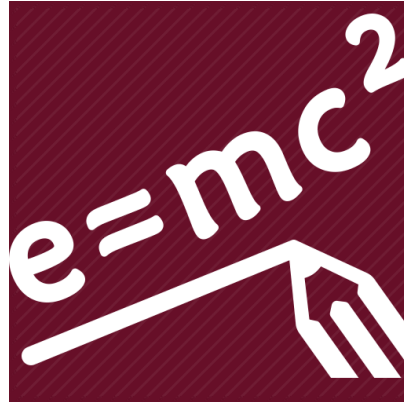


Visualizing Development Density / Intensity

Lorton Visioning
November 23, 2020

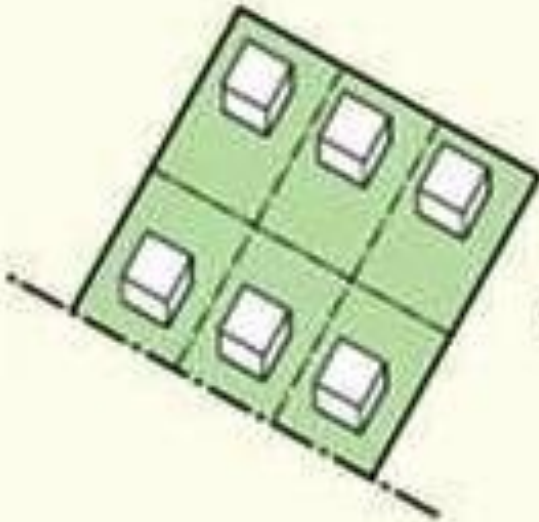
Planning Terms



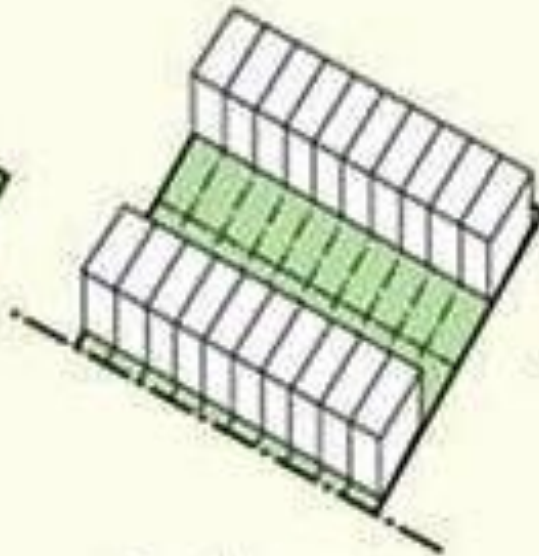
Density, Intensity and F.A.R.

Terms used to talk about “**how much**” development.
Do not tell you about what development will look like
(the form of development)

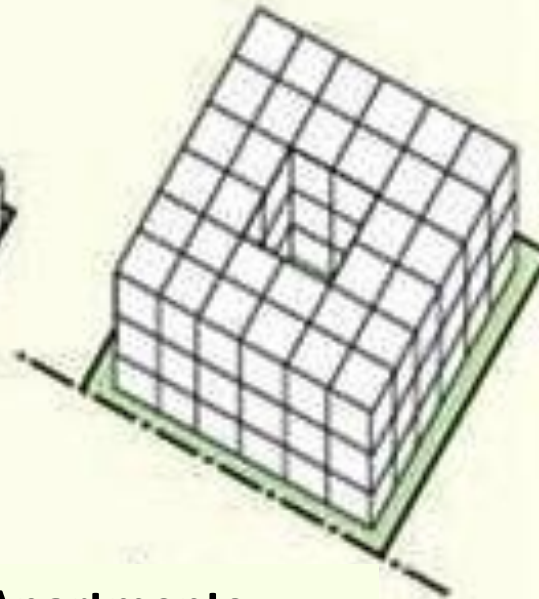
Residential Use Density



Single Family Homes
(6 du/ac)



Townhomes
(20 du/ac)



Apartments
(96 du/ac)

These are generic examples of how residential development could be achieved at three different density levels on a 1-acre parcel.

