

 *DRAFT*

# Harris Teeter #223 Fuel Center Market Demand Analysis

Chapel Hill, NC

Harris Teeter Properties, LLC  
701 Crestdale Road  
Matthews, NC 28105

April 2019 | VERSION 1

**Kimley»»Horn**



**Table of Contents**

**1. Introduction .....1**

    1.1 Area and Project Overview ..... 1

    1.2 Trade Area Description ..... 2

**2. Demographic Profile .....4**

    2.1 Population Trends ..... 4

    2.2 Household Trends ..... 5

    2.3 Housing Unit Trends ..... 6

**3. Employment Profile .....8**

    3.1 Annualized Employment by Industry..... 8

    3.2 Annualized Wages by Industry ..... 10

    3.3 Commuting Patterns ..... 11

**4. Retail Leakage .....13**

    4.1 Primary Market Area ..... 13

    4.2 Secondary Market Area ..... 13

**5. Competitive Landscape .....15**

**6. Development Activity .....16**

    6.1 Non-Residential Projects ..... 17

    6.2 Residential Projects ..... 17

**7. Future Fuel Center Demand .....19**

    7.1 PMA Household Forecast ..... 19

    7.2 Fuel Center Demand Forecast..... 20

    7.3 Conclusion ..... 20

**Disclaimer.....22**

**Tables**

Table 1: Comparison of Population Trends, 2010-2018 ..... 4

Table 2: Population by Age Cohort, Secondary Market Area, 2010-2018..... 4

Table 3: Comparison of Household Trends, 2010-2018..... 5

Table 4: Comparison of Housing Unit Trends, 2010-2018 ..... 6

Table 5: Annualized Employment by Industry, Durham-Chapel Hill MSA, 2012-2017..... 9

Table 6: Annualized Wages by Industry, Durham-Chapel Hill MSA, 2012-2017..... 11

Table 7: Retail Leakage/Surplus, Primary Market Area, 2019..... 13

Table 8: Retail Leakage/Surplus, Secondary Market Area, 2019..... 14

Table 9: Non-Residential Development Pipeline, Secondary Market Area, 2019 ..... 17

Table 10: Residential Development Pipeline, Secondary Market Area, 2019 ..... 18

**Graphs**

Graph 1: Comparison of Median Household Income, 2018..... 5

Graph 2: Comparison of Households by Income Cohort, 2018 ..... 6

Graph 3: Residential Building Permit Trends, Orange County, 2003-2018..... 7

Graph 4: Annual Net New Job Growth, Durham-Chapel Hill MSA, 2006-2017 ..... 8

Graph 5: Total Annual Employment by Industry, SMA, 2018 ..... 10

**Maps**

Map 1: Market Area Definitions, 2019..... 3

Map 2: Commuting Patterns, Secondary Market Area, 2015 ..... 12

Map 3: Existing Fuel Centers, 2019..... 15

Map 4: Development Activity, Primary and Secondary Market Areas, 2019 ..... 16

## 1. INTRODUCTION

Harris Teeter Properties, LLC contracted with Kimley-Horn to prepare a market demand analysis for the proposed construction of a fuel center within the parking field of a shopping center anchored by Store #223 on NC 86/Martin Luther King Jr. Boulevard (MLK Jr Boulevard), directly south of I-40, in the Town of Chapel Hill, North Carolina. Harris Teeter has also proposed expanding the grocery footprint

This analysis was prepared as support documentation for the request of a special use permit for the fuel center at Harris Teeter store #223. The purpose of this analysis is to justify future need for a new fuel center and determine impact on surrounding land uses and businesses. The report projects demand considering a variety of metrics, including area demographics, employment, retail leakage, existing competition, and future development pipeline.

### 1.1 AREA AND PROJECT OVERVIEW

The project site is in the southeast quadrant of MLK Jr Boulevard and I-40, within the Chapel Hill North Shopping Center. The existing 50,621-square-foot grocery footprint is currently proposed to expand by 11,908 square feet. There is approximately 44,640 square feet of additional in-line and standalone retailers in the southern half of the shopping center, including a UPS Store, Jersey Mike's Subs, and Snap Fitness. An existing Exxon/Cruizers gas station is in the northeast quadrant of Perkins Drive and MLK Jr Boulevard in the same lot as Harris Teeter #223 with common access. Immediately east of the retail center is a 123-unit luxury apartment community that was completed in 2011.

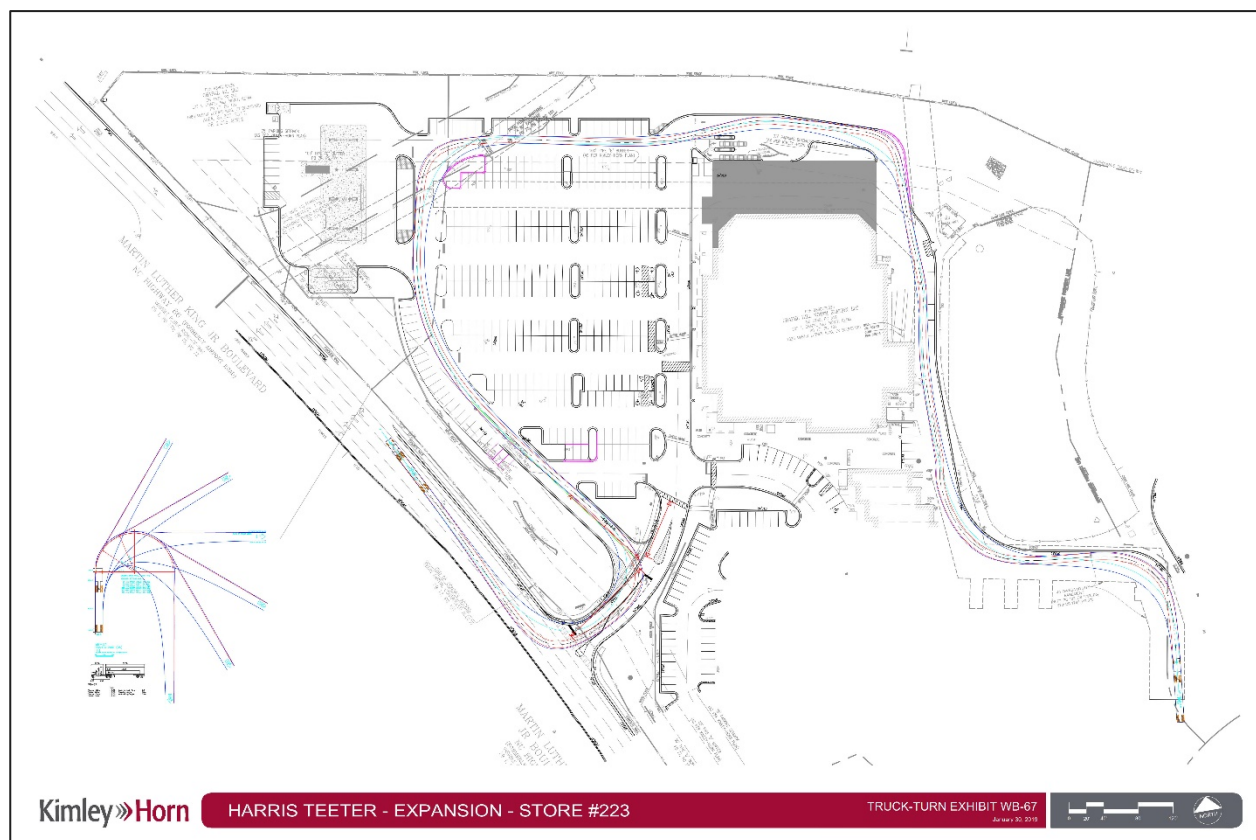
The Chapel Hill North shopping center is bordered to the south by a commercial development that contains medical and professional offices. Northwood, a lower-density single-family residential neighborhood with a median closing price of approximately \$450,000, is directly across MLK Jr Boulevard to the west (*Figure 1*). The I-40 corridor is located directly north of the site. The average daily traffic on MLK Jr Boulevard, north of Perkins Drive, is approximately 30,000 vehicles.



The first phase of a large mixed-use development, Carraway Village, is currently under construction northwest of the site in the southwest quadrant of I-40 and MLK Jr Boulevard. Developed by Northwood Ravin, the first phase includes 403 apartments in ten buildings and 8,400 square feet of ground-level retail and was completed in late-2018. The luxury apartments have quoted lease rates ranging from \$1,000 to more than \$2,500, depending on floorplan. At full build-out the community could have between 600,000 and 837,000 square feet of apartments, retail, office, and hotel space. Future development phases are not clearly defined at this point.

As shown in the proposed site plan (Figure 2), access to the site is not expected to change. There are two existing external access connections to Perkins Drive to the south and MLK Jr Boulevard to the west. The proposed fuel center will be located at the rear of the existing Harris Teeter parking lot and is expected to draw heavily from the grocery customer base and other shopping center traffic. It is planned to include 14 gas pumps and additional on-site parking.

