



Date: January 28, 2019

To: Wendell Davis, County Manager
Through: Jay Gibson, General Manager
From: Patrick O. Young, AICP, Planning Director
Subject: Annual Evaluation and Assessment Report of the *Durham Comprehensive Plan* (A1800001)

Summary. Policy 1.1.4a of the *Durham Comprehensive Plan* requires the Planning Department to submit an annual Evaluation and Assessment Report (EAR) to the governing boards. The EAR serves as an opportunity to highlight progress in implementing the Plan, propose changes to the policies and *Future Land Use Map (FLUM)* of the Plan, and present land use trends and issues.

Recommendation. Staff recommends that the Board of Commissioners rectify the Future Land Use Map with plan amendments identified in Attachment 1 and approval of the policy text changes identified in Attachment 2, and approval of the changes to the FLUM as shown in Attachment 3.

Background. This is the sixth annual EAR of the *Durham Comprehensive Plan* since the document was updated in the spring of 2012. Section 3.4.10 of the Unified Development Ordinance (UDO) directs the EAR to include the following components:

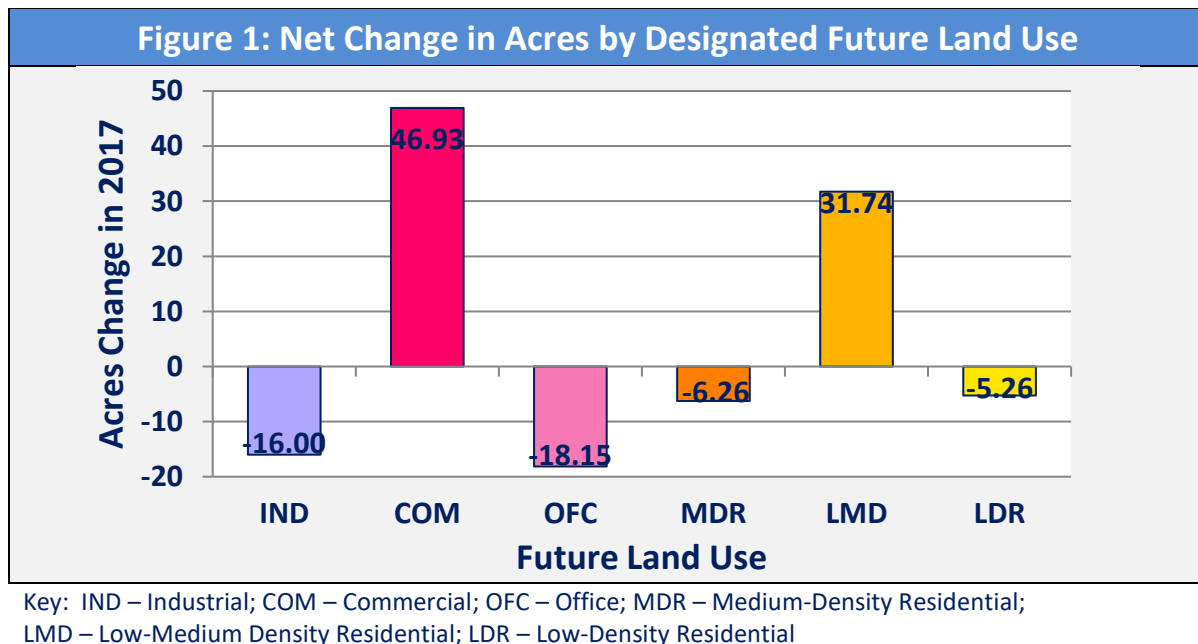
1. A rectification of any differences between the adopted Future Land Use Map of the City and County. In addition, a summary of all zoning cases approved in the past year is included;
2. A report on the progress of policies within the *Durham Comprehensive Plan*;
3. Proposed changes to the policies of the *Durham Comprehensive Plan* that are primarily technical in nature including identification of implemented policies, if any;
4. Technical updates to the Future Land Use Map; and
5. A summary report of planning trends and issues that may affect land use policy in the future.

1a. Rectification. The EAR serves as an opportunity to rectify differences between adopted plans of the City and County. When plan amendments are adopted by either the Board of County Commissioners or the City Council, the *FLUM* becomes inconsistent (Table 1 and Attachment 1).

Nine plan amendments were approved by the City Council in 2017 and have yet to be rectified by the Durham County Board of Commissioners. Durham County Board of Commissioners approved no plan amendments in 2017.