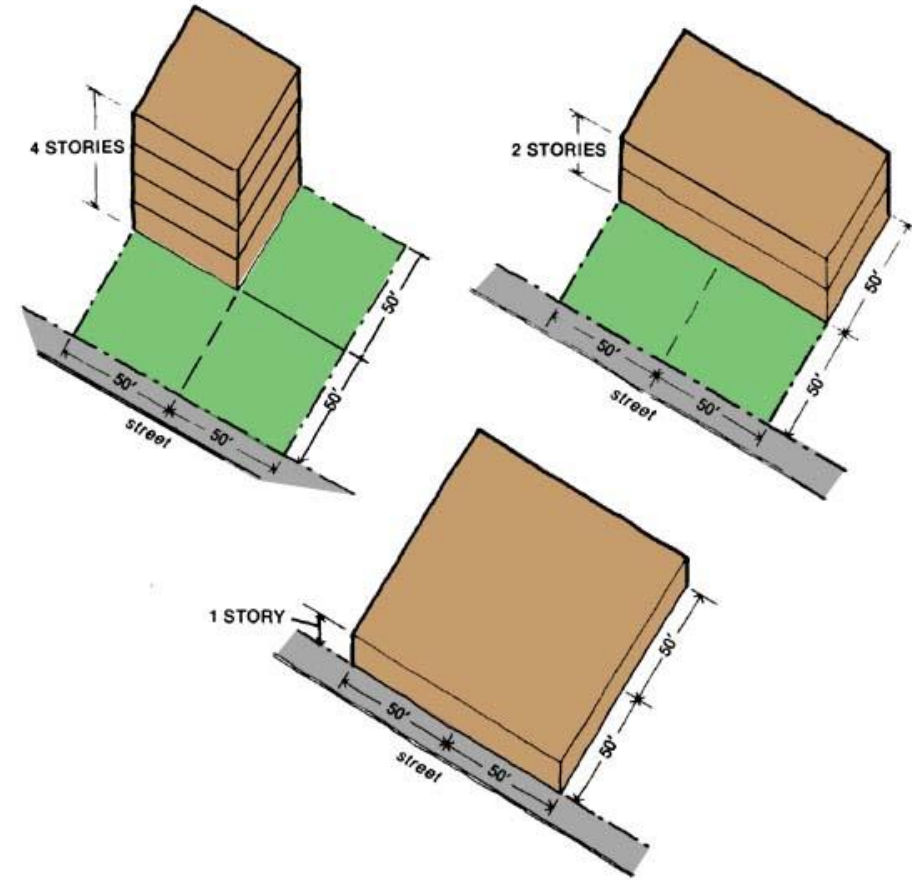
Nonresidential Use Intensity = Floor Area Ratio (FAR)

The floor area of the building is divided by the land area to calculate the FAR.

$$\frac{\text{FLOOR AREA (sq. ft.)}}{\text{LAND AREA (sq. ft.)}}$$

EXAMPLE:

$$\frac{100,000 \text{ sq. ft. of building}}{100,000 \text{ sq. ft. of land}} = 1.0 \text{ FAR}$$



Density/ Intensity Matrix: Fairfax County Examples

Example Density/
Intensity Chart

Residential	CATEGORY	LAND USE	AVG. DENSITY/FAR	EXAMPLES
	Low Density	Single Family Detached	0.1 - 4 du/ac	
	Medium Density	Townhome Urban Townhome Low-Rise Multifamily (3 story)	5-12 du/ac 12-25 du/ac 20-30 du/ac	
	High Density	Mid-Rise Multifamily (4-5 stories) Mid-Rise Multifamily w/Podium (6-7 stories)	40-80 Du/ac	
Mixed-Use	Low Intensity	Village Center	1.0 FAR	
	Medium Intensity	Mid-Rise Retail/Residential	1.3 FAR	
	High Intensity	Mid-Rise Office/Residential/Retail	1.8 FAR	

Residential Building Types

Urban Townhomes



Mid-Rise Residential Over Retail



Density Range

(dwelling units per acre)

4.5 du/ac

16 du/ac

63 du/ac

72 du/ac

Low

Medium

High

Zero-Lot-Line Single Family

Stacked Townhomes (2-over-2)

Mid-Rise Multifamily

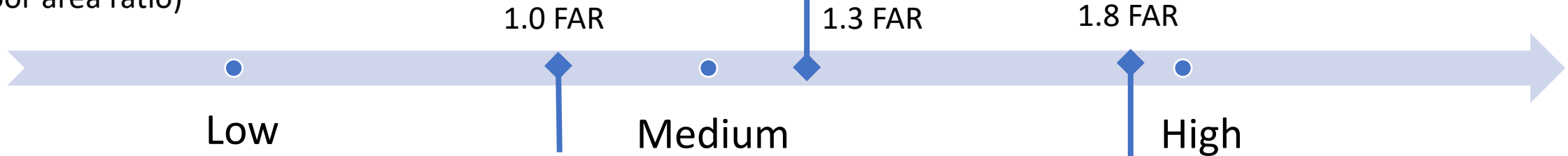


Mixed-Use Building Types

Mixed-Use Residential/Retail



Intensity Range
(floor area ratio)



Mixed-Use Village Center



Mixed-Use Office/Residential/Retail



Detailed Fairfax County Case Studies

Residential – Lower Density

4.5 du/ac

Tower Hill

S. Van Dorn St., Alexandria, VA

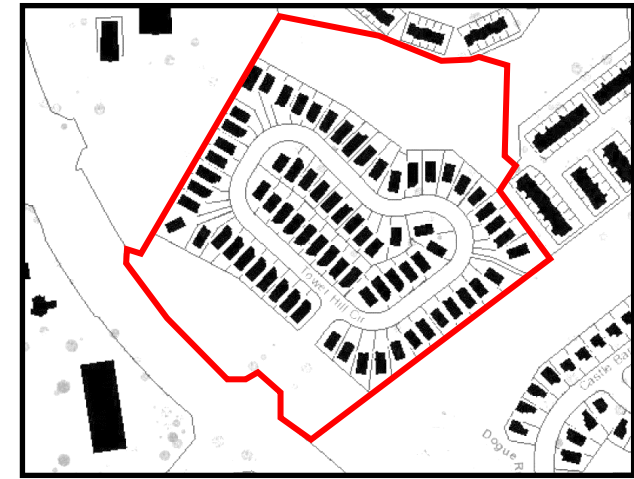
- 75 Single Family Detached Homes
- 16.8 acres, Zoned PDH-4 (C-448)
- Approx. 35% Open Space
- Planning Area: Lehigh Planning Sector
- Land Use Recommendation: Residential 3-4 du/ac