Figure 2: Proposed Site Plan, Harris Teeter #223

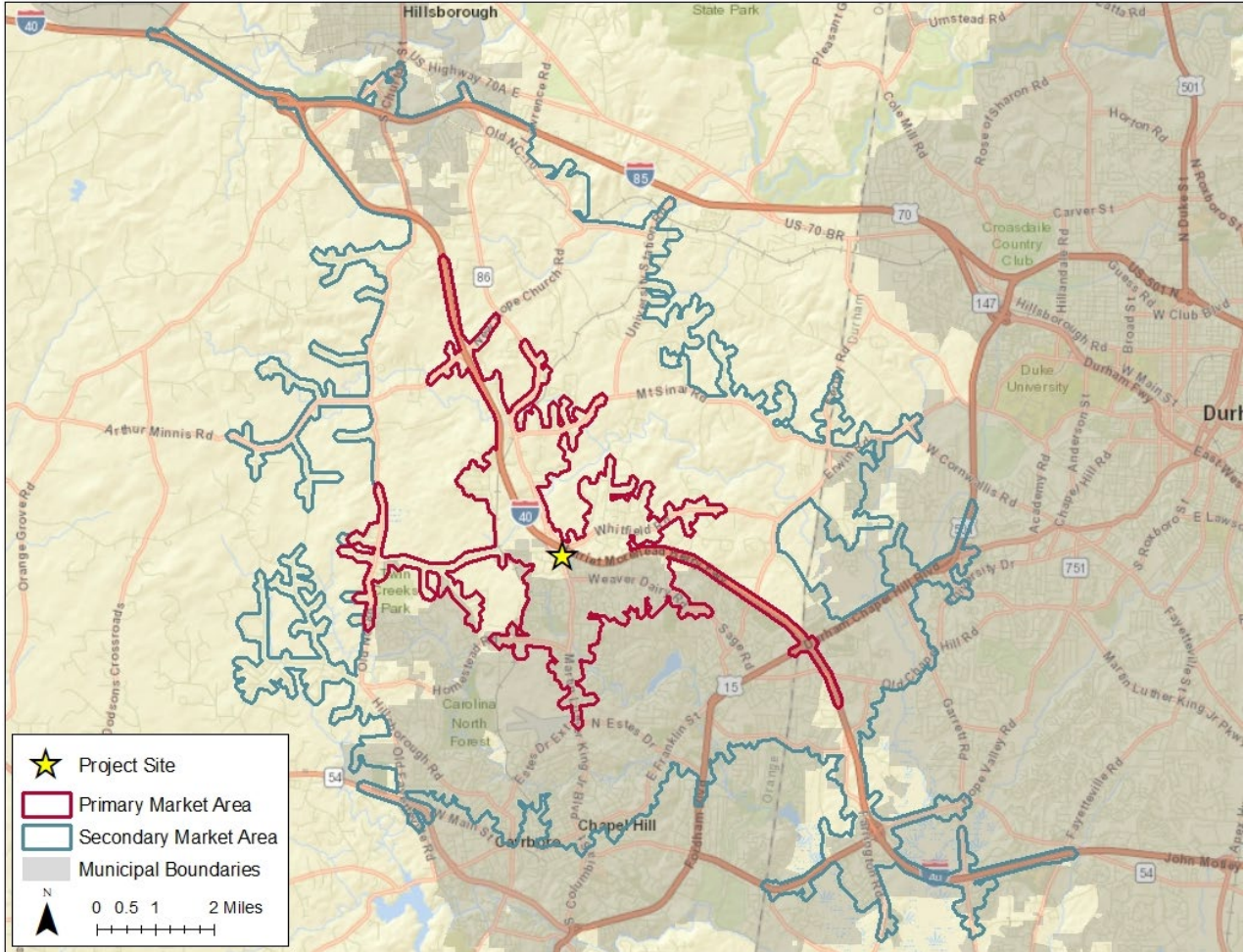


## 1.2 TRADE AREA DESCRIPTION

Two trade areas were defined for the proposed fuel center at Harris Teeter #223, a Primary Market Area (PMA) and a Secondary Market Area (SMA), which are based on 5-minute and 10-minute drive times, respectively, from the project site (Map 1). These trade areas were utilized for the analyses of demographics, employment, retail leakage, competitors, and development activity. Future demand focuses more specifically on the PMA considering commuting and traffic patterns driven by distribution of existing fuel centers and grocery stores.



Map 1: Market Area Definitions, 2019



Source: ESRI; Kimley-Horn

## 2. DEMOGRAPHIC PROFILE

This section analyzes population and household trends by age, income, and tenure for the PMA and SMA. Holding existing drive-by traffic along MLK Jr Boulevard and I-40 constant, increases in market area households will drive additional demand for additional services in northern Chapel Hill. It should be noted that all demographic metrics presented for the SMA are inclusive of the PMA.

### 2.1 POPULATION TRENDS

As shown in *Table 1*, both the PMA and SMA experienced increases in population between 2010 and 2018. The population of the PMA grew 12.4% during the eight-year period, reaching an estimated 8,925 residents. During the same period, the larger SMA, which is inclusive of the PMA, grew 11.8% from 61,440 to 68,664 residents. The share of the PMA population living within the SMA was 13.0% in 2018.

*Table 1: Comparison of Population Trends, 2010-2018*

Area	2010	2018	2010-2018 Δ		
			#	%	CAGR
Primary Market Area (5 min)	7,942	8,925	983	12.4%	1.5%
Secondary Market Area (10 min)	61,440	68,664	7,224	11.8%	1.4%
<b>PMA % Combined Market Area</b>	<b>12.9%</b>	<b>13.0%</b>	<b>13.6%</b>		

Source: ESRI; Kimley-Horn

Population by age cohorts are presented for SMA area. The cohort aged 65 to 74, representing a portion of the Baby Boomer generation, exhibited the strongest absolute and percentage growth between 2010 and 2018 in the SMA with an addition of nearly 2,200 residents (*Table 2*). Other notable increases include residents aged 55-64 and the older cohort of Millennials aged 25 to 34. The largest cohort in the SMA are residents aged 15-24, which contains the younger segment of Millennials, making up 20.9% of the population. This concentration could be influenced by the proximity to the University of North Carolina Chapel Hill campus, as well as representing younger residents in the cohort who still live at home. Together, the cohorts representing the Baby Boomers and the Millennials comprise more than half of the total SMA population.

*Table 2: Population by Age Cohort, Secondary Market Area, 2010-2018*

Cohort	2010	2018	2010-2018 Δ	
			#	%
0 - 14	10,691	10,849	158	1.5%
15 - 24	13,332	14,351	1,018	7.6%
25 - 34	8,786	10,437	1,651	18.8%
35 - 44	7,803	7,965	162	2.1%
45 - 54	8,417	8,377	-40	-0.5%
55 - 64	6,513	8,102	1,590	24.4%
65 - 74	3,133	5,287	2,154	68.7%
75 - 84	1,843	2,197	354	19.2%
85+	922	1,099	177	19.2%
<b>Total</b>	<b>61,440</b>	<b>68,664</b>	<b>7,224</b>	<b>11.8%</b>

Source: ESRI; Kimley-Horn



## 2.2 HOUSEHOLD TRENDS

The PMA gained 321 households between 2010 and 2018, representing an increase of 1.2%, reaching 3,472 households (*Table 3*). Comparatively, the SMA grew by 2,774 households over the eight-year period, which equated to a 11.3% increase. Households grew at a slower rate than total population, indicating an increase in household size.

