

MEMORANDUM

To: Chairman Cunningham and Members of
the Planning Commission

From: Cindy Petkac, Planning Division Chief

Subject: 2035 Comprehensive Plan - Scenario Planning

**Meeting
Date:** December 18, 2017



The City's Comprehensive Plan is the primary reference document for decision-making related to land use and development. To better understand the impacts of various types of development scenarios on the future shape, pattern and direction of growth in the city, staff conducted a scenario planning analysis as part of the 2035 Comprehensive Plan process.

Staff utilized *Envision Tomorrow* (ET), an open-access scenario planning package that allows users to analyze how their community's current growth pattern and future decisions impacting growth will impact a range of measures from public health, fiscal resiliency and environmental sustainability. ET provides a quick, sketch-level glimpse of the possible impacts of policies, development decisions and current growth trajectories.

Community input on four proposed scenarios was sought during a public meeting on November 15. Based on comments received, the proposed scenarios were modified and a fifth scenario created for analysis (scenario descriptions attached). The outcomes on land use, housing, economy, environment and transportation for each of the five scenarios were then presented at a public meeting on December 7 (presentation attached).

The city is now seeking public input on which scenario residents feel best represents how they'd like the city to grow and develop over the next 15 to 20 years. Citizens can complete the online survey, email comments to ComprehensivePlan@fairfaxva.gov or mail them to City Hall, Room 207. Comments will be accepted through January, 2018. Community feedback will help the Planning Commission and staff in preparing the 2035 Comprehensive Plan future land use map, which shows the desired future land uses organized by category.

Attachments: Scenario Planning Overview and Description of Five Development Scenarios
December 7, 2017 Public Meeting Presentation Slides with Annotated Notes

Livable Fairfax

Giving voice to the community's vision for the future



2035 Comprehensive Plan

DEVELOPMENT SCENARIO PLANNING

What is development scenario planning?

It's a process that planners utilize to create a framework for looking into the future. It helps us understand the impacts of various types of development scenarios on the future shape, pattern and direction of growth in the city.

What software was used to perform the scenario planning analysis?

The City of Fairfax utilized Envision Tomorrow, an open-access scenario planning package that allows users to analyze how their community's current growth pattern and future decisions impacting growth will impact a range of measures from transportation, fiscal resiliency and environmental sustainability.

What information does the scenario planning analysis provide?

The information generated during a scenario planning process includes maps, charts, and performance measures that provide alternatives in order to evaluate the preferred locations, densities and design characteristics of ideal growth areas, as well as areas in which growth is not desired.

How will the results of the scenario planning analysis be used?

The scenario planning effort will assist the city in preparing the 2035 Comprehensive Plan future land use map, which illustrates the desired land uses, organized by category, such as residential or commercial. It does not necessarily show land uses as they exist today. Rather, it's a map of what the community wants to have happen in the future. It informs zoning and development decisions.

How many scenarios were analyzed?

The Envision Tomorrow software allows us to create up to five different scenarios. Based on public input, staff analyzed five scenarios: 1) dispersed; 2) local activity centers; 3) town centers; 4) town centers + new neighborhoods; and 5) linear town centers. Information on each scenario is attached.

What assumptions were utilized for the scenario planning analysis?

Based on current trends, market analysis and forecast estimates, it is anticipated that the following amount of additional development could occur in the City of Fairfax over the next 15-20 years:

- 500,000 square feet of retail;
- 50,000 square feet of office; and
- 3,500 housing units.

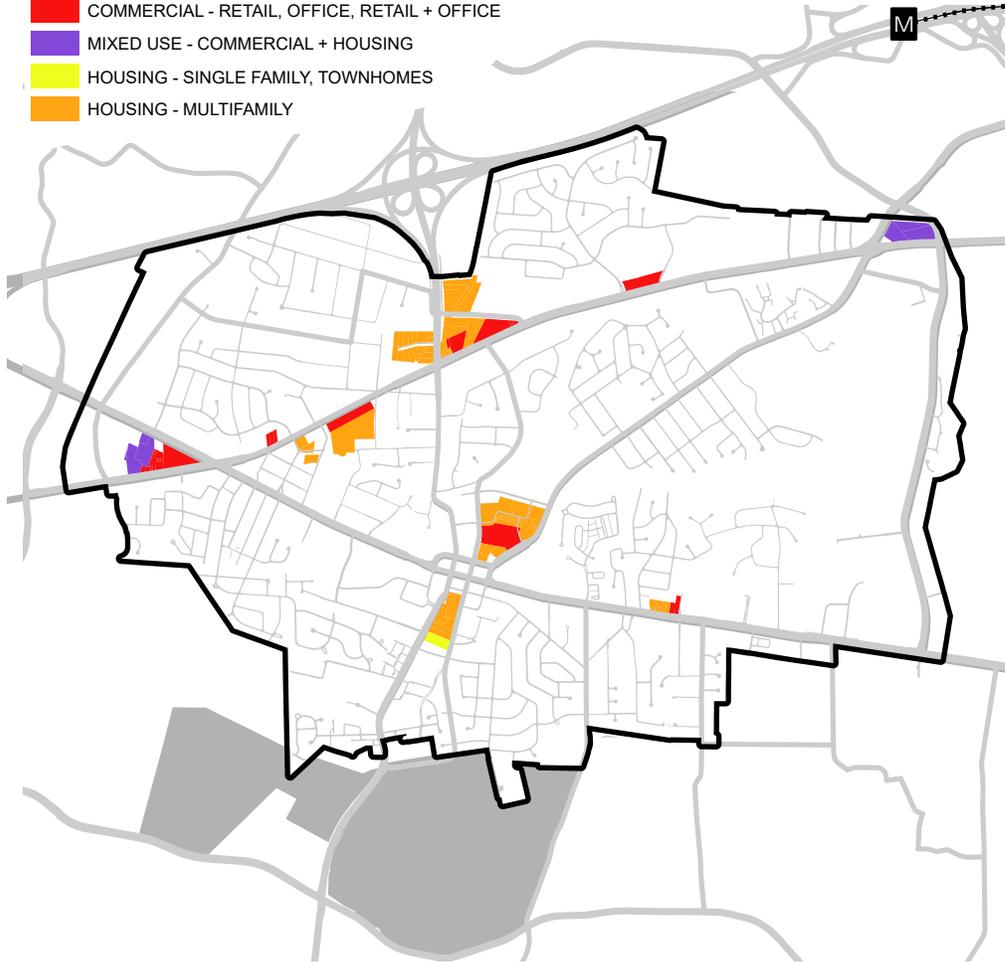
1

DISPERSED DEVELOPMENT

Based on anticipated developments and existing development patterns, new retail, office and housing units dispersed throughout the city as a combination of single-use and mixed use developments.

LEGEND

- COMMERCIAL - RETAIL, OFFICE, RETAIL + OFFICE
- MIXED USE - COMMERCIAL + HOUSING
- HOUSING - SINGLE FAMILY, TOWNHOMES
- HOUSING - MULTIFAMILY



* Please note the development locations shown on the map above are for scenario purposes only to demonstrate possible location and concentration of development.

