

Silver Line Comprehensive Plan Amendment (CPAM)

February 28, 2017

Loudoun County School Board

Presented by the County Department of Planning and Zoning
and
LCPS Department of Support Services

Purpose

- Provide Summary of CPAM
- Review Land Use and Planning for Public Facilities (Parks, Schools, etc.)
- Implementation Steps
- Next Steps in the Process

Background: CPAM Goals



Desirable Land Use Patterns



Maximize Employment Opportunities



Maximize Tax Revenue to support
Metrorail operations

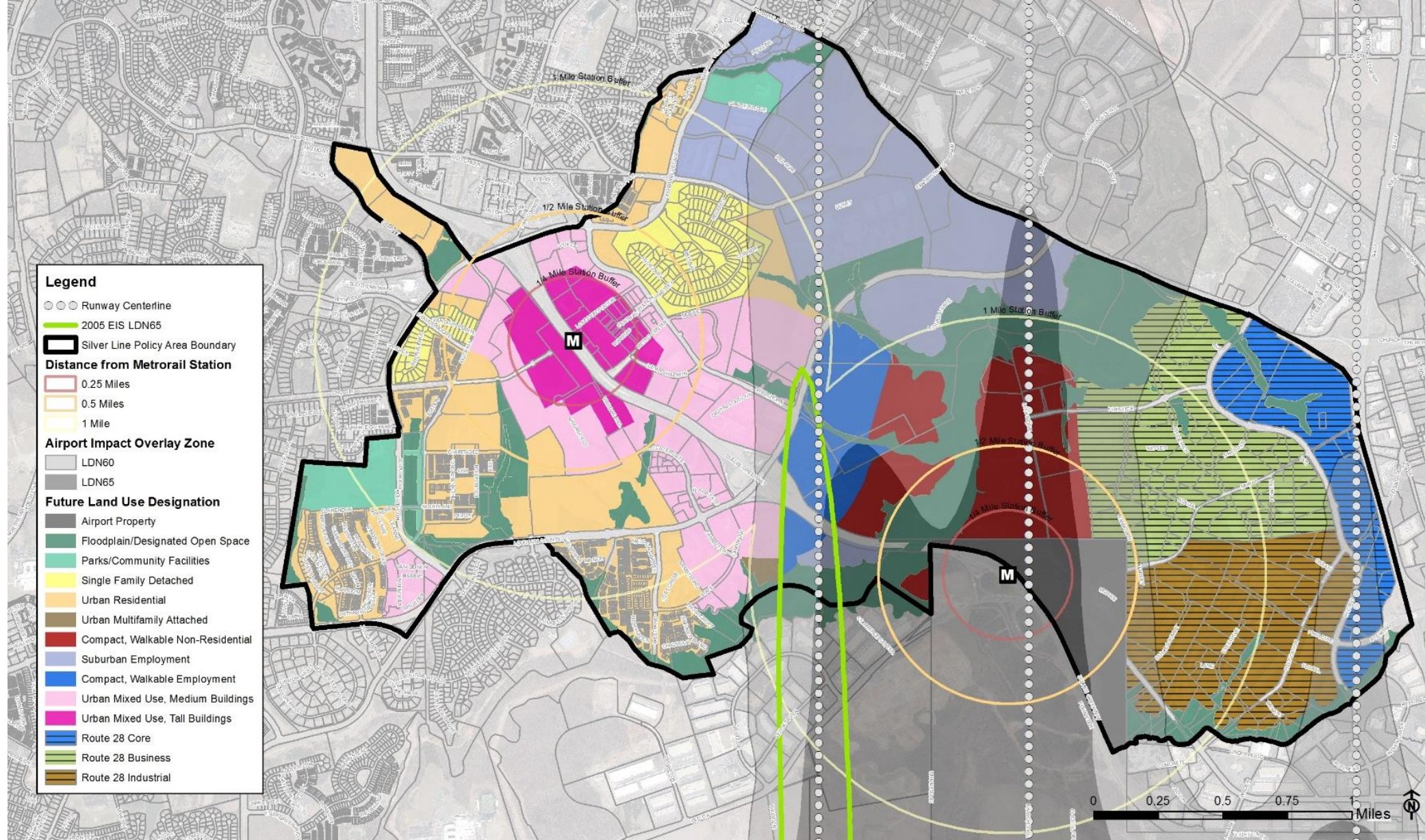


Minimize Impacts on the
Transportation System

Plan Components

- Land Use
- Urban Design Guidelines
- Community Facilities
- Transportation
- Economic Development
- Fiscal Planning
- Green Infrastructure
- Implementation