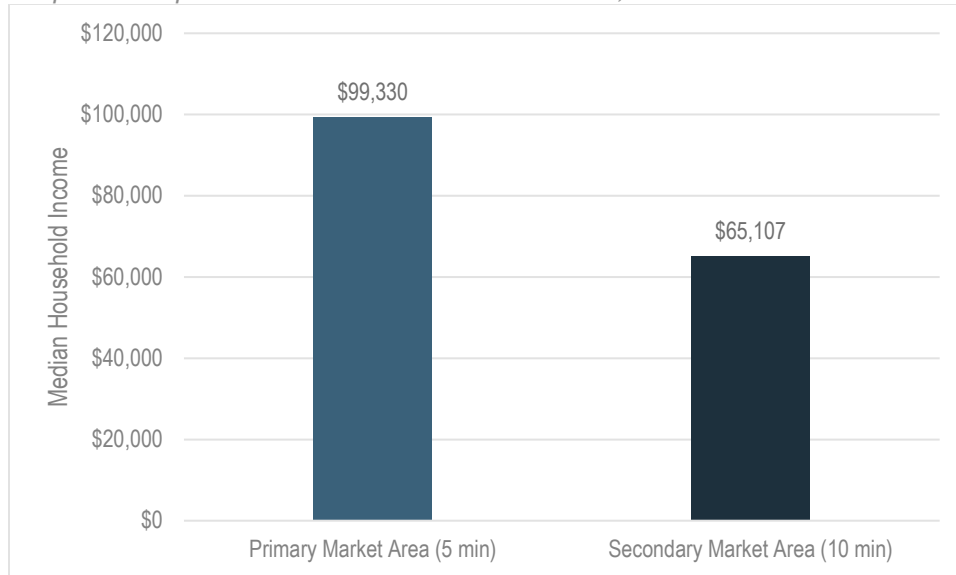
*Table 3: Comparison of Household Trends, 2010-2018*

Area	2010	2018	2010-2018 Δ		
			#	%	CAGR
Primary Market Area (5 min)	3,151	3,472	321	10.2%	1.2%
Secondary Market Area (10 min)	24,582	27,356	2,774	11.3%	1.3%
<b>PMA % Combined Market Area</b>	<b>12.8%</b>	<b>12.7%</b>	<b>11.6%</b>		

Source: ESRI; Kimley-Horn

Households within a five-minute drive of the site have relatively high incomes. The median household income of \$99,330 in the PMA is 52.6% higher than \$65,107 for the larger SMA (*Graph 1*). As a point of comparison, the median household income for the four-county Durham-Chapel Hill Metropolitan Statistical Area (MSA) was \$58,161 in 2018. Both the PMA and SMA measures are higher than the region-wide median.

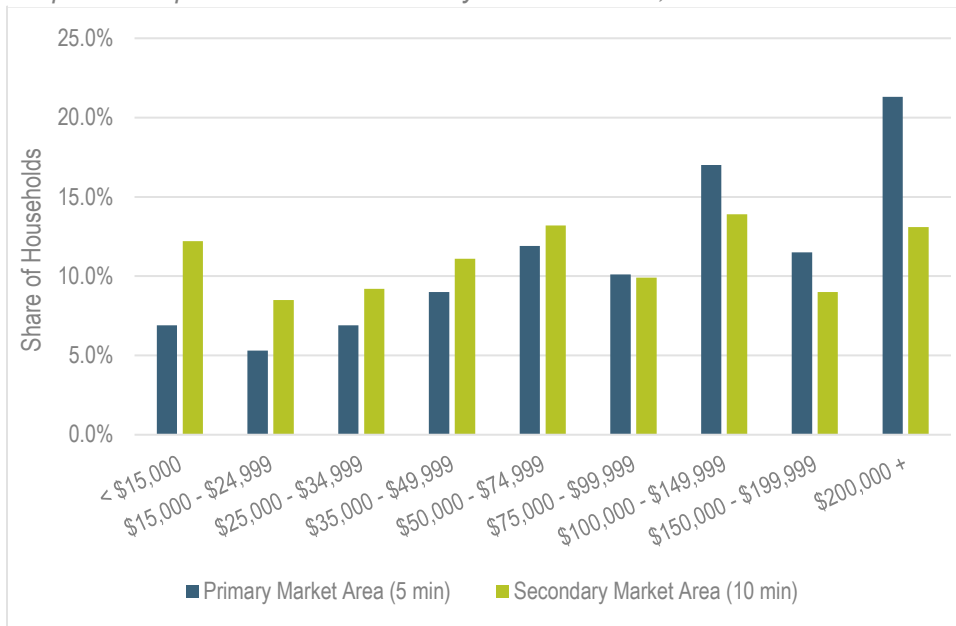
*Graph 1: Comparison of Median Household Income, 2018*



Source: ESRI; Kimley-Horn

As of 2018, households earning annual incomes more than \$200,000 represented the most prevalent cohort in the PMA, comprising 21.3% of all households (*Graph 2*). In the larger SMA, the \$100,000 to \$149,999 income cohort comprises the largest share, making up 13.9% of the total. The SMA has larger shares of households earning below \$75,000 whereas the PMA has larger shares of cohorts over \$99,999.

Graph 2: Comparison of Households by Income Cohort, 2018



Source: ESRI; Kimley-Horn

### 2.3 HOUSING UNIT TRENDS

As shown in *Table 4*, the total number of housing units within the PMA and SMA experienced similar growth rates between 2010 and 2018. The housing inventory within a five-minute drive of the project site increased 9.1% during the eight-year period, reaching an estimated 3,624 units. During the same period, the number within a 10-minute drive increased 9.2% from 26,752 to 29,222 units. The share of the SMA housing units within the PMA was 12.4% in 2018.

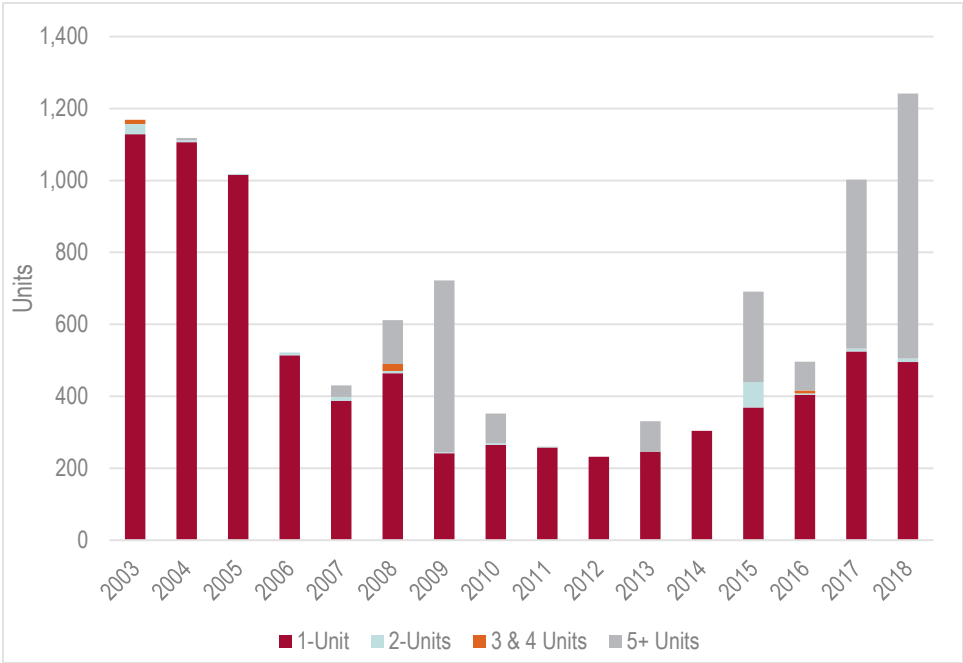
Table 4: Comparison of Housing Unit Trends, 2010-2018

Area	2010	2018	2010-2018 Δ		
			#	%	CAGR
Primary Market Area (5 min)	3,323	3,624	301	9.1%	1.1%
Secondary Market Area (10 min)	26,752	29,222	2,470	9.2%	1.1%
<b>PMA % Combined Market Area</b>	<b>12.4%</b>	<b>12.4%</b>	<b>12.2%</b>		

Source: ESRI; Kimley-Horn

As shown in *Graph 3*, growth in residential permits has been robust in the last two years for which data is available. While residential building permit activity declined in the years following the 2007-2009 Recession, it has rebounded in recent years, exceeding pre-Recession levels in 2018. Most of the residential units permitted in 2018 were in multi-family buildings with at least five units. This trend of strong growth has largely continued in 2019, with 12.0% more units permitted in the first two months of 2019 than in the first two months of 2018. Momentum in multi-unit residential developments is consistent in most major markets across the United States, driven by changing dynamics in household preferences and recovery from financial impacts during the Recession.

Graph 3: Residential Building Permit Trends, Orange County, 2003-2018



Source: US Census Bureau; Kimley-Horn

### 3. EMPLOYMENT PROFILE

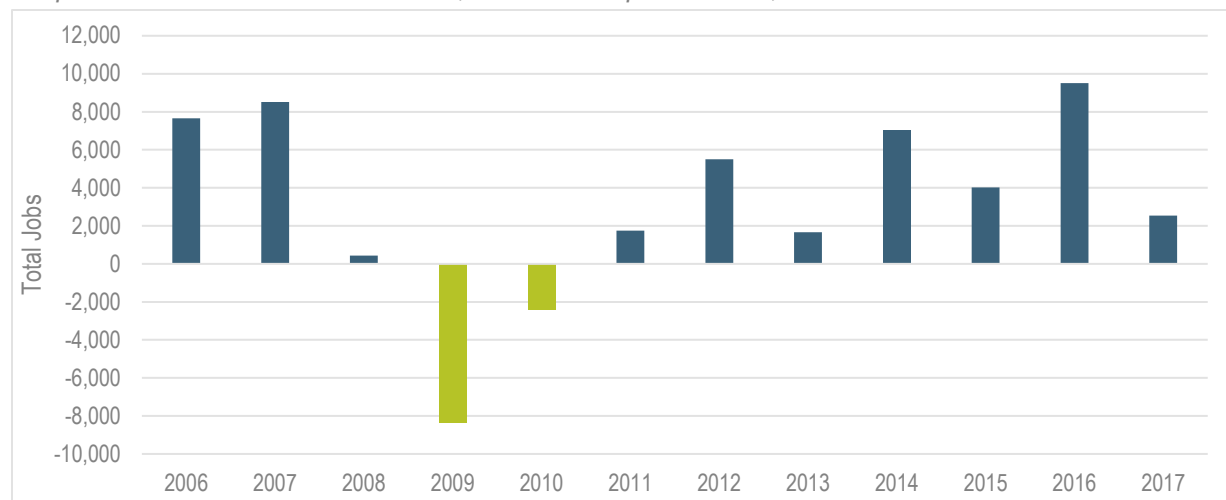
This section analyzes annual employment and wage trends by industry over the last five years for the four-county Durham-Chapel Hill MSA, describing overall growth and shifts between sectors. Place-of-work employment trends and commuting patterns for the SMA are also provided.