LOCATION	RETAIL SQUARE FEET	OFFICE SQUARE FEET	HOUSING UNITS
Breezeway/Fairfax Gardens			96
Davies Property			30
Paul VI	41,168		333
Kamp Washington	132,295	11,916	402
Fairfax Blvd (west)	16,733		
Northfax	74,486	5,992	1,244
Fairfax Blvd (Stafford Dr/Plantation Pkwy)	51,478		
Fairfax Circle	88,902		467
Main St Center	13,647	3,412	85
Old Town/Downtown	82,856	28,080	896
SCENARIO TOTALS	501,565	49,400	3,553

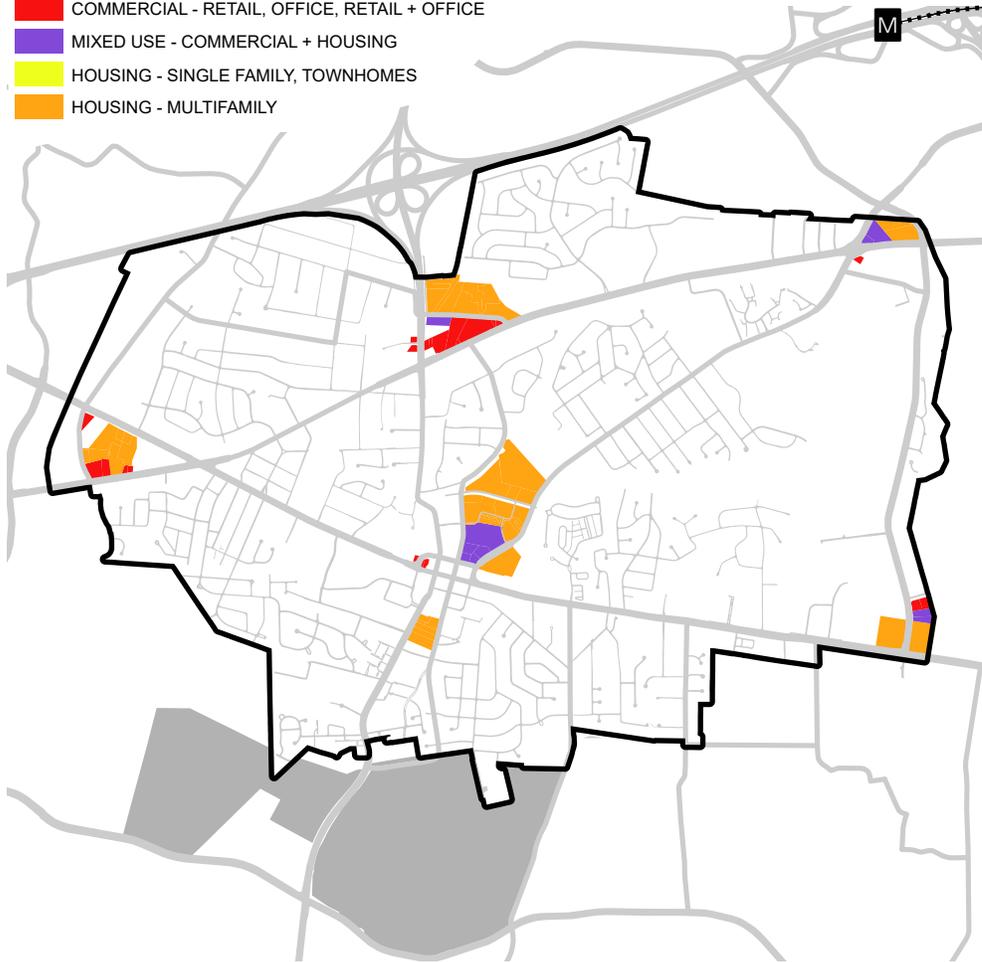
2

LOCAL ACTIVITY CENTERS

New retail, office and housing units are situated in mixed use developments within the city's five activity centers at Kamp Washington, Northfax, Fairfax Circle, Pickett and Main, and Old Town/Downtown.

LEGEND

- COMMERCIAL - RETAIL, OFFICE, RETAIL + OFFICE
- MIXED USE - COMMERCIAL + HOUSING
- HOUSING - SINGLE FAMILY, TOWNHOMES
- HOUSING - MULTIFAMILY



* Please note the development locations shown on the map above are for scenario purposes only to demonstrate possible location and concentration of development.

LOCATION	RETAIL SQUARE FEET	OFFICE SQUARE FEET	HOUSING UNITS
Kamp Washington	57,865	7,645	476
Northfax	191,281	7,753	729
Fairfax Circle	52,205	3,931	287
Pickett and Main	41,783	15,339	502
Old Town/Downtown	158,324	16,187	1,522
SCENARIO TOTALS	501,458	50,855	3,516

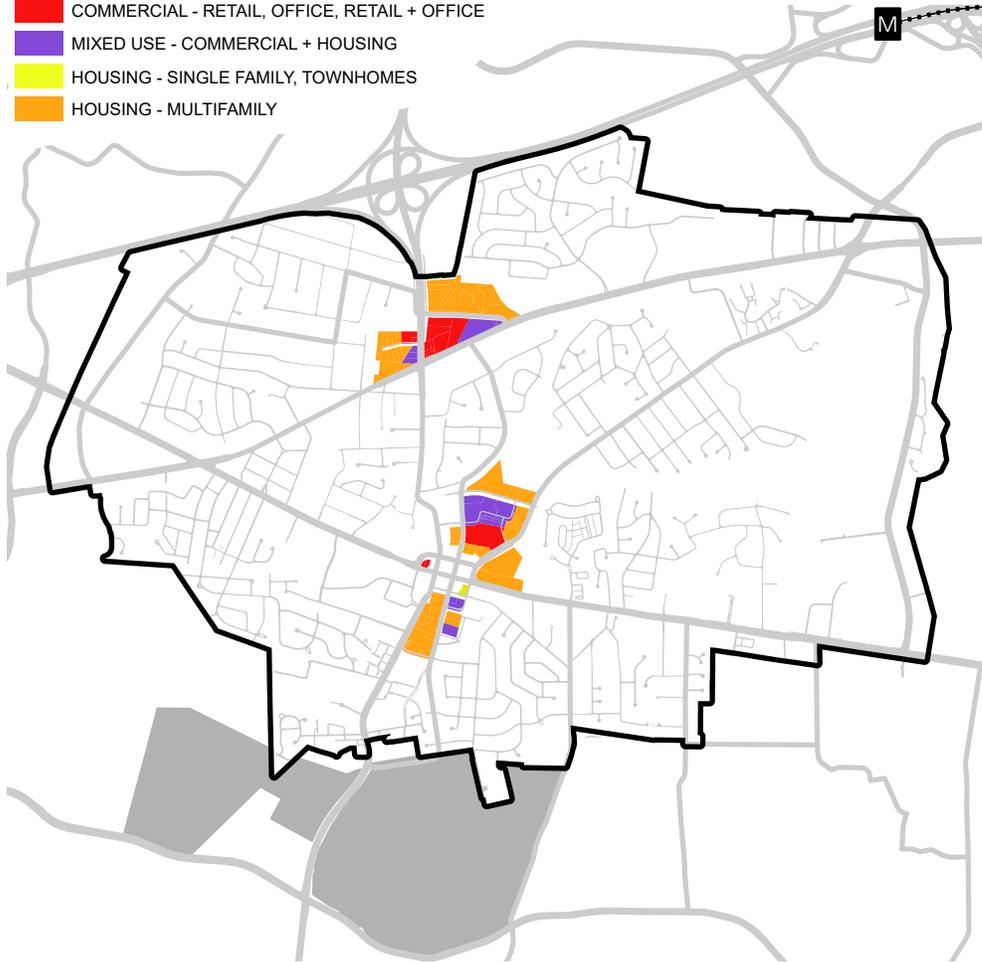
3

TOWN CENTERS

New retail, office and housing units are situated in mixed use developments within the town centers of Northfax and Old Town/Downtown.

LEGEND

- COMMERCIAL - RETAIL, OFFICE, RETAIL + OFFICE
- MIXED USE - COMMERCIAL + HOUSING
- HOUSING - SINGLE FAMILY, TOWNHOMES
- HOUSING - MULTIFAMILY



* Please note the development locations shown on the map above are for scenario purposes only to demonstrate possible location and concentration of development.

