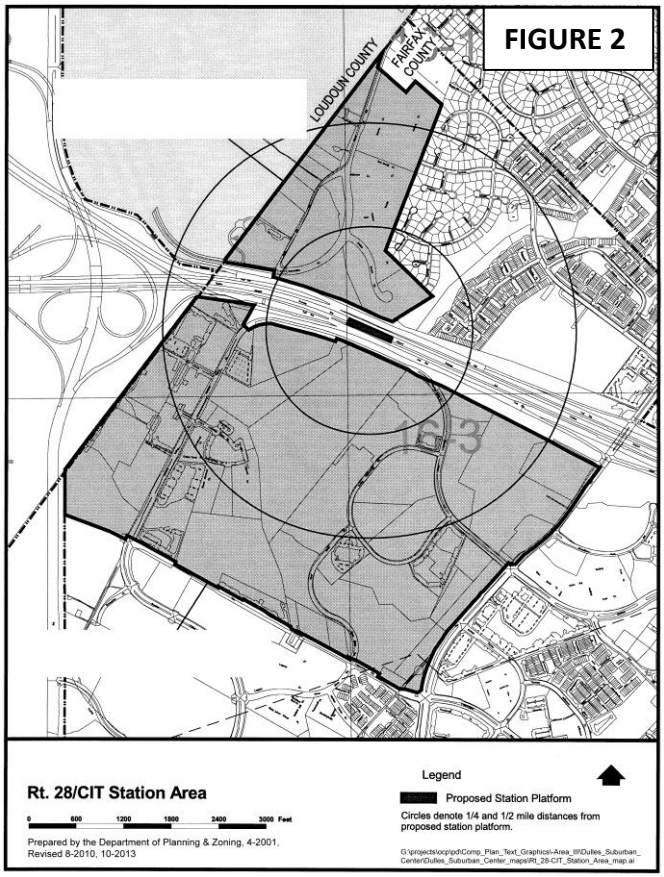
Also considered during this planning study is the commercial area located north of the Dulles Toll Road and west of Elden Street. This area consists of five parcels totaling 16.11 acres. Parcher Avenue is an east-west road that bisects this commercial area which is developed with a department store, bank with drive-through service, gasoline station, convenience store, restaurants and a hotel.



PLANNING HISTORY

Since the creation of the Dulles Suburban Center in 1993, Land Unit A has been planned for a complementary mix of land uses at .50 to 1.0 FAR, including office, retail, hotel and residential uses. A core area with mixed-use was envisioned within a half mile of a future transit station. This core was to include relatively greater land use intensity than most other areas in the Dulles Suburban Center. Also, since the adoption of the 1993 Plan, Land Unit B has been planned for a mix of residential and non-residential uses, including the commercial retail which is a part of the study area.

In 2001, Comprehensive Plan Amendment S98-CW-4CP (adopted May 21, 2001) further identified the core area as the Route 28/CIT Transit Station Area, generally bounded by Coppermine Road to the south. The general location of the transit station platform was established, along with increased planned intensity up to 1.5 FAR within a quarter mile and 1.25 FAR within a half mile of the transit station platform. The area was to be served by either a Bus Rapid Transit or Metrorail system. More detailed urban design guidance was included for this Transit Station Area (TSA), along with the three other TSAs along the Dulles Toll Road. Figure 2 shows the 2001 boundary of that Transit Station Area.



In 2007, following further study, Amendment S01-CW-17CP (adopted August 6, 2007) stated that the Transit Station Area would be served by Metrorail.

The commercial area north of the Dulles Toll Road and west of Elden Street has been designated as retail on the Comprehensive Plan map for at least the past 30 years.

ADOPTED COMPREHENSIVE PLAN TEXT

The Comprehensive Plan Map shows that Land Unit A and the commercial portion of Land Unit B are planned for mixed use development. Additional land use guidance is provided in the Plan

text. The commercial area along Elden Street is designated as retail on the Comprehensive Plan Map and has no additional Plan text guidance.

Specific Plan text for Land Unit A of the Dulles Suburban Center recommends a complementary mix of land uses to include office, hotel and support retail at an intensity of .50 to 1.0 FAR. Optional residential uses are encouraged as part of mixed-use developments. Plan guidance further recommends that the core transit station area be planned for mixed-use with intensities up to 1.5 FAR within a quarter mile and 1.25 FAR within a half mile of the station. There is a second option for intensity up to 3.5 FAR within a ¼ mile with conditions that include transfer of development potential.

The current Plan's Area wide Recommendations for the Dulles Suburban Center may be found at the following link. Recommendations that are specific for Land Unit A begin on page 56 and for Land Unit B begin on page 67.

http://www.fairfaxcounty.gov/dpz/comprehensiveplan/area3/dulles.pdf

The Fairfax County Concept for Future Development designates the northern part of Land Unit A as a Transit Station Area. These areas are planned to promote a land use pattern that supports Metrorail by encouraging a mix of uses in a compact, pedestrian-friendly urban form within walking distance of the rail station. Countywide guidelines for Transit-Oriented Development area located in the Policy Plan volume of the Comprehensive Plan as Appendix 11 beginning on page 33.

http://www.fairfaxcounty.gov/dpz/comprehensiveplan/policyplan/landuse.pdf

PROPOSED COMPREHENSIVE PLAN AMENDMENT

With the location of the Innovation Center Metrorail Station determined and more information about the ultimate design, the Board of Supervisors authorized staff to consider changes to the Comprehensive Plan to further consistency with County Transit-Oriented Development policies. In conjunction with the Route 28 Station Area-South Work Group, planning recommendations were evaluated with the goal of achieving better transit-oriented development.

ANALYSIS

Early in the process, staff worked with the Work Group to develop a vision for the area closest to transit. The vision was for a balanced mix of uses that is integrated with planned Metrorail station facilities and designed for a high level of walkability. In addition, the Work Group recommended a framework for Comprehensive Plan guidance. This included the organizing

principle that planned development intensity should be highest in areas closest to the station, tapering down to lower intensity areas in the rest of the study area. To aid in evaluating the TSA, the land unit was divided into three areas as shown on the table below with tiered planned intensity ranges decreasing further away from the station.

Land Unit A-1 Tiered Planned Intensity	
Distance From Metrorail Station	Range of Intensity (FAR)
Tier 1: Within ¼ Mile	2 to 3 FAR
Tier 2: ¼ to ½ Mile	1 to 2 FAR
Beyond ½ Mile	0.75 to 1.5 FAR

Links to the Work Group's Vision statement and Flexible Framework approach are provided below.

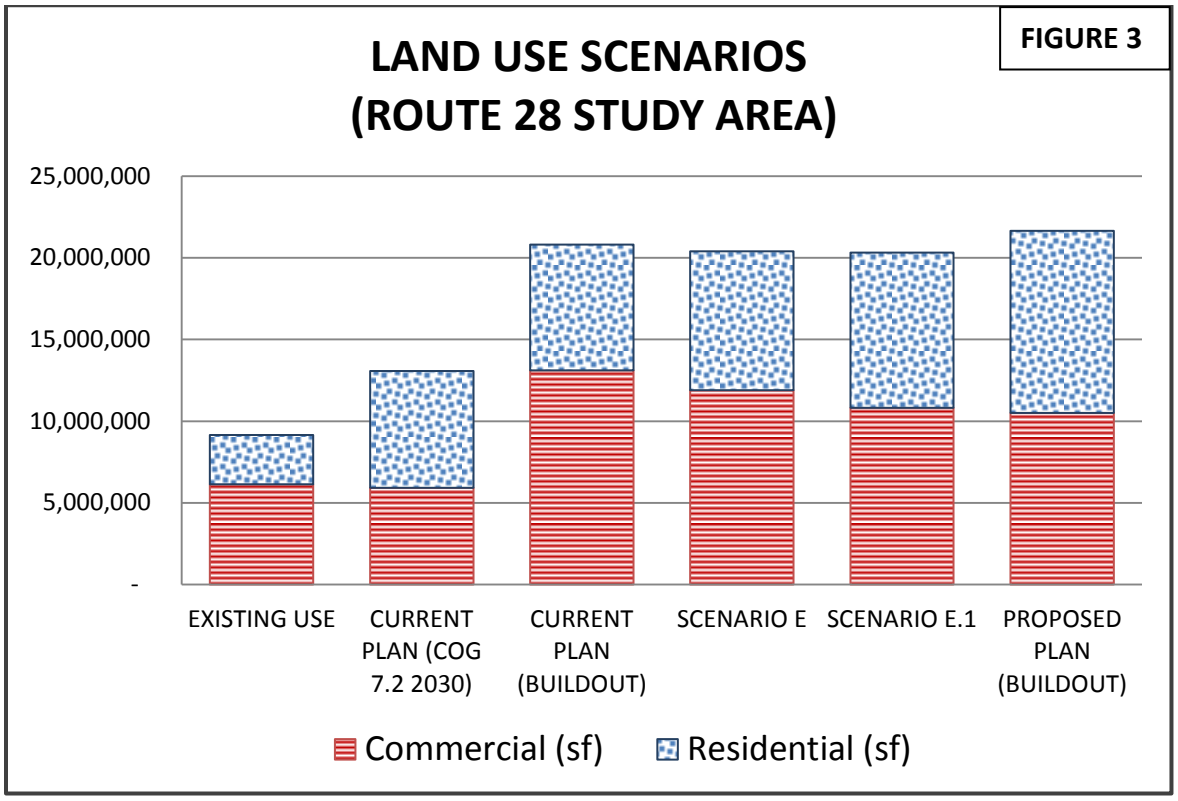
Vision for Northern Study Area:
http://www.fairfaxcounty.gov/dpz/projects/route28stationsouth/northern_study_area_vision_-_may_2_2011_version.pdf

Flexible Comprehensive Plan Framework, Part 1 and 2:
http://www.fairfaxcounty.gov/dpz/projects/route28stationsouth/flexible_framework_part_1.pdf
http://www.fairfaxcounty.gov/dpz/projects/route28stationsouth/developing_a_flexible_framework_part_2.pdf

Based on the recommendations of the Work Group, staff developed a land use scenario for the study area to evaluate for transportation and other public facility impacts. By encouraging mixed use throughout the TSA, the scenario resulted in an increased residential component and reduction in the overall amount of office use. Support retail uses were assumed throughout the study area to provide convenience for residents, employees and visitors and to minimize automobile trips.

The scenario went through multiple iterations with Work Group input during the process. For the purposes of thorough and complete impact analysis, the three station areas within the Reston Master Plan Special Study were also included in these scenarios. Three scenarios underwent full analysis by various service providers such as the County's Department of Transportation, Park Authority, Fire and Rescue, and Public Schools. These include Scenarios E, E.1 and G. As shown in the following figure (Figure 3), when compared with the current Comprehensive Plan, Scenario E reduced the employment and increased housing while maintaining a similar overall level of development.

The results of the initial impact analysis showed that Scenario E's jobs/housing ratio of 5 to 1 could be improved. Scenario E.1 was developed which further reduced employment, particularly office employment, and increased housing. Finally, Scenario G was developed which slightly increased the overall level of development and resulted in a jobs/housing ratio of 4.1 to 1.

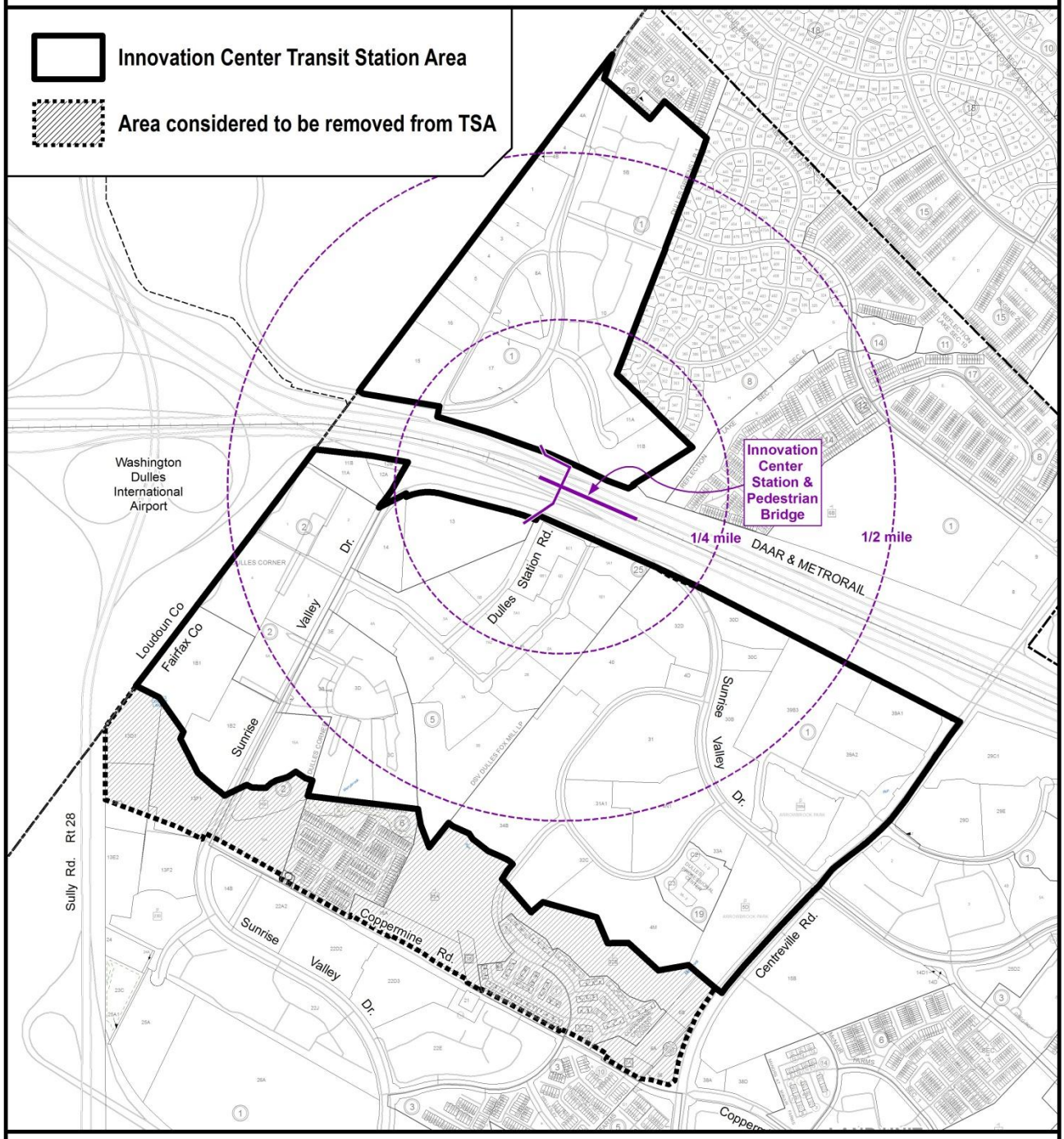


Starting with the principle of focusing most future growth within walking distance of the Metrorail station, the extent of the TSA boundaries were examined for the south side of the station. Fairfax County TOD policies characterize walking distance as generally being within ½ mile of rail transit. The existing TSA boundary to the south of the planned station is Coppermine Road, which lies between ¾ to almost a mile from the station. Changing the TSA boundary to the Merrybrook Run Stream Valley would result in the TSA extending to approximately ½ to ¾ mile from the proposed rail station. Figure 4 shows the relative distances of the boundary change that was considered by the Work Group.