Building type:

- “Zero-Lot-Line” Single Family Detached

Parking type:

- Individual 2-car garages



Residential – Lower Density

10 du/ac

Sunrise Square

Roland Clarke Place, Reston, VA

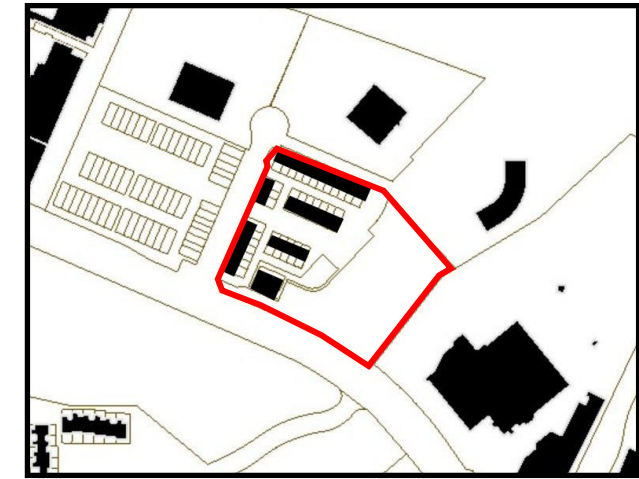
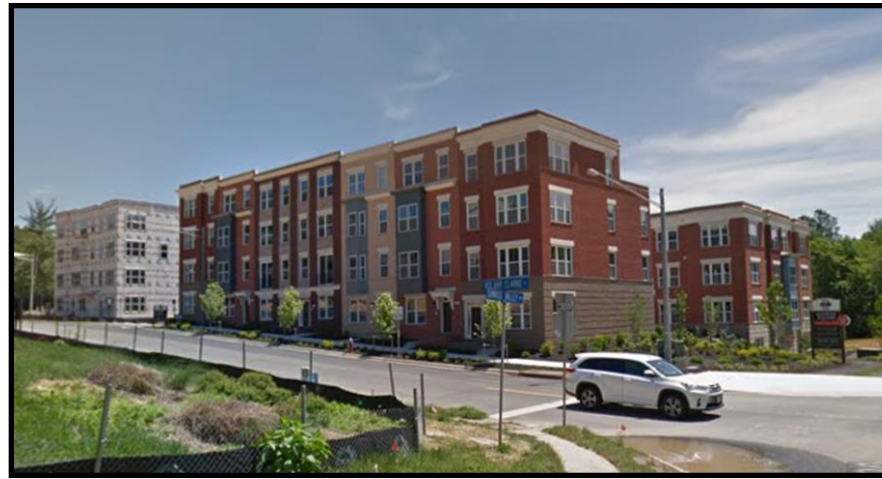
- Urban Townhome/Multifamily Community
- 4.6 acres, Zoned PDH-12 (RZ 2015-HM-012)
- 34 Urban Townhomes
- 10 Low-rise multifamily units
- 37% Open Space
- Planning Area: Wiehle-Reston East TSA
- Land Use Recommendation: Office or residential, 30 du/ac residential planned community

Building type:

- 4-story urban townhome (47' height)
- 3-story multifamily building

Parking type:

- Individual 2-car townhome garages
- Surface parking for multifamily



Residential – Medium Density

27 du/ac (0.9 FAR)

Centerpointe III

4000 Legato Rd., Fairfax, VA

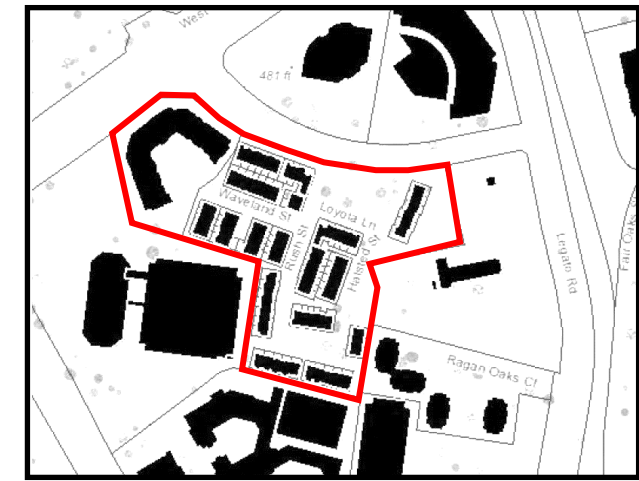
- 90 Mid-Rise Multifamily Residential Units
- 120 Urban Townhomes
- 7.9 acres, Zoned PDC (PCA 87-P-052-02)
- 32% Open Space
- Planning Area: Fairfax Center Suburban Center
- Land Use Recommendation: Residential Mixed-Use Option to 1.4 FAR

Building type:

- 4-story urban townhomes (50' height)
- 4-story mid-rise residential over podium (60' height)

Parking type:

- Individual townhome garages
- Underground parking for multifamily
- Some on-street parking



Residential – Medium Density w/Retail 47 du/ac (1.3 FAR)