#### 3.1 ANNUALIZED EMPLOYMENT BY INDUSTRY

##### 3.1.1 DURHAM-CHAPEL HILL MSA

Consistent with national trends, the Durham-Chapel Hill MSA economy was interrupted by the Great Recession, reporting annual net job losses in 2009 and 2010 (*Graph 4*). The declines peaked in 2009 with nearly 8,400 jobs lost. In the years since 2010, the MSA has recovered, posting annual, albeit inconsistent, net job gains ranging from approximately 9,512 in 2016 to 1,661 in 2013. The MSA recovered from the Recession more rapidly than many metropolitan areas in North Carolina due to the large base of education and healthcare anchors, which were more insulated from economic impacts.

*Graph 4: Annual Net New Job Growth, Durham-Chapel Hill MSA, 2006-2017*



Source: NC LEAD; Kimley-Horn

As shown in *Table 5*, employment in the Durham-Chapel Hill MSA increased by nearly 25,000 jobs, or 9.1%, between 2012 and 2017. Total annual employment in 2017 was estimated to be 294,562. Health Care and Social Assistance represented the largest share of employment in the region at 19.1%, followed closely by Educational Services (17.0%), and then Professional and Technical Services (9.5%). Together, these three sectors comprise nearly 42.0% of the total regional employment. Four industries experienced declines during the five-year period: Manufacturing, Wholesale Trade, Management of Companies and Enterprises and Utilities.

The following industries showed the most significant employment gains since 2012:

- Educational Services (+10,878)
- Professional and Technical Services (+5,043)
- Accommodation and Food Services (+4,090)
- Finance and Insurance (+1,724)
- Retail Trade (+1,476)

Table 5: Annualized Employment by Industry, Durham-Chapel Hill MSA, 2012-2017

Industry	2012	2017	2012-2017 Δ	
			#	%
Educational Services	41,367	52,245	10,878	26.3%
Professional and Technical Services	23,083	28,126	5,043	21.8%
Accommodation and Food Services	20,630	24,720	4,090	19.8%
Finance and Insurance	9,869	11,593	1,724	17.5%
Retail Trade	23,237	24,713	1,476	6.4%
Construction	6,589	7,975	1,386	21.0%
Information	3,487	4,615	1,128	32.3%
Other Services, Ex. Public Admin	7,107	8,221	1,114	15.7%
Administrative and Waste Services	11,895	12,729	834	7.0%
Health Care and Social Assistance	55,782	56,529	747	1.3%
Arts, Entertainment, and Recreation	2,480	3,162	682	27.5%
Transportation and Warehousing	3,768	4,447	679	18.0%
Public Administration	12,230	12,898	668	5.5%
Real Estate and Rental and Leasing	2,579	2,962	383	14.9%
Agriculture, Forestry, Fishing & Hunting	829	934	105	12.7%
Utilities	886	944	58	6.5%
Mining	75	52	-23	-30.7%
Management of Companies and Enterprises	2,284	1,830	-454	-19.9%
Wholesale Trade	8,607	7,899	-708	-8.2%
Manufacturing	33,124	27,968	-5,156	-15.6%
<b>Total</b>	<b>269,908</b>	<b>294,562</b>	<b>24,654</b>	<b>9.1%</b>

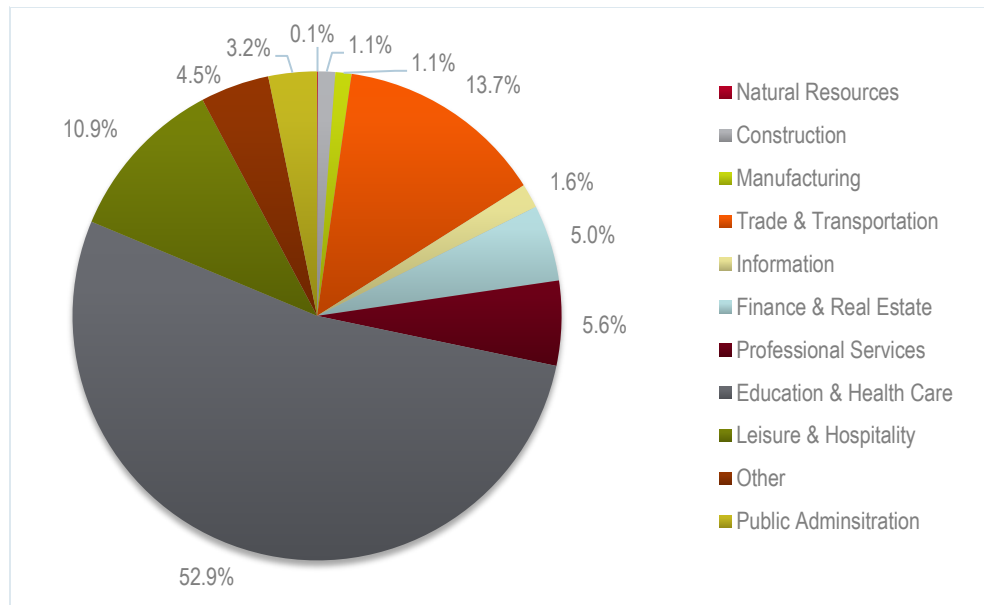
Source: NC LEAD; Kimley-Horn

### 3.1.2 SECONDARY MARKET AREA

Based on the most recent place-of-work employment data available for the SMA, there were an estimated 47,821 jobs in 2018 (*Graph 5*). The super-sector industry with the most employees, comprising more than half of the area's total jobs, was Education and Health Care, driven by the presence of several higher education facilities and major hospital campuses. Other significant employment sectors in the SMA include Trade and Transportation (13.7%) and Leisure and Hospitality (10.9%).



Graph 5: Total Annual Employment by Industry, SMA, 2018



Source: ESRI; Kimley-Horn

### 3.2 ANNUALIZED WAGES BY INDUSTRY

In 2017, the average annual wage in the Durham-Chapel Hill MSA was \$61,609, an increase of \$2,915 from 2012, or 5.0% (Table 6). Employees working in Management of Companies and Enterprises recorded the highest average annual wage at \$119,963, followed by Manufacturing at \$101,697. However, both industries also posted declines over the last five years, consistent with trends from other markets across North Carolina.

The following industries experienced the most significant wage growth since 2012:

- Information (+\$25,034)
- Finance & Insurance (+\$17,960)
- Mining (+\$17,306)
- Utilities (+\$10,002)
- Construction (+\$9,802)

Table 6: Annualized Wages by Industry, Durham-Chapel Hill MSA, 2012-2017

Industry	2012	2017	2012-2017 Δ	
			#	%
Information	\$72,649	\$97,683	\$25,034	34.5%
Finance and Insurance	\$78,535	\$96,495	\$17,960	22.9%
Mining	\$47,095	\$64,400	\$17,306	36.7%
Utilities	\$76,682	\$86,684	\$10,002	13.0%
Construction	\$44,053	\$53,855	\$9,802	22.3%
Agriculture, Forestry, Fishing & Hunting	\$56,638	\$64,818	\$8,180	14.4%
Professional and Technical Services	\$85,771	\$93,656	\$7,885	9.2%
Educational Services	\$56,120	\$63,167	\$7,047	12.6%
Public Administration	\$52,932	\$59,112	\$6,180	11.7%
Administrative and Waste Services	\$33,948	\$38,875	\$4,927	14.5%
Other Services, Ex. Public Admin	\$37,569	\$41,609	\$4,040	10.8%
Health Care and Social Assistance	\$51,404	\$55,072	\$3,668	7.1%
Arts, Entertainment, and Recreation	\$19,031	\$22,000	\$2,969	15.6%
Retail Trade	\$24,929	\$27,812	\$2,882	11.6%
Transportation and Warehousing	\$40,961	\$43,815	\$2,853	7.0%
Wholesale Trade	\$91,051	\$92,923	\$1,871	2.1%
Real Estate and Rental and Leasing	\$46,520	\$48,188	\$1,669	3.6%
Accommodation and Food Services	\$17,220	\$18,767	\$1,547	9.0%
Management of Companies and Enterprises	\$123,352	\$119,963	-\$3,389	-2.7%
Manufacturing	\$108,573	\$101,697	-\$6,876	-6.3%
<b>Total</b>	<b>\$58,694</b>	<b>\$61,609</b>	<b>\$2,915</b>	<b>5.0%</b>