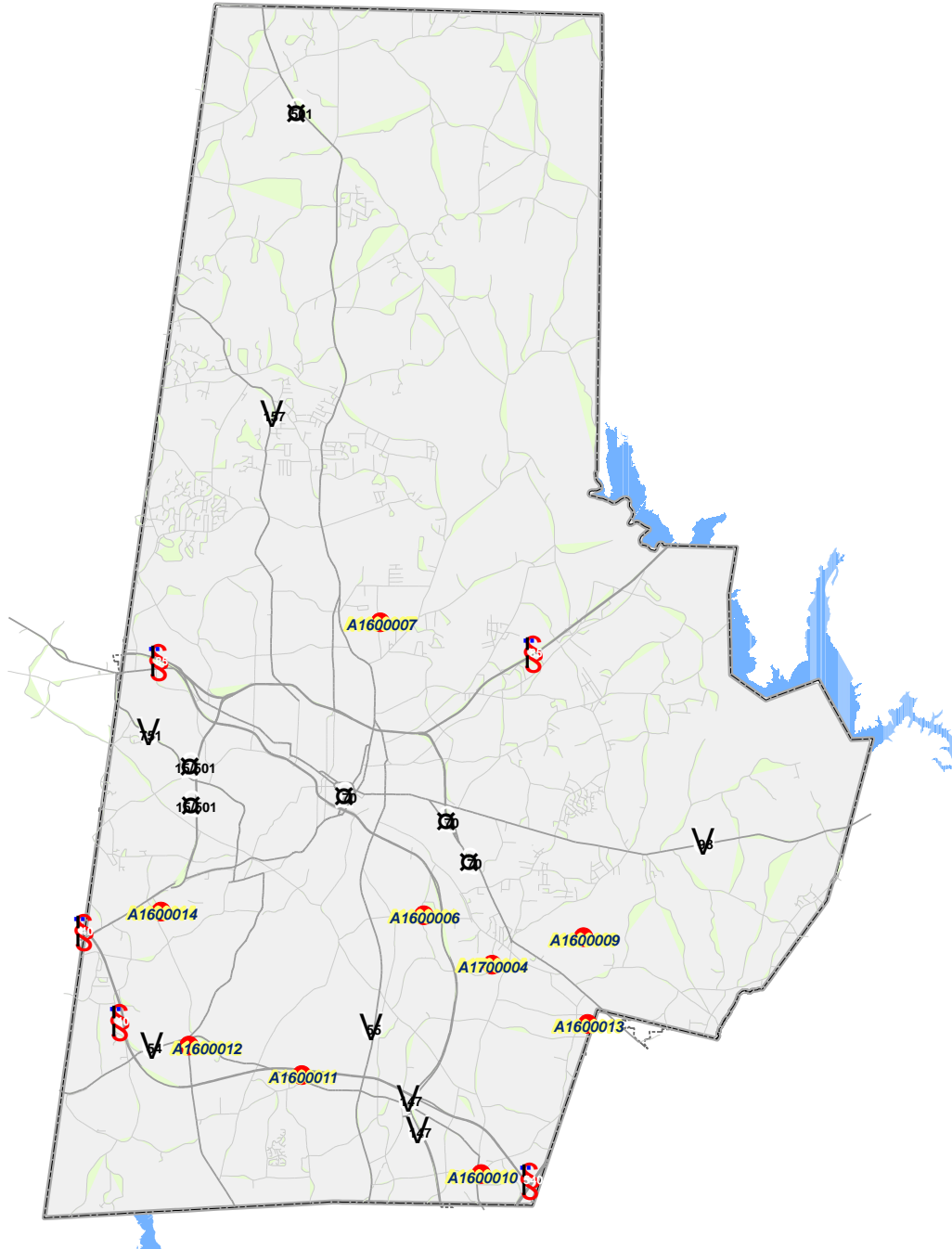
Table 1. Approved Plan Amendments In 2017					
CASE #	CASE NAME	ELECTED BODY	FUTURE LAND USE		APPROVAL DATE
			From	To	
A1600010	Church Hill Commons I and II	DCC	Industrial	Commercial	4/17/2017
A1600006	1201 Ellis Road	DCC	Low-Density Residential	Low-Medium Density Residential	6/5/2017
A1600013	Lumley Road Townhouses	DCC	Commercial	Medium-Density Residential	6/5/2017
A1600009	Brightleaf at the Park Tract 12	DCC	Low-Medium Density Residential	Low-Density Residential	8/7/2017
A1600007	4000 Danube Lane	DCC	Low-Medium Density Residential	Medium Density Residential	8/7/2017
A1600011	Barbee Road Retail	DCC	Office	Commercial	9/18/2017
A1600012	751 REA	DCC	Office	Commercial	10/16/2017
A1600014	Ample Storage Sandy Creek	DCC	Medium-Density Residential	Commercial	10/16/2017
A1700004	Ellis Road Townhouses Phase II	DCC	Low-Density Residential	Low-Medium Density Res.	11/20/2017

Changes in net acreage by land use are shown in Figure 1. The most significant impacts were commercial designations, which increased by about 47 acres, low-medium density residential (4-8 DU/Acre), which grew by about 32 acres, and office and industrial designations, which declined by 18 and 16 acres, respectively.



As was the case in 2016, the majority of Plan Amendments approved in 2017 were located in the southern half of the County (See Figure 2).