Belvoir Square

9142 Richmond Hwy., Fort Belvoir, VA

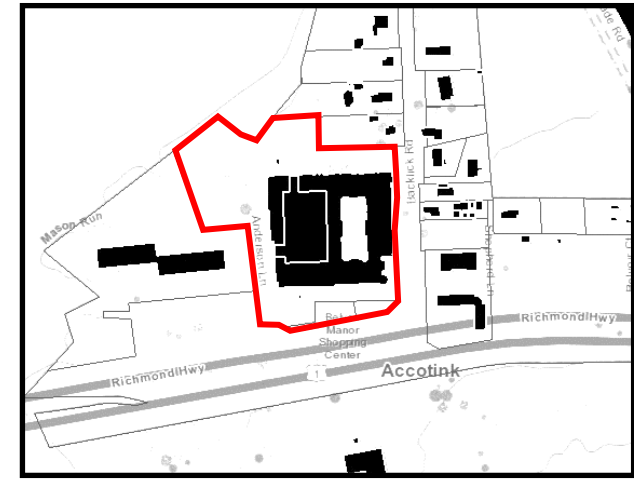
- Mid-Rise Multifamily Residential w/ground-floor retail/commercial
- 6.0 acres, Zoned PRM (RZ 2012-MV-007)
- 283 Mid-rise multi-family units
- 25,000 sf retail/commercial
- Residential Density: 47 du/ac (w/affordable bonus)
- 30% Open Space
- Planning Area: Ft. Belvoir Community Planning Sector
- Land Use Recommendation: Residential Mixed-Use Option 30-40 du/ac

Building type:

- Mid-rise multifamily
- 5 stories (60' max height)

Parking type:

- Wrapped internal parking structure



Residential – High Density

72 du/ac (1.7 FAR)

The Shelby

6200 North Kings Hwy., Alexandria, VA

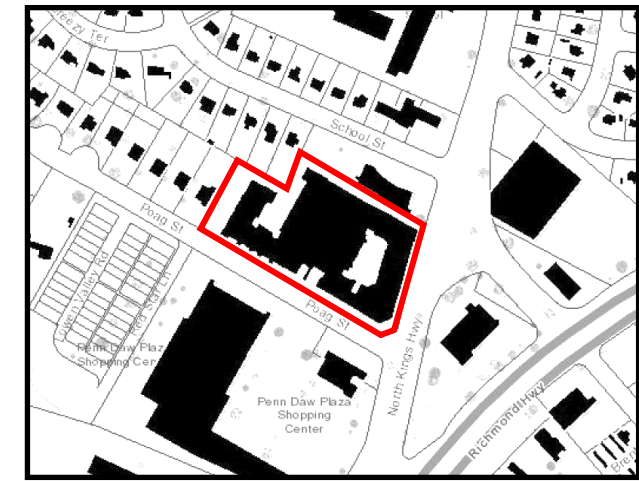
- Mid-Rise Multifamily Residential
- 3.4 acres, Zoned PRM (RZ 2011-LE-016)
- 245 multifamily units
- 28% Open Space
- Planning Area: Penn Daw Community Business Center
- Land Use Recommendation: Residential Mixed-Use Option to 1.4 FAR

Building type:

- 3-4-story multifamily building (50' max. height)

Parking type:

- “Wrapped” structured parking
- Some on-street parking on Poag St.



Mixed-Use Village Center

1.0 FAR

Woodland Park Crossing

12960 Highland Crossing Dr., Herndon, VA

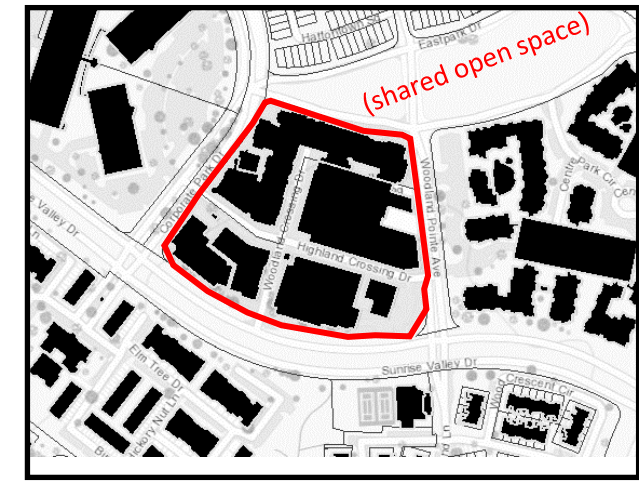
- Retail/commercial w/grocery store and multifamily residential
- 8.2 acres, Zoned PDC (RZ 03-HM-046)
- 143,000 sf commercial retail (including 50k sf grocery)
- 230 Mid-rise multi-family units
- Residential Density: 28 dwelling units per acre
- Open space shared w/larger development
- Planning Area: Reston/Herndon Suburban Center
- Land Use Recommendation: Commercial office, hotel, or mixed-use to 0.70 FAR

Building type:

- 2-Story "village" retail/commercial
- 4-story mid-rise residential over ground-floor retail/commercial
- Urban grocery w/structured parking above

Parking type:

- Structured (both above and below grade)
- On-street parking
- Limited surface parking for large uses



Mixed-Use Retail/Residential

1.3 FAR

South Alex

6224 North Kings Hwy., Alexandria, VA

- Mid-Rise Multifamily Residential & townhomes, w/grocery store, retail and restaurants
- 10.45 acres, Zoned PDH-40 (RZ 2013-LE-008)
- 400 Mid-rise multi-family units
- 41 Townhomes
- 45,000 sf non-residential uses (including 25,000 sf grocery store)
- Residential Density: 42 dwelling units per acre
- 32% Open Space
- Planning Area: Richmond Hwy Corridor Area
- Land Use Recommendation: Mixed-Use Option

Building type:

- Mid-rise w/ground-floor retail
- 5 stories (65' max height)
- 3-story townhomes

Parking type:

- Wrapped internal parking structure
- Small surface parking lot w/41 spaces

Additional Information:

- Small surface parking lot can be closed to extend the plaza during special events.