Current Planned Land Use Map



Urban Mixed Use, Tall Buildings

TYPICAL MIXED-USE TALL BUILDINGS LAND USES

Primary Land Uses

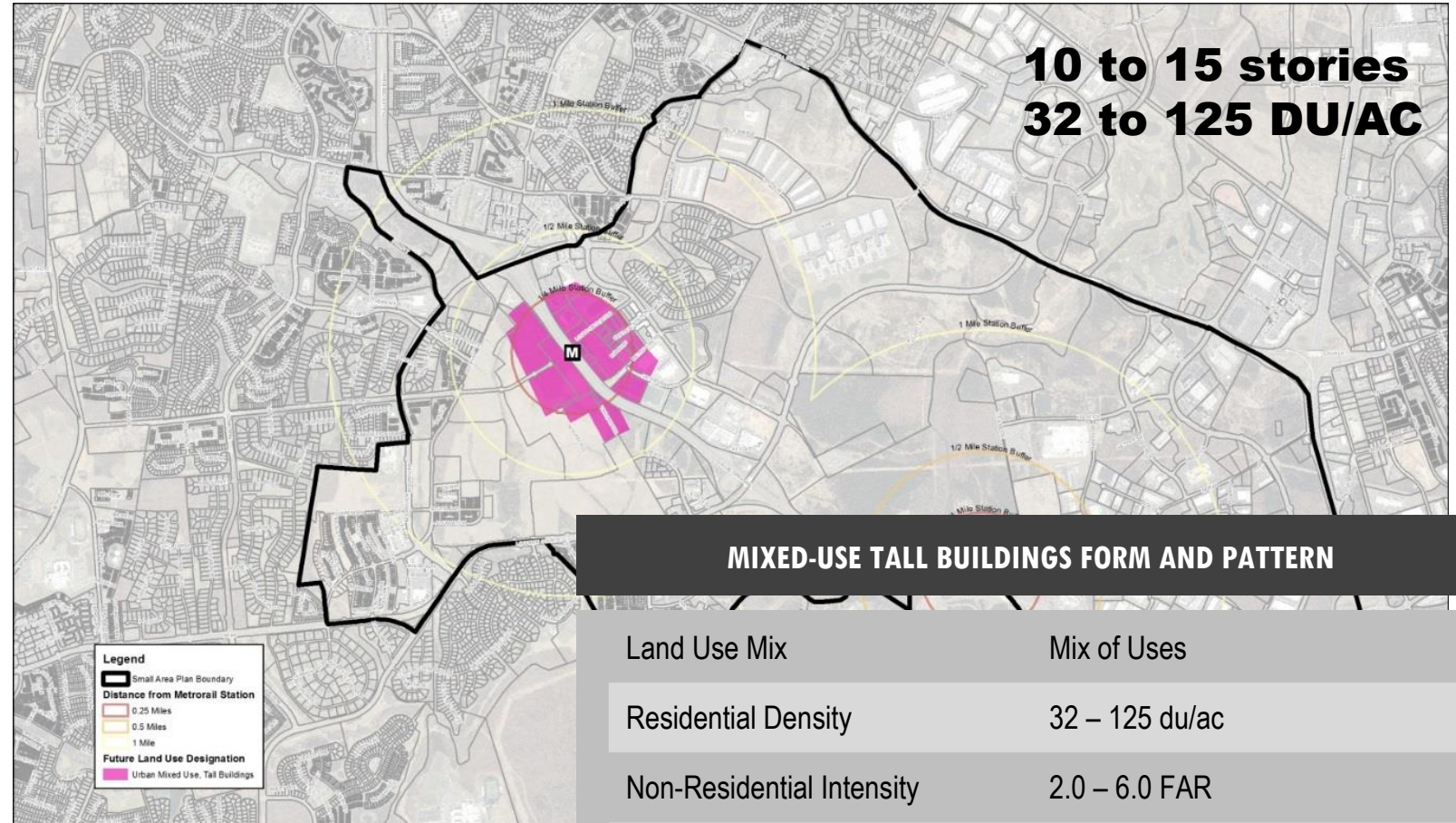
- Condominium
- Apartment
- Sit-down Restaurant
- Retail Sales
- Bank
- Grocery Store
- Night Club
- Multi-tenant Professional Office