As analysis progressed, assumptions about areas of change and areas of no change emerged. Land Unit A was divided into Land Units as shown on Figure 5. Land Unit A-1 was assumed to be the area of change, consistent with the Work Group's tiered intensity approach. It was also assumed that, over time, this area would transition from suburban development into a pedestrian-oriented urban environment. Most of the area south of the Merrybrook Run Stream Valley (Land Units A-2, A-3 and A-4) has been developed with a mix of office, hotel and residential uses in accordance with the current plan. It was assumed that these land units would maintain their existing character, uses and intensity. Land Unit A-5 is an approximately 80 acre area of vacant land located north of Frying Pan Road. This area was assumed to develop with a mix of uses at an intensity range of .50 to 1.0 FAR.

FIGURE 4

Comparison of Rt 28/CIT Transit Station Area with boundary considered for Innovation Center TSA



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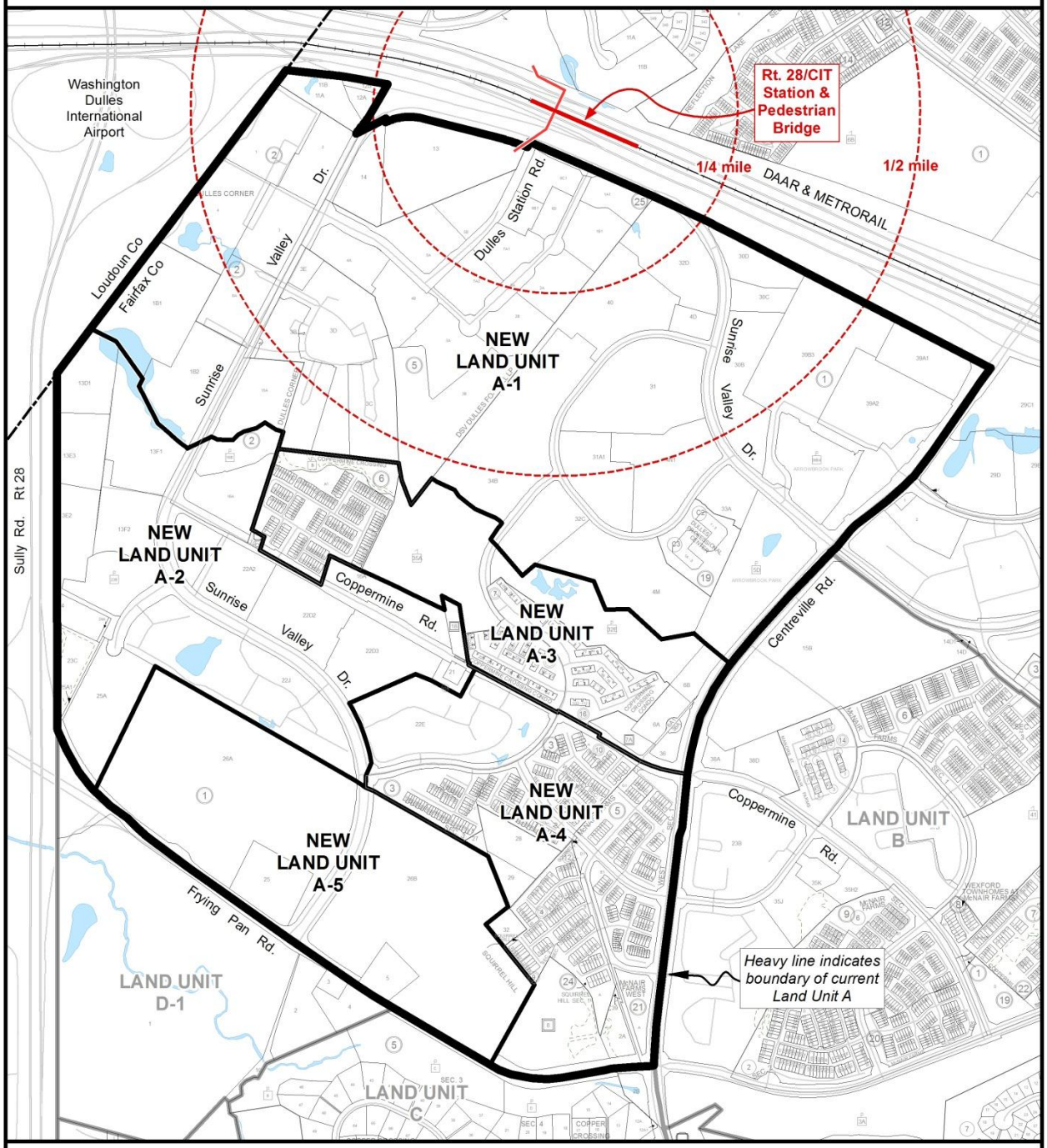
map projects\Innovation Center & Rt 28 CIT Transit Station Areas

DULLES SUBURBAN CENTER
CURRENT LAND UNIT A, RECONFIGURED
AS NEW LAND UNITS A-1, A-2, A-3, A-4, A-5

FIGURE 5



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Housing

Countywide TOD policies promote a balanced mix of uses in station areas to ensure the efficient use of transit and promote increased ridership during peak and off-peak travel periods. The current Comprehensive Plan for this area has a disproportionate commercial component as shown earlier in this report on Figure 3. The various land use scenarios improve the jobs/housing balance by increasing the residential component and reducing the planned commercial uses. This provides housing opportunities near transit while promoting the creation of a vibrant mixed-use area.

Provision of a range of housing opportunities, which includes housing for different income levels, is consistent with the objectives of County TOD policy. This aspect of housing policy ensures that housing within TODs is accessible to those most dependent on public transportation including older adults, persons with disabilities and persons with limited income. Staff and the Work Group evaluated a strategy for development between a 1.0 and 3.0 FAR that would seek a proportional 12 to 16 percent of total residential units as affordable Workforce Dwelling Units.

During the Tysons Corner study, a contribution of $3 per non-residential square foot was recommended for new development in that area. The Board of Supervisors then directed staff and the Planning Commission to evaluate what contribution should be sought from non-residential development in other mixed-use centers. In the absence of Countywide policy regarding this, staff asked the Work Group to consider a contribution of $3 per non-residential square foot in the TSA.

The Work Group and staff agree on the need for a contribution to affordable and workforce housing from non-residential development, but differ on the amount of the non-residential contribution. The Work Group made the observation that the Plan for the Tysons Corner Urban Center also recommends a $3 per non-residential square foot contribution. They reasoned that since lease rates along the Dulles Corridor are about 2/3 that of Tysons Corner that the non-residential contribution should reflect that differential. Therefore, the Work Group recommends a $2 per non-residential square foot contribution.

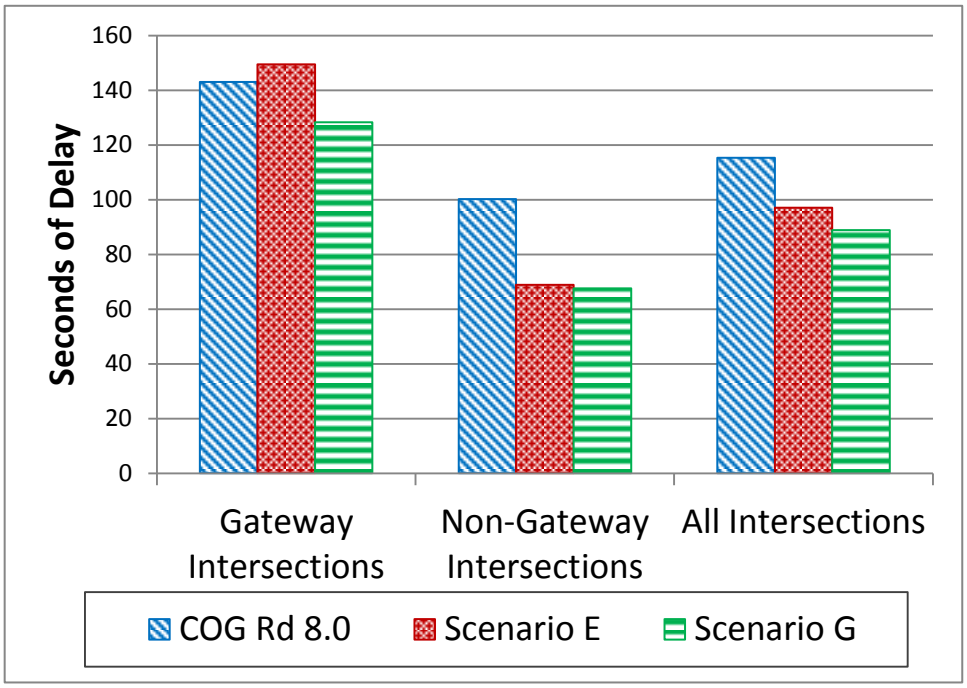
Transportation

The Route 28 Station-South and the Reston Master Plan studies took place in anticipation of the opening of the Silver Line Metrorail stations along the Dulles Corridor. For the purpose of evaluating the transportation impacts, both studies were combined for the transportation analyses. The analyses of the transportation network examined existing conditions as well as three different future land use scenarios which are shown on Figure 3 earlier in this report. The last iteration of analysis was Scenario G which resulted from lowering the office use and

increasing the residential use when compared to the current Comprehensive Plan. Scenario G was refined during the process and was ultimately chosen as the basis for the proposed Plan.

The key finding of the analysis is that the impact of the proposed Plan is notably improved from the current Comprehensive Plan, in terms of less trips generated and improved connectivity. This improvement is the result of proposed road connections and a more balanced flow of traffic into and out of the study area due to an improved jobs/housing ratio. The figure below compares the performance of intersections in the Dulles Corridor and demonstrates that the proposed plan, based on Scenario G, has less delays at intersections overall. Compared to the current Plan (2030 COG Round 8) internal intersections improve by 33 percent. Gateway intersections, or those on the periphery of the Dulles Corridor, improve by approximately 12 percent.

Figure 6: Average Peak Period Intersection Delay – PM Peak



Detailed information on the transportation analysis is contained in the County's report to the Virginia Department of Transportation. This report is titled, "Chapter 527 Submittal for Fairfax County Comprehensive Plan Amendment, Dulles Corridor Study" and is available online. The section that begins on page 16 describes the assessment of the potential impact on the transportation system.

http://www.fairfaxcounty.gov/dpz/projects/reston/reference_documents/06-14-2013_dulles_corridor_transportation_study.pdf

The analysis, and subsequent study of the grid of streets, resulted in recommended transportation improvements that are included in the proposed Plan. Provision of transportation improvements, such as transit and a street grid that accommodates all modes of transportation, are a key feature of the Plan. The road network includes a new alignment for the bridge over the Dulles Toll Road that crosses the Loudoun County and Fairfax County border and is planned to touch down within the Sunrise Valley Drive right-of-way in Fairfax County. When this happens, Sunrise Valley Drive should remain connected. Emphasis is placed on focusing land use toward the Innovation Center Metrorail station, which is one aspect of creating a successful TOD environment. To maximize the efficiency of the transportation system, the Plan includes Transportation Demand Management (TDM) recommendations to reduce vehicle trips in the TSA. Transportation recommendations also include provisions for regular monitoring of development and transportation system effectiveness at least every 5 years.

Environment

TSAs are mixed-use centers with some of the County's highest planned intensities and offer considerable opportunity to improve upon past stormwater management practices. As such, new development should provide more stormwater management and water quality control measures as well as green buildings.

Stormwater management measures focus on protecting downstream receiving waters by reducing stormwater runoff from existing and future impervious surfaces. The goal should be to reduce the total runoff volume or significantly delay its entry into the stream system. In an urban setting, it is important to have clear guidance when designing higher intensity buildings. The Work Group considered Plan guidance with specific approaches for stormwater management while including flexibility to take other approaches that may be more effective on a specific site. The Work Group differed with staff recommendations and favored simpler and broader Plan guidance to address stormwater management.

Development should be guided by resource conservation, green building and noise goals and objectives found in the Policy Plan. The proposed Plan encourages development to follow County green policies with additional guidance for non-residential development which should pursue LEED Silver certification.

Noise sensitive uses could be affected by proximity to the Dulles Toll Road and Metrorail. In addition, the portion of Land Unit A that is near Route 28 is affected by aircraft noise. Since the County has broader planning goals to create a vibrant TOD environment, which includes housing, it may be appropriate for sites near the Dulles Toll Road and Metrorail to be developed with residential or other noise sensitive uses. Design approaches that attenuate noise impacts should be taken to minimize exposure to high noise levels.

Public Facilities

In January 2013 representatives of County agencies and private utilities were asked to analyze facility needs based on land use Scenario G. The findings of these analyses was that most public facilities located in and around the study area have adequate capacity to accommodate the proposed additional development. However, schools and parks would need expansions or modifications to continue providing adequate service.

Parks and Recreation: Urbanizing areas such as this and other TSAs will have different park needs than other parts of the county. To address this, the Urban Parks Framework was adopted by the Board of Supervisors and added to the Policy Plan in May of 2013. In addition to urban open space amenities, future development should offset the need for active recreation.