Mixed-Use Office/Residential/Retail (Office unbuilt) 1.8 FAR

The Beacon of Groveton

6852 Richmond Hwy, Alexandria, VA

- Mid-Rise Multifamily Residential w/ground floor commercial and structured parking
- 4.59 acres, Zoned PRM (RZ 2004-LE-012)
- 290 Mid-rise multi-family units (289,000 SF)
- 20,000 SF of Retail and Supporting Commercial uses
- 51,000 SF of approved but unbuilt Office use
- Residential Density: 63 dwelling units per acre
- 20% Open Space
- Planning Area: Beacon/Groveton CBC
- Land Use Recommendation: Office with mixed-use option

Building type:

- 5-story mid-rise residential over 2-story podium
- 85' max height

Parking type:

- Structured underground parking
- Some on-street parking

Additional Information:

- 27,515 SF pocket park is the interim use on office pad until the office use is built.



Town Center Visual Preferences –
Building Scale and Mass,
Character Study

1-2 story Regional Center | primarily retail, pedestrian promenade, central square



Stonebridge at Potomac Town Center



2-3 story mixed use | main street format



2-3 story mixed use | main street format



3-4 story mixed use | urban village



3-4 story mixed use | main street concept



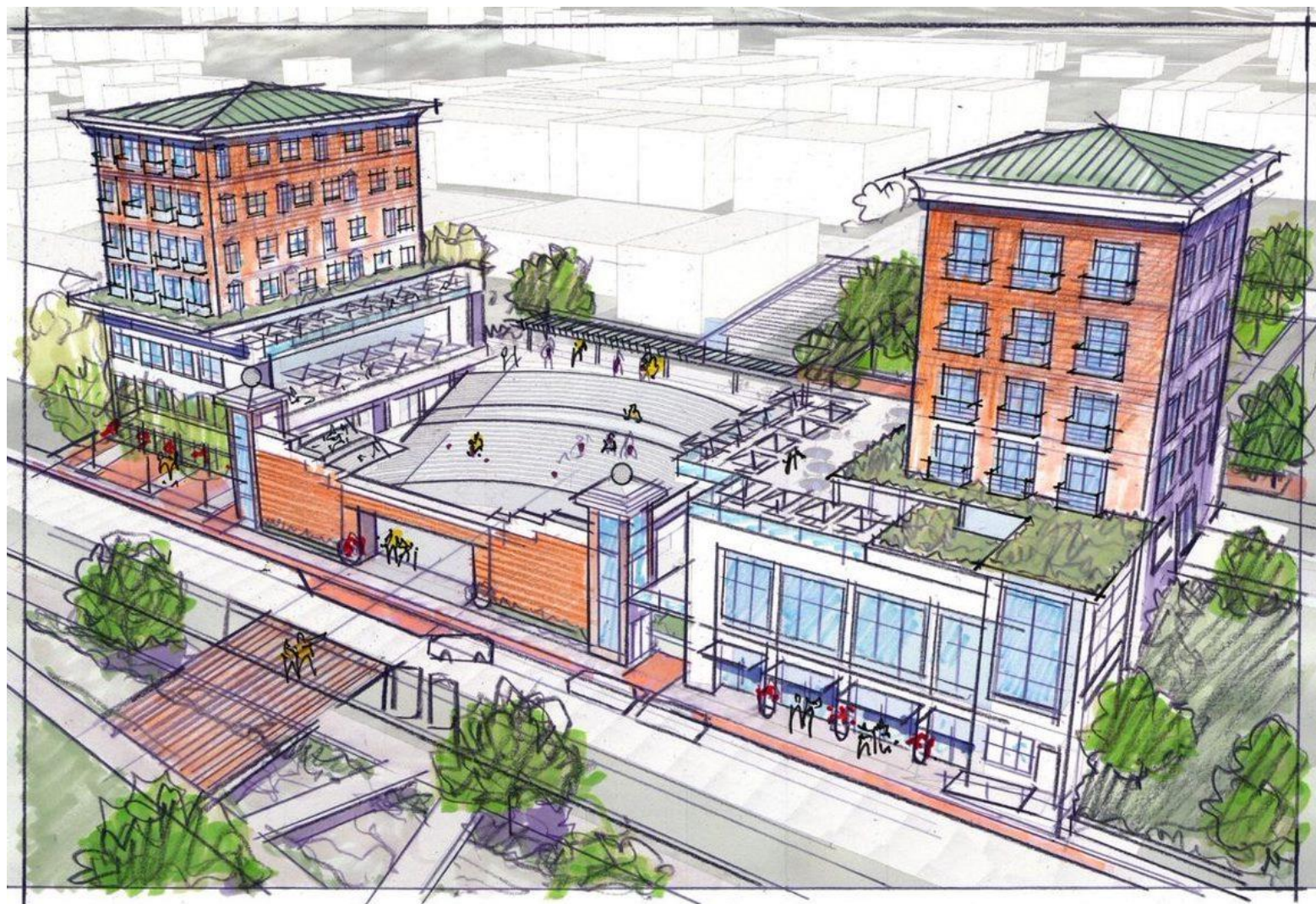
5-6 story mixed use | main street concept



5-6 story residential with ground-floor retail



Mixed-use infill | central programmable space



Omaha example



Indigo Ridge



A rendering of the future entrance to Indigo Ridge North's Village District.