Secondary Land Uses

- Community Facilities
- Neighborhood Park
- Public Plaza
- Outdoor Seating

Undesirable Land Uses

- Single-Family Attached and Detached homes
- Auto oriented uses (Gas Stations, Drive-through restaurants)

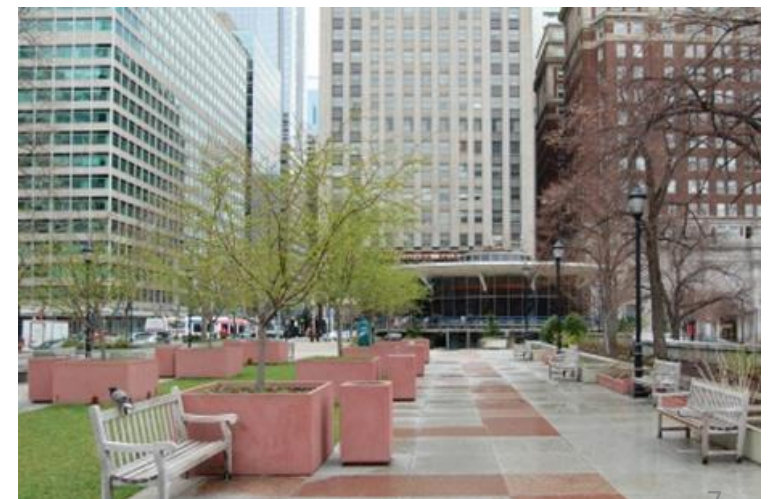


MIXED-USE TALL BUILDINGS FORM AND PATTERN

Land Use Mix	Mix of Uses
Residential Density	32 – 125 du/ac
Non-Residential Intensity	2.0 – 6.0 FAR
Prevailing Building Height	10 – 15 Stories (195' Max)
Primary Transportation Modes	Rail, Bus, Walk, Bike, Auto

Urban Mixed Use, Tall Buildings

- Mixed Use, Tall Examples



Urban Residential

- Urban Residential Examples



Urban Mixed Use, Medium Buildings



TYPICAL MEDIUM URBAN MIXED-USE LAND USES

Primary Land Uses

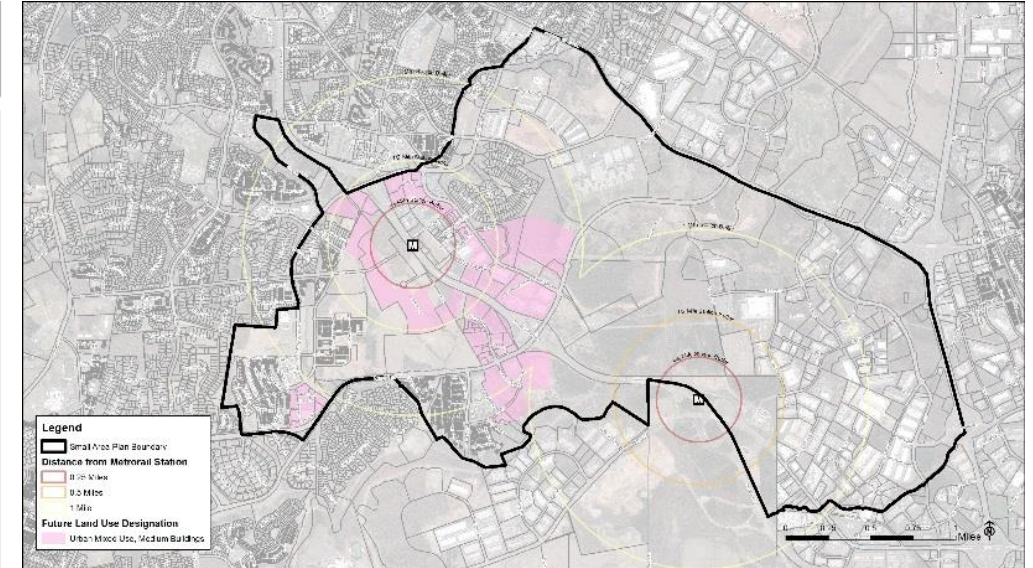
- Apartment Buildings
- Restaurants
- Grocery Stores
- Banks
- Integrated Retail Sales
- Doctor Offices
- Multi-tenant Office Buildings
- Corporate Office Buildings