Schools: Fairfax County Public Schools has indicated that the combined current need and envisioned growth in the study area and nearby neighborhoods may trigger the need for school capacity equivalent to 1 to 1 ½ elementary schools. The envisioned growth within the Innovation Center TSA when combined with the three Reston TSAs will require a new middle and high school. The new high school should be located within or proximate to Land Unit A. The provision of any future facilities would need to be coordinated with the rate that planned development occurs.

For this and other urbanizing areas, providing adequate public facilities may in some cases require innovative urban solutions such as locating public facilities within buildings serving other uses.

Elden Street Commercial (S09-III-UP2)

The current Comprehensive Plan map indicates that the commercial area addressed by the Plan amendment, which is north of the Dulles Toll Road, is planned for Retail and Other uses. There is no other site specific guidance in the Comprehensive Plan. The countywide Concept for Future Development indicates that this general area is planned as a Suburban Neighborhood which are areas planned to include a wide range of housing types as well as supporting neighborhood-serving commercial uses.

Since this area has no specific Plan text, providing new Plan guidance could ensure that any future redevelopment would improve transitions to adjacent residential and public uses. Further, improved inter-parcel connectivity would encourage area patrons to walk to adjacent retail and commercial uses.

RECOMMENDATION

The proposed Plan amendments seek to make the Comprehensive Plan guidance and planned uses more consistent with the County's Transit-Oriented Development policies adopted in 2007. Staff has worked closely with the Work Group to develop proposed Comprehensive Plan guidance that provides for a balanced mix of uses that is integrated with the planned Metrorail station and is designed for a high level of walkability. Consensus between staff and the Work Group was achieved for nearly all of the proposed Plan amendment recommendations, including the land use mix and intensity. In two instances, the Work Group has proposed alternative recommendations; one for stormwater management and for the amount of the non-residential contribution for affordable and workforce housing.

PROPOSED PLAN TEXT

Plan Amendments ST09-III-DS1 and S07-III-UP2 propose revisions to the Comprehensive Plan for Land Unit A of the Dulles Suburban Center. The area north of the Merrybrook Run Stream Valley (Land Unit A-1) is proposed to be in the designated TSA with planned intensity ranging from .75 to 3.0 FAR. South of the Merrybrook Run Stream Valley (Land Units A-2, A-3, A-4) the area is proposed to maintain the existing character and uses. The large area of vacant land north of Frying Pan Road (Land Unit A-5) is also proposed for a mix of uses at an intensity range of .50 to 1.0 FAR. The proposed Plan amendment also provides recommendations for creating a multi-modal transportation system, environmental stewardship, urban parks and recreation and schools. Further guidance is proposed to address urban design with an emphasis on creating a high-quality urban environment that is pedestrian-friendly. Changes to other sections of the Dulles Suburban Center text to reflect the above revisions are also proposed.

The commercial area in Land Unit B, at the Village Center at Dulles, was included in the planning study and reviewed. It is not proposed for any change in land use recommendations.

The commercial area north of the Dulles Toll Road, on the west side of Elden Street, addressed by Plan Amendment S09-III-UP2, proposes to add recommendations to improve transitional buffers and pedestrian connectivity.

ATTACHMENTS

Attachment I: Staff and Work Group Plan Amendment Recommendations for Land Unit A
Attachment II: Other Staff and Work Group Plan Amendment Recommendations
Attachment III: VDOT Review of Dulles Corridor Transportation Study (To be provided separately.)
Attachment IV: FCDOT Response to VDOT Review of Dulles Corridor Transportation Study (To be provided separately.)

REPLACE: Fairfax County Comprehensive Plan, 2013 Edition, Area III, Dulles Suburban Center, as amended through 7-30-2013; Dulles Suburban Center Land Unit Recommendations, Land Unit A, page 56:

LAND UNIT A

CHARACTER

Land Unit A consists of approximately 645 acres located south of the Innovation Center Metrorail station as shown on Figure 12. It is bounded on the north by the Dulles Airport Access Road and Toll Road (DAAR, Route 267), on the east by Centreville Road, on the south by Frying Pan Road, and on the west by Route 28, Washington Dulles International Airport and the Loudoun County boundary. The majority of the land unit is located in the Route 28 Highway Transportation Improvements and Phase 2 Dulles Rail Transportation Improvements Tax Districts. Figure 12 illustrates the relationship of Land Unit A with the planned Innovation Center Station platform, including ¼ and ½ mile distances from the station platform.

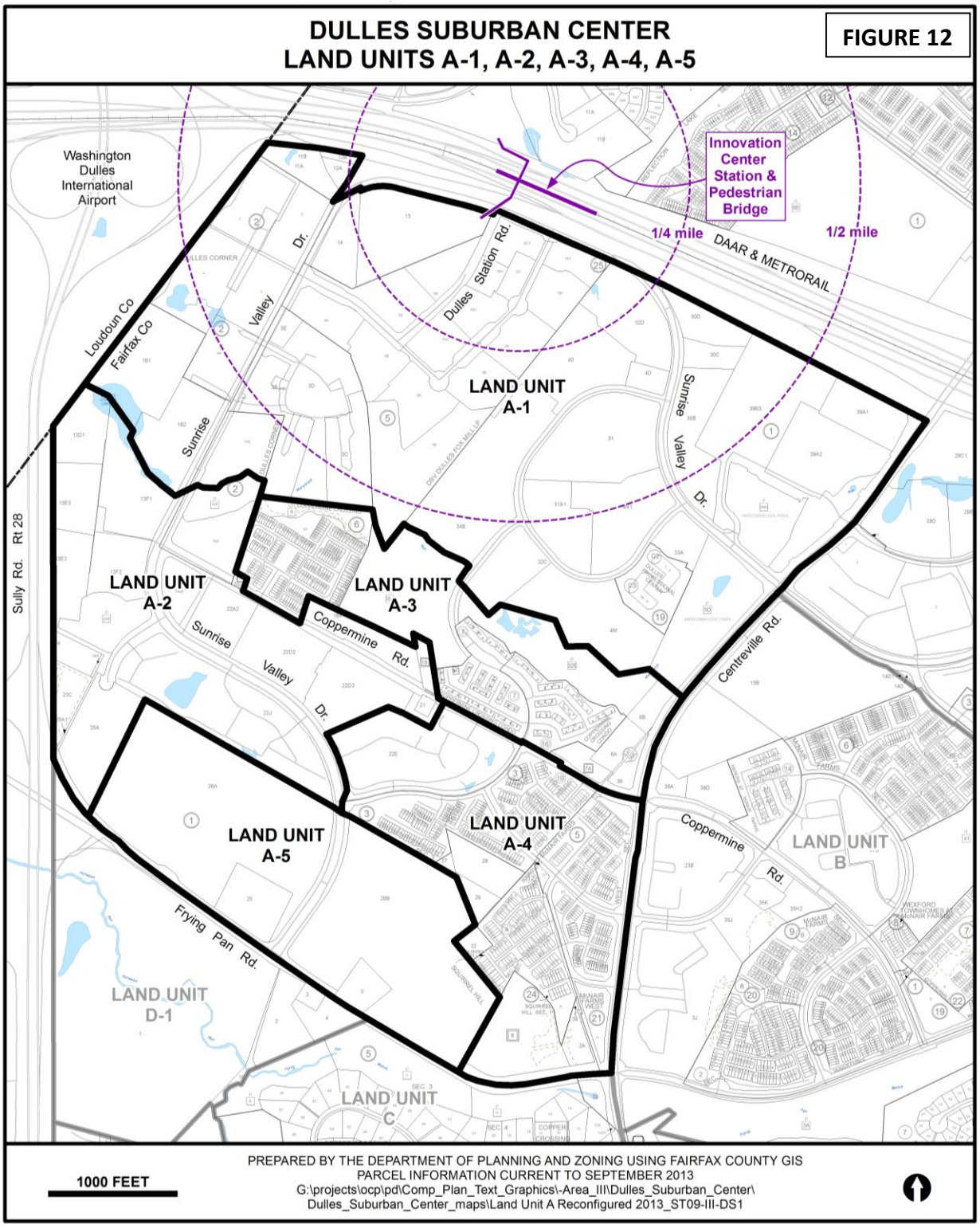
Existing development includes a mix of office, multi-family and townhouse residential, hotel and retail uses. Institutional uses include several churches and the Lutie Lewis Coates Elementary School. There remain areas of vacant land, some of which are located near the Metrorail station and over 75 acres located along Frying Pan Road. The Merrybrook Run Stream Valley traverses the land unit and is a natural open space and park amenity for the area.

RECOMMENDATIONS

Consistent with the Concept for Future Development and County Transit Oriented Development policies, Land Unit A encompasses the highest planned intensities in the Dulles Suburban Center. The land unit recommendations are organized by the land units as shown in Figure 12. Within each land unit, the Plan provides recommendations for planned use and intensity. Land Unit A-1 is the area north of the Merrybrook Run Stream Valley and is the southern portion of the Innovation Center Transit Station Area (TSA), shown in Figure 13, where a mix of uses in an urban form is encouraged within walking distance from the station. South of the Merrybrook Run Stream Valley (Land Units A-2, A-3, and A-4) is an area generally planned for a mix of uses at lower intensity levels. Land Unit A-5 is located north of Frying Pan Road and is planned for a mix of uses.

Land Use

The planned land use pattern in Land Unit A focuses most future growth within walking distance of the future Innovation Center Metrorail station which is generally considered to be within ¼ and ½ mile from the station. Intensities will be highest in areas with the closest proximity to the station, tapering down to lower density areas in the rest of the land unit. The land units south of the Merrybrook Run Stream Valley, A-2, A-3 and A-4, have been developed with a mix of office, hotel and residential uses in accordance with the plan and it is anticipated that these land units will maintain their existing character, uses and intensities.


DULLES SUBURBAN CENTER
LAND UNITS A-1, A-2, A-3, A-4, A-5
FIGURE 12
Washington Dulles International Airport
Innovation Center Station & Pedestrian Bridge
1/4 mile
1/2 mile
DAAR & METRORAIL
Dulles Station Rd.
Loudoun Co
Fairfax Co
Valley Dr.
Sunrise Valley Dr.
LAND UNIT A-1
LAND UNIT A-2
LAND UNIT A-3
LAND UNIT A-4
LAND UNIT A-5
Coppermine Rd.
Centreville Rd.
Sully Rd. Rt 28
Frying Pan Rd.
LAND UNIT B
LAND UNIT C
LAND UNIT D-1
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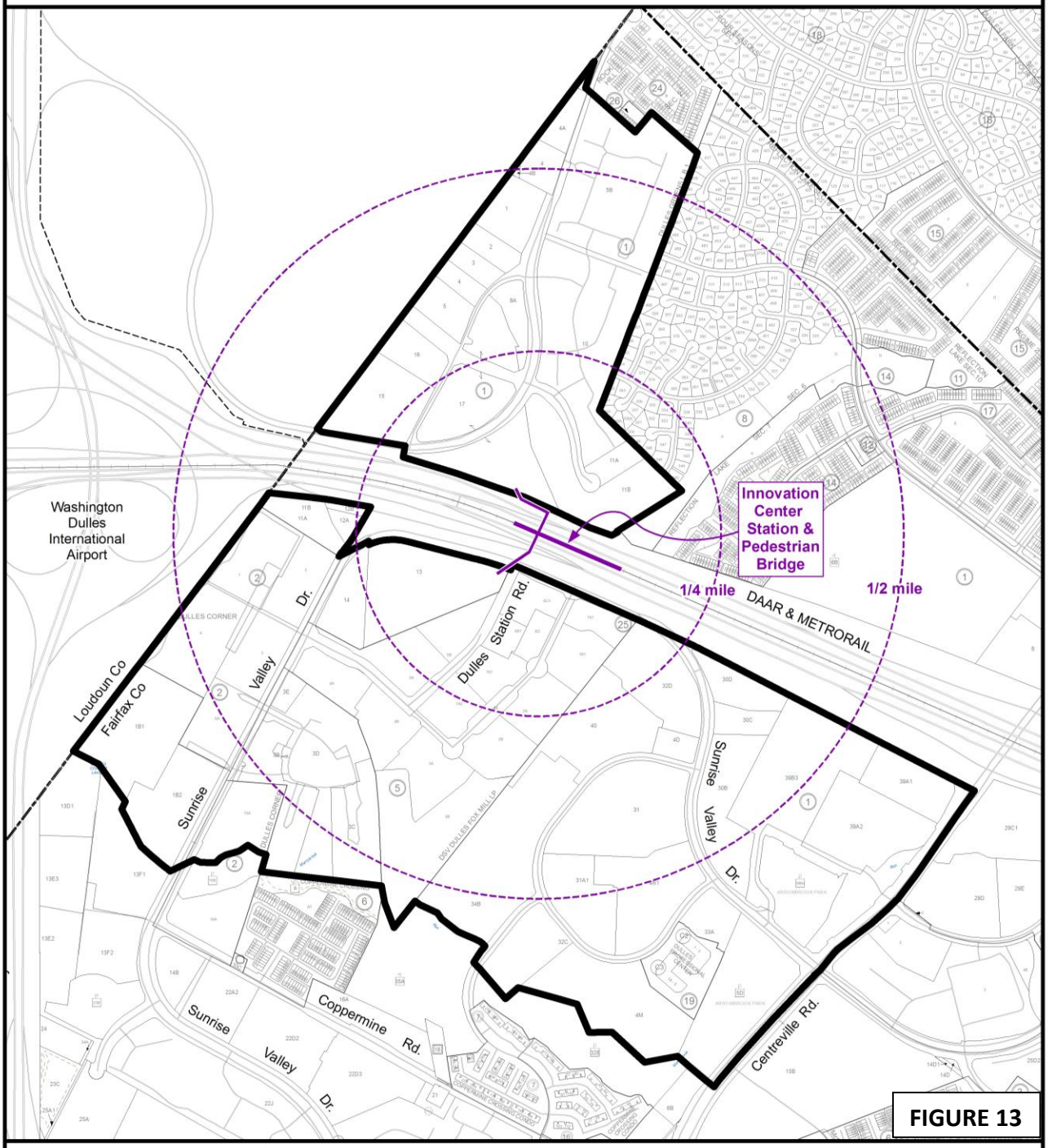
INNOVATION CENTER TRANSIT STATION AREA



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Dulles_Suburban_Center_maps\Innovation Center Transit Station Area

This land unit is planned for a complementary mix of land uses including office, residential, hotel and support retail. Development in this land unit should provide for the incorporation of future transit related facilities and pedestrian and vehicular access to transit. The following table compares 2012 existing land use levels to the planned development potential.