LOCATION	RETAIL SQUARE FEET	OFFICE SQUARE FEET	HOUSING UNITS
Northfax	252,423	25,573	1,746
Old Town/Downtown	252,737	24,444	1,699
SCENARIO TOTALS	505,160	50,017	3,445

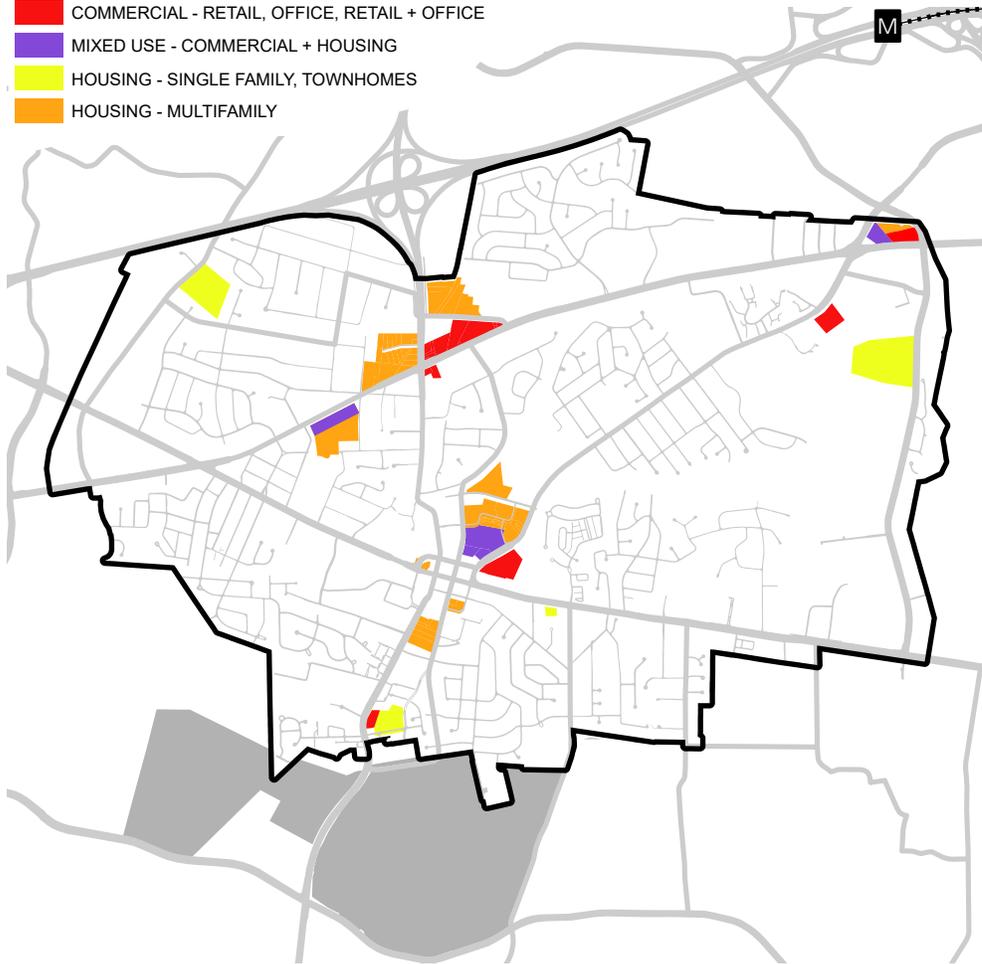
4

TOWN CENTERS + NEW NEIGHBORHOODS

New retail, office and housing units are situated in mixed use developments within the town centers of Northfax, Old Town/Downtown and an expanded Fairfax Circle; while several new neighborhoods are located at opportunity sites in the city.

LEGEND

- COMMERCIAL - RETAIL, OFFICE, RETAIL + OFFICE
- MIXED USE - COMMERCIAL + HOUSING
- HOUSING - SINGLE FAMILY, TOWNHOMES
- HOUSING - MULTIFAMILY



* Please note the development locations shown on the map above are for scenario purposes only to demonstrate possible location and concentration of development.

LOCATION	RETAIL SQUARE FEET	OFFICE SQUARE FEET	HOUSING UNITS
Northfax	165,853	22,124	1,346
Old Town/Downtown	182,400	14,132	1,223
Fairfax Circle/Army Navy Country Club	87,722		561
County Property Yard on Jermantown Rd			108
Fairfax Christian Church			9
Inova on Chain Bridge Rd	13,637	13,637	76
Paul VI High School	59,649		226
SCENARIO TOTALS	509,261	49,893	3,549

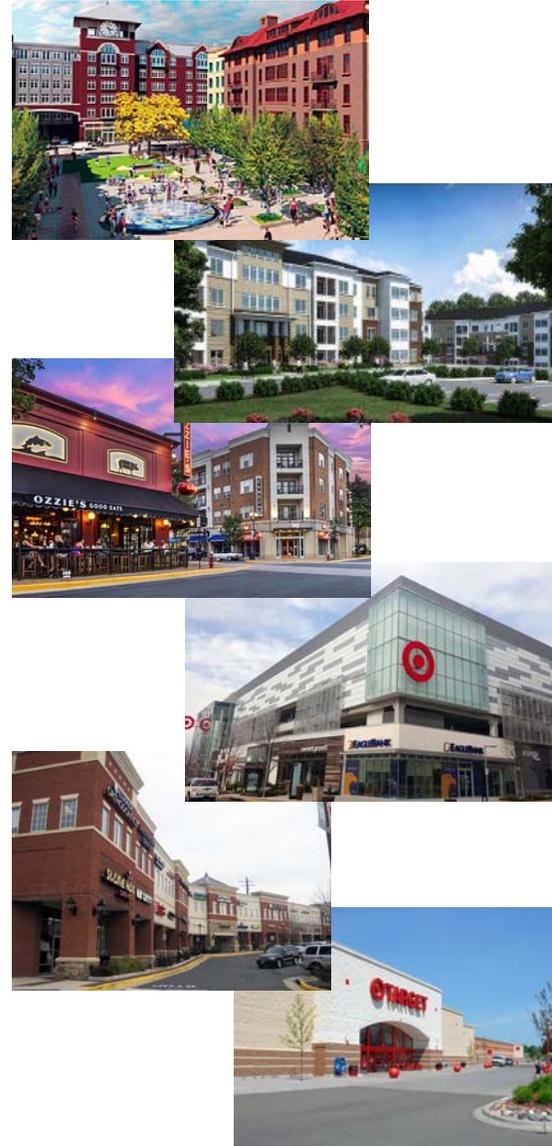
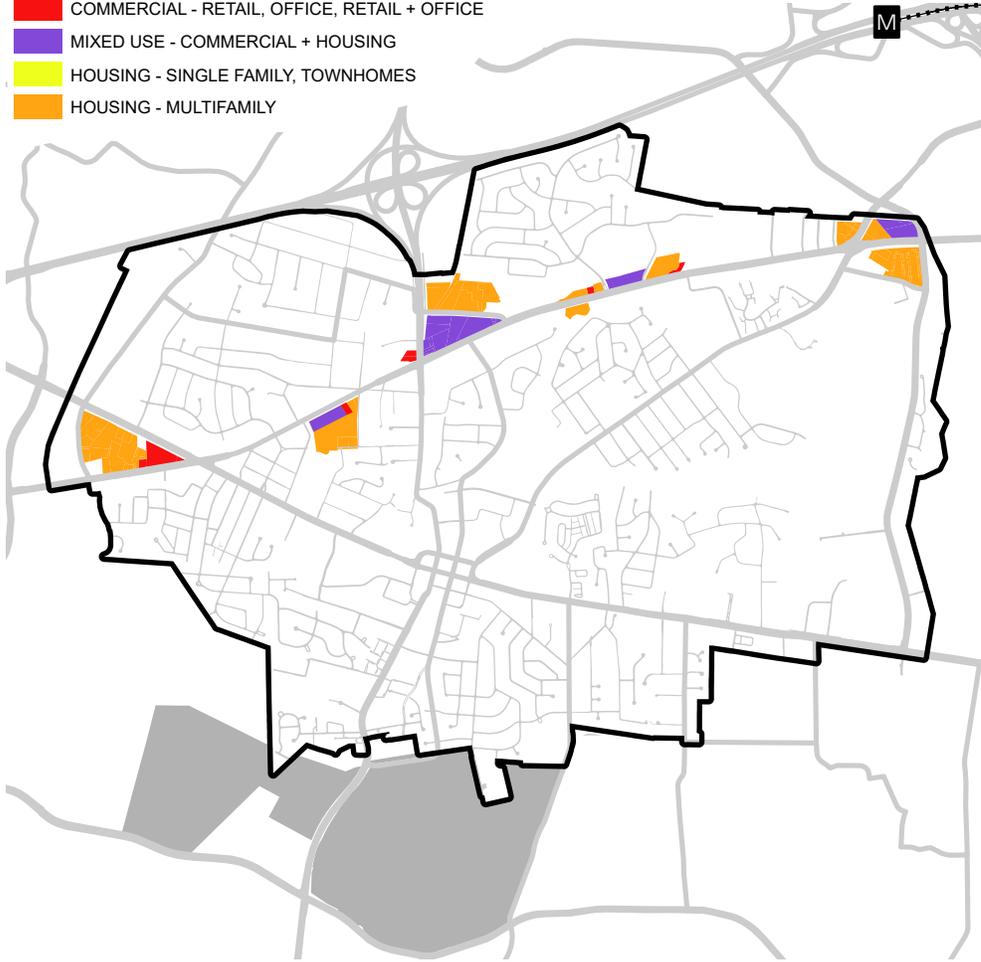
5

LINEAR TOWN CENTERS

New retail, office and housing units are located in small town centers throughout the Fairfax Boulevard Corridor.