Secondary Land Uses

- Community Facilities
- Schools
- Neighborhood Parks
- Public Plazas
- Urban style townhomes

Undesirable Land Uses

- Single Family Detached Homes
- Suburban style townhomes
- Auto oriented uses (Gas Stations, Drive-through restaurants)



MEDIUM URBAN MIXED-USE FORM AND PATTERN

Land Use Mix	Mix of Uses
Residential Density	24 – 32 du/ac
Non-Residential Intensity	1.0 – 4.0 FAR
Prevailing Building Height	4 - 6 Stories (90' Max)
Primary Transportation Modes	Transit, Walk, Bike, Auto

Urban Residential

RESIDENTIAL LAND USES

Primary Land Uses

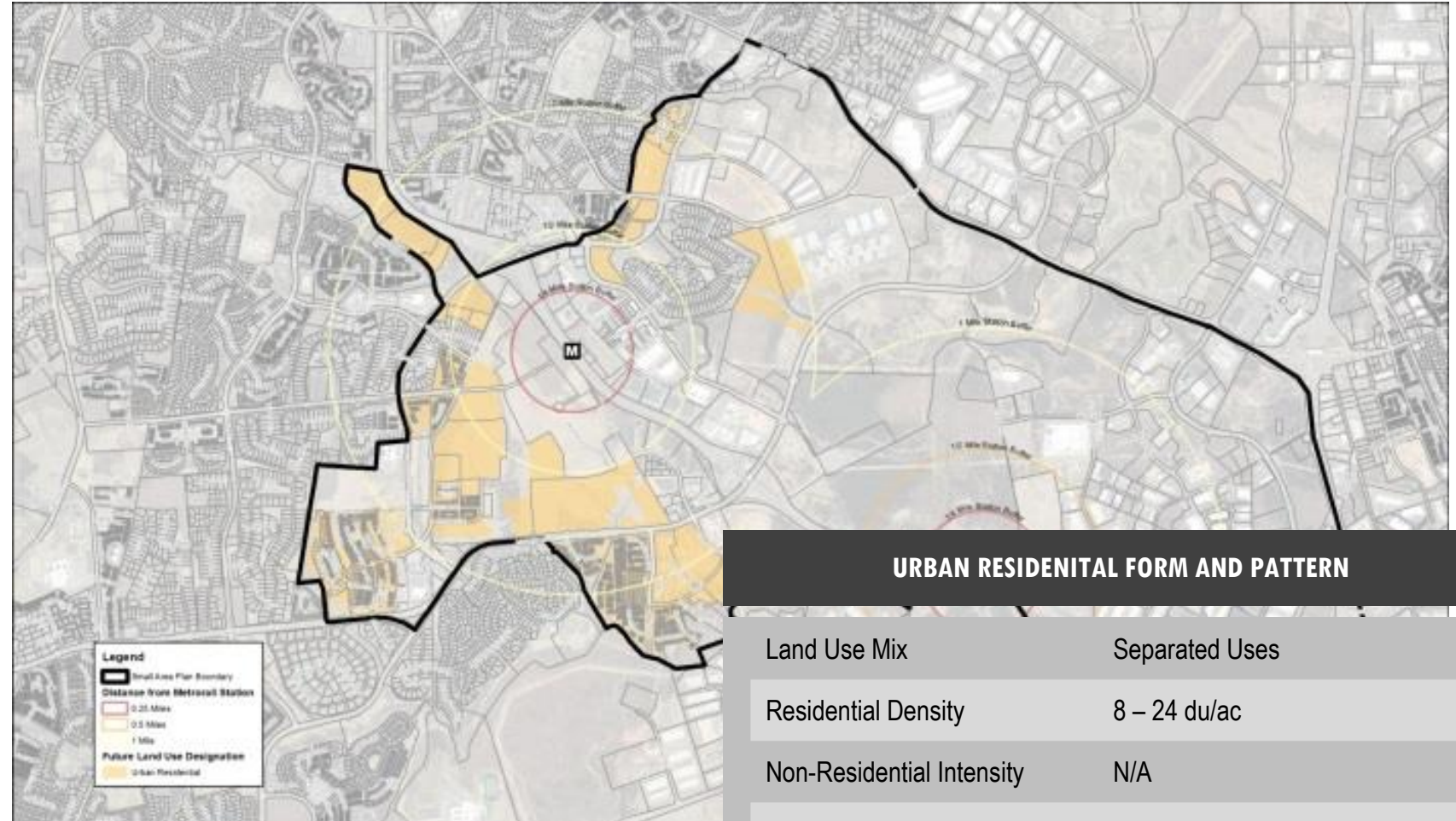
- Urban Style Townhomes
- Apartment Buildings
- Condominiums
- Two-over-Two Units
- Multi-family Attached