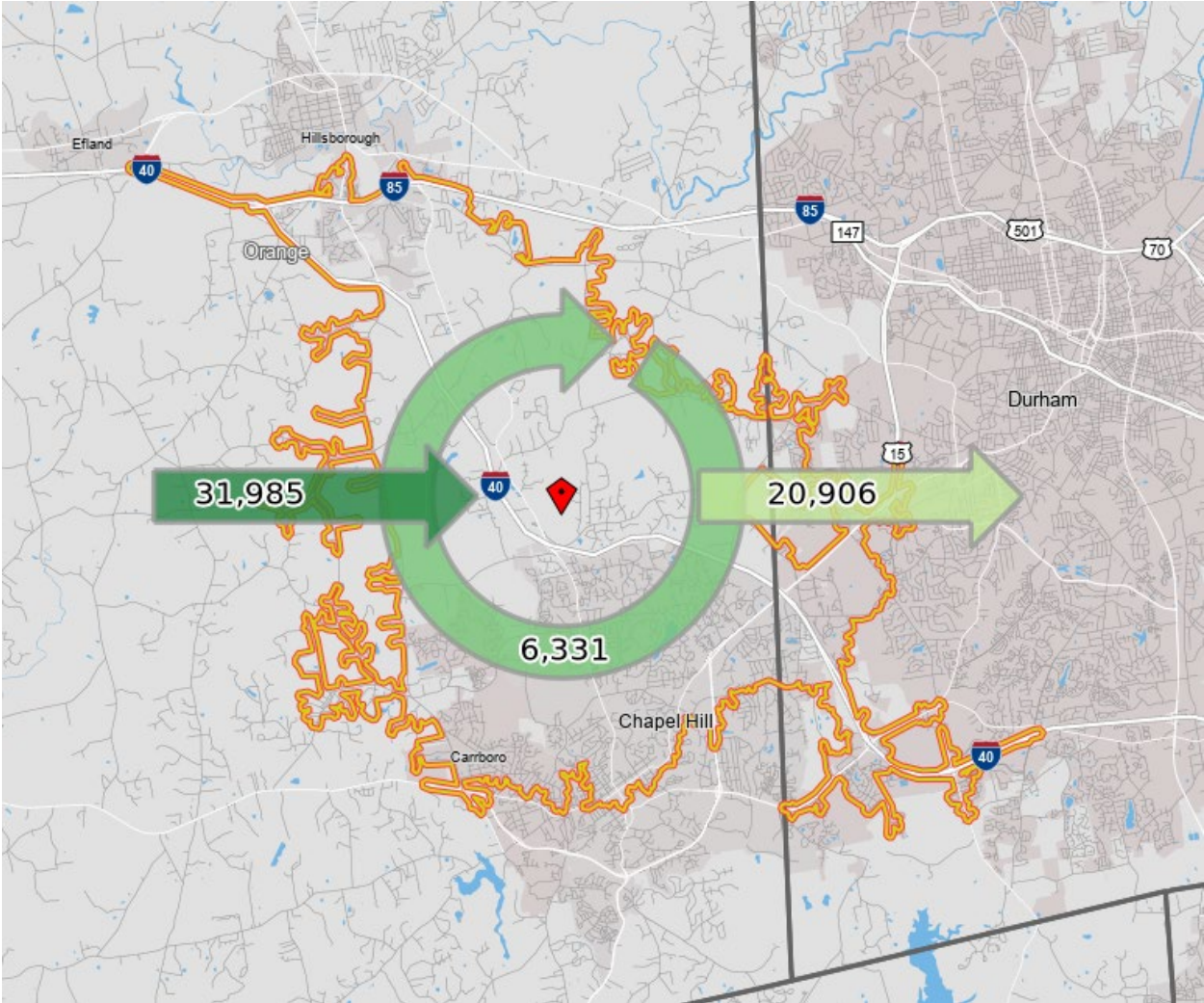
Source: NC LEAD; Kimley-Horn

The largest employment sector in the Durham-Chapel Hill MSA, Health Care and Social Assistance, had average annual earnings of \$55,072 in 2017, lower than the MSA's overall average wage. The second and third largest industries, Educational Services and Professional and Technical Services, have average annual wages above the MSA average at \$63,167 and \$93,656, respectively. It should be noted that Management of Companies and Enterprises, which posted the highest average annual wage, comprises only 0.6% of the total regional employment.

### 3.3 COMMUTING PATTERNS

As of 2015, nearly 32,000 people traveled into the SMA for employment and almost 21,000 of the SMA's employed population commuted out (*Map 2*). An estimated 6,331 people live and work in the SMA, making up 16.5% of the area's total employees. Approximately 27.2% of the employed population living within the SMA work in Chapel Hill while another 25.8% commute to Raleigh. The largest share of commuters come from Durham (19.1%), followed by Chapel Hill (14.4%) and Carrboro (6.9%).

Map 2: Commuting Patterns, Secondary Market Area, 2015



Source: LEHD On the Map; Kimley-Horn

## 4. RETAIL LEAKAGE

This section presents a current analysis and comparison of retail gaps in the Primary and Secondary market areas. Estimates presented below demonstrate which retail industry groups are over- or under-supplied based on the interpretation by ESRI's Business Analyst Online of household spending potential. Industry groupings designated in **red** are estimated to be oversupplied in the county, while those in **green** are undersupplied. Undersupplied industry groupings result in loss, or leakage, of consumer spending to other areas.

The leakage/surplus factor presents a snapshot of retail opportunity outside the region. This is a measure of the relationship between supply and demand that ranges from +100 (total leakage) to -100 (total surplus). A positive value represents 'leakage' of retail opportunity outside the analyzed area. A negative value represents a surplus of retail sales, a geography where customers are drawn in from outside the market area.

### 4.1 PRIMARY MARKET AREA

As shown below in *Table 7*, demand in the Primary Market Area is outpacing supply in all industry groups except Food and Beverage Stores. This demonstrates that the region has opportunity to grow its regional attractiveness as a retail center in nearly all categories that are analyzed. The retail gap for Gasoline Stations is estimated to be nearly \$7 million, with a leakage factor of 24.0.

*Table 7: Retail Leakage/Surplus, Primary Market Area, 2019*

Industry Group	Demand	Supply	Retail Gap	Leakage/ Surplus Factor
Motor Vehicles & Parts Dealers	\$38,376,205	\$0	\$38,376,205	100.0
Furniture & Home Furnishings	\$7,642,889	\$431,283	\$7,211,606	89.3
Electronics & Appliance Stores	\$6,005,053	\$1,142,055	\$4,862,998	68.0
Building Materials & Supply Stores	\$13,438,435	\$1,325,286	\$12,113,149	82.0
Food and Beverage Stores	\$31,813,871	\$41,409,517	-\$9,595,646	-13.1
Health & Personal Care Stores	\$11,275,626	\$10,752,033	\$523,593	2.4
Gasoline Stations	\$18,614,219	\$11,652,999	\$6,961,220	23.0
Clothing & Clothing Accessory Stores	\$9,778,223	\$0	\$9,778,223	100.0
Sporting Goods, Hobby, Books & Music Stores	\$5,224,768	\$1,176,540	\$4,048,228	63.2
General Merchandise Stores	\$31,611,164	\$599,284	\$31,011,880	96.3
Miscellaneous Store Retailers	\$7,730,296	\$4,022,104	\$3,708,192	31.6
Nonstore Retailers	\$3,242,367	\$1,456,019	\$1,786,348	38.0
Food Services & Drinking Places	\$21,222,006	\$7,982,815	\$13,239,191	45.3
Restaurants/Other Eating Places	\$19,397,006	\$7,969,541	\$11,427,465	41.8

*Source: US Census Bureau; Kimley-Horn*

### 4.2 SECONDARY MARKET AREA

A similar analysis of the Secondary Market Area, shown in *Table 8*, shows more overall surplus than the smaller Primary Market Area. Of all the industry groups, Gasoline Stations has the largest retail gap in assessed dollar amount, totaling over \$50 million.