LEGEND

- COMMERCIAL - RETAIL, OFFICE, RETAIL + OFFICE
- MIXED USE - COMMERCIAL + HOUSING
- HOUSING - SINGLE FAMILY, TOWNHOMES
- HOUSING - MULTIFAMILY

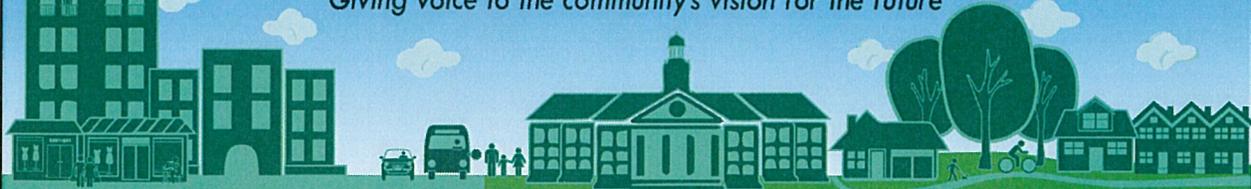


* Please note the development locations shown on the map above are for scenario purposes only to demonstrate possible location and concentration of development.

LOCATION	RETAIL SQUARE FEET	OFFICE SQUARE FEET	HOUSING UNITS
Kamp Washington	78,517	7,852	743
Paul IV	49,665	6,140	546
Northfax	240,154	22,493	1,024
Stafford Dr/Plantation Pkwy	61,445	13,997	313
Fairfax Circle	75,425		887
SCENARIO TOTALS	505,206	50,482	3,513

Livable Fairfax

Giving voice to the community's vision for the future

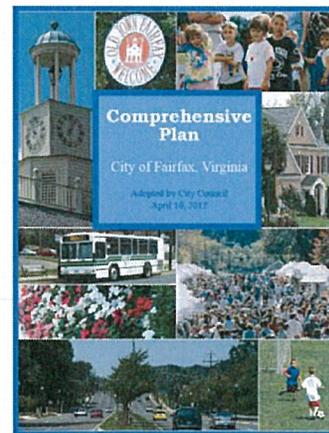


2035 Comprehensive Plan

December 7, 2017 Public Meeting 2035 Comprehensive Plan Development Scenario Planning Results

Comprehensive Plan Overview

- Describes a community's vision for how it wants to physically grow and develop over the next 10 to 20 years
- Provides guidance on land use, housing, transportation, economic development, environment, parks, arts, etc.
- Reflects community values
- Informs zoning and budget decisions (CIP)



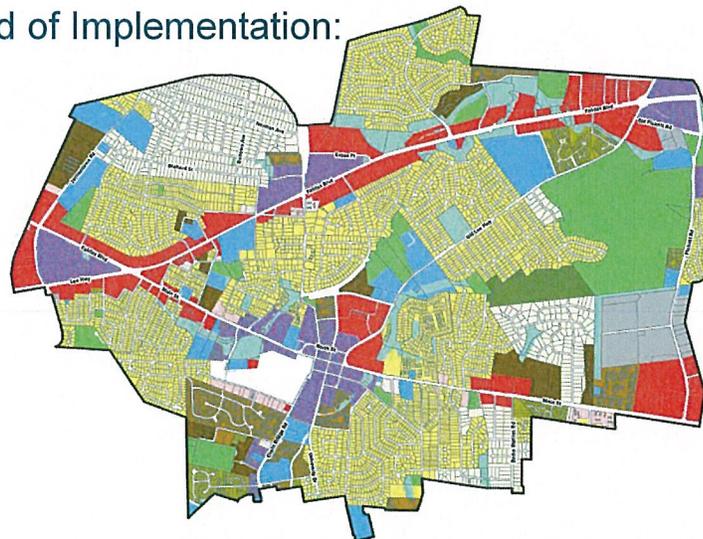
2035 Comprehensive Plan Vision Statement

The City of Fairfax is a vibrant, livable 21st century community with a strong, sustainable economy that supports walkable, safe and convenient access to the natural and built environment.



Future Land Use Map

- Method of Implementation:



- RESIDENTIAL**
 - RESIDENTIAL - VERY LOW
 - RESIDENTIAL - LOW
 - RESIDENTIAL - LOW / MED
 - RESIDENTIAL - MEDIUM
 - RESIDENTIAL - HIGH
- BUSINESS**
 - BUSINESS - COMMERCIAL
 - BUSINESS - OFFICE TRANSITION
 - BUSINESS - INDUSTRIAL
- OPEN SPACE**
 - OPEN SPACE - PRESERVATION
 - OPEN SPACE - RECREATION
 - OPEN SPACE - CONSERVATION
- OTHER**
 - TRANSITIONAL
 - INSTITUTIONAL
 - MIXED USE

Scenario Planning Overview

A way to illustrate – with graphics and numbers – what the future will look like, given different development contexts.

A different lens through which to see the Comprehensive Plan.



Basically, our goal with Scenario Planning was to answer the type of question we've frequently received during our Comprehensive Planning process:

WHAT WILL THESE CONCEPTS LOOK LIKE?

...not just visually but also quantitatively as well.

...or put another way: What are the implications of some of the design and growth concepts that are being discussed?

Scenario Planning Overview

- Can estimate effects of growth and development patterns over the next 15-20 years
- Help determine how to meet the City's goals
- Respond to questions on impacts of future growth
- City is using **Envision Tomorrow** open-source software:
 - Includes analysis and scenario design
 - Includes indicators for land use, housing, population, fiscal impacts, economics, transportation, environment and quality of life



Here are some of the things that Scenario Planning can help accomplish.

Mainly, it can help to determine whether different growth patterns differ much from each other – and if so, in what ways.

Scenario Planning Overview

Inputs: Data, and Types of Development:



Current City Characteristics

*Land Use,
Demographics,
Transportation,
Economics*



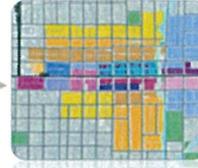
Building Types

*Several dozen
'types' of building
characteristics*



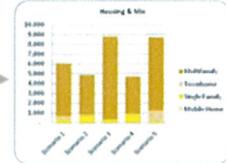
Development Types

*Mix of various
Building Types*



Scenario Development

*How the
Development
Types fit together*



Evaluation

*Tonight's
Discussion*



This shows the various stages of what has been done in order to get to where we are tonight.

Our Scenario Plans

- Same Growth #s for all 5 scenarios

*This was done to examine how the scenarios differ from each other – looks at **types** of growth rather than **intensity** of growth*

- Scenario Plans analyzed based on:
 - Land Use
 - Fiscal Impact
 - Transportation
 - Environment



Our goal with Scenario Planning was to contrast different development options.

This is an important concept to bear in mind because we looked at **types** of growth, rather than **intensity** of growth – that’s a big distinction.

It’s an important distinction because the Scenario Planning options that were evaluated all represent similar things numerically.