Figure 2. Locations of Approved Plan Amendments in 2017



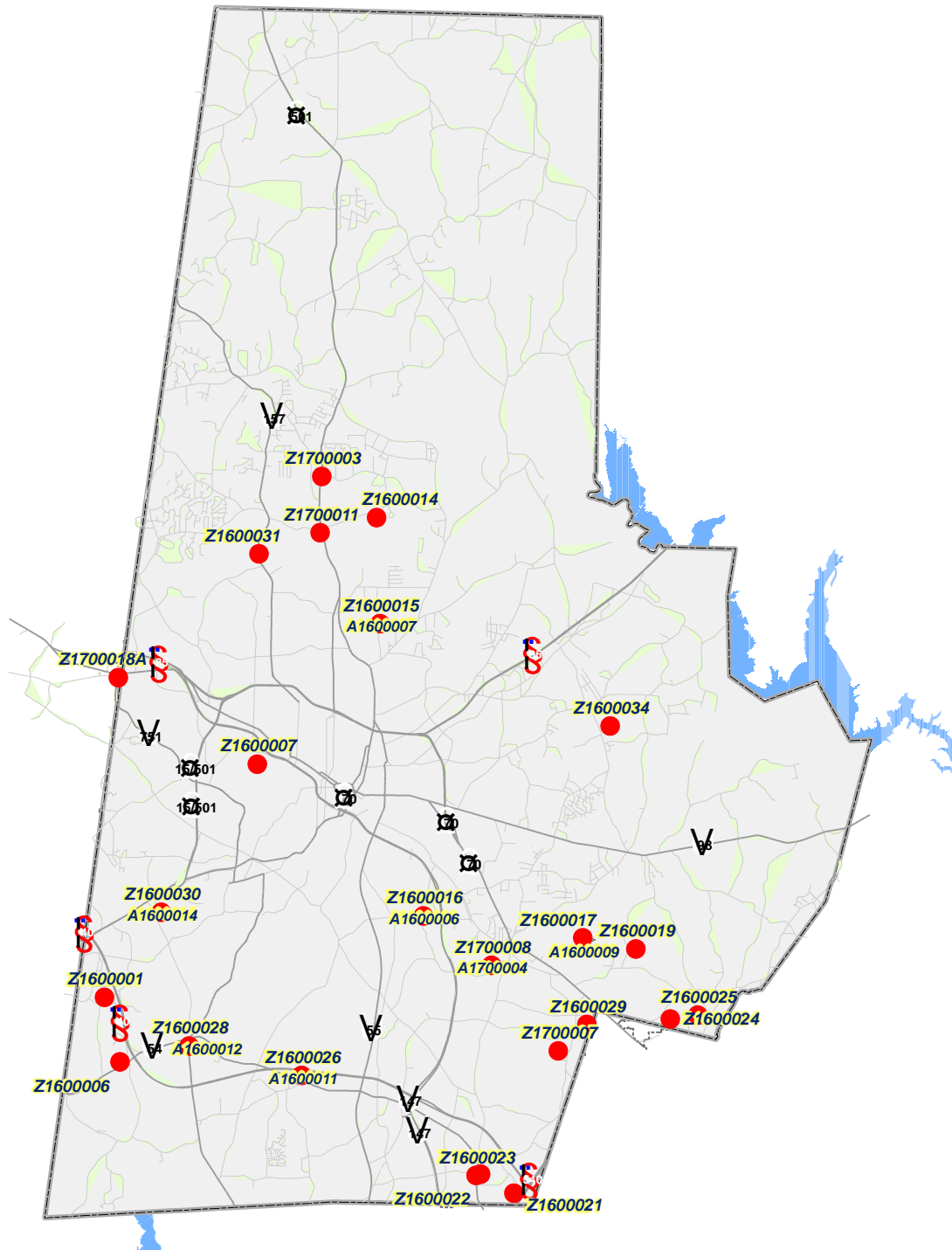
1b. Zoning Map Changes in 2017. The City Council approved 26 changes to the Zoning Map in 2017. The Board of County Commissioners approved no zoning map changes in 2017, as indicated in Table 2

below. Figure 3 provides a map showing the geographic location and distribution of the approved changes.

Table 2. Approved Zoning map Changes in 2017					
CASE #	CASE NAME	ELECTED BODY	ZONING		APPROVAL DATE
			From	To	
Z1600006	108 Celeste Circle II	DCC	RS-20	OI(D)	1/17/2017
Z1600001	Creekside Commons	DCC	RS-20	PDR 5.000	2/20/2017
Z1600033*	Joven Revision	DCC	PDR 4.840	PDR 4.840	2/20/2017
Z1600021	Shiloh Assemblage	DCC	RR	IL	3/20/2017
Z1600019	Fendol Farms	DCC	PDR 3.000	PDR 2.903	4/17/2017
Z1600022	Churchill Commons	DCC	IP	CG(D); CG	4/17/2017
Z1600023	Churchill Commons II	DCC	IP	CG(D); CG	4/17/2017
Z1600025	Yancey Property	DCC	RR	PDR 3.170	5/1/2017
Z1600007	Watkins at Witherspoon	DCC	RR(D)	MU(D)	6/5/2017
Z1600016	1201 Ellis Road	DCC	RR	PDR 7.870	6/5/2017
Z1600029	Lumley Road Townhouses	DCC	RR; CC	RS-M	6/5/2017
Z1600014	Village Hearth Cohousing Community	DCC	RS-20 & RS-10	PDR 2.110	6/19/2017
Z1600031	Carillon Assisted Living of North Durham	DCC	RS-20	PDR 3.906	8/7/2017
Z1600017	Brightleaf Tract 12	DCC	PDR 3.990	PDR 1.902	8/7/2017
Z1600015	4000 Danube Lane	DCC	RS-20	PDR 10.000	8/7/2017
Z1600024	Andrews Chapel*	DCC	PDR 4.793	PDR 4.437	8/7/2017
Z1600034	Yancey Property	DCC	RR	PDR 1.964	8/21/2017
Z1700018A	Jacobs Glass Initial	DCC	RS-20; IL	IL	9/5/2017
Z1700002	Hendrick Southpoint Overall	DCC	CG(D)	CG(D)	9/18/2017
Z1700003	117 Goodwin	DCC	RR; RS-20	RR	9/18/2017
Z1600026	Barbee Road Retail	DCC	RS-20	CG(D)	9/18/2017
Z1600028	REA Commercial	DCC	OI(D); RS-20	CG(D)	10/16/2017
Z1600030	Ample Storage Sandy Creek	DCC	RR	CG(D)	10/16/2017
Z1700007	Smallwood Drive	DCC	RR	PDR 6.458	11/20/2017
Z1700008	Ellis Road Townhouses Phase 2	DCC	RR	PDR 6.678	11/20/2017
Z1700011	5275 North Roxboro Street	DCC	CN	CG(D)	12/18/2017