Figure 14: Planned Development Potential

Land Use	2012 Existing Land Use	Comprehensive Plan Development Potential
Residential	3,971,000 sq.ft. (3,309 units)	11,160,000 sq.ft. (9,300 units)
Office	4,755,000 sq.ft.	8,380,000 sq.ft.
Retail	4,000 sq.ft.	465,424 sq.ft.
Industrial	35,000 sq.ft.	0
Institutional	150,000 sq.ft.	150,000 sq.ft.
Hotel	858,000 sq.ft.	1,181,000 sq.ft.
Total	**10,089,000 sq.ft.**	**21,675,000 sq.ft.**

The development potential shown in the table above is based on quantification of the land use recommendations. These land use recommendations provide flexibility for a change of uses within certain parameters. For example, some areas are encouraged to include more housing when there is a corresponding reduction in office use. Additional retail uses are encouraged when they contribute to the area's vibrancy and convenience. Ground floor retail uses result in fewer peak hour trips than office uses. Land Unit A is home to several churches. Additional institutional uses or expansions of existing facilities could be considered through the Special Exception and Special Permit processes. Land Unit A is home to Coates Elementary School. Additional public facilities or expansion of Coates would be evaluated based upon guidance from the Public Facilities section. Additional hotel uses are encouraged and also result in fewer peak hour trips than office uses. Generally the Plan seeks to encourage a vibrant mix of uses that is balanced with the infrastructure.

In reviewing development proposals, the following land use guidelines should also be considered:

- Parcel Consolidation - Parcel consolidation should be encouraged when it results in a logical assemblage of parcels of sufficient size to allow projects to function in a compatible, well-designed, efficient manner. Parcel consolidation should not preclude the development of any unconsolidated parcels in conformance with the Plan.

- Coordinated Development Plans - Coordinated development plans may be an alternative to parcel consolidation. Coordinated development plans refer to two or more concurrent and contiguous development applications that demonstrate coordination of site design,

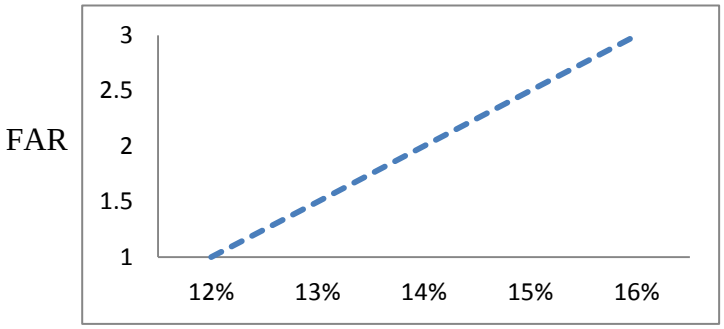
building locations, urban design, open space amenities and signage, inter-parcel access where appropriate, roadway realignment or improvements, and parking facilities.

- Compatible Development - All development proposals will need to ensure that projects function in a compatible, well-designed, efficient manner; are consistent with the land use guidance and development potential of the individual subunits; are compatible with the development on adjacent properties; reflect coordinated phasing of improvements as needed (for example, frontage improvements); are consistent with the overall intent of the land use concept to achieve a desired urban form and mix of uses; and do not preclude adjacent parcels from developing in conformance with the Plan.

- Existing Uses and Buildings - New uses and the replacement or expansion of existing buildings that achieve the long-term recommendations of the Plan are encouraged. In some instances, existing development may not be consistent with the long-term vision for this area. This Plan is not intended to interfere with the continuation of existing land uses or buildings. If improvements to the open space or pedestrian systems that are identified in the Plan are not feasible due to an existing building's location on the site, alternative streetscape and other design improvements intended to implement the Plan's vision may be considered.

- Affordable and Workforce Housing - Future development should conform to county policies on affordable housing which includes conformance to the Affordable Dwelling Unit Ordinance (ADU) and the Policy Plan's Workforce Housing (WDU) Policy and Guidelines. Proposals seeking up to a 1.0 FAR should meet the current policy objective of approximately 12 percent of total units as Workforce Dwelling Units (WDU). The exception is proposed intensity higher than 1.0 FAR which should provide a greater contribution. Proposals for development between a 1.00 and a 3.0 FAR should provide at a minimum proportionally 12 percent to 16 percent of total units as WDUs as shown in Figure 15. The residential use should integrate a variety of housing types, consistent with WDU guidelines, such as units for families, senior housing and residential studio units. In addition, bonus units or bonus square footage, as provided for in the WDU policy, is excluded from the planned intensity.

Figure 15: Percentage of WDU



Non-residential development in the TSA should contribute a minimum of $3.00 per non-residential square foot. This amount is to be adjusted annually based on the Consumer Price Index and may be contributed to a housing trust fund that will be used to create affordable and workforce housing opportunities near Metrorail stations. The contribution may be made over a period of time to be determined at the time of rezoning but not less than 25 cents per non-residential square foot each year. Such developments may provide an equivalent contribution of land or affordable units in lieu of a cash contribution. Non-residential contributions could also be used to fund affordable housing opportunities in the TSA through a partnership. If non-residential floor area is achieved through a bonus for providing WDUs, the bonus floor area should not be included when calculating the contribution amount. Ground level retail located in office, hotel, and residential buildings should also not be included when calculating the contribution amount**.**

Work Group Recommendation: The Work Group recommendation differs from staff and is that the non-residential contribution should be a minimum of $2.00 per nonresidential square foot. Otherwise, staff and the Work Group agree on the rest of the Affordable and Workforce Housing recommendation.

Land Unit A-1: Innovation Center Transit Station-South

Land Unit A-1 is the southern portion of the Innovation Center Transit Station Area, is 330 acres and is developed with a mix of office, hotel, residential and support retail uses. This area is planned for transit-oriented development (TOD) which focuses growth within walking distance of the Metrorail station. Intensities should be highest in areas with the closest proximity to the station, recognizing that relatively new existing development is approved for intensities significantly below the plan and may not redevelop in the future. To provide guidance on how intensity should gradually decrease with distance, the land unit is divided into three areas as shown on the table below. For purposes of tiered planned intensity, the ¼ mile and ½ mile radius is measured from the center of the platform where it meets the bridge.

Figure 16: Land Unit A-1 Tiered Planned Intensity	
Distance From Metrorail Station	Range of Intensity (FAR)
Tier 1: Within ¼ Mile	2 to 3 FAR
Tier 2: ¼ to ½ Mile	1 to 2 FAR
Beyond ½ Mile	0.75 to 1.5 FAR

The mixed-use recommendations that follow seek to establish parameters for future development by providing percentages for residential and non-residential uses. These percentages are meant to be guides and may need to be adjusted on a case by case basis in order to further other planning objectives such as implementing the grid of streets and securing land for parks and public facilities. If a property is split between two Tiers, intensity should be based on the proportion of property in each area. Furthermore, this balance among uses may not always be achievable, at

least on an interim basis, due to market demand or other economic factors. In such cases, appropriate commitments should insure that interim development does not alter the character of the Transit Station Area and that ultimately a mix of uses will be in place consistent with Plan guidance.

Tier 1: Within a ¼ Mile of Metrorail

The Tier 1 area is within a ¼ mile of the Metrorail station and is planned for intensity within a 2.0 to 3.0 FAR range. The area is planned for a balanced mix of residential, office, hotel and retail uses. The percentage of office uses can be up to 45 percent of development in Tier 1. Individual developments may have flexibility to build more than 45 percent of office if other developments are built or rezoned with a use mix that contains proportionally less office. The residential component in Tier 1 should be on the order of 50 percent or more of total development. Hotel, ground level retail and support service uses add to the vibrancy and enhance the mixed use environment and are encouraged in the broader mix of uses. Support retail uses should be located in office, hotel or residential buildings and be complementary to other uses with the object of allowing residents and employees to minimize daily reliance on the automobile.

Tier 2: ¼ to ½ Mile of Metrorail

The Tier 2 area includes property within a ½ mile from the Metrorail station and is planned for intensity within 1.0 to 2.0 FAR. The area is planned predominantly for residential uses with a mix of other uses including office, hotel and supporting retail. In Tier 2, the residential component should be on the order of 50 percent or more of total development. The percentage of office uses can be up to 40 percent of development in Tier 2. Individual developments may have flexibility to build more than the stated percentages if other developments are built or rezoned with a use mix that maintains these proportions for the entire Tier 2 Area. Hotel, ground level retail and support service uses add to the vibrancy and enhance the mixed use environment and are encouraged in the broader mix of uses. Support retail uses should to be located in office, hotel or residential buildings and be complementary to other uses with the object of allowing residents and employees to minimize daily reliance on the automobile.

Tier 3: Beyond ½ Mile

Tier 3 includes the area north of the Merrybrook Run Stream Valley that is beyond a ½ mile radius from the Metrorail station. The area is planned for an intensity within .75 to 1.5 FAR range for residential uses with a mix of other uses including office, hotel and supporting retail. In Tier 3, the residential component should be on the order of 45 percent or more of total development. The percentage of office uses can be up to 50 percent of development within Tier 3. Individual developments may have flexibility to build more than the stated percentages if other developments are built or rezoned with a use mix that maintains these proportions for the Tier 3 Area. Hotel, ground level retail and support service uses add to the vibrancy and enhance the mixed use environment and are encouraged in the broader mix of uses. Support retail uses should be located in office, hotel or residential buildings and be complementary to other uses with the object of allowing residents and employees to minimize daily reliance on the automobile.

Land Unit A-2

Land Unit A-2 is approximately 110 acres and is planned for and developed with a mix of land uses including office, hotel, support retail and residential uses at an intensity of .50 to 1.0 FAR. Other uses include a church, the Mount Pleasant Baptist Church and Norton Family cemeteries and park uses such as a baseball diamond and stream valley park land. This area is planned to

maintain the existing character, uses and intensities and provide an appropriate transition to the adjacent existing and planned residential communities.

Land Unit A-3
Land Unit A-3 is approximately 65 acres and is developed with townhouses and multifamily residential. Other uses include Lutie Lewis Coates Elementary School and a church. The northern part of the sub-unit consists of the Merrybrook Run Stream Valley. This land unit is planned for residential uses at a density of 8-12 du/ac and is planned to maintain the existing character, uses and intensities. Opportunities to provide multi-purpose trails to the north should be sought to improve accessibility to the Metrorail station.

As an option, almost 5 acres (parcels 16-3((1)) 6A, 6B and 36) located at the intersection of Centreville Road and Coppermine Road may be appropriate for a mix of uses at .50 to 1.0 FAR including a combination of office or hotel and retail uses to include eating establishments, financial institutions and other service uses, excluding automobile intensive uses and drive through uses except as may be associated with financial institutions.

Land Unit A-4
Land Unit A-3 is approximately 85 acres and is developed with garden apartments west of River Birch Road, townhouses and two churches to the east of River Birch Road. This land unit is planned for residential uses at a density of 12-16 du/ac. This area is planned to maintain the existing character, uses and intensities and provide an appropriate transition to the adjacent existing and planned residential communities.

Land Unit A-5
The approximately 80 acres of vacant land (Parcels 15-4((1))25, 26A, 26B and 24-2((1))5) which are located northeast and northwest of the intersection of Sunrise Valley Drive and Frying Pan Road, are planned for mixed use, which may include residential, office, hotel, and community serving retail, at .50 to 1.0 FAR. The residential component should be on the order of 55 percent or more of total development. The percentage of office uses should be up to 40 percent of development. Individual developments may have flexibility to build more than the stated percentages if other developments are built or rezoned with a use mix that maintains these proportions for Land Unit A-5. Hotel, support retail and services uses are encouraged in the broader mix of uses. A maximum of 300,000 square feet of retail use may be appropriate. However, no more than 150,000 square feet of retail use should be located in either quadrant. The retail use should be an integrated component of a mixed use development. Building heights and mass should be carefully designed to be compatible with the adjacent single-family residential neighborhoods.

<u>Transportation</u>

The vision for Land Unit A promotes a mix of land uses served by a multi-modal transportation system. Various planned transportation improvements will facilitate this vision, while accommodating current and future travel needs within and around the transit station. The improvements should balance future land uses with supporting transportation infrastructure and services, address the long term needs of the area, include a road network that can accommodate all modes of transportation, and provide infrastructure and facilities that will support intermodal connectivity along the network.

The following recommendations are intended to help improve circulation within, around, and through this area. While the transportation recommendations support the development near the transit station, these recommendations also will facilitate regional travel through the area. The transportation recommendations are divided into eight sections: Land Use/Transportation Balance, Monitoring System, Public Transportation, Road Network and Circulation, Bicycle Facilities, Transportation Demand Management, Parking Management, and Funding of Transportation Improvements and Services.

Land Use/Transportation Balance
Maintaining a balance between the land uses in Land Unit A and the transportation system is essential in order to preserve an acceptable level of accessibility in and around this area as development occurs over time. To maintain a balance, the increase in development should coordinate the provision of transportation infrastructure with programs to reduce vehicle trips.

Within the area, preference should be given to the maintenance of a high level of service for all modes including transit, vehicles, pedestrians and bicyclists. To achieve this, consideration should be given to safety and security, direct pathways, topography, and the achievement of a balance between traffic delay and a pedestrian friendly environment. Impact studies should quantify the Level-of-Service (LOS) for all applicable modes by applying up-to-date standard techniques. It is the intent to maximize the use of non-vehicular modes of transportation in Land Unit A in the future.

Monitoring System
Maintaining a balance between land use and transportation is dependent on a number of factors. The transportation infrastructure, modal split levels, and vehicle trip reduction levels needed to maintain this balance have been analyzed extensively based on known conditions at the time of developing this Plan guidance. However, these conditions might change in the future which could result in changes in the number, frequency or direction of vehicle trips. For this reason, it is considered essential to monitor built and approved development and vehicle trips in the area over time and determine if the balance of development over time, vehicle trips and delay and the provision of transportation infrastructure have been maintained. This review should occur at least every five years or based on changes in circumstances and should be the primary responsibility of the county with survey input and assistance from landowners and tenants where available.

Public Transportation
Metrorail - The introduction of Metrorail service along the Dulles Airport Access Road and Toll Road is an integral factor to providing increased mobility and reducing vehicle dependency for employees and residents in this area. Focusing the densest development around the Innovation Center Metrorail station is vital to promote the use of public transportation and achieving the vision for Land Unit A.