Also important is that we are not recommending a specific **amount** of growth. The conclusions an observer reaches by analyzing these scenario plans can be consistent with future growth rates that are high or low. It’s the patterns that we’re analyzing, not the amount.

Our Scenario Plans

- Same Growth #s for all 5 scenarios:

New Housing Units	New Retail Sq. Ft.	New Office Sq. Ft.
3,500 units	500,000 sf	50,000 sf

38% increase
in housing units

from
MWCOC estimates

15% net increase
in retail space

Based on current trends and
Fairfax Blvd. Market Study

1% net increase
in office space



The challenge of performing this type of analysis is that we needed *some* numbers to use – we couldn't just leave the numbers blank.

What we did was to select what appeared to be reasonable growth amounts for the next 20 years.

We used Council of Governments (COG) forecasts as a base for household projections – and we used a recent market study of Fairfax Blvd. for projections on new retail and office space (net new space).

Again, we are not advocating for, or even projecting these growth amounts, but we can't analyze the patterns of growth without estimating some kinds of number to which they would correspond.

Our Scenario Plans

- Same Growth #s for all 5 scenarios:

New Housing Units	New Retail Sq. Ft.	New Office Sq. Ft.
3,500 units	500,000 sf	50,000 sf

Scenario Planning Objective:

See how such growth would fit into Fairfax,
given our 5 development scenarios



Again, the objective is to see how such growth would fit into Fairfax, given our 5 development scenarios.

November 15 Public Meeting

- **Residents discussed draft scenarios**

- Provided input on development preferences & scenario options



- **As a result of the Nov. 15 meeting:**

- Draft scenarios modified
- 5th scenario added



We introduced this concept at a public meeting on November 15, along with 4 potential draft growth scenarios.

The robust discussion of development scenarios at this meeting helped staff to refine the 4 draft scenarios, and a 5th scenario was added.

Our Scenario Plans

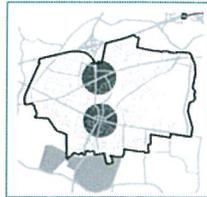
Dispersed



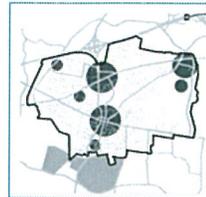
Local Activity Centers



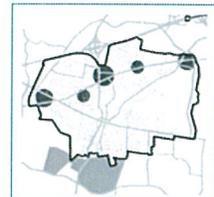
Town Centers



Town Centers + New Neighborhoods



Linear Town Centers



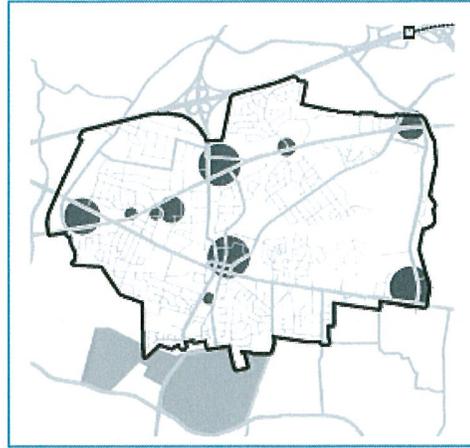
Results generated for each scenario



The following pages show general representations of the 5 growth scenarios, with black orbs representing general locations of potential growth areas.

1: Dispersed

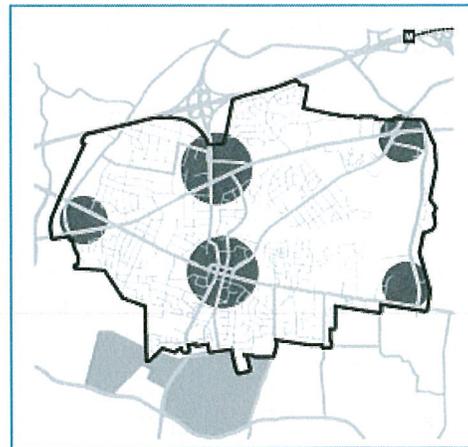
New retail, office and housing units are **dispersed throughout the city** as standalone commercial centers, townhouses, apartment buildings and mixed use developments.



2: Local Activity Centers

New retail, office and housing units are situated in **mixed use developments within the city's five activity centers:**

- Kamp Washington
- Northfax
- Fairfax Circle
- Pickett & Main
- Old Town/Downtown



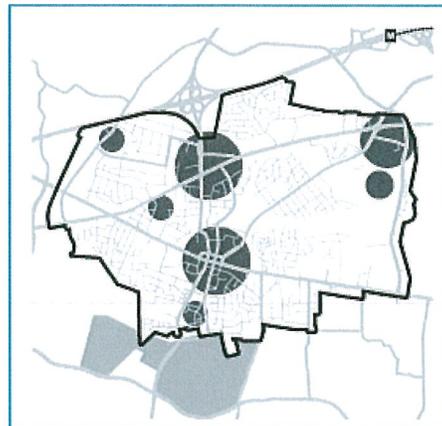
3: Town Centers

New retail, office and housing units are situated in **mixed use developments within the town centers** of Northfax and Old Town/Downtown.



4: Town Centers + New Neighborhoods

New retail, office and housing units are situated in **mixed use developments within the town centers** of Northfax, Old Town/Downtown and an expanded Fairfax Circle; while several **new neighborhoods are located** at opportunity sites in the City.

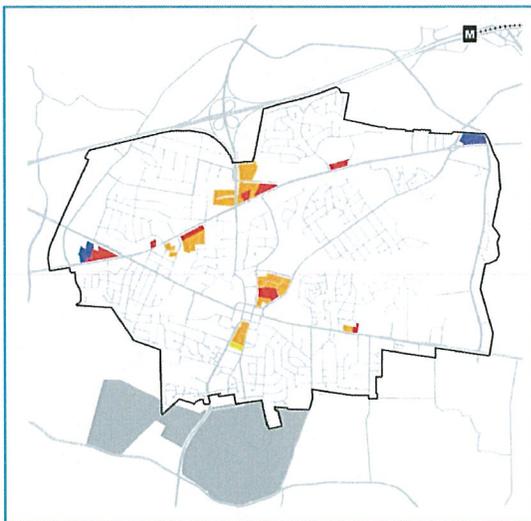


5: Linear Town Centers

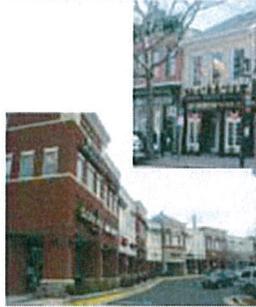
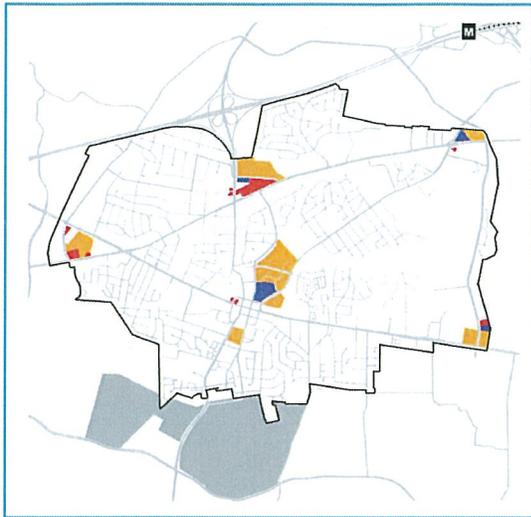
New retail, office and housing units are located in **small town centers throughout the Fairfax Boulevard Corridor.**