*Change in development plan only

Figure 3. Locations of Approved Zoning Map Changes in 2017



2. Proposed Changes in Policy Language. A small number of departments requested changes to policy language to better reflect their current priorities. Most proposed changes are minor or represent technical changes. Proposed policy changes are described in Attachment 2.

3. Technical Updates to the Future Land Use Map. One change, to the Future Land Use Map, involving three parcels, is proposed this year. The parcels in question, PIDs 176935, 176924, and 212017, respectively, have been acquired by the state of North Carolina and are dedicated open space in the vicinity of Eno River State Park (See Attachment 3).

4. Land Use Issues and Trends. Comprehensive plans are intended to guide growth and development in an organized, efficient, and sustainable manner. In order to do so, identification of emerging trends is crucial. Typically, trends are anticipated by assuming some sort of continuity with the past, utilizing data about the past to predict some future outcome. This approach is admittedly imperfect because not all factors or events can be anticipated. Economic recessions, state legislative actions, gain or loss of a major employer, demographic shifts and associated changes in lifestyle preferences, and technological change, can all profoundly alter outcomes. Therefore, it is important to periodically revisit and adjust projections, particularly projections of land use demand.

A. Population and Housing Trends

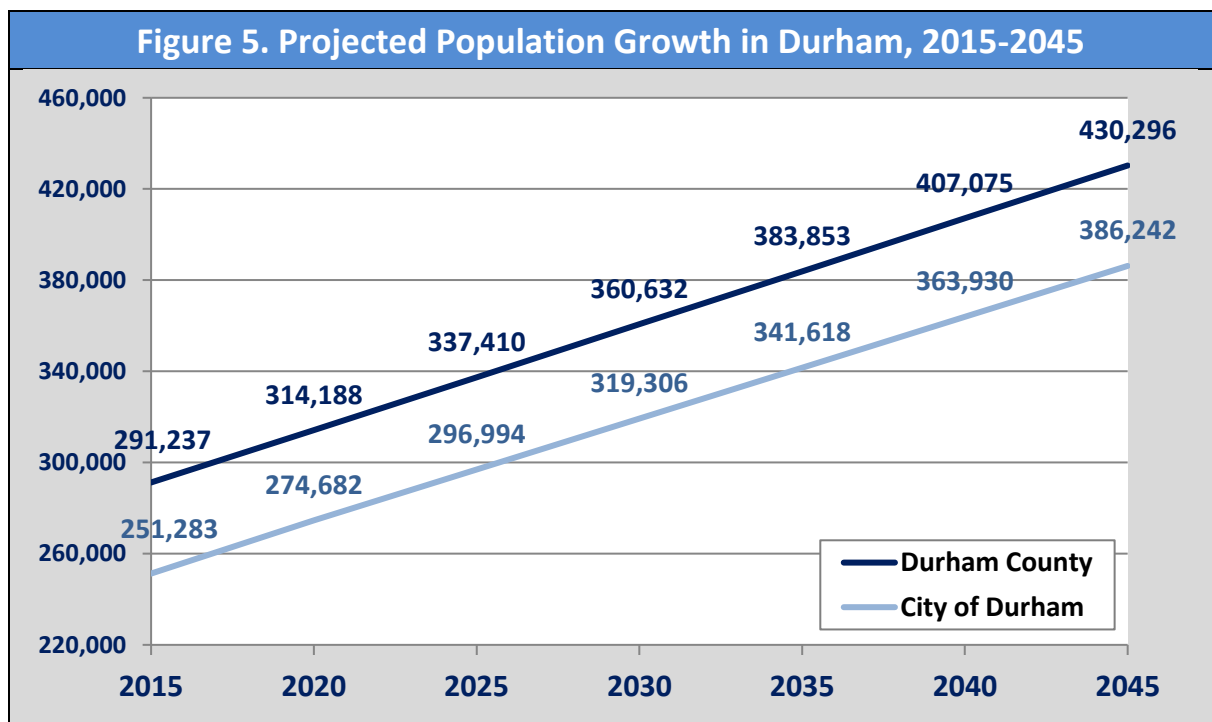
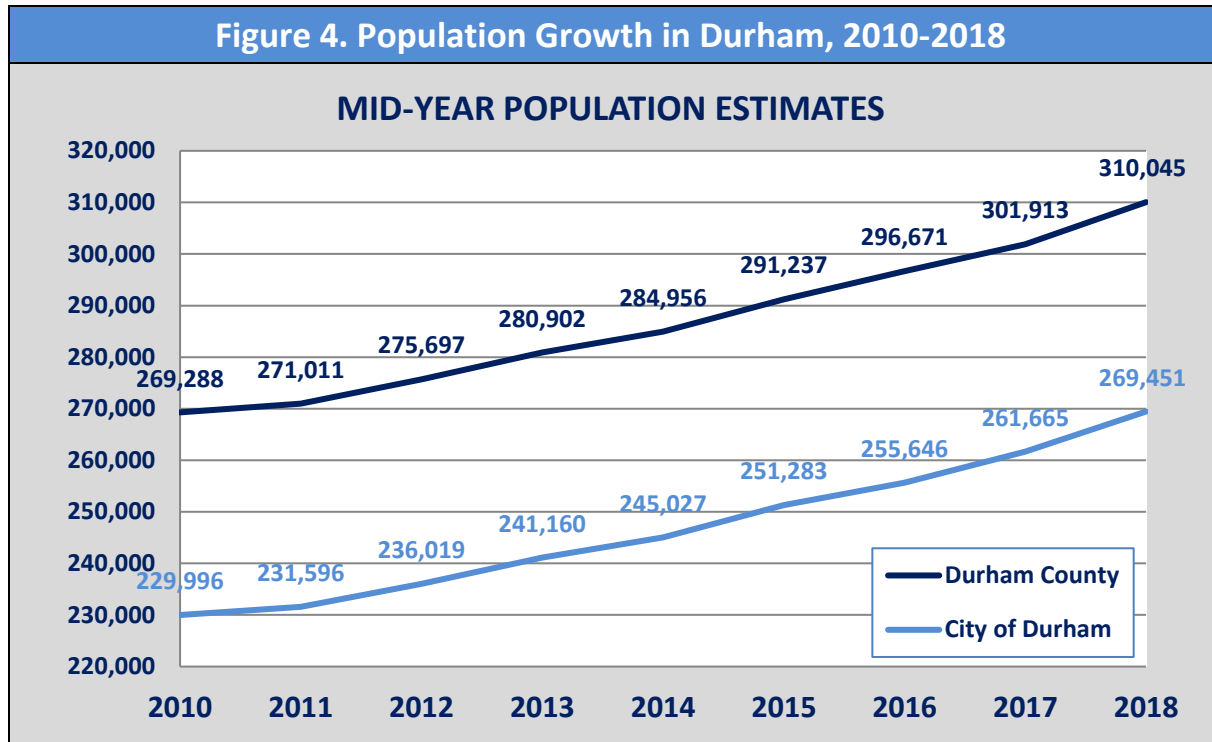
i. Population Growth