Table 8: Retail Leakage/Surplus, Secondary Market Area, 2019

Industry Group	Demand	Supply	Retail Gap	Leakage/ Surplus Factor
Motor Vehicles & Parts Dealers	\$234,734,925	\$405,066,140	-\$170,331,215	-26.6
Furniture & Home Furnishings	\$45,343,275	\$15,345,223	\$29,998,052	49.4
Electronics & Appliance Stores	\$35,889,384	\$27,931,876	\$7,957,508	12.5
Building Materials & Supply Stores	\$76,143,433	\$73,902,123	\$2,241,310	1.5
Food and Beverage Stores	\$195,679,343	\$236,168,045	-\$40,488,702	-9.4
Health & Personal Care Stores	\$67,836,459	\$56,460,058	\$11,376,401	9.2
Gasoline Stations	\$116,213,980	\$65,413,410	\$50,800,570	28.0
Clothing & Clothing Accessory Stores	\$58,209,732	\$53,137,554	\$5,072,178	4.6
Sporting Goods, Hobby, Books & Music Stores	\$31,283,611	\$58,589,012	-\$27,305,401	-30.4
General Merchandise Stores	\$191,469,799	\$154,202,144	\$37,267,655	10.8
Miscellaneous Store Retailers	\$47,298,079	\$52,588,654	-\$5,290,575	-5.3
Nonstore Retailers	\$19,172,712	\$8,758,678	\$10,414,034	37.3
Food Services & Drinking Places	\$128,070,606	\$165,732,616	-\$37,662,010	-12.8
Restaurants/Other Eating Places	\$117,514,900	\$158,542,345	-\$41,027,445	-14.9

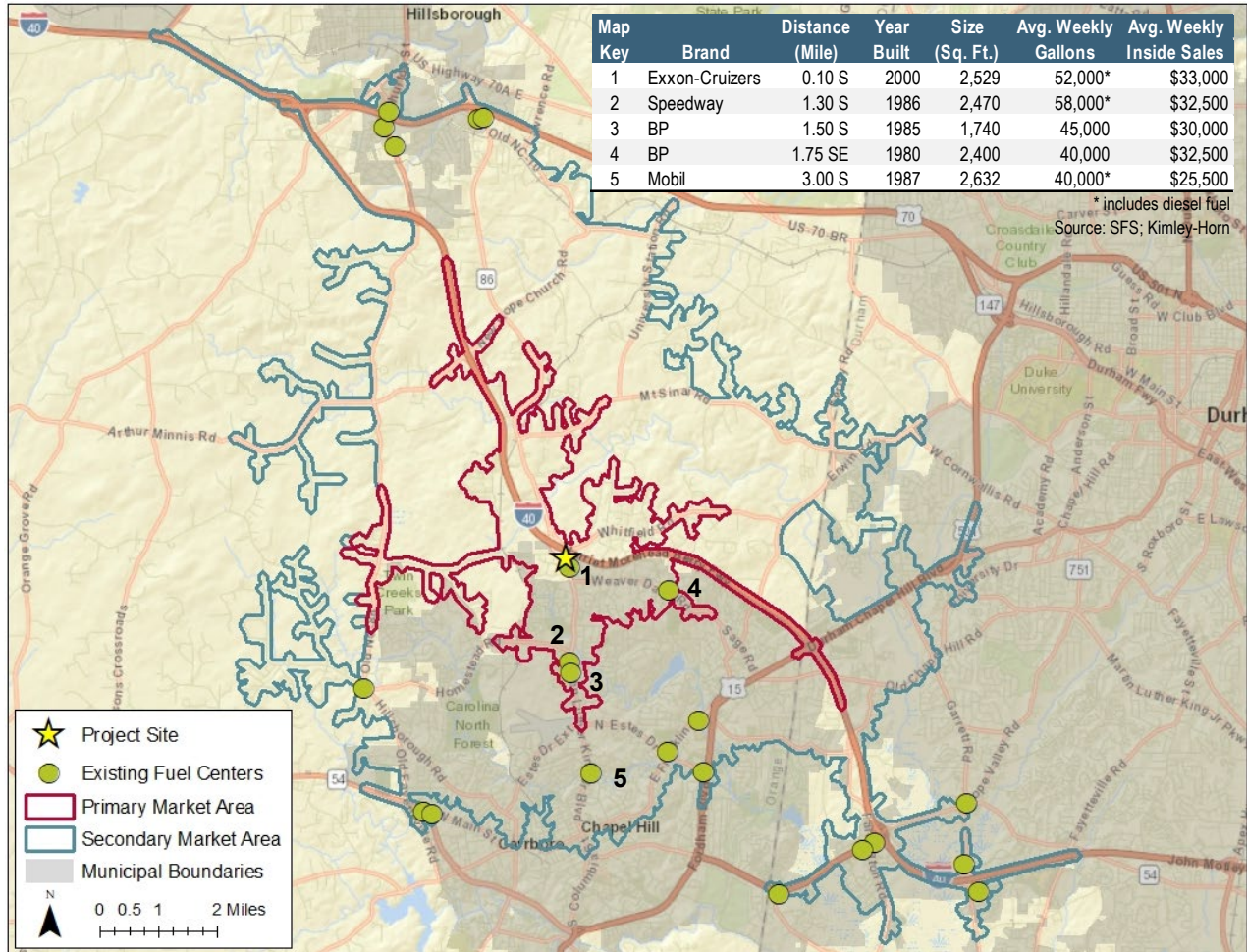
Source: US Census Bureau; Kimley-Horn



## 5. COMPETITIVE LANDSCAPE

As shown on *Map 3*, there are currently four existing fuel centers within the PMA, including an Exxon/Cruizers gas station in the southwest corner of the Chapel Hill North shopping center. There are another 18 fuel centers within the SMA. Besides a cluster of gas stations along I-85 in Hillsborough, most of the competitive fuel centers within the PMA and SMA are located south of the project site. Of the 22 existing fuel centers identified in the PMA and SMA, five were completed since 2000. The newest facility is a Sheetz gas station and convenience store, located at the I-40/NC 751 interchange. It is one of three fuel centers along the NC 751 corridor are within the SMA defined for this analysis.