Secondary Land Uses

- Schools
- Churches
- Community Centers
- Limited neighborhood retail like drugstores and convenience stores in an urban, walkable format

Undesirable Land Uses

- Suburban style townhomes
- Suburban style retail uses



URBAN RESIDENTIAL FORM AND PATTERN

Land Use Mix	Separated Uses
Residential Density	8 – 24 du/ac
Non-Residential Intensity	N/A
Prevailing Building Height	3 – 6 Stories (70' Max)
Primary Transportation Modes	Transit, Walk, Bike, Auto

Single-Family Attached Units



Single-Family Attached

- Auto Oriented
- Front or Rear Garages
- Typically ~2,200 SF
- Units set back from roads
- Typically have yards
- Up to 24 Feet wide
- ~8 Dwelling Units per acre
- Typically 3 stories



Urban Townhome

- Pedestrian Oriented
- Rear Load Garages
- Typically ~1,800 SF or less
- No or minimal setbacks
- Common open space
- Generally less than 20 Feet wide
- ~16 Dwelling Units per acre
- Up to 4 stories

Multi-Family Units



Multi-Family

- Auto Oriented
- Typically 1,500 SF
- ~20 DU per acre
- Setbacks from roads
- Typically surrounded by open space



Urban Multi-Family

- Pedestrian Oriented
- Typically 1000 SF
- ~48 DU per acre
- No or minimal setbacks
- Open space provided in courtyards or similar

Urban Design Guidelines

- Setbacks
- Sidewalk Width
- Planting Strips
- On-Street Parking
- Street Furniture
- Lighting
- Public Spaces



Community Facilities - Parks



- Within 1/8-mile of every new resident
- Benches, trees, picnic areas, ponds, trails, ballfields
- New park types for urban areas
- Linear park along Broad Run