Durham County's population grew by over 16 percent between April 2010 and July 2018 (See Figure 4). During the same period the City of Durham grew by 17 percent. Population growth has varied considerably by Development Tier (See Table 3). Although the largest gain was in the Suburban Tier over the past eight years, population growth in the Downtown Tier has exhibited the largest growth rate by far.

Table 3. Population Growth by Development Tier				
Development Tier	2010 Census Population	Population July 31, 2018	Population Added	Percent Growth
Downtown	3,219	6,396	3,177	98.68%
Compact Neighborhood	13,606	20,814	7,208	52.98%
Urban	66,504	68,512	2,008	3.02%
Suburban	170,063	200,640	30,551	17.96%
Rural	10,212	10,622	410	4.01%
Total:	263,604	306,984	43,354	16.45%
Note that approximately 3,979 Durham County residents live in Chapel Hill or Raleigh.				

Source: Durham City-County Planning Department

Durham County's population is projected to exceed 430,000 by 2045 while the City of Durham is expected to exceed 386,000 (See Figure 5). Please note that the trend-lines shown in Figure 5 represent an idealized "best-fit" line. In reality, Durham's population will continue to exhibit periods of lower than expected growth alternating with periods of robust growth reflecting local, regional, state, and national economic trends.



ii. Notable Components of Demographic Change

Seniors, defined as persons 60 years of age and older, are Durham's fastest growing segment of the population. The senior population increased by almost 67 percent from 2000 to 2015, far exceeding rates of growth for other age-cohorts (See Table 4). During this period the average age of Durham residents increased from 32.2 years of age to 34.9 years of age.

Table 4. Durham County - Change in Population by Age-Cohort, 2000-2015			
Age-Cohort	YR 2000 Population	YR 2015 Population	Percent Growth by Age-Cohort
0-17 (Minor)	51,209	64,163	25.30%
18-39 (Young Adult)	89,401	105,519	18.03%
40-59 (Middle Age)	54,405	74,428	36.80%
60 + (Senior)	28,299	47,127	66.53%
Average Age	32.2	34.9	Average Age
Total Population	223,314	291,237	Total Population

Notes:

- (1) Data sources include 2000 U.S. Census of Population and 2015 American Community Survey. Population for 2015 is from Durham City-County Planning Department monthly population estimates. The estimate provided is for mid-year.
- (2) "Percent Growth by Age-Cohort" should not be confused with "percent of total population." The percentages shown in column four above reflect growth rates within each age-cohort. Durham County's senior population is currently 16.2% of total population, up from 12.7% in the year 2000.