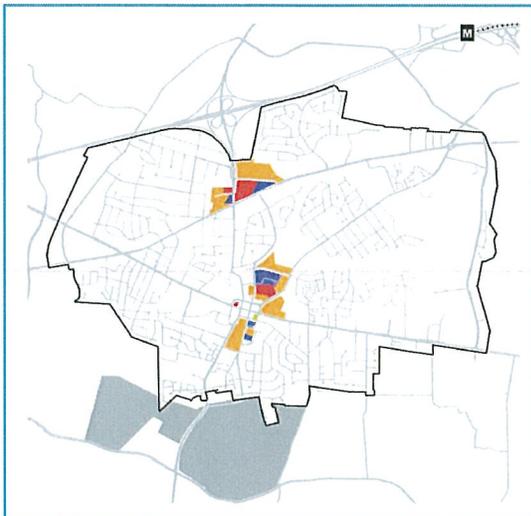
Comparing the Results 1: Dispersed



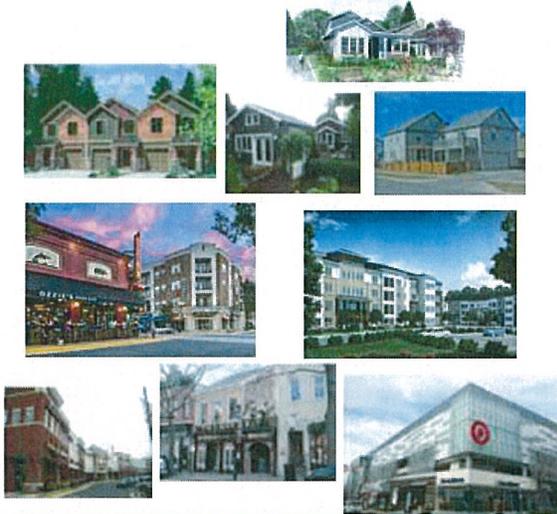
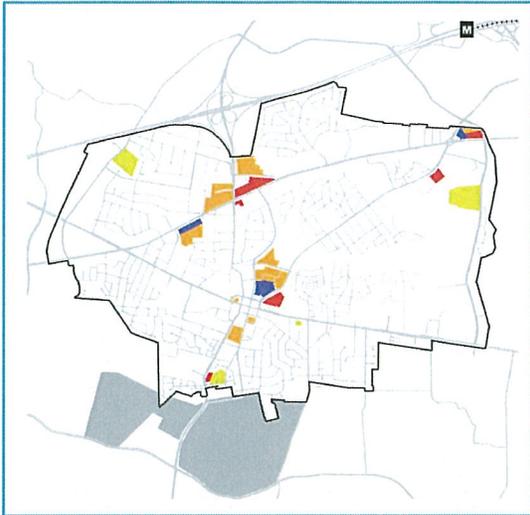
Comparing the Results 2: Local Activity Centers



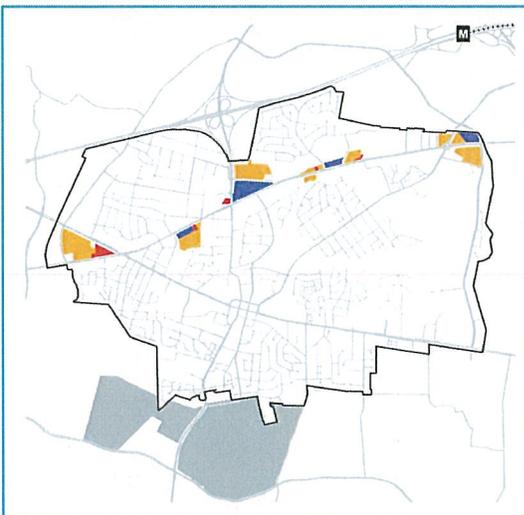
Comparing the Results 3: Town Centers

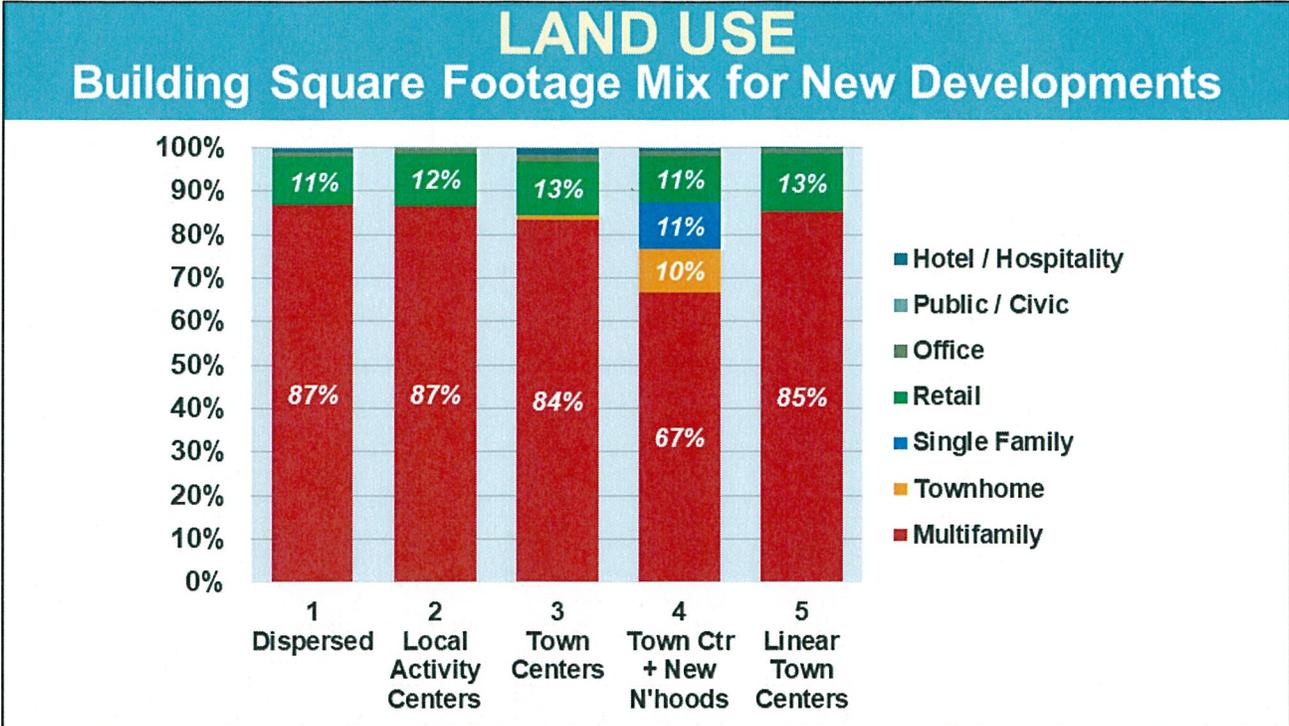


Comparing the Results 4: Town Centers + New Neighborhoods



Comparing the Results 5: Linear Town Centers





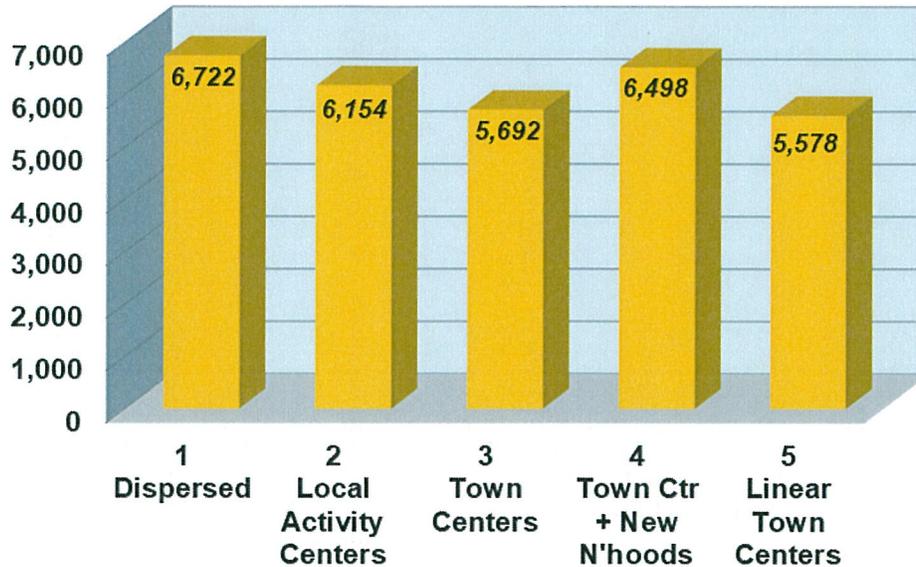
The following pages show some of the comparisons between the growth scenarios.