Map 3: Existing Fuel Centers, 2019



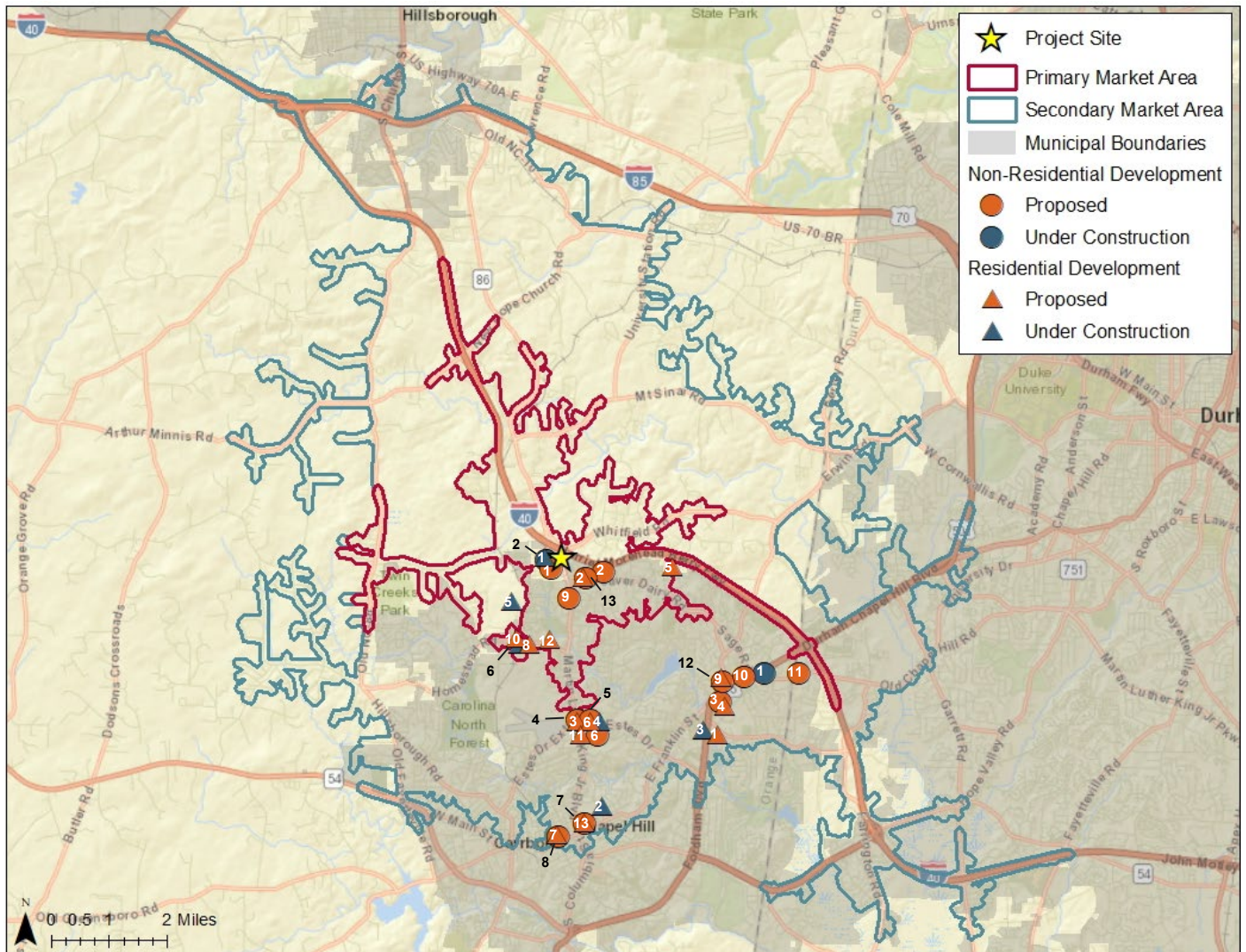
Source: ESRI; Kimley-Horn

Of the competitive set, only one fuel center, the Exxon-Cruizers located near the subject site, has been built since 2000; the balance of the facilities were built in the 1980s. Facility sizes range from 1,740 square feet for the BP 1.5 miles south of the site to 2,632 square feet for the Mobile located in the SMA (3.0 miles south of the site). Average weekly sales range from 40,000 to 58,000 gallons, with three of the facilities include diesel in the total amount. Inside sales, largely referring to convenience purchases, range from \$25,500 to \$33,000. Based on other third-party projections, the proposed fuel center at Harris Teeter #223 is projected to have sales of approximately \$64,000 per week after three years of operation.

## 6. DEVELOPMENT ACTIVITY

This section identifies new development projects that are either under construction or proposed in the Primary and Secondary Market Areas defined in the second chapter. All identified projects in the development pipeline are shown on *Map 4*, and a key for non-residential projects is provided in *Table 9* and for residential projects in *Table 10*. Future pipeline development is used in this analysis to support future growth projections that are used to justify demand for additional fuel centers.

Map 4: Development Activity, Primary and Secondary Market Areas, 2019



Source: Chapel Hill Development Activity Report; Kimley-Horn

Development activity demonstrated above largely represents projects in the Town of Chapel Hill. It should be noted that residential and non-residential projects north of I-40 will be limited due to land use policy in Orange County restricting growth to agricultural uses and low-density residential. The pipeline for the PMA is heavily contained within Chapel Hills jurisdiction and extra-territorial jurisdiction (ETJ). Most of the acreage in the PMA north of I-40 is already developed with a low-intensity land use pattern or is environmentally sensitive. It is possible that there are a limited number of additional projects in the far



extents of the SMA (in incorporated Hillsborough or Durham). As such, growth and development projections likely demonstrate a conservative estimate.

## 6.1 NON-RESIDENTIAL PROJECTS

As shown in *Table 9*, there are two non-residential developments under construction and another 13 proposed non-residential projects within the PMA and SMA. Together, the non-residential developments in the pipeline comprise more than 960,000 square feet. More than half of the active projects are mixed use, with the remaining projects comprising a variety of single-use projects – retail, office, flex space, and institutional. According to the City of Chapel Hill Development Activity Report, there are no other fuel centers currently in the pipeline. However, it is possible that some of the larger mixed- or multiple-use projects could have an outparcel site for a convenience store and fuel center in the future.

The two projects under construction contain more than 107,000 square feet combined, a majority of which is a Wegmans Food Market that is expected to open in 2020. Ground-floor retail for the first phase of Carraway Village makes up the remaining non-residential square footage under construction. As previously noted, the first phase of Carraway Village includes 403 apartments in ten buildings and 8,400 square feet of ground-level retail. While the first phase is largely completed, future non-residential development is expected to total approximately 440,000 square feet.

*Table 9: Non-Residential Development Pipeline, Secondary Market Area, 2019*

Map Key	Project	Location	Owner	Use	Square Feet
1	Wegmans Food Market	1810 Fordham Blvd	Leon Capital Group	Retail	99,000
<b>2</b>	<b>Carraway Village Phase 1</b>	<b>3600 Eubanks Rd</b>	<b>Northwood Ravin</b>	<b>Mixed-Use</b>	<b>8,400</b>
<b>Under Construction Subtotal</b>					<b>107,400</b>
<b>1</b>	<b>Carraway Village Phase 2</b>	<b>3000 Eubanks Rd</b>	<b>Northwood Ravin</b>	<b>Mixed-Use</b>	<b>440,000</b>
<b>2</b>	<b>Coley Hall Self Storage</b>	<b>66 Vilcom Center Dr.</b>	<b>Redwing Land LLC</b>	<b>Industrial</b>	<b>93,000</b>
3	Tarheel Lodging Redevelopment	1740 & 1742 Fordham Blvd	Tarheel Lodging LLC & Unicorn Group Fifteen LLC	Mixed-Use	85,494
<b>4</b>	<b>N/A</b>	<b>1000 MLK Jr Blvd</b>	<b>Cant Hook Properties LLC</b>	<b>Mixed-Use</b>	<b>81,500</b>
5	North Estes Mixed-Use Center	850 North Estes Dr.	Caliber Partners	Mixed-Use	80,000
6	Women's Birth & Wellness Center	950 Martin Luther King Jr, Blvd	Women's Birth & Wellness Center	Office	22,944
7	Rosemary East	157 E Rosemary Street	Paliouras Enterprises, LLC	Mixed-Use	15,792
8	Amity Station	322 West Rosemary St	Amity Station LLC	Mixed-Use	14,600
<b>9</b>	<b>SECU Branch at Charterwood</b>	<b>1621 Martin Luther King Jr. Blvd</b>	<b>State Employees' Credit Union</b>	<b>Retail</b>	<b>9,683</b>
10	N/A	1751 Dobbins Dr	James and Melissa Miller, LLC	Office	5,000
11	Dual Language Learning Center	5620 Old Chapel Hill Rd	Peng Xin and Danhong Lu	Institutional	4,825
12	101-111 Erwin Road Mixed Use	101-111 Erwin Rd	Summit Hospitality LLC	Mixed-Use	1,500
<b>13</b>	<b>Hanover</b>	<b>1010 Weaver Dairy Rd</b>	<b>The Hanover Company</b>	<b>Mixed-Use</b>	<b>N/A</b>
<b>Proposed Subtotal</b>					<b>854,338</b>
<b>Total</b>					<b>961,738</b>

*Note: Bold indicates project is within the PMA*

*Source: Town of Chapel Hill Development Activity Report; Kimley-Horn*

Identified as **bolded** projects in the above table, the PMA has approximately 633,000 square feet of non-residential projects in the pipeline. This represents two-thirds of the total in the combined PMA and SMA. It should be noted that most of the pipeline development in the PMA is contained as part of Carraway Village.

## 6.2 RESIDENTIAL PROJECTS

Six residential projects currently under construction and another 13 residential proposed projects were identified within the SMA, totaling an estimated 6,408 housing units in the development pipeline (*Table*

10). Of these units, approximately 1,303, or 20.3%, are contained in the developments under construction. The inventory in development includes a mix of housing types – apartments, townhouses, and single-family – and income levels.

Nearly 1,400 units are in the pipeline in the PMA (designated in **bold**), representing 21.8% of the total. Most of the projects in the PMA are represented by mixed- or multiple-use projects with a focus on higher-density residential product. The 403 units at Carraway Village were recently completed and are actively leasing towards stabilization.