Durham's population by race and ethnicity exhibits notable diversity (See Table 5). Growth of Durham's Hispanic/Latino population was perhaps the most notable change during the first decade of the 21st century. However, in recent years the percentage of Hispanic residents has stabilized at about 13-14 percent of the population.

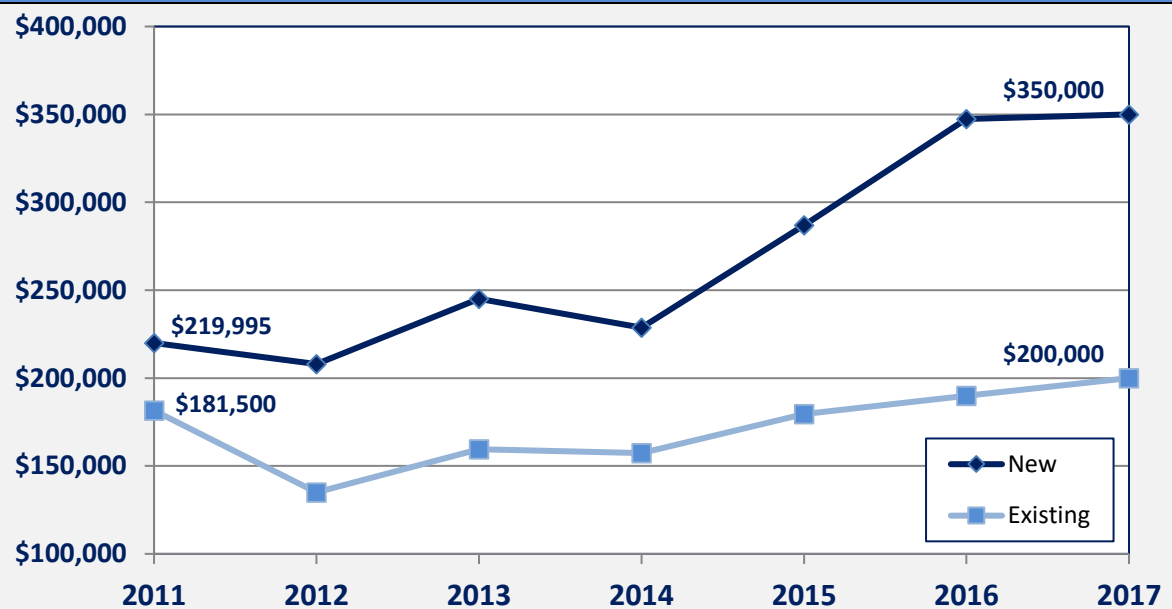
Table 5. Population by Race and Ethnicity, 2018			
Durham County			
Race	Not Hispanic or Latino	Hispanic or Latino	Total
White	130,423 (43.1%)	28,684 (3.2%)	159,107 (51.3%)
Black or African American	114,956 (37.1%)	1,100 (0.3%)	116,056 (37.4%)
Native American	1,052 (0.2%)	275 (0.0%)	1,327 (0.4%)
Asian	14,199 (4.5%)	12 (0.0%)	14,211 (4.6%)
Pacific Islander	127 (0.0%)	0 (0.0%)	127 (0.0%)
Some Other Race	530 (0.3%)	9,745 (8.5%)	10,275 (3.3%)
Multi-Race	7,145 (2.32%)	1,801 (0.4%)	8,947 (2.9%)
Total Population	268,428 (86.6%)	41,617 (13.4%)	310,345
City of Durham			
Race	Not Hispanic or Latino	Hispanic or Latino	Total
White	103,101 (38.3%)	25,857 (9.6%)	128,958 (47.9%)
Black or African American	107,168 (39.8%)	1,074 (0.4%)	108,242 (40.2%)
Native American	1,002 (0.4%)	235 (0.1%)	1,237 (0.5%)
Asian	13,515 (5.0%)	12 (0.0%)	13,527 (5.0%)
Pacific Islander	127 (0.0%)	0 (0.0%)	127 (0.0%)
Some Other Race	539 (0.2%)	8,595 (3.2%)	9,134 (3.4%)
Multi-Race	6,609 (2.5%)	1,616 (0.6%)	8,225 (3.1%)
Total Population	232,060 (86.1%)	37,391 (13.9%)	269,451

Sources: City-County Planning Department population estimates for July 1, 2018. The percentages used in preparing these estimates were taken from the 2016 American Community Survey for Durham County and the City of Durham. Note that racial categories used in the table above reflect categories in the decennial U.S. Census of Population.