Local Bus Service - There is existing Fairfax Connector bus service that serves both local riders and people commuting through Land Unit A. These routes will be modified to provide convenient and reliable feeder service to the surrounding area from the Innovation Center Station.

Road Network and Circulation

The road network and circulation recommendations provide additional transportation guidance and recommendations for development within Land Unit A. For new streets not built to their full cross-section, right-of-way should be provided for the ultimate cross-section including pedestrian and bicycle facilities as identified in the Plan. The streets should provide a level of connectivity and accommodate all modes of transportation to the fullest extent possible. Road planning should balance the efficiency of through movements with the need for reasonable access to existing and planned uses. Existing property access points should be retained to the greatest extent possible.

In the planning and design of transportation projects, it will be necessary to balance the competing needs of many stakeholders starting in the earliest stages of project development. The design of a facility should be safe and function for all users regardless of the mode of travel they choose. Flexibility in design may be considered to achieve plan objectives.

Network Level of Service

An overall LOS E is the goal for the intersections within the street network in the Innovation Center TSA. In instances where a LOS E standard cannot be attained or maintained with planned development, remedies should be proposed to offset impacts (using approaches described below) with the purpose of improving mobility for all users within the TSA.

As a first approach, the network should be evaluated to determine if increased operational efficiency is possible to achieve without decreasing pedestrian walkability and safety. The widening of roads by adding exclusive turn lanes and/or through lanes will not be desirable in, some cases, since it will increase street widths at intersections and therefore work against creating an attractive environment for pedestrians. In lieu of additional lanes, it is preferable to add links to the street grid where applicable and possible to promote the build out of the grid of streets and to create additional diversionary paths for vehicles; doing so is intended to decrease the traffic at problem locations in the vicinity of a proposed development. If this approach does not attain the recommended LOS, or is not feasible, other approaches should be considered, such as:

- Decrease future site-generated traffic by changing the mix of land use within the parameters of the applicable land use guidelines (e.g., replacing a higher peak hour trip generating land use with a lower one).
- Increase transit use through the provision of additional and improved services.
- Optimize the application of TDM measures which might include greater transit use, walking, and bicycling.
- Condition development on the completion of offsetting improvements
- Consider financial contributions of significant value dedicated to addressing deficiencies in the TSA as on offsetting improvement. These should not be used as a credit against other contributions toward off-site transportation improvements.

Road Transportation Improvements
The following list of roadway network improvements are recommended to achieve the vision for Land Unit A and enhance connectivity through the area by creating multiple and enhanced connections.

- River Birch Road extension to Frying Pan Road
- Additional Centreville Road crossing at McNair Farms Drive
- New bridge over Dulles Toll Road to Loudoun County
- A grid of streets in the Transit Station Area
- Widen or improve Coppermine Road (4 lanes, Sunrise Valley Drive to Centreville Rd)
- Widen or improve Frying Pan Road (6 lanes)
- Widen or improve Sunrise Valley Drive (4 lanes, Centreville Road to Innovation Center Station)
- Widen or improve Centreville Road (6 lanes, Sunrise Valley Drive to Town of Herndon)

A fundamental purpose of this conceptual grid of streets is to provide alternative paths for vehicles, pedestrians, and bicyclists and, therefore, reduce congestion and increase connectivity in this area. A conceptual illustration of the enhanced street network is shown on Figure 17. In planning the grid of streets, consideration should be given to avoiding intersections with acute or awkward angles; minimizing exclusive turn lanes; and designing block sizes generally within a 400 foot to 600 foot range. Any block longer than 600 feet should contain a mid-block pedestrian connection where possible.

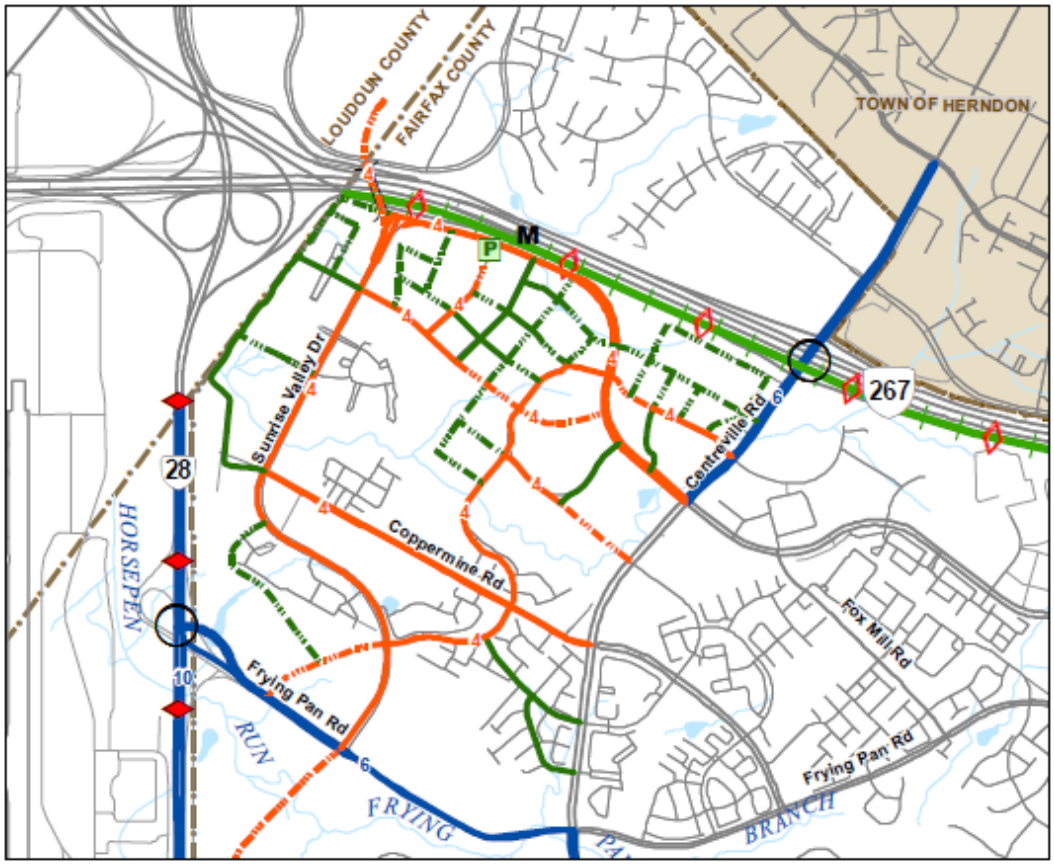
In addition to the list of road transportation improvements above, other intersection improvements may be required within the land unit in order to ensure acceptable traffic operations. Each roadway improvement should be independently evaluated not only for its transportation utility from a cost-benefit perspective, but also for its environmental implications such as effects on storm water management, water quality, noise or parks and its integration into the area's urban context.

Street Types - Street types respond to the need to accommodate transit, pedestrians, bicycles, and vehicles. Street types in Land Unit A have been identified, with a conceptual overview from curb to curb by each type's functionality. The cross-section for each street type contains flexibility to be able to respond to particular needs in different locations. Streetscape diagrams are located in the Urban Design section.

The design guidelines for street types should be followed in the instance of providing new private or public roadway connections or when proposing improvements to the existing roadway network. Minor arterials primarily function as through traffic carriers. The collector streets collect traffic from the local streets and route them to principle and minor arterials, while the local streets allow internal circulation and connectivity within the area.

FIGURE 17

DULLES SUBURBAN CENTER, LAND UNIT A CONCEPTUAL STREET NETWORK



NOTE: THERE SHOULD BE REASONABLE FLEXIBILITY IN THE FINAL LOCATION AND CONFIGURATION OF NEW STREET CONNECTIONS SO AS TO ACCOMODATE PROPERTY SPECIFIC LAND PLANNING THAT OTHERWISE IMPLEMENTS AND REFLECTS THE COLLECTIVE GOALS AND OBJECTIVES OF THE PLAN.

NOTE: WHERE THE OVERPASS CONNECTS WITH THE STREET NETWORK WITHIN THE SUNRISE VALLEY DRIVE RIGHT-OF-WAY, SUNRISE VALLEY DRIVE SHOULD REMAIN CONNECTED.

N

Miles 0 0.25 0.5

Existing	Proposed	
M	M	Metrorail Station
P	P	Commuter Parking Lot
◊ ◊	♦ ♦	High Occupancy Vehicle (HOV) Lanes
4	4	Widen or Improve Arterial Roadway (Number indicates Proposed Number of Lanes including HOV or HOT Lanes)
		Construct Arterial on New location
4	4	Widen or Improve Collector (Number indicates Proposed Number of Lanes)
		Construct Collector on New Location
		Widen or Improve Local Street (Number indicates Proposed Number of Lanes)
		Construct Local Street on New Location
		(Cross sections to be finalized during process of reviewing plans for proposed development)

Full Interchange Improvement (Study Required)

High Occupancy Toll (HOT) Lanes

Proposed Highway Overpass

Proposed Cul-de-Sac

Rail Transit or Bus Rapid Transit (BRT)

NOTE: IMPROVEMENTS TO ARTERIAL FACILITIES SUBJECT TO COMPLETION OF CORRIDOR STUDIES. SEE DISCUSSION IN AREA PLAN OVERVIEW TEXT. FINAL ALIGNMENTS SUBJECT TO COMPLETION OF APPROPRIATE ENGINEERING STUDIES.

HOV LANES TO BE CONSIDERED IN PROJECT DEVELOPMENT. HOV LANES TO BE PROVIDED IF WARRANTED BASED ON DEMAND FORECASTS AND CORRIDOR STUDY.

The existing and planned roadways in Land Unit A are categorized as follows according to the Fairfax County Guidelines for Functional Classification of Roadways. The Urban Design section includes the streetscape recommendations.

1. *Arterials on the Periphery* –Some arterials are through corridors and occur on the periphery of Land Unit A. These are Centreville Road and Frying Pan Road which provide for through traffic and are planned to be improved according to the Transportation Plan Map and the Countywide Bicycle Master Plan. Improvements should incorporate appropriate pedestrian facilities and streetscape including improved pedestrian crossings across Centreville and Frying Pan Roads and across the Dulles Toll Road.

2. *Minor Arterials– Type B* –These types of roadways carry shorter-distance through traffic, and carry less traffic volume than roads with higher classification. Some roads may carry higher vehicular traffic in the land unit that is more typical of a minor arterial.

   Curb to Curb Area:
   - Median width of approximately 8 to 22 feet if necessary to allow for safe pedestrian refuge. (May be wider for areas with frequent and/or heavy pedestrian crossings.)
   - 2-3 travel lanes per direction (11 feet for each lane)
   - 5-6 feet for on-road bike lane per direction
     - If an on-road bike lane is not provided, then 1 extra wide travel lane per direction may be desirable, adjacent to the curb, to accommodate bikes (14 feet wide). The lane should be marked or signs posted indicating that bicyclists may use the outside lane.
   - 8 feet for on-street parallel parking if found desirable
   - A target speed of 30-35 miles per hour is desirable.

3. *Collector Streets* – Sayward Boulevard is an example of a collector in Land Unit A that routes traffic to major and minor arterials from the local streets.

   Curb to Curb Area:
   - A median is not preferred; however, if provided, the width should be approximately 8 to 22 feet
   - 1 to 2 travel lanes per direction (11 feet for each lane)
   - 5-6 feet for on-road bike lane per direction
     - If an on-road bike lane is not provided, then 1 extra wide travel lane per direction may be desirable, adjacent to the curb, to accommodate bikes (14 feet wide). The lane should be marked or signs posted indicating that bicyclists may use the outside lane.
   - 8 feet for on-street parallel parking per direction

- A target speed of 30-35 miles per hour is desirable, with the lower end of the target speed for collectors where high pedestrian and bicycle traffic is expected to occur. In some cases 25 miles per hour may be desirable.

4. *Local Streets*– Local streets in this area include the internal circulation roads and the new planned streets which connect the land uses to collector roads and allow internal circulation.

   Curb to Curb Area:
   - Medians are not desirable and should only be required when they are part of the urban design concept and the landscape or open space plan
   - 1-2 travel lanes per direction (10-11 feet for each lane)
     - The outside lane is a shared travel lane between bicyclists and vehicles. Local streets are low speed facilities that normally may not require bike lanes.
   - 7-8 feet for on-street parking per direction when provided (7 feet for residential areas; 8 feet for mixed-used commercial areas)
   - A target speed of 25 miles per hour is desirable.

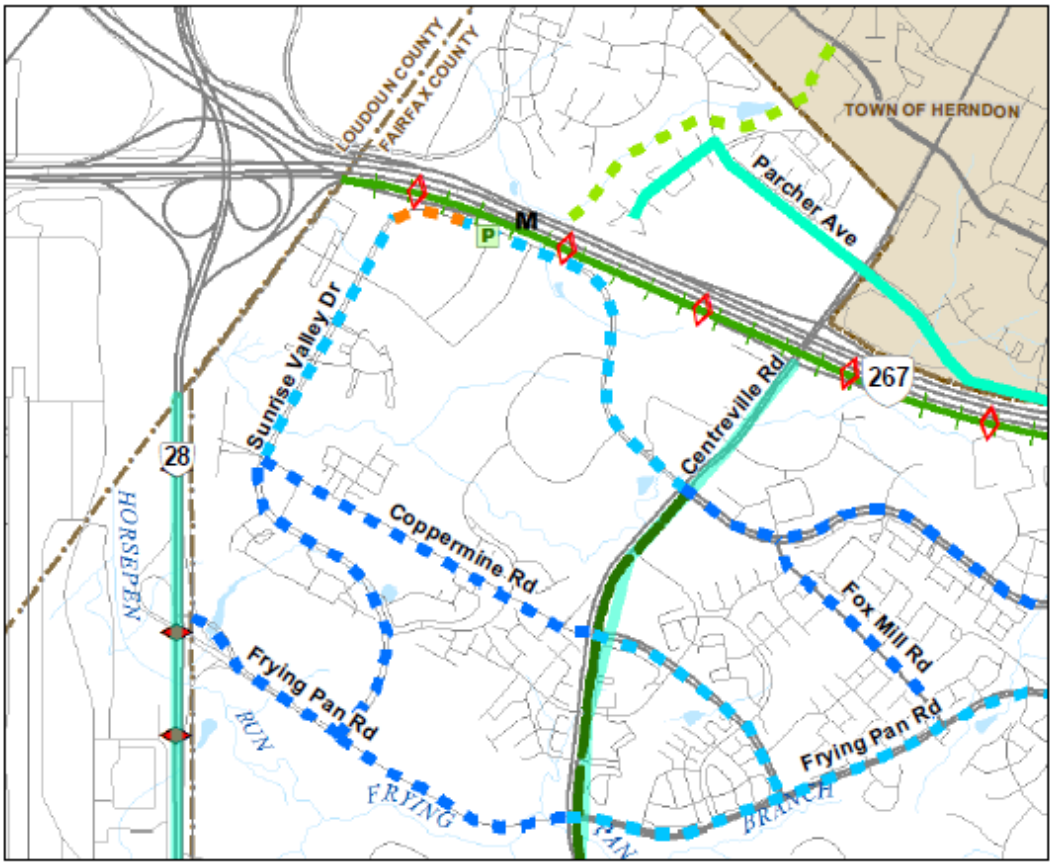
The above guidance is for roads associated with redevelopment or new development. Flexibility should be provided for roads that transition to existing roads. In addition, if new roads cross environmentally sensitive land there should be flexibility in road design.