Large scale development



Plan view of town center



Aerial view



**Lorton Visioning
Opportunity Sites
“Core Area” Summary**

November 23, 2020

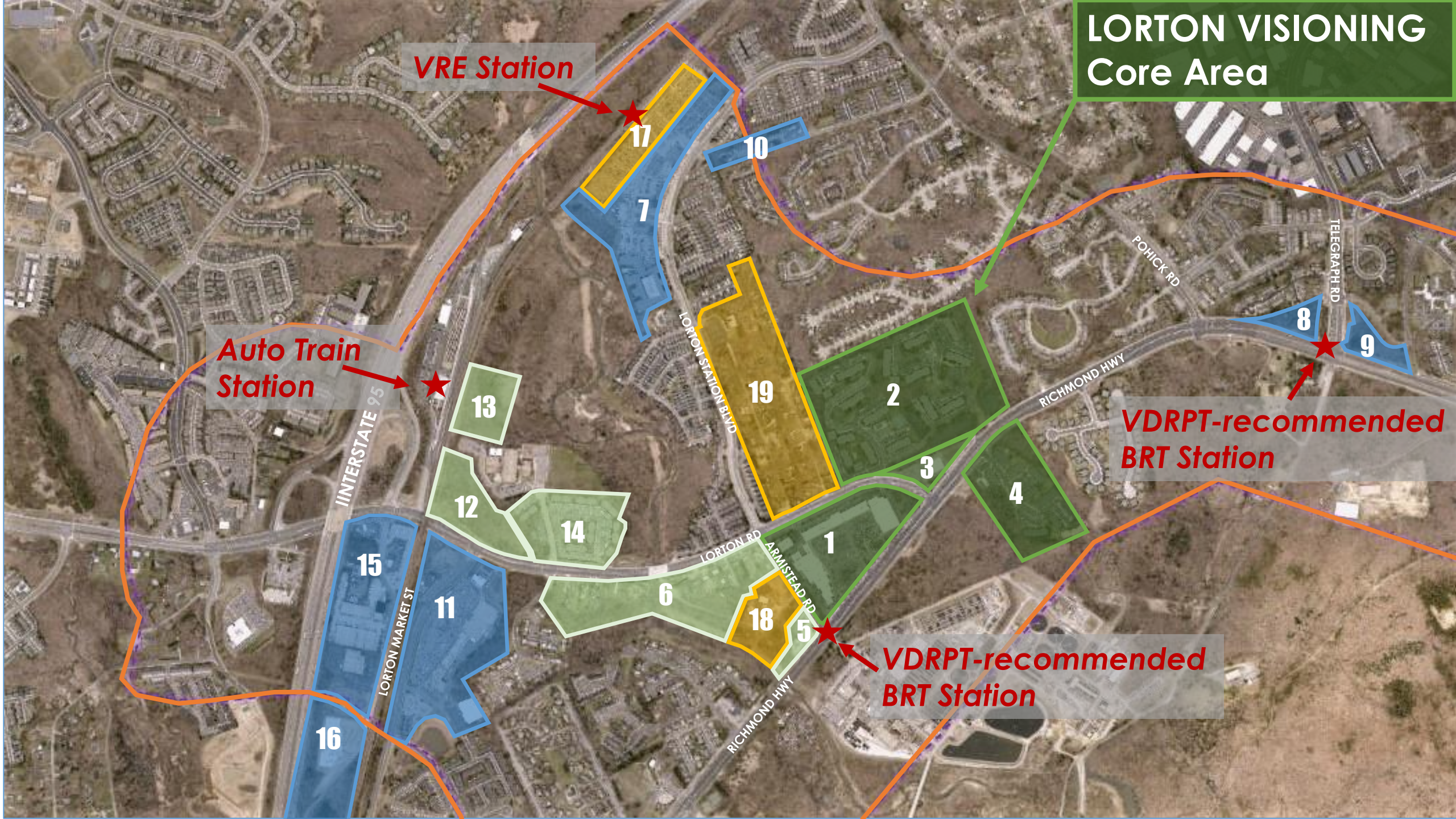
LORTON VISIONING Core Area

VRE Station

Auto Train
Station

VDRPT-recommended
BRT Station

VDRPT-recommended
BRT Station



Core Area = 74.88 acres
4 developed sites



19

2

3

4

1

6

18

5

VDRPT-recommended
BRT Station

LORTON STATION BLVD

LORTON RD

ARMISTEAD RD

RICHMOND HWY

RICHMOND HWY

Area 1
17.58 acres

Existing Use: Gunston Plaza shopping center (185,413 SF), McDonald's (3,150 SF), Gunston Plaza Professional Bldg. (21,390 SF), Minnieland Daycare (5,000 SF), Suntrust Bank (3,000 SF), Sunrise Assisted Living facility (32,079 SF).
Year Built: All uses built in 1989 except Sunrise, was built in 1991.
Comprehensive Plan: Community-serving retail uses and other commercial uses up to .30 FAR.
Plan option for higher density: No



Zoning: C-6 Community Retail Commercial District, C-8 Highway Commercial District (split zoned)
Notes: Existing development at intensity of approximately .32 FAR, approved zoned FAR of .20. Potential location for BRT station per 2015 VDRPT (Virginia Dept of Public Rail and Transportation) Route 1 Multimodal Alternatives Analysis at Armistead Road and Richmond Hwy.