iii. Housing

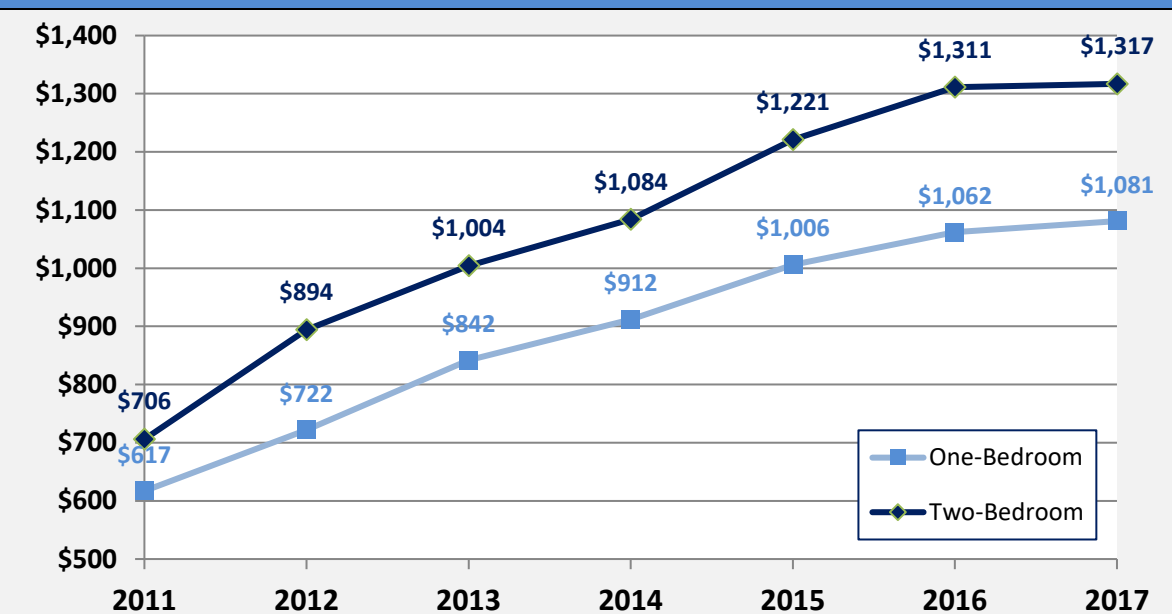
Land for new development is a limited resource in Durham and increasing land demand and economic growth has not been an unalloyed benefit for all residents. During the period 2011-2017, average sales price for new single-family housing rose by 59 percent. Average sales price for existing single-family housing rose by 10 percent during the same period (See Figure 6). Average monthly rent for a two-bedroom apartment rose by almost 87 percent, while average monthly rent for a one-bedroom apartment rose by 75 percent (See Figure 7). During the same period, median household income rose by 16.4 percent. Thus, affordable housing for households making less than 80 percent of median income has emerged as a particularly intractable problem.

Figure 6. Average Sale Value of Homes in Durham, 2011-2017



Source: Redfin Corporation, <https://www.redfin.com/blog/2017/10/heres-the-1-reason-its-so-hard-to-find-an-affordable-home.html>

Figure 7 Apartments - Average Monthly Rent in Durham, 2011-2017



Source: <https://www.rentjungle.com/average-rent-in-durham-rent-trends/>

iv. Non-Residential Land Uses

Industrial, commercial, and office/institutional lands comprise approximately 11 percent of Durham County. These uses are Durham County's economic engine, generating approximately 243,000 jobs in 2015. Land use demand is largely a function of population and employment. The Durham City-County Planning Department has recently projected land use demand based on anticipated population and employment growth through the year 2045. The results are shown in Table 6.

Table 6. Employment and Land Use Demand, 2015-2045							
Year:	2015	2020	2025	2030	2035	2040	2045
Persons Employed							
Industrial	37,602	39,464	39,464	41,326	43,189	45,051	46,913
Commercial (Retail and Services)	40,508	42,619	44,729	46,840	48,951	51,061	53,172
Office/Institutional	158,025	166,259	174,493	182,727	190,961	199,194	207,428
Other Employment	6,932	7,390	9,711	10,169	10,626	11,086	11,544
Non-Residential Land Use Demand in Acres							
Industrial	7,247	7,324	7,687	8,049	8,412	8,775	9,137
Commercial (Retail and Services)	4,354	4,699	5,047	5,394	5,741	6,089	6,436
Office/Institutional	7,144	7,346	7,417	7,767	8,117	8,467	8,817

Source: Durham City-County Planning Department. Base employment data used for the employment projections and estimated land use demand were from the U.S. Office of Economic Analysis.

A great deal has been written over the past few years about an ongoing "retail apocalypse" affecting brick and mortar retail stores nationwide. Approximately 9,000 stores nationwide closed in 2017 and nearly a quarter of the nation's shopping malls are at high risk of losing an anchor tenant.¹ However, although some traditional retail powerhouses like Sears, J.C. Penney, and Macy's are struggling, some retailers, notably discount stores like Dollar General, Lidl, and Ross, are thriving. There appear to be a number of reasons for these shifting market dynamics, including the rise of e-commerce, over-supply of malls, changing consumer preferences,² and possibly, the relatively meager multi-year rise of average household income compared to cost of living.³ It remains to be seen to what degree Durham's large shopping centers will be impacted by the alleged apocalypse.