Community Facilities - Schools



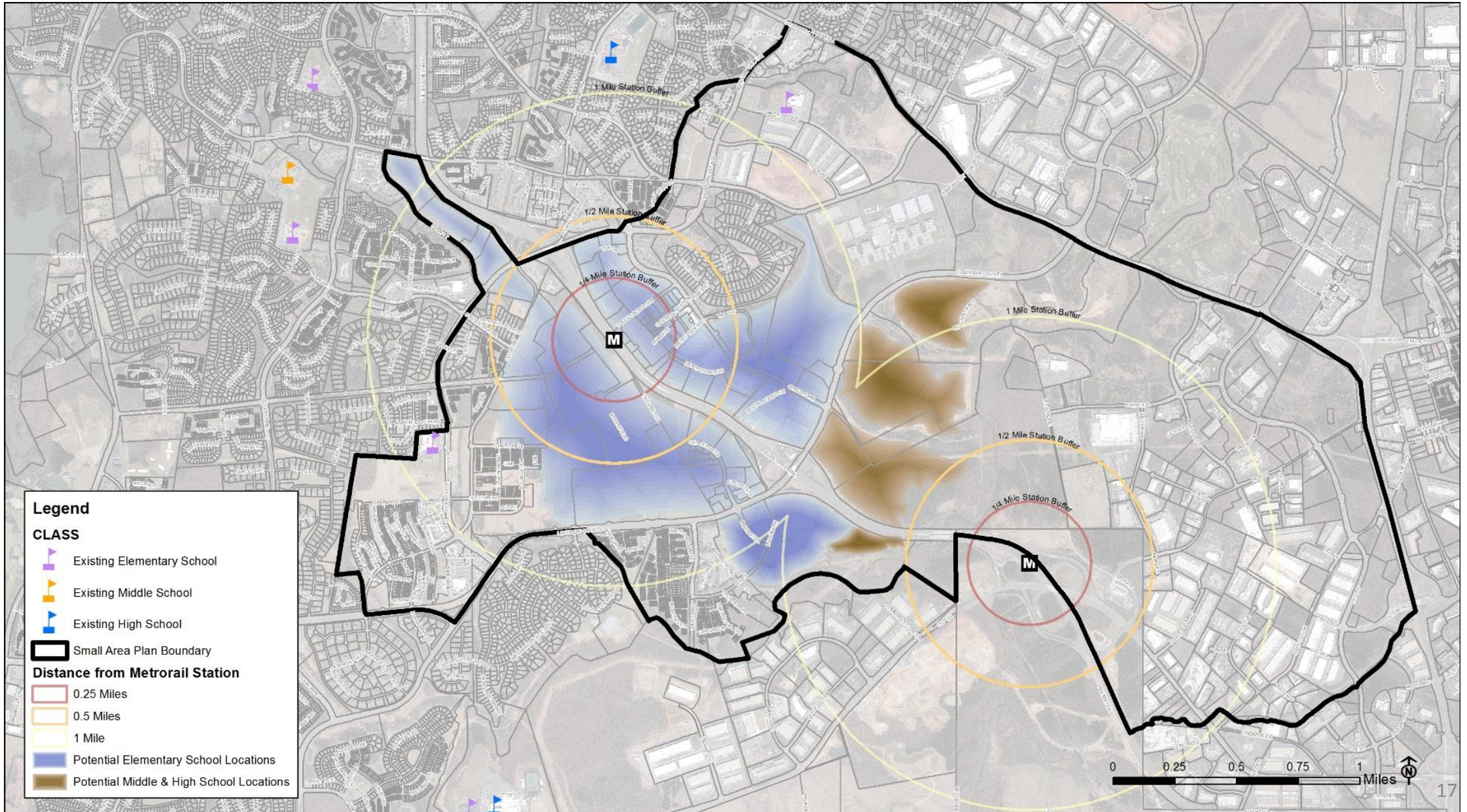
- Growth management policies to ensure residential development does not occur without provision of schools
- Projected need for new schools (Number and location depends upon rate of residential development and type)
- Student generation rates dependent on unit type
- Schools to be neighborhood serving
- Planning for urban school types (Implementation Step)

Community Facilities - Schools

Chapter 5 CPAM Policies Address:

- Extensive future collaboration with LCPS to quantify needs and how they can be accommodated
- Provision for capacity inside and outside the CPAM boundaries
- Minimizing use of developable land for public facilities
- Evaluate the cost – benefit implications of urban schools
- Exploring/Continue co-location and co-use of land / buildings to achieve walkability & efficiency

Potential Areas for Schools



Implementation

- Zoning Modifications
- Interim Uses
- Capital Facilities Planning
 - New Facilities Standards
 - Zoning Ordinance Amendments
- Residential Development Types
 - Student Generation Rates
- Fiscal Balance and Monitoring
- Plan Monitoring and Updates