Table 10: Residential Development Pipeline, Secondary Market Area, 2019

Map Key	Project	Location	Developer	Use	Total Units
<b>1</b>	<b>Carraway Village Phase 1</b>	<b>3000 Eubanks Rd</b>	<b>Northwood Ravin</b>	<b>Mixed-Use</b>	<b>400</b>
2	Grover Park Apartments	425 North Hillsborough St	Townhouse Apartments LLC	Multi-Family Residential	346
3	Fordham Blvd Apartments	1312 Fordham Blvd	Ram Realty Advisors	Multi-Family Residential	272
4	Chapel Hill Retirement Residence	700 N Estes Dr	Hawthorn Retirement LLC	Multi-Family Residential	152
5	Chandler Wood Development	8201 Merin Rd	CapKov Ventures	Single- & Multi-Family Residential	70
<b>6</b>	<b>Courtyards of Homestead</b>	<b>2201-2301 Homestead Road</b>	<b>Epcon Communities</b>	<b>Single-Family Residential</b>	<b>63</b>
<b>Under Construction Subtotal</b>					<b>1,303</b>
1	Park Apartments	1250 Ephesus Church Rd	Scott Underwood	Multi-Family Residential	418
<b>2</b>	<b>Hanover</b>	<b>1010 Weaver Dairy Rd</b>	<b>The Hanover Company</b>	<b>Mixed-Use</b>	<b>303</b>
<b>3</b>	<b>N/A</b>	<b>1000 MLK Jr Blvd</b>	<b>Cant Hook Properties LLC</b>	<b>Mixed Use</b>	<b>269</b>
4	Tarheel Lodging Redevelopment	1740 & 1742 Fordham Blvd	Tarheel Lodging LLC & Unicorn Group Fifteen LLC	Mixed-Use	234
5	Habitat/Carol Woods	7516 Sunrise Rd.	Habitat for Humanity Orange County	Multi-Family Residential	223
6	North Estes Mixed-Use Center	850 North Estes Dr.	Caliber Partners	Mixed-Use	215
7	Amity Station	322 West Rosemary St	Amity Station LLC	Mixed-Use	204
<b>8</b>	<b>Homestead Rd Active Adult Housing</b>	<b>2217 Homestead Rd</b>	<b>Richard Gurlitz</b>	<b>Multi-Family Residential</b>	<b>190</b>
9	101-111 Erwin Road Mixed Use	101-111 Erwin Rd	Summit Hospitality LLC	Mixed-Use	140
<b>10</b>	<b>N/A</b>	<b>2200 Homestead Rd</b>	<b>Town of Chapel Hill</b>	<b>Multi-Family Residential</b>	<b>130</b>
11	The Sawmill	970 Martin Luther King Jr Blvd	Sawmill Development Company, LLC	Multi-Family Residential	112
<b>12</b>	<b>Homestead Townhomes</b>	<b>2516 Homestead Rd</b>	<b>Richard Gurlitz</b>	<b>Multi-Family Residential</b>	<b>44</b>
13	Rosemary East	157 E Rosemary Street	Paliouras Enterprises, LLC	Mixed-Use	17
<b>Proposed Subtotal</b>					<b>5,105</b>
<b>Total</b>					<b>6,408</b>

*Bold indicates project is within the PMA*

*Source: Town of Chapel Hill Development Activity Report; Kimley-Horn*

Although primary research was conducted to identify all existing and proposed residential and non-residential development in the trade area, additional unannounced projects could emerge. Additionally, as previously noted, this analysis focuses on development entitlements in the Town of Chapel Hill. While it is unlikely unincorporated Orange County properties will be developed in the near-term, there may be projects in Hillsborough or Durham, on the outskirts of the SMA, that could add to the future momentum in the area. Proposed projects profiled in this analysis could also fail to move forward for various reasons, including a lack of financing.

## 7. FUTURE FUEL CENTER DEMAND

### 7.1 PMA HOUSEHOLD FORECAST

Given the proposed location of the fuel center at the rear of the Harris Teeter #223 existing parking lot, a significant share of the fuel center sales is expected to come from customers of the grocery store. It is likely that many of these customers live locally so the more focused PMA boundary was used to forecast demand.

Household growth in the PMA through 2023 has been forecasted by analyzing historic household growth and the current pipeline of residential units in the PMA. As of 2018, there were an estimated 3,472 households in the PMA. Based on the identified under construction and proposed residential development activity, approximately 953 households could be added to the PMA. This estimate assumes that 100% of the projects under construction and 60% of the proposed projects will be completed within five years. A 7% vacancy rate was also incorporated to convert residential units to forecasted households. The assumed 7% vacancy rate was utilized since most of the projects are multi-family, which is often quoted as stabilized at 93%.

<b>Existing PMA Households 2018 Estimate</b>	<b>3,472</b>
<b>Total New PMA Households Attributable to Pipeline</b>	<b>953</b>
Under Construction	463
% Expected Complete by 2023	100%
Vacancy Rate Factor	7%
Potential New Households	431
Proposed	936
% Expected Complete by 2023	60%
Vacancy Rate Factor	7%
Potential New Households	522
<b>Additional Household Growth Forecast (Adjusted ESRI Forecast)</b>	<b>250</b>
(Infill Development and Unannounced Projects)	
<b>Projected PMA Households in 2023</b>	<b>4,675</b>
<b>Net 2018-2023 PMA Household Growth</b>	<b>1,203</b>

Source: Kimley-Horn; ESRI; Town of Chapel Hill

In addition to the growth directly attributable to the identified development pipeline, another 250 households are estimated based on smaller infill development and unannounced projects. This forecast is based on third-party data prepared by Environmental Systems Research Institute (ESRI) and considers historic growth trends and natural momentum. Based on these assumptions, the PMA is forecasted to grow to 4,675 households by 2023. This equates to an increase of 1,203 households, or a 34.6% increase, in the next five years.



## 7.2 FUEL CENTER DEMAND FORECAST

An estimated 195,000 gallons of fuel are sold on average each week by the four existing fuel centers within the PMA. This equates to a current demand of 56.2 gallons per household per week. Note that households in the PMA do not consume 56.2 gallons of gasoline per week, on average. This estimate is inflated, using the existing households as a benchmark to also account for non-local traffic passing through the area.

<b>Current Average Weekly PMA Sales/Household</b>	<b>56.2</b>
Average Weekly Sales (in gallons)	195,000
Estimated Households	3,472
Average Weekly Sales/Household	56.2
<b>Net 2018-2023 PMA Household Growth</b>	<b>1,203</b>
<b>Net 2018-2023 PMA Weekly Fuel Demand (in gallons)</b>	<b>67,558</b>

Source: Kimley-Horn; ESRI; Town of Chapel Hill

Keeping this consumption level constant, the net new fuel demand in the PMA is estimated at nearly 68,000 gallons per week. The forecasted growth in weekly demand for fuel by households within the PMA of almost 68,000 gallons is more than is needed to justify the addition of the proposed fuel center, which expects to sell approximately 64,000 gallons were week. It should be noted that no new fuel centers were identified during the review of projects in development in the PMA.

## 7.3 CONCLUSION

The Harris Teeter #223 proposed fuel station is well-positioned to capture the projected net new demand in the PMA. Located in the parking lot of the existing Chapel Hill North Shopping Center, the planned fuel center is extremely well-located to attract existing and future patronage at the Harris Teeter-anchored center. Additionally, the location at the intersection of MLK Jr Boulevard and I-40 presents ample opportunity to capture drive-by traffic, particularly as the store expands to a larger footprint.

The primarily market area (PMA) is expected to experience an increase in fuel demand of nearly 68,000 gallons per week over the next five years. This equates to a 35.0% increase of the current average of 195,000 for the existing facilities. The increase is based on natural household growth, coupled with entitled future projects, to project increase in need in the PMA over the next five years. As previously noted, the forecasted growth in weekly demand for fuel by households within the PMA of almost 68,000 gallons is more than is needed to justify the addition of the proposed fuel center, which expects to sell approximately 64,000 gallons were week.

However, it is likely that current market area gas stations are not capturing their potential market, based largely on traffic counts and patronage at the Harris Teeter and adjacent stores near the Chapel Hill North Shopping Center. This is demonstrated by the retail leakage analysis, which indicates that there is notable leakage in fuel demand in both the PMA and SMA. It is likely that market area gas stations are not realizing their sales potential and that a pent-up demand exists that can support new demand as planned.

In conclusion, the key factors that were identified through this analysis as supporting the future need of a fuel center at Harris Teeter #223 include:

- Based on retail leakage analyses prepared for both the PMA and SMA, **the area is currently underserved by gas stations**. The PMA leaks nearly \$7.0 million annually, and the SMA leads over \$50 million to fuel stations outside the boundaries of this analysis. While some of this leakage can be attributable to convenience of location in commuting patterns, the addition of fuel stations would better serve residents with additional choices close to where they live and shop.
- Projected household growth in the PMA equates to increased demand of almost 68,000 gallons per week. This projection is likely a conservative measure given development momentum around the MLK Jr Boulevard/I-40 interchange. With no other gas stations identified in the development pipeline, **the projected demand is supportive of a new fuel center at the Harris Teeter #223 without negatively impacting existing businesses**.
- Anchored by Carraway Village, the node surrounding MLK Jr Boulevard and I-40 will develop into a new northern gateway into Chapel Hill. As the area evolves with new residential and non-residential growth, **the addition of a new fuel center at a high-performing Harris Teeter will be an added amenity to a growing customer-base**.
- **The planned fuel center, located within the boundary of the Chapel Hill North Shopping Center, will have no impact on area land uses**. Not only is the site located in an existing parking field, it is also bounded by I-40 and MLK Jr Boulevard to the north and west. In fact, the fuel center would likely be a positive factor by attracting additional patronage to other stores in the shopping center.

## DISCLAIMER

Kimley-Horn is not responsible for inaccuracies provided by our clients or any other data sources. Recommendations and forecasts contained in this report are opinions based on interpretation of economic and market data. They also assume positive net job formation in Orange County, as well as the Durham-Chapel Hill MSA over the forecast period, with no changes among major employers.

Kimley-Horn makes no warranty or representation that any prospective results reported in this analysis will be realized, including demand and financial estimates and forecasts. There is no guarantee of income or profit associated with this report.