So-called "sharing economies" are also an emerging trend that may impact land use planning over the next few decades in ways that are presently difficult to predict. Sharing economies involve

¹ A Tsunami of Store Closings is About to Hit the US – and it's Expected to Eclipse the Retail Carnage of 2017, Business, Insider January 2018, (See: <https://www.businessinsider.com/store-closures-in-2018-will-eclipse-2017-2018-1>)

² What in the World is Causing the Retail meltdown of 2017?, The Atlantic, April 2017 (See: <https://www.theatlantic.com/business/archive/2017/04/retail-meltdown-of-2017/522384/>)

³ Retail Apocalypse? Put the Blame where it Belongs, Not on the Internet, Forbes, June 2018 (See: <https://www.forbes.com/sites/joegose/2018/06/12/retail-apocalypse-put-the-blame-where-it-belongs-not-on-the-internet/#7e4ae39a76be>)

sharing of resources or services, highlighting the ability or preference of some consumers to rent or borrow goods rather than buy or own them. Sharing economies also include services like Ebay, which facilitates web-based, peer-to-peer exchange of goods.

v. Transportation

Scrupulous coordination between Durham's *Comprehensive Plan*, and more specifically Durham's *Future Land Use Map*, with regional transportation plans will be crucial in addressing the challenges presented by continued growth and development and the transportation impacts such growth implies. As suggested by demographic data presented earlier in this report, Durham's population as a whole is aging, average household size is shrinking, and the number of single-person households and households without minor children is increasing.

Recent trends indicate growing locational demand for housing in more compact neighborhoods in proximity to employment centers, urban services, and recreation opportunities. Durham has embraced the *Complete Streets* policy adopted by NCDOT in 2009. Complete streets are streets designed to be safe and comfortable to all users, including pedestrians, bicyclists, transit riders, motorists and individuals of all ages and capabilities. These streets generally include sidewalks, appropriate bicycle facilities, transit stops, right-sized street widths, context-based traffic speeds, and are well-integrated with surrounding land uses.

The Triangle region has historically been one of the nation's most sprawling regions and forecasts project both continued outward growth and infill development in selected locations, most notably at community-defined activity centers, within design districts, and the Research Triangle Park.⁴ Interstate Highway 40 is critical for regional mobility. I-40 will, according to the Comprehensive Transportation Plan prepared by the Durham-Chapel Hill Metropolitan Planning Organizations (DCHC MPO), exceed LOS D capacity by 2040⁵ (See Table 7). Increased traffic demand and slower travel times on I-40 will have statewide, regional and local impacts. Recommended and planned improvements to I-40 will need to accommodate improved bus service. The planned regional light rail system in Durham will include two stations in proximity to the I-40 corridor (Patterson Place and Leigh Village). These stations are anticipated to have bus transfers and park-and-ride lots.

The *Comprehensive Plan* created Durham's Compact Neighborhood Tiers in 2005 to serve as a framework for development around regional transit stations. And in 2016, seven compact neighborhoods were established as "Design Districts" under the *Unified Development Ordinance*. The intention is to promote high density development and redevelopment that will integrate a mix of urban uses and facilitates population and employment growth in proximity to planned light and commuter rail stations. These districts will incorporate street-oriented buildings, pedestrian and bicycle friendly design, and a high-density mix of uses to increase liveliness and sense of place.

⁴ Connect 2045, Metropolitan Transportation Plan, 2018, Capital Area MPO and Durham-Chapel Hill-Carrboro MPO.

⁵ Comprehensive Transportation Plan (draft), 2017, Durham-Chapel Hill-Carrboro Metropolitan Planning Organization, page 2-16.

Table 7. Projected I-40 Average Daily Traffic Demand - Selected Roadways					
From	To	2015 AADT	Existing Capacity	2040 Volume	2040 Volume/ Capacity
NC 86	US 15-501	73,000	59,900	94,000	1.6
US 15-501	NC 54	90,000	90,700	118,000	1.3
NC 54	NC 751	116,000	90,700	135,000	1.5
NC 751	Fayetteville St	115,000	90,700	135,000	1.5
Fayetteville St	NC 55	124,000	90,700	141,000	1.6
NC 55	NC 147	128,000	90,700	146,000	1.6
NC 147	Davis Dr	154,000	121,900	196,300	1.6
Davis Dr	Miami Blvd	161,000	121,900	199,000	1.6
Miami Blvd	Page Rd	174,000	121,900	212,000	1.7
Page Rd	I 540	181,000	121,900	211,000	1.7

Source: 2017 (draft) Comprehensive Transportation Plan, DCHC MPO.

Autonomous vehicles have been touted as a solution to some of the congestion afflicting urban byways, as well as environmental issues arising from Americans' love affair with personal vehicles. If electric cars and self-driving cars become more prevalent they may have an important impact on land use by reducing congestion, emissions and eliminating the manual effort of driving. However, autonomous vehicles are an emerging technology that is still experimental and which still faces technical challenges. For example, falling rain and snow can make it difficult for laser sensors to identify obstacles, such as large puddles created by heavy rain. Moreover, imperfect mapping of roadways can create issues for automated systems that rely in part on digital maps. And, in some emergency situations, autonomous vehicles may sometimes be faced with less than optimum split-second choices, such as whether to veer in order to avoid a pedestrian, thereby crashing into another vehicle or inanimate object. A fear of hacking into the operating systems of autonomous vehicles for nefarious purposes remains an unresolved issue at this time.

Staff Contact

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Attachments

- Attachment 1, Approved Plan Amendments in 2017
- Attachment 2, Recommended *Comprehensive Plan* Text Changes
- Attachment 3, Recommended Changes to Future Land Use Map
- Attachment 4, Planning Commission Comments
- Attachment 5, Resolution