A few things to keep in mind:

- We're showing only selected highlights – there were many more outputs and analyses. We showing those analysis that represent differences that can be measured at this vantage point.
- These analyses only measure those areas identified in the scenarios as being redeveloped. This accounts for only 4% of the City's total land area.
- The overall objective was to see if these redevelopment scenarios differed measurably from each other, and if so through what patterns.

This first slide shows how the building square footage for these development scenarios differs for each of the scenarios. Most of the scenarios are relatively consistent – with the exception of #4 (Town Center + New Neighborhoods). This scenario contains a much greater proportion of detached and townhouse units in order to accommodate the growth in households. This is because many of the new neighborhoods identified in the map area areas where higher density & commercial uses are considered to be less appropriate.

LAND USE Est. Population from New Housing Units



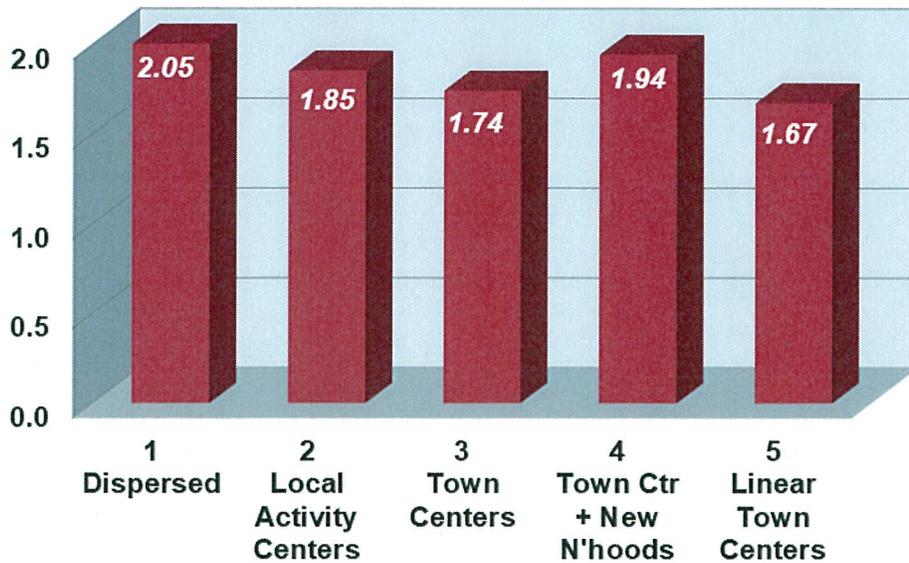
This compares estimated population of the ±3,500 new housing units among the 5 scenarios.

The population varies because while the number of housing units is relatively consistent, the types & characteristics of those units varies, leading to differences in overall population.

Those scenarios with a heavily reliance on multifamily units (#s 3 and 4) show lower population estimates because the average household size of those units tends to be smaller.

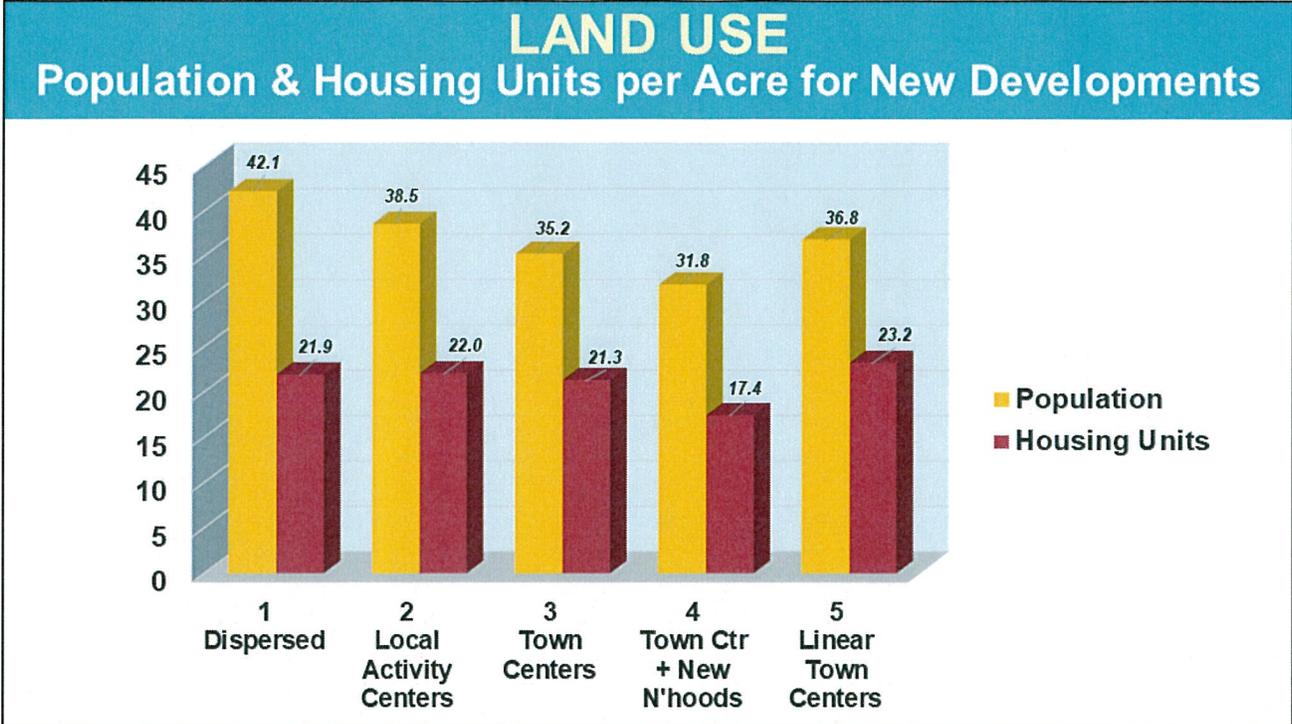
LAND USE

Est. Average Household Size for New Housing Units



This compares the estimated average household size – it's another way of looking at the differences in population.

Those scenarios with a heavily reliance on multifamily units (#s 3 and 4) show a lower estimated household size per unit.

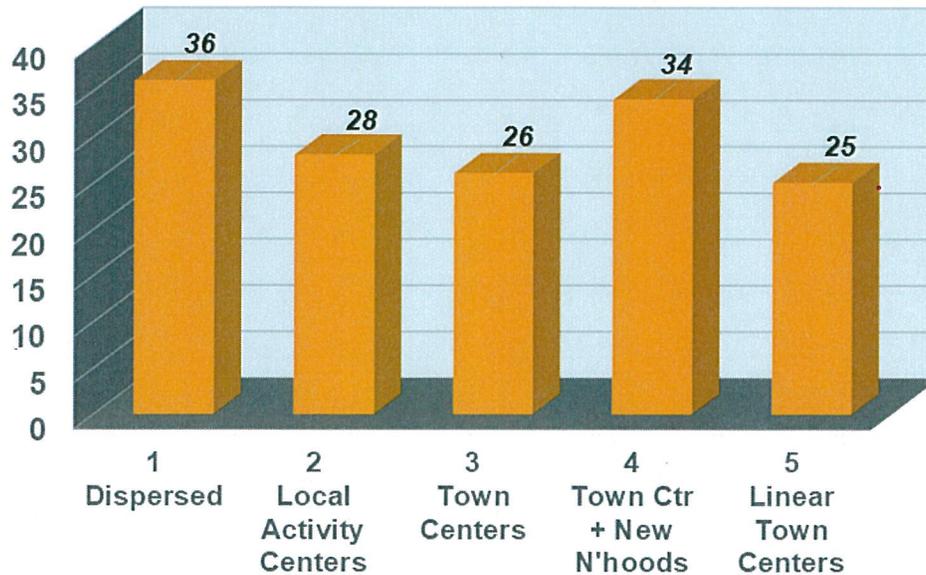


Here is another way of looking at population/household comparisons.