Planning Staff Collaboration

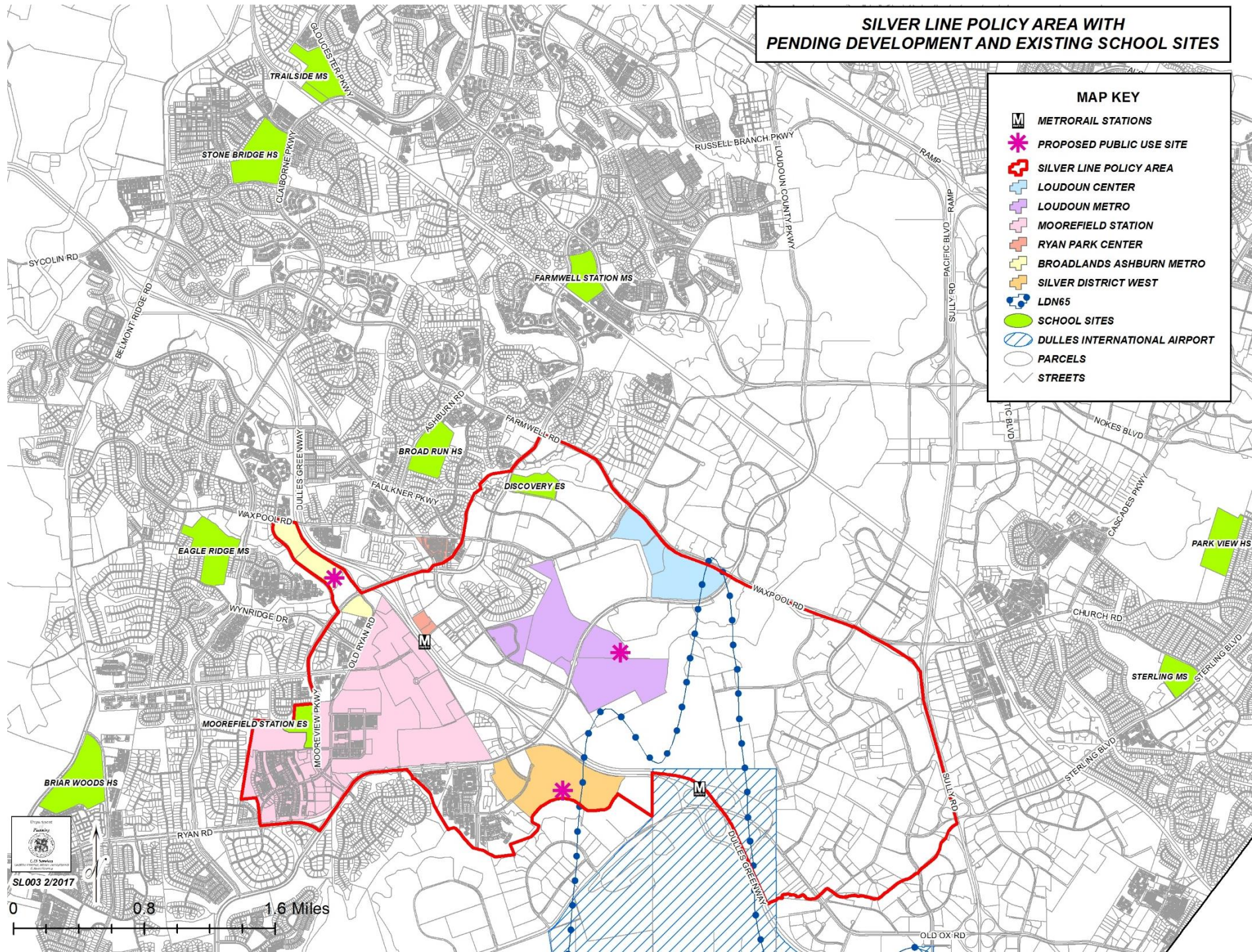
Planning Concepts Discussed:

- Student generation will be variable
- Student generation factors should be regularly examined, monitored and updated
- Two step process:
 - (1) Plan sets forth the goals, and
 - (2) Implementation defines the “how”
- Exploration of design options

CPAM Next Steps

- Planning Commission Work Sessions
 - Planning Topics to be addressed
 - Work Session Scheduled for March 2
- PC Recommendation to the Board of Supervisors
- Board of Supervisors Consideration (late spring/early summer 2017)

SILVER LINE POLICY AREA WITH PENDING DEVELOPMENT AND EXISTING SCHOOL SITES



Applications Filed in Silver Line CPAM Area

Applications	SFD Units	SFA Units	MF Units	Projected Students 2016-2017 SGF
Ryan Park Center			400	148
Silver District West*		394	2,850	1,275
Broadlands Ashburn Metro*	47	111	229	184
Loudoun Metro*			4,218	1,561
Loudoun Center			774	286
Sub-Total	47	505	8,471	3,454
Approved Moorefield Station (21% permits already issued)	50	1,300	4,650	2,489
Total	97	1,805	13,121	5,943

*These applications include proposed public use sites ranging in size from 12+ to 18 acres

Student Generation Factors

- Student Generation Factors (SGF) are calculated annually and are referenced in the School Board adopted Capital Improvement Program.
- SGF are calculated by dividing the number of students coming from specific residential types (e.g. Single Family Detached, Single Family Attached, Multi-Family, etc.).
- Loudoun County has no experience with high density residential development.
- Arlington County, VA may provide some valuable insights as Loudoun develops and matures.