Bicycle Facilities

Bicycle and pedestrian facilities should be provided on roads consistent with Figure 18. Bicycle facilities are described in the text located in the Street Types guidelines under the Road Transportation Improvements section above. In an effort to encourage bicycling in Land Unit A, safe, secure, and convenient bicycle parking should be provided. The number of bicycle parking spaces should be determined based on the planned land uses.

FIGURE 18

DULLES SUBURBAN CENTER, LAND UNIT A BICYCLE FACILITIES



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Miles
0 0.25 0.5

Recommmended On-Road Facilities
- Bike Lane
- Sharrow
- Striped Shoulder
- Study Further or Policy Decision

Existing On-Road Facilities
- Bike Lane

Recommended Off-Road Facilities
- Sidewalk With Bikes Permitted
- Add to Network As Is
- Shared Use Path

Existing Off-Road Facilities
- Trail
- Cross County Trail

EXISTING	PROPOSED	
M	M	METRORAIL STATION
P	P	COMMUTER PARKING LOT
T	T	TRANSIT TRANSFER CENTER (NO PARKING)
C		COMMUTER RAIL STATION
	R	RAIL STATION
◊ ◊ ♦ ♦		HIGH OCCUPANCY VEHICLE LANES
▭		PLANNING SECTOR OR DISTRICT

- HIGH OCCUPANCY TOLL LANES
- HIGHWAY OVERPASS
- CUL-DE-SAC
- RAIL TRANSIT OR BUS RAPID TRANSIT (BRT)

NOTE: IMPROVEMENTS TO ARTERIAL FACILITIES SUBJECT TO COMPLETION OF CORRIDOR STUDIES. SEE DISCUSSION IN AREA PLAN OVERVIEW TEXT. FINAL ALIGNMENTS SUBJECT TO COMPLETION OF APPROPRIATE ENGINEERING STUDIES.

HOV LANES TO BE CONSIDERED IN PROJECT DEVELOPMENT. HOV LANES TO BE PROVIDED IF WARRANTED BASED ON DEMAND FORECASTS AND CORRIDOR STUDY.

Transportation Demand Management

Transportation Demand Management (TDM) refers to a variety of strategies aimed at reducing the demand on the transportation system, particularly at reducing single occupant vehicles during peak periods, and expanding the choices available to residents, employees, and visitors. Examples can be found in the County's Policy Plan. The result is a more efficient use of the existing transportation system. TDM is a critical component in achieving the Plan's goal of land use and transportation balance.

The objective of a successful TDM Program for Land Unit A will be to reduce the number of single occupant vehicle trips and promote the use of alternative modes of transportation or other programs to reduce the impact on the transportation network. These reductions are based on Institute Transportation Engineers' (ITE) trip generation rates and fall within the ranges shown in Figure 19, the TDM Trip Reduction Goals. In the TSA, recommendations are for reductions of at least 35 percent within one-quarter mile of the Innovation Center Station and at least 30 percent for the area between one-quarter and one-half mile from the station. TDM goals lower than those shown in Figure 19 may be considered, on an interim basis, prior to the opening of the Innovation Center Metrorail Station.

Figure 19: TDM Vehicle Trip Reduction Goals for Office and Residential Development

Development	TDM Vehicle Trip Reduction Goals		
	0-1/4 Mile	¼ to ½ Mile	Beyond ½ Mile
Office	45%-35%	40%-30%	35%-25%
Residential	45%-35%	40%-30%	25%-15%

Note: The percent reduction is from the latest ITE peak hour trip generation rates

A large component of TDM will be the implementation of formal TDM programs by the various stakeholders within Land Unit A. Property owners wishing to develop under the plan, through the rezoning process, should consider joining a local Transportation Management Association (TMA) prior to establishing a TDM program. At a minimum, development proposals should include the following elements associated with their TDM program in addition to the minimum goals stated above:

1. Indication of the trip reduction goals to be achieved at each phase of development and the measures to be used in the program.
2. TDM implementation plans with monitoring provisions.
3. Provision of remedies if a TDM fails to achieve its objective within a reasonable period of time.

Parking Management

To facilitate the achievement of TDM goals and encourage transit use, shared parking for uses which have different peak demand periods, instituting paid parking, or other parking reduction strategies are encouraged. Additionally, shared parking between similar uses with both existing

and new buildings should be explored, especially if the existing use is over parked. These parking strategies can serve to reduce vehicle trips and increase the cost-effectiveness of the provision of parking. For development within a half mile of the Metrorail station, a parking plan should be submitted along with a development application that demonstrates that the amount of parking that is provided is sized to support the development. Provisions for parking reductions and other incentives to lower parking should be utilized if it is supported by the parking plan. The use of higher parking rates in the first phases of a development followed by lower parking rates in subsequent phases can be considered. Parking agreements with neighboring sites can be considered on an interim basis. Residential uses should take into account the number of bedrooms per unit when establishing the amount of parking to supply. All non-residential uses should reduce their parking supply below the Countywide minimum.

For office space, a maximum parking rate should be:

- 2.1 spaces per 1,000 square feet within one quarter mile of a Metrorail station
- 2.4 spaces per 1,000 square feet between one quarter and one half mile of a Metrorail station.

In instances where a higher office parking rate exists or is desired, a parking study or other appropriate justification can be submitted in order to consider a different rate for office use

Funding of Transportation Improvements and Services

Funding these transportation improvements through Federal, State and County sources should be pursued; however, some combination of public and private sector funding will be necessary to cover the costs associated with these improvements and to expedite implementation. Additionally, these improvements may be implemented in stages by the private sector as development occurs. Further detailed examination of these funding options for each improvement identified and those that have not been identified is needed before a preferred funding approach is selected.

Environmental Stewardship

Promoting environmental stewardship in Land Unit A includes innovative stormwater management, the provision of green buildings and addressing noise sensitive uses. These practices will ensure that this area develops as a sustainable community, creating a healthy and environmentally responsible place.

Stormwater Management

Future development offers considerable opportunities to improve upon past stormwater management practices in furtherance of efforts to protect and restore local streams and to reduce pollutant loads entering the Potomac River and Chesapeake Bay. Low impact development (LID) techniques of stormwater management can serve to reduce runoff volumes entering local streams and can more easily be incorporated within densely developed areas than more

traditional detention and retention ponds. These LID practices can include, but are not limited to, bioretention or biofiltration facilities (commonly known as rain gardens), vegetated swales, porous pavement, vegetated roofs, tree box filters and the collection and reuse of stormwater runoff.

Environmentally-friendly stormwater design should be an integral design principle that will be part of the conceptual stage of site development for all future development, recognizing that stormwater management measures may be phased with development. The stormwater design should first seek to minimize the effect of impervious cover, followed by the application of stormwater reuse, retention, detention, extended filtration and, where soils and infrastructure allow, infiltration to improve downstream waters. The incorporation of stormwater management strategies in parks and other open space areas within Land Unit A may support this approach while providing recreational amenities and there may be opportunities to incorporate LID practices within other open space areas.

Coordination of stormwater management controls among multiple development sites may also be effective in achieving stormwater management goals in an efficient manner. Stormwater management and water quality controls should be optimized for all future development projects consistent with the scale of such projects.

Any development proposals in the area should be reviewed on a case-by-case basis for the appropriate optimization of stormwater management and water quality controls allowing for flexibility in specific approaches taken to achieve these guidelines.

- Stormwater quantity and quality control measures should be provided with the goal of reducing the total runoff volume or significantly delaying its entry into the stream system. In furtherance of stream protection and/or restoration through replication of natural hydraulic conditions, the emphasis should be on LID techniques that evapotranspire water, filter water through vegetation and/or soil, return water into the ground or reuse it.

- LID techniques of stormwater management should also be incorporated into new and redesigned streets where allowed and practicable.

In addition, at a minimum, the following guidelines should be followed for any application for which a floor area ratio (FAR) of 1.0 or more is proposed:

1. For sites that have greater than 50 percent impervious cover in the existing condition, the total volume of runoff released from the site in the post-developed condition for the 2-year, 24-hour storm should be at least 25 percent less than the total volume of runoff released in the existing condition for the same storm. Furthermore, the peak runoff rate for the 2-year, 24-hour storm in the post-developed condition should be at least 25 percent less than the existing condition peak runoff rate for the same storm.

2. For sites that have 50 percent or less impervious cover in the existing condition, the total volume of runoff released as well as the peak release rate for the 1- and 2-year, 24-hour

storm in the post-developed condition should be equal to or less than the total runoff volume and peak release rate in the existing condition for the same storm.

3. In addition to item 1 or 2 above, stormwater runoff associated with the development should be controlled such that either: (a) the total phosphorus load for the property is no greater than what would be required for new development pursuant to Virginia's Stormwater Regulations/the county's Stormwater Management Ordinance; or (b) an equivalent level of water quality control is provided.

As an alternative to items 1, 2 and 3 above, stormwater management measures may be provided that are sufficient to attain the Rainwater Management credit of the most current version of LEED-NC or LEED-CS rating system (or equivalent of this/these credit(s)).

As an alternative to the minimum guidelines above, stormwater management measures and/or downstream improvements may be pursued to optimize site-specific stormwater management and stream protection/restoration needs, consistent with the adopted watershed management plan(s) that is/are applicable to the site. Such efforts should be designed to protect downstream receiving waters by reducing stormwater runoff volumes and peak flows from existing and proposed impervious surfaces to the maximum extent practicable, consistent with watershed plan goals.

Work Group Recommendation: The Work Group Stormwater Management recommendation is to simplify Plan text by removing the alternatives and leaving a modified version of the final paragraph.

Stormwater Management

Future development offers considerable opportunities to improve upon past stormwater management practices in furtherance of efforts to protect and restore local streams and to reduce pollutant loads entering the Potomac River and Chesapeake Bay. Low impact development (LID) techniques of stormwater management can serve to reduce runoff volumes entering local streams and can more easily be incorporated within densely developed areas than more traditional detention and retention ponds. These LID practices can include, but are not limited to, bioretention or biofiltration facilities (commonly known as rain gardens), vegetated swales, porous pavement, vegetated roofs, tree box filters and the collection and reuse of stormwater runoff.

Environmentally-friendly stormwater design should be an integral design principle that will be part of the conceptual stage of site development for all future development, recognizing that stormwater management measures may be phased with development. The stormwater design should first seek to minimize the effect of impervious cover, followed by the application of stormwater reuse, retention, detention, extended filtration and, where soils and infrastructure allow, infiltration to improve downstream waters. The incorporation of stormwater management strategies in parks and other open space areas within Land Unit A may support this approach while providing recreational amenities and there may be opportunities to incorporate LID practices within other open space areas.

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Coordination of stormwater management controls among multiple development sites may also be effective in achieving stormwater management goals in an efficient manner. Stormwater management and water quality controls should be optimized for all future development projects consistent with the scale of such projects. In addition, the following guidelines should be followed for any application for which a floor area ratio (FAR) of 1.0 or more is proposed. Any development proposals in the area should be reviewed on a case-by-case basis for the appropriate optimization of stormwater management and water quality controls allowing for flexibility in specific approaches taken to achieve these guidelines.

- Stormwater quantity and quality control measures should be provided that are substantially more extensive than minimum requirements, with the goal of reducing the total runoff volume or significantly delaying its entry into the stream system. The emphasis should be on LID techniques that evapotranspire water, filter water through vegetation and/or soil, return water into the ground or reuse it.

- LID techniques of stormwater management should also be incorporated into new and redesigned streets where allowed and practicable.

Stormwater management measures and/or downstream improvements should be pursued to optimize site-specific stormwater management and stream protection/restoration needs, consistent with the adopted watershed management plan(s) that is/are applicable to the site. Such efforts should be designed to protect downstream receiving waters by reducing stormwater runoff volumes and peak flows from existing and proposed impervious surfaces to the maximum extent practicable, consistent with watershed plan goals.

Green Building

The Policy Plan's Environment section provides guidance for green building practices and standards applicable to Suburban Centers and Transit Station Areas. Future development throughout Land Unit A should follow this guidance, with the exception of non-residential development within the Innovation Center TSA which should go beyond this guidance by achieving, at a minimum, LEED Silver certification or the equivalent. Achievement of higher levels of LEED certification, both within and outside of the TSA is also encouraged. A broad range of practices can be pursued in support of or in addition to green building certification. These include, but are not limited to: the provision of green roofs (also referred to as vegetated roofs), the incorporation of solar orientation and landscaping strategies for energy conservation, on-site renewable energy production, the use of low energy lighting fixtures, the use of recycled materials during construction, and the reuse of grey water where allowed. The application of these practices should be encouraged.

Noise

Proposed residential uses, outdoor activity areas and other noise sensitive uses may be affected by proximity to the Dulles Toll Road and Metrorail. In addition, a small portion of the Land Unit near Route 28 is located within an area with projected aircraft noise impacts above DNL 60 where current and/or projected future highway noise levels exceed DNL 75 dBA (a day-night weighted average noise level) or where projected aircraft noise exposures exceed DNL 60 dBA.