**VDRPT-recommended
BRT Station**

An aerial photograph of a residential development. A large green outline highlights a specific area in the center, labeled with a white number '2'. The area contains several multi-story apartment buildings arranged in a garden-style layout with green spaces and a small pond. The surrounding area consists of single-family homes and a multi-lane road.

Area 2 40 acres

2

Existing Use: Woods of Fairfax, garden style apartments (608 units)


Year Built: Phase #1 – 1979, Phase #2 - 1985

Comprehensive Plan: Residential use @ 5-8 du/ac

Plan option for higher density: No

Zoning: R-20 Residential District (Residential use up to 20 du/ac)

Notes: Single ownership, approximately 2/3 of Phase 2 portion of property covered by Marine Clay soils with steep slope topography. Developed at density of approximately 15.2 du/ac, zoned density allows 20 du/ac. Developed density and zoning are higher than Plan density.



Area 3
2.3 acres

Existing Use: 14,940 SF Walgreens and associated parking lot (and approved but unbuilt 4,900 SF office use)

Year Built: 2012

Comprehensive Plan: Retail and related uses up to .25 FAR w/full consolidation; .15 FAR without consolidation.

Plan option for higher density: No

Zoning: C-5 Neighborhood Retail Commercial District

Notes: Site developed at intensity of .15 FAR overall, zoning allows up to .30 FAR. Could be unused Plan potential if fully consolidated.

Area 4

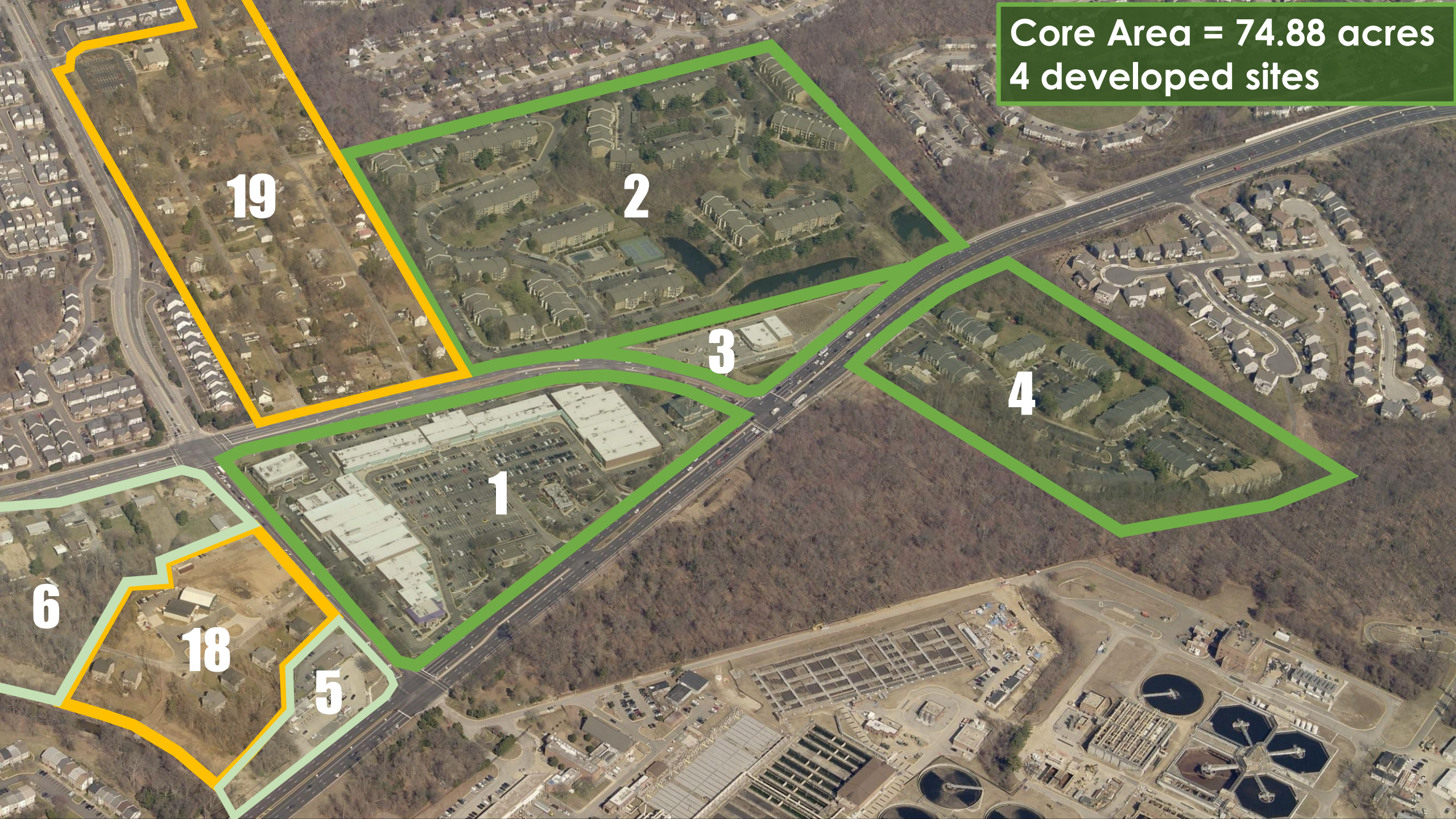
13.4 acres

Existing Use: Woodside Apartments (252 units)
Year Built: 1987
Comprehensive Plan: Public facilities, governmental and institutional uses
Plan option for higher density: No
Zoning: R-20 Residential District (Residential use up to 20 du/ac)