Again, this shows that even holding the number of housing units steady at about 3,500, there are numerous ways of achieving that result, which can result in significantly different outcomes.

TRANSPORTATION

Avg. Daily Vehicle Miles per New Housing Unit



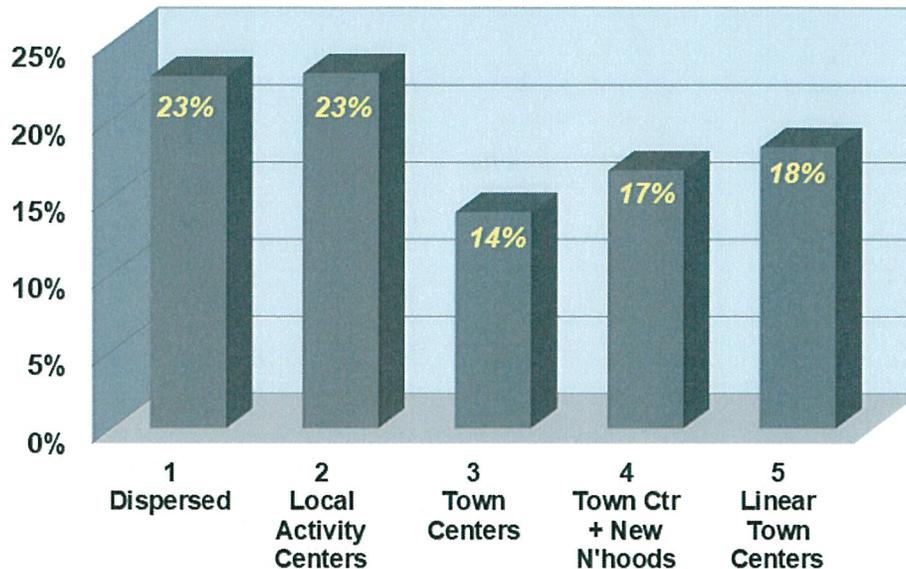
There are other ways to measure differences in development types. This shows a measurement of transportation impacts – the estimated average daily vehicle miles per each new housing unit.

This shows that scenarios with a higher concentration of Activity Centers (#s 3, 5 & 2) equate to a lower estimate of daily vehicle miles.

This can be attributed to a few factors, such as greater reliance on mass transit for commuting, and also an increased likelihood to make nonessential trips (i.e., shopping, entertainment) by vehicle, as there are more options within walking distance of housing units within Activity Centers.

TRANSPORTATION

Parking Lot Coverage for New Developments



Another transportation-related metric is Parking Lot Coverage.

Here we see that Scenario 1 (Dispersed) and 2 (Local Activity Centers) have greater proportions of parking lot coverage than do the other scenarios. This is due primarily to the types of development contained within those scenarios – 1 & 2 both contain greater amounts of big box and commercial strip development, both of which tend to have greater parking lot coverage than do the town center-type developments.

FISCAL Property Tax Revenue Per Acre for New Developments



Fiscal topics are another way by which to compare development scenarios.

This chart shows estimated property tax revenue per acre from new developments. This is an important analytical tool, but a caveat is that a good deal of property tax revenue is dependent upon factors that we don't remotely know at this stage. For example, the quality of a building can determine a great deal of its assessed value, but can't be determined for buildings and developments that are entirely hypothetical.

With that caveat in mind, the revealing aspect of this chart is that Scenario #1 (Dispersed) shows significantly more property tax revenue per acre than do the other scenarios. This scenario captures what can be thought of as the best of both worlds from a real estate revenue standpoint: It contains both high density that amplify tax revenue due to their concentration of value, and also high-value compact developments such as townhouses.

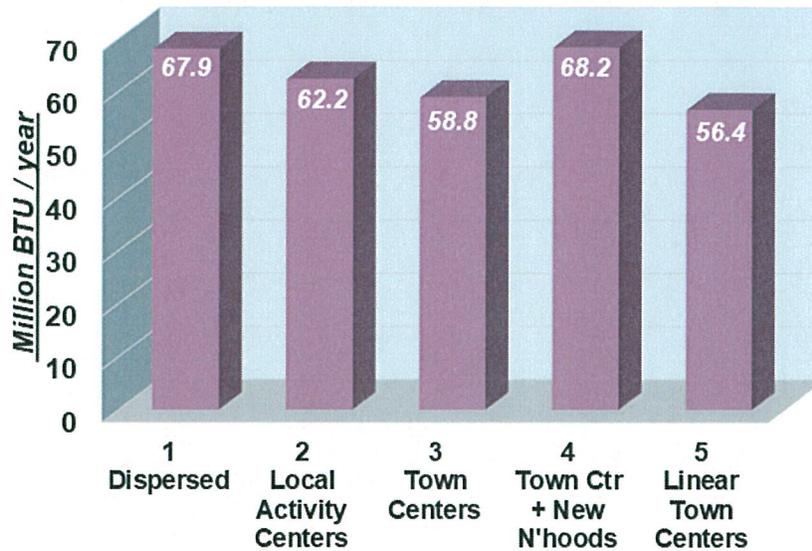
FISCAL Sales Tax Revenue Per Acre for New Developments



Another variation on the fiscal analysis is to look at sales tax revenue per capita. This output naturally would vary by the individual tenants, but the software ascribes different retail development types based on the scenario parameters – here four of the scenarios are shown in a rather narrow range, while one of the scenarios (#5 Town Centers + New Neighborhoods) is shown generated slightly less per-acre revenue than the others. This difference is due to the a different retail configuration that relies more on smaller retail spaces that tend to generate less revenue per square foot.

ENVIRONMENT

Energy Use per Household in New Developments



The average household in Virginia, with an average size of 2,227 square feet, consumes approximately 86 million BTU per year.

All of the scenarios had a lower projected household energy usage than the state average. This is because the majority of housing types in these scenarios were multifamily households. Multifamily households typically have a lower energy usage because of their smaller square footage, less occupants and because they are generally better insulated due to only having one or two sides exposed to the exterior temperatures.

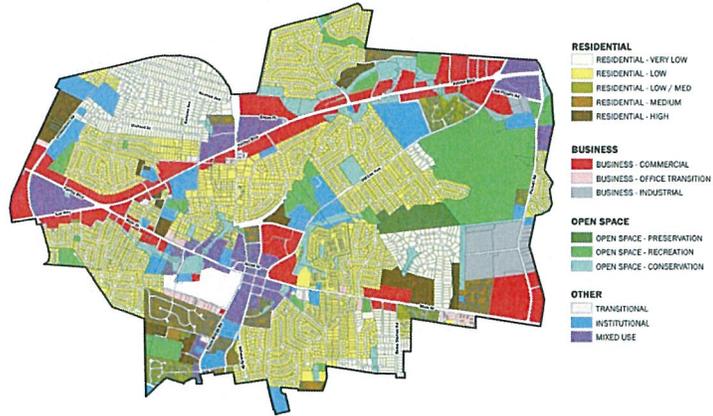
Scenario 4 had the largest projected household energy usage because this scenario had a higher percentage of townhomes and single family households.

Where To Go From Here

Future Land Use Map

Results will assist in preparing Comprehensive Plan's Future Land Use Map and other recommendations. This Map:

- Demonstrates what the community wants to have happen in 15-20 years
- Informs zoning and development decisions
- Is based on public input such as Scenario Planning



2035 Comprehensive Plan Vision Statement

The City of Fairfax is a vibrant, livable 21st century community with a strong, sustainable economy that supports walkable, safe and convenient access to the natural and built environment.



2035 Comprehensive Plan Timeline

	Spring 2016	Summer 2016	Fall 2016	Winter 2017	Spring 2017	Summer 2017	Fall 2017	Winter 2018	Spring/Summer 2018
Initial Input (Community Survey)	Active	Active	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Plan Development	Completed	Active	Active	Active	Active	Active	Active (★)	Active	Completed
Draft Plan	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Active	Active
Final Plan	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Active



Questions/Comments

703 / 385.7930

ComprehensivePlan@fairfaxva.gov

For More Information

www.fairfaxva.gov/LivableFairfax