Broader planning goals for the Innovation Center TSA may suggest that sites near the Dulles Toll Road and Metrorail would be appropriate for residential development and/or other noise-sensitive uses, even where projected noise impacts may exceed DNL 75 dBA. However, design approaches may be available that would shield noise-sensitive areas from these impacts. Efforts should be taken to design noise-sensitive uses to minimize, if not avoid, the exposure of facades of noise-sensitive interior spaces to noise levels above DNL 75 dBA.

Where residential or other noise sensitive uses are proposed near rail and major highways, such proposals should only be considered with the provision of a noise study during the review of the development, appropriate commitments to noise mitigation measures and potentially commitments to the provision of disclosure statements and may necessitate a post-development noise study if feasible. The noise study during development review should clearly define the noise levels impacting the proposed uses as a measure of dBA DNL. The noise study should include noise contours and/or noise impacts at each façade of each affected building with current noise levels and future noise levels based on a minimum 20-year traffic volume projection for the roadway and other transportation noise sources. In addition, the noise study should identify differing noise levels that may affect building facades at different elevations.

For those studies that indicate noise levels in excess of DNL 65 dBA on proposed noise sensitive uses, appropriate mitigation measures should be provided with the goal of achieving DNL 45 dBA for interior space and DNL 65 dBA for outdoor recreation areas. Attenuation may include siting and orientation of the noise sensitive use, as well as the use of appropriate building materials and noise barriers.

In areas where projected noise impacts at affected building facades will exceed DNL 75 dBA, and for dwelling units where outdoor spaces including balconies will be projected to be exposed to noise levels that exceed DNL 65 dBA, disclosure statements should be provided to potentially affected residents and users within the impacted uses or units, which clearly identify the mitigated and unmitigated noise levels for interior space and the noise levels for any affected balconies in addition to noise mitigation for interior space and outdoor recreational areas. Post-development noise studies should be conducted in order to provide for evaluations of noise mitigation measures.

<u>Urban Parks and Recreation</u>

Growth and development increase the need for parks, recreation and open space that are essential amenities in Land Unit A and the Innovation Center TSA and are currently deficient. Parks

provide visual breaks in the urban landscape and places for people to enjoy the outdoors, recreation and leisure pursuits. Public open space is especially important for residents of higher density housing who may lack access to private yards or recreation facilities. A diverse park system contributes economic, social and health benefits by providing a high quality of life for residents.

New parks should be planned and integrated in Land Unit A that range from places that support and foster social interaction to those that support individual sports and recreation activities. While many developments will include urban parks as amenities, contributions of recreational facilities will also be needed to ensure a park system that serves a wide range of needs. The provision of athletic facilities is especially important and challenging. Creative approaches to providing for sports needs will be necessary, including use of technology and scheduling to increase facility capacities and integrating facilities within development areas, on rooftops, over stormwater detention facilities, in utility corridors and other alternative locations.

Urban Park Service Level Standards and Typology

The Urban Park Framework is in the Parks and Recreation section of the Policy Plan as Appendix 2. It was established to guide the creation of park systems in Fairfax County's urbanizing and redevelopment areas and is to be used to guide park development. This framework provides service level standards, design guidelines and a typology of urban park types to guide the creation of urban park systems in Fairfax County.

Ideally, urban areas contain a complement of urban park types in order to serve local leisure needs; support environmental and sustainability goals; and contribute to the area's sense of culture, liveliness, and identity. Urban park design elements may be combined in various ways to create a range of urban park types. While park types may be adjusted to fit an area's specific needs and concept, five distinct types of urban parks include pocket parks, common greens, civic plazas, recreation-focused urban parks and linear parks as described in the Urban Parks Framework. The urban park typology strives to provide a comprehensive range of amenities and uses, such as pedestrian-oriented by-ways, large open spaces for civic gatherings, and other recreation-oriented opportunities for organized sports and informal play.

Park service level standards guide the provision of parkland and facilities relative to specific County needs and land use context. For urban areas, the parkland service level standard is based on population and employees. In urban areas, park size is typically less than five acres and often under ½ acre. Service area is generally within a 5-10 minute walking distance (or ¼ - ½ mile) from nearby offices, retail and residences. New developments should provide 1.5 acres of urban park space per 1,000 residents and 1.0 acre of urban park space per 10,000 employees that is well integrated into the development and distinguished from site and public realm landscaping and streetscape features. A range of recreation facilities and park amenities should be incorporated into the urban park spaces to serve the recreation and leisure needs of nearby residents, workers and visitors.

Urban Park Implementation

Creation of an urban park network is essential, to successful redevelopment efforts and the vision for Land Unit A and the Innovation Center TSA. As a result of ownership patterns, urban park

development will likely occur in a piecemeal pattern over time. Therefore, coordination and collaboration among landowners to create a connected system of needed park spaces is desirable. A comprehensive system of urban parks, if properly implemented, can contribute to a sense of place and help distinguish the area as a quality place to live, work, shop and visit. The Urban Parks Framework should be used to guide the design and location of the urban open space system. To accommodate the shift in development patterns, lifestyles and urban design, urban parkland should be provided in accordance with the urban park typology, framework and urban park land service level standards. Recreation facilities should be provided in accordance with adopted countywide facility service level standards to address recreation needs to the extent feasible.

It is important to pursue creative solutions to providing open space and recreation facilities in Land Unit A. Parkland can be publicly owned, privately owned, or provided through public-private partnerships. Creative urban park initiatives may include the use of building rooftops for park facilities; unique programming areas; recreation facilities and dedicated program space provided within commercial buildings, redevelopment at nearby parks, and forging new park-provider partnerships. With any of these creative approaches, visual and physical accessibility to the public is essential.

Public Facilities

Some existing public facilities located in and around Land Unit A may have adequate capacity to accommodate planned growth; however, certain facilities will need expansions or modifications to continue providing adequate service. These facilities should be located within reasonable proximity of the land unit, in accordance with County policy. Providing adequate public facilities in some cases will require innovative urban solutions such as locating public facilities within buildings serving other uses. The provision of future facilities will need to be coordinated with the rate that planned development occurs.

Schools

Land Unit A is currently served by four public schools. These include Lutie Lewis Coates and McNair Farms Elementary Schools, Rachel Carson Middle School and Westfield High School. Coates Elementary is located within the Land Unit A.

Under the envisioned growth for the Innovation Center Transit Station Area, there will be a need for at least one new elementary school site to serve the area.

In addition, the Innovation Center Station Area and Reston/Herndon areas have student enrollments that are projected to significantly exceed the available capacity at the elementary, middle and high school levels. New elementary, middle and high school facilities, as well as capacity enhancements at existing facilities, will be required to accommodate the anticipated enrollment in these two areas. A high school located in or in the vicinity of Land Unit A would be well located to relieve overcrowding in existing schools as well as serve planned future growth in Land Unit A and the surrounding areas

During the development review process, developers should provide for additional capacity to mitigate the impacts of new development. These contributions could be more traditional in nature, such as dedication of a school site, or might include more innovative urban solutions such as locating schools facilities with parks or within buildings serving other uses.

Telecommunications
It is anticipated that telecommunications services will be able to accommodate the planned growth in Land Unit A through continuous improvements in technology, funded by user fees. New buildings should be designed to accommodate telecommunications antennas and equipment cabinets on rooftops. Such design should be compatible with the building's architecture and should conceal antennas and equipment from surrounding properties and roadways by flush mounting, screening antennas, and/or concealing related equipment behind screen walls or building features.

URBAN DESIGN

Urban design is the discipline that guides the appearance, arrangement and functional elements of the physical environment, with particular emphasis on public spaces. An urban environment is comprised of many elements including; streets, blocks, open spaces, pedestrian areas and buildings. The following recommendations provide guidance for each of these elements, with a particular emphasis on creating a high-quality urban environment that is walkable and pedestrian-friendly. The goal of these recommendations is to support the transition of portions of Land Unit A from an auto-oriented suburban place into a cohesive, functional, pedestrian-oriented and memorable urban destination. The primary areas likely to transition are within roughly half a mile of the Innovation Center Metro station. The other areas are generally envisioned to largely remain the same, with the exception of the vacant land, which is envisioned to develop.

Urban Design Recommendations

The urban design recommendations provide direction for creating urban places within the area. These are organized into two sections, the Pedestrian Realm Recommendations and the Building and Site Design Recommendations.

Pedestrian Realm Recommendations

The pedestrian realm consists of publicly accessible places where people circulate on foot. Sidewalks connect pedestrians to their homes, places of employment, retail establishments, restaurants, parks, plazas, trails, and other public places. The pedestrian realm is the most visible space within the urban environment. It should be continuous but can vary in its character depending upon adjacent uses and the scale of the street. The design of the pedestrian realm should be integrated with and complimentary to adjacent land uses. The following recommendations address the Street Grid and Block Pattern as well as Streetscape Design.

Street Grid and Block Pattern
The street grid will be the primary organizing element of the area. In contrast to the existing pattern of large, suburban blocks, planned development should create smaller blocks through an interconnected system of streets. This street system will be more walkable, provide travel choices for pedestrians and motorists, and have breaks in building massing to help create a built environment that is appropriately scaled for pedestrian activity. See the Transportation section for more information on the planned street grid.

Streetscape Design
Attractive streetscapes include a well-designed road edge that contributes to area identity and provides a safe, high-quality pedestrian experience. The streetscape design should vary by the type of street and the adjacent land use, and should create a unifying theme along each of the roads to visually and physically link the various developments within the area. Elements of streetscapes include sidewalks, street furniture, streetlights, trees and other plantings, paving, crosswalks, bus shelters, bicycle racks, public art, and seating areas. The purpose of these elements is to enhance the quality of the pedestrian environment.

Below are general recommendations for all streetscapes, which are followed by design recommendations for each streetscape type (Through Corridors, Avenues, Collectors, and Local Streets). See the Transportation section for information on street types associated with each streetscape type.

Definition of Streetscape Zones: The streetscape is composed of three zones (see illustrated streetscape cross-sections). The landscape amenity panel is located next to the curb and includes trees, lighting, bus stops, bicycle racks, parking meters, traffic signs, refuge strips, and other urban living infrastructure. The sidewalk is reserved for pedestrian movement and should not contain any street furniture. The building zone is located between the sidewalk and the building facade. The character of the building zone is determined by the adjacent land use.

Underground Utilities and Stormwater Infrastructure: Utilities and stormwater infrastructure should be placed underground and should be coordinated with future roadway improvements and sidewalks to foster a pedestrian-friendly environment. Such infrastructure should be located under sidewalks, parking lanes, or the building zone; it should not be located under street trees.

Street Lighting: Street lighting should maintain the overall character and quality of the area, provide adequate lighting levels that ensure public safety without creating glare or light spillage, and conform to LEED light pollution requirements and County ordinances.

Streetscape Maintenance: Streetscape improvements may be provided on a combination of publicly owned right-of-way and private property. When the public right-of-way is utilized to provide streetscape improvements, commitments should be made by the property owner to maintain the entire streetscape area. In addition, when the streetscape is not entirely within the right-of-way, additional right-of-way or a public access easement may need to be provided for the portion of the streetscape located on private property.

Pedestrian Crossings: At pedestrian crossings, special pavement or striping should be designed

to create a well-delineated, ADA accessible and safe area for pedestrians to cross the street.

Median Landscape Strip: New streets in Land Unit A are not expected to include medians except where they would facilitate pedestrian crossings. Where medians are provided, they should be planted with attractive landscaping. Safety and sight distance should be taken into consideration.

On-Street Parking: Streetscapes with on-street parallel parking should have a small paved area adjacent to the curb known as a refuge strip. The refuge strip will allow passengers to exit parked cars without having to step into planted areas.

Planting in the Pedestrian Realm: Street trees should be planted in an environment that promotes healthy root growth, and should be spaced no more than 40 feet apart. Only those varieties that require little maintenance, are resistant to disease, and are adapted to extreme urban conditions such as pollution, should be used. In addition to trees, vegetation within planting strips should include supplemental plantings, such as ornamental shrubs, ground cover, flowering plants, and grasses. Supplemental plantings should occur in areas that are clear of vehicles parked on the street, and they should incorporate hardscaped pedestrian access points.

Low Impact Development Techniques: Streetscape design should include innovative stormwater remediation design elements such as bioretention, permeable pavements, and incorporation of water collection and storage.

Streetscape Design Flexibility: Flexibility will be needed where site constraints are present and where infill or expansion of buildings or other existing features limit the ability of a development to satisfy all streetscape recommendations, variation from the streetscape guidance may be permitted when the variation results in acceptable minimum sidewalk, landscape amenity panel and building zone widths and amounts of trees and landscaping.