Notes: Single ownership, developed at approximately 19 du/ac, zoning allows 20 du/ac, not planned residential because within the larger Noman Cole Plant area, likely that this larger area might be needed for plant expansion in future.



Core Area = 74.88 acres
4 developed sites



19

2

3

4

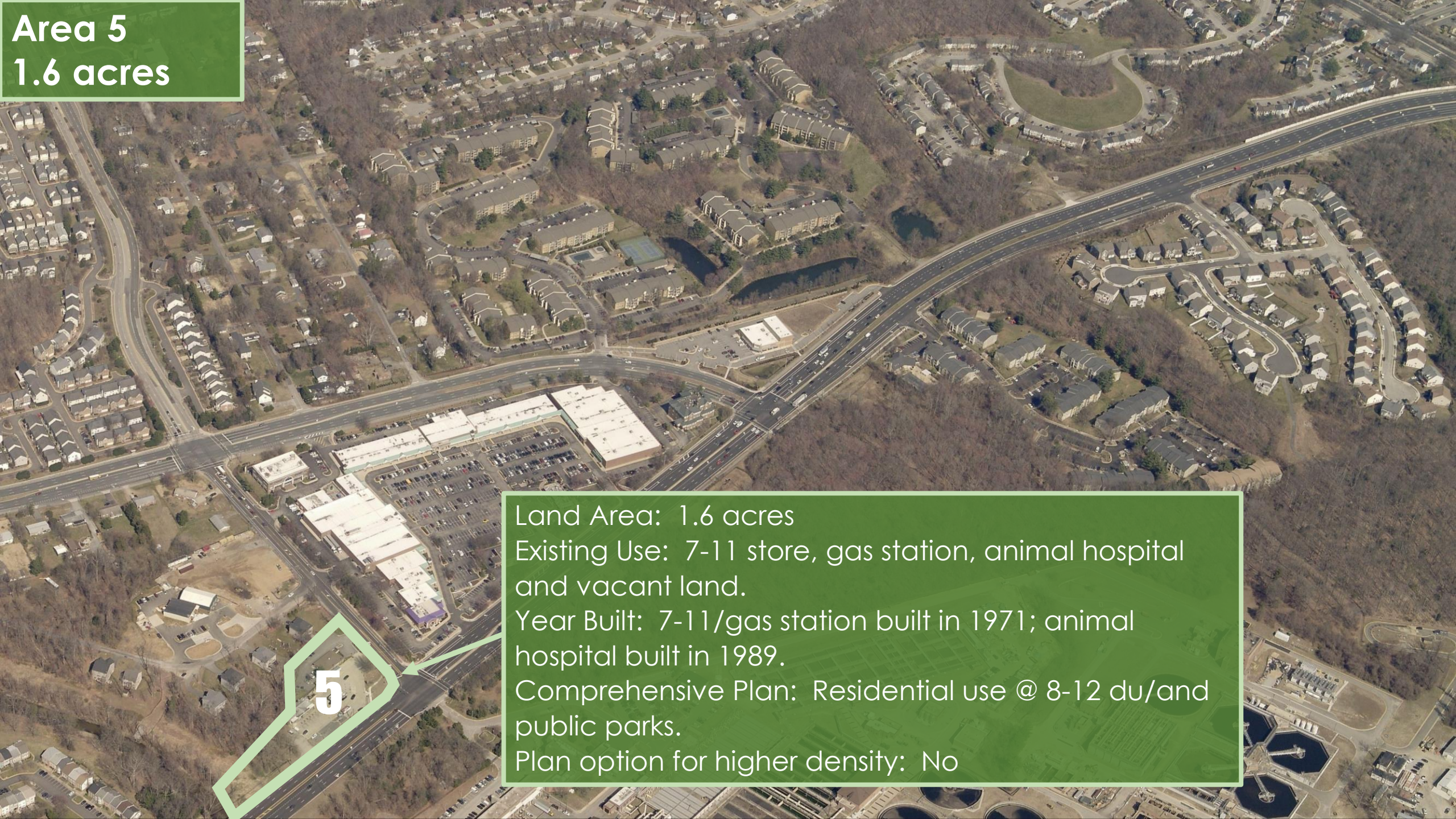
1

6

18

5

Area 5
1.6 acres



Land Area: 1.6 acres
Existing Use: 7-11 store, gas station, animal hospital and vacant land.
Year Built: 7-11/gas station built in 1971; animal hospital built in 1989.
Comprehensive Plan: Residential use @ 8-12 du/and public parks.
Plan option for higher density: No

5

**West of
Core
Area**

**Area 7 /
Town Center**



13

19

12

14

1

11

6

18

5