Student Generation Rates Applied to the Silver Line Densities

LCPS 2016-2017 Student Generation Factors			
Housing Type	Units	SGF	Students
SFD	45	0.8	36
SFA	5,779	0.56	3,236
MF	16,595	0.37	6,140
Total	22,419		9,412
Facilities Needed			
ES	4.8		
MS	1.6		
HS	1.6		

SFD – Single Family Detached; SFA – Single Family Attached; MF – Multi-Family

Student Generation Rates Applied to the Silver Line Densities

Loudoun County Silver Line CPAM Student Generation Factors 2015

Housing Type	Units	SGF	Students
SFD	45	0	0
SFA	5,779	0.5	2,890
MF	16,595	0.15	2,489
Total	22,419		5,379
Facilities Needed			
ES	2.7		
MS	.9		
HS	.9		

SFD – Single Family Detached; SFA – Single Family Attached; MF – Multi-Family

Student Generation Rates Applied to the Silver Line Densities

Arlington County Student Generation Factors 2015			
Housing Type	Units	SGF	Students
SFD	45	0.469	21
SFA	5,779	0.267	1,543
MF	16,595	0.06	996
Total	22,419		2,560
Facilities Needed			
ES	1.3		
MS	0.4		
HS	0.4		

SFD – Single Family Detached; SFA – Single Family Attached; MF – Multi-Family

Student Generation Rates and Potential Facilities Need Range

Facility	LCPS 2016-2017	Loudoun County Silver Line CPAM	Arlington County
ES	4.8	2.7	1.3
MS	1.6	0.9	0.4
HS	1.6	0.9	0.4

Arlington County Public Schools – Student Generation Factors (SGF) Study Significant Findings

- Affordable units, regardless of type, have higher SGF than market rate units
- SGF decreased as area median income increased
- Market rate elevator units (high rise) have significantly lower SGF (.06)
- SGF decline is more prevalent in studio and 1 bedroom units
- Newer homes or recently purchased SFD have higher SGF

Why Consider Metro School Designs?

Land

- Land is a premium
- Designs must be efficient
- Proximity to residential density

Density

- School size should be proportionate to residential density
- Accessibility
- School design should be compatible with urban design pattern

Funding

- Land costs will be high
- Silver Line revenues are to be maximized

Metro Schools: What are the factors for consideration?

The School

- Size and Capacity
- Civic Use
- Building Height
- Pedestrian Access and Walkability
- Safety and Security
- Acoustics
- Daylight and Views
- Signage

The Site

- Site proportions /characteristics
- Zoning
- Site Size
- Setbacks
- Utilities
- Stormwater management
- Environmental
- Playfields / Playgrounds
- Transportation

Flexibility

- As the Silver Line urban area grows
- Size schools appropriately
- Site needs dependent upon school needs
- Desire to minimize footprint and reduce land consumption

How will LCPS design a Metro School?

Instruction

- Class Size
- Physical Education
- Educational Operations
- Safety and Security
- Acoustics
- Daylight

Expand Co-Location

- Shared civic use with County
- Before- and after-school programs
- Parks/Libraries
- Shared recreational opportunities

LCPS Education Specification

- Prepare a version of a compact school design for the adopted *Educational Specifications*

Silver Line

Comprehensive Plan Amendment (CPAM)

Moving Forward

- LCPS Staff and County Staff Collaboration
 - CPAM Review and Approval Process
 - Capital Facilities Standards
 - Implementation Phase
 - Student Generation Factors
- LCPS Staff Engage Services of Architectural Firm(s)
 - Develop Educational Specifications
 - Develop Concept Design

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