Through Corridors

Through corridors include Centreville and Frying Pan Roads which will carry the largest volume of automobile traffic and will also accommodate buses, bicycles and pedestrians. If these roads are improved, pedestrian and bicycle facilities should be provided, along with streetscape improvements. These improvements should include improved pedestrian crossings across Centreville and Frying Pan Roads and across the Dulles Toll Road. In addition, the Countywide Bicycle Master Plan identifies further improvements

Avenue, Collector, and Local Street Streetscapes

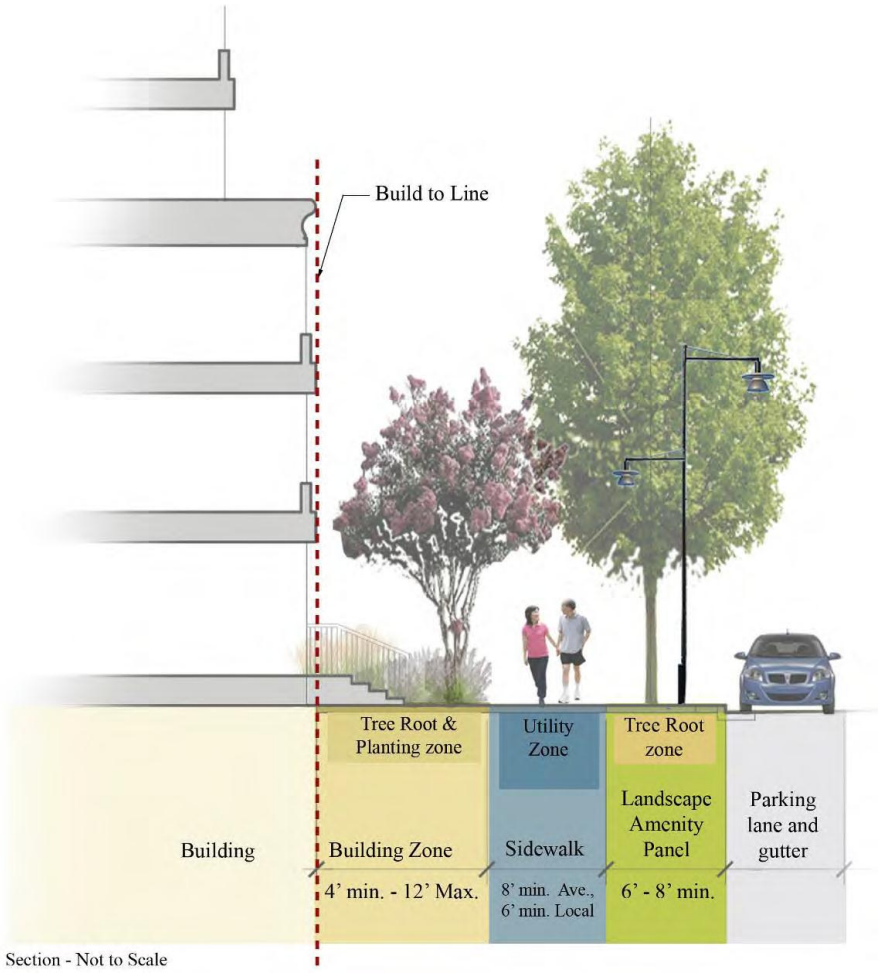
While avenues, collectors, and local streets serve different functions from a traffic perspective, their streetscapes are similar. The character of the streetscapes should generally be determined by the pedestrian activities generated by the adjacent land uses rather than the classification of the street. This category of streetscapes includes, among others, Sunrise Valley Drive, and Sayward Boulevard. See Figure 20. The following recommendations are provided for achieving the streetscape character for avenues, collectors, and local streets:

Landscape amenity panel: This zone should be a minimum of 8 feet wide along avenues and collectors and a minimum of 6 feet wide along local streets. Street trees should be evenly spaced in ordered plantings. Vegetation may also include shrubs and ground cover. Amenities such as bicycle racks and bus shelters should be provided as needed to serve the adjacent land uses.

Sidewalk: Sidewalks along avenues and collectors should be a minimum of 8 feet wide. Sidewalks along local streets should be a minimum of 6 feet wide.

Building Zone: The width of this zone should range from 4 to 12 feet. When ground-level retail is provided in a building, a portion of this building zone should be used for retail browsing or outdoor dining. Supplemental plantings (to include shade and flowering trees, shrubs, flowering plants, ground cover, and grasses) may be provided for buildings without retail uses.

Figure 20: Avenue/Collector/Local Street Streetscape with Residential Building, Section



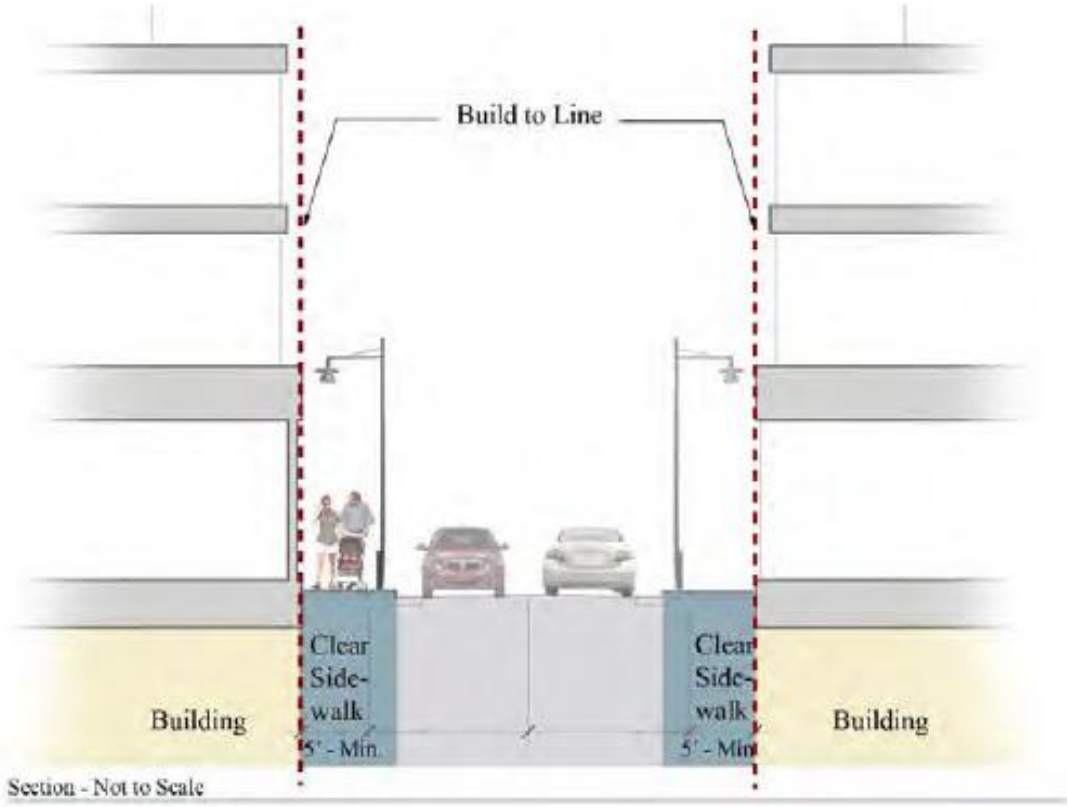
Note: This graphic depicts a residential building zone (8-12'). In commercial developments, the building zone will be smaller (4-8')

Service Street Streetscapes

Service streets are expected to provide access to parking, loading docks, waste management, utilities, and other back-of-house operations. While they do not primarily serve pedestrians, they should provide a minimum level of accessibility and safety for pedestrians where applicable. See Figure 21.

Sidewalk: A minimum 5-foot wide clear sidewalk should be provided adjacent to buildings. No poles, utilities, or other appurtenances should be located in the sidewalk clear area. Attractive street lighting should be provided to illuminate both the street and the sidewalk. In lieu of pole lights, attractive safety and wayfinding lighting may also be attached to the building face.

Figure 21: Service Street Streetscape, Section



Building and Site Design

Building and site design must support the pedestrian realm to create a vibrant urban environment. The location of a building on a site should not create a barrier to pedestrians by interrupting the pedestrian circulation system. Typically, buildings should be located close to the sidewalk to allow for active storefronts and other uses that engage pedestrians. Non-active uses like loading docks, mechanical rooms, utility vaults, and exposed parking decks, should be

oriented away from through corridors, avenues, and local streets. These uses, which detract from the pedestrian experience, should be located facing service streets or placed internally to the building envelope to minimize their negative impacts. The following recommendations address Build-to Lines and Building Frontages, Bulk and Massing and Step Backs, Blank Walls, Parking Design, Public Art, and Building Height.

Build-to Lines and Building Frontages

The build-to line is a theoretical line on the ground indicating where the facades of buildings should be located. The line ensures that the ground floors of all buildings on a block are in line with each other at the edge of the streetscape. Exceptions to the build-to line may occur where plazas, pocket parks, or spaces for public art are located. The build-to line generally applies to the podium (or base) of the building structure and excludes building towers, which may be set back further to allow for light and air to reach the street.

The building frontage is the portion of the building that serves to define and enclose the pedestrian realm. It aligns with the build-to line, and generally serves as a physical and visual boundary to the pedestrian realm. The building frontage typically separates exterior public space from interior semi-public or private space. The building frontage only applies to the floors of the building podium.

Existing uses and buildings that do not conform to the build-to line established by new development should investigate opportunities to create visual and physical linkages to conforming new buildings that address the pedestrian realm. These buildings may use walls, landscaping, or other architectural features to align with other buildings at the build-to line. Articulation along these walls can result in sculptural elements and maintain visual interest along the sidewalk.

Bulk and Massing and Step Backs

Planned development in Land Unit A will be urban in nature, and new buildings will generally occupy a majority of the block and be multiple stories in height. Sites should be designed with care to achieve the desired density goals, while remaining sensitive to the impact of development on the surrounding context. Guidance regarding building massing includes:

- Buildings should be designed with height variations to protect access to light and views and to allow for privacy.
- Buildings should be sited and spaced from one another in a manner that allows for light at the street level and minimizes long periods of shadow on the street, adjacent buildings, or public open space.
- Generally, buildings should be located towards the wider rights-of-way, where the street section can absorb the additional building height better than narrower streets.
- In general, ground-floor commercial uses should be accessed directly from the adjacent public sidewalk or building zone.
- Ground-floor residential uses, however, should be grade-separated from the public sidewalk to distinguish the units and to provide some privacy. This creates the opportunity for stoops, bays, porches or entries that establish a distinct transition between private residential developments and the pedestrian realm.

- Another related design feature affecting the pedestrian experience is the height of the building along the sidewalk. As a result, great care must be taken to preserve the proportion and scale of the street section so that it does not result in an overwhelming, dark, and windy pedestrian corridor.
- Step-backs are one tool that can be used to create an appropriate proportion of street width to building height. Step-backs result in building towers which are set back from the building frontage. As a result, pedestrians only perceive the first few floors of the building podium, and not the full height of the tower.

Blank Walls

Blank walls are solid walls without fenestration, entries or portals. When located at the ground floor, they are detrimental to the pedestrian experience and may disrupt pedestrian flow. Such conditions should not be permitted on any public street-facing facade. Active uses should be provided at the ground floor as much as possible. If blank facades cannot be avoided, strategies should be employed to mitigate their impacts. These may include the provision of applied architectural elements, material changes, or other similar features to provide additional building detail and visual interest.

Parking Design

The following recommendations address parking design:

Parking access should be designed in such a manner as to minimize conflicts between vehicles pedestrians, and bicyclists and to take into account pedestrian and bicyclist safety. This may include reducing the number of parking access points and minimizing the widths of ramps and curb cuts where they intersect with the sidewalk.

- Vehicular access to parking lots and parking garages should be limited to local streets or service streets when feasible.
- Parking access should be designed to be attractive and coordinated with the site plan and architecture.
- Certain uses, such as retail, civic or entertainment, may require highly visible parking. In these cases, the design of the parking and its access should be reflective of the activity that will occur within the building.
- Underground parking is the least intrusive form of parking on the built environment. However, due to the area's geology, above-grade structured parking, or podium parking, may also be appropriate and will likely be the predominant type. Above-grade parking structures should be "wrapped" with active uses on all sides except along a service street.
- Exposed parking structures that are not wrapped with other uses may be unavoidable. In such cases, careful architectural detailing, lighting, and landscaping should be employed along the building frontage to mitigate the negative impacts of exposed parking levels.
- It is the long term vision to avoid surface parking. Surface parking should be avoided in most parts of Land Unit A, but may be considered in the interim or for short term parking or for passenger drop-off and pick-up areas.
- When provided, surface parking lots should be located to the side or rear of the primary use and should contain pedestrian connections that lead to the front door of the associated building.

- On-street parking makes sidewalks safer and provides necessary and sometimes more accessible residential and retail parking. Certain avenues, collectors, and local streets within Land Unit A should provide an opportunity for on-street parking. See Transportation section for additional guidance.

Building Height

Typically, building heights in Land Unit A will reflect the proposed intensity pattern. The tallest buildings may be located within 1/4 mile of the Metro station, with heights stepping down gradually as the distance from the stations increases. In addition, building heights in proximity to the Dulles Airport Access Road and Route 28 may be taller however building heights will be lowest in locations adjacent to existing townhouse and those single-family residential neighborhoods outside of Land Unit A. Careful design will protect view corridors and maintain access to sunlight at these sensitive locations. During the development review process, solar shading analyses (also called shadow studies) for all buildings should be provided to ensure that adjacent buildings and public spaces will have adequate access to light and air.

Public Art

Public Art should be a component of the effort to achieve quality urban design within Land Unit A. As one of the key urban design principles, the provision of public art will serve to create a unique identity for Land Unit A, and provide a gateway into the County from Dulles International Airport.

Interim Conditions

In many cases developments will be phased over time. Phased developments should prepare plans and supporting graphics that demonstrate how all interim conditions will meet Plan objectives, including those related to urban design.

Attachment II

Other Proposed Changes for: Route 28 Station Area -South (ST09-III-DS1), Rocks (S07-III-UP2), Elden Street (S09-III-UP2)

MODIFY: Fairfax County Comprehensive Plan, 2011 Edition, Area III, Dulles Suburban Center, as amended through 3-6-2012; Dulles Suburban Center Overview, Concept for Future Development, page 8:

Dulles Airport, a major economic catalyst for the Northern Virginia area, is adjacent to the Dulles Suburban Center. Future development within the Suburban Center will benefit from the proximity of the Airport and emphasize national and international business and commercial endeavors; tourism and visitor services; major recreation and entertainment features; mixed commercial and residential areas in urban settings with compatible facilities and amenities; and industrial service areas required to support the Dulles Airport and suburban area, and the metropolitan region. A variety of housing outside the airport noise contours in the Dulles Suburban Center and adjacent Planning Districts will serve this Center. ~~A m~~Mixed-use ~~core urban area~~ development is planned within the Innovation Center Transit Station Area adjacent to the Dulles Airport Access Road, with uses similar to but more intense than other parts of the Center. This higher intensity core is envisioned to be served by Metrorail. A second node of mixed-use development is planned in the Westfields area to create a focal point for residents and employees.

ADD: Fairfax County Comprehensive Plan, 2013 Edition, Area III, Upper Potomac Planning District, as amended through 4-9-2013; UP4 – Greater Herndon Community Planning Sector, Land Use Recommendations, a new recommendation (#11), page 135:

Parcels 16-1((1))7A, 7B, 7C, 8, and 9 are planned for retail and other uses. The currently approved retail and hotel uses are planned to remain. Pedestrian access within these commercial uses and to the surrounding neighborhood and commercial uses should be encouraged. Improvements to the existing vegetated buffer between the commercial uses and the Reflection Lakes community should be encouraged to ensure an effective buffer and transition between uses.

REPLACE: References to the Route 28/CIT Transit Station and Transit Station Area should be changed to reflect the new Metrorail name of Innovation Center Station.

PLAN MAP: The Comprehensive Plan Map will not change.