Food Access Report and Recommendations for The City of Hopewell, Virginia

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Prepared for the City of Hopewell

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Prepared by:

Brandon Archer
Aaron Berryhill
Anjewel Bland
Derek Cathcart
Gabrielle Dean
Margaret Gallagher
Noah Holmes Foster
Jane Howk
Albert “Buck” Kirtland
Molly Mallow
Dan Motta
Julia Ochieng
Grace Stankus
Jeffrey Szyperski
Rachael Thayer
Annie Weidhaas

Under the supervision of Dr. John Accordino, PhD, FAICP

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Our thanks go out to Pastor Michael Moore and The Beacon Hill Church, Hopewell Community Center, Keep Hopewell Beautiful, Hopewell Public Schools, Hopewell Library, City of Hopewell, and all the various merchants who participated in our survey.

We thank all the residents who completed our survey. The generous feedback we received was vital to our study and we hope it will yield positive results for Hopewell's future.

-Students of the Fall 2020 VCU Commercial Revitalization Course

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Executive Summary

The City of Hopewell invited graduate students from Virginia Commonwealth University's Urban and Regional Planning Program to study Hopewell and contribute to the City's efforts to improve food access. Research and findings from demographic data, site visits, surveys, interviews, and a competitive market analysis reveal that Hopewell suffers from food access issues, specifically regarding healthy and fresh food options, affordability, and ease of access. This informs the recommendations for the City of Hopewell to improve food access. Primary Food Access Recommendations are offered for four sites in addition to Supporting Recommendations that address accessibility and site improvements to ensure the primary recommendations are successful. The food access recommendations for the four sites are as follows:

Cavalier Square

- Consider attracting a corner store to expand food access at the site, with access to public transit and bike infrastructure.
- Guide development at this site to encourage a small format grocery store.

Downtown/Heritage Gardens

- Utilize mobile markets to reach pockets of low-wealth neighborhoods around Downtown that lack access to transportation.
- Explore opportunities to assist with refrigeration needs for existing stores that expressed interest in stocking fresh produce/meat.
- Add a higher-frequency bus service.

Colonial Corner

- Incorporate this site as a community mobile market stop.
- Pursue opportunities for a small format grocery store to capture retail leakage.

Five Forks

- Incorporate this site as a community mobile market stop.
- Work with existing merchants to increase healthy food choices in corner stores, especially with the costs of adding refrigeration, shelf space, and storage.

We recommend the City of Hopewell begin by working with Crater Health District officials and surrounding localities to establish necessary networks for implementing a successful mobile market in Hopewell. These connections with neighboring localities can also be used to implement a regional Healthy Corner Store Initiative.

Introduction

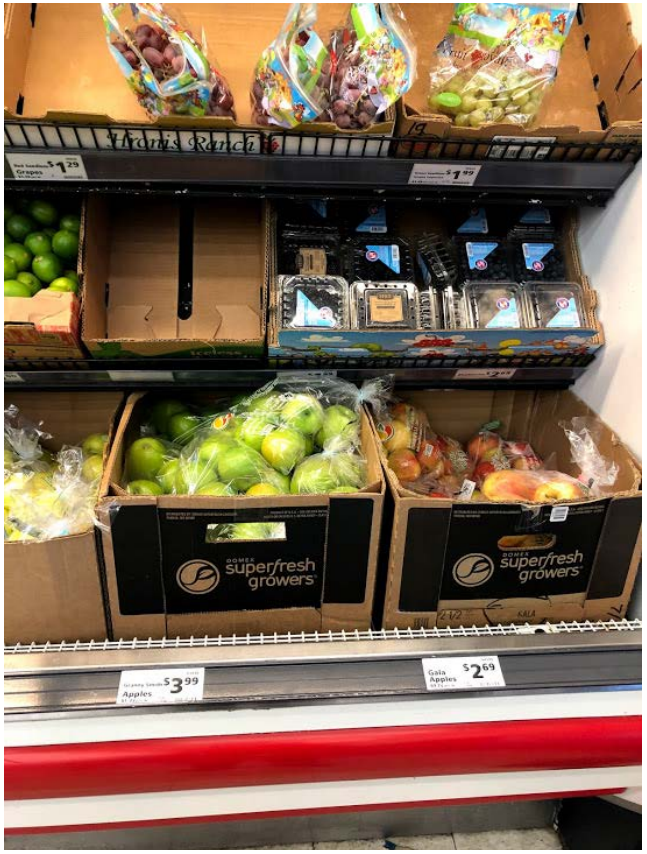
Hopewell residents suffer from a lack of access to healthy food. Hopewell's Comprehensive Plan acknowledges that a healthy food environment "Should have limited fast-food and unhealthy food retailers, and sufficient supermarkets and grocery stores that sell wholesome food at affordable prices" (Chapter 8, page 3). The City of Hopewell invited graduate students from Virginia Commonwealth University's Urban and Regional Planning Program to study Hopewell and contribute to the City's efforts to improve food access. Students of the Fall 2020 Urban Commercial Revitalization course, under the direction of Dr. John Accordino, worked with City representatives to learn about the community through site visits and demographic analysis. Students explored recent efforts to improve food access and engaged with residents and merchants to better understand community needs and desires for improved food access.

The report looks at six sites that City officials identified for development:

1. Cavalier Square
2. Colonial Corner
3. Downtown
4. Five Forks
5. Heritage Gardens
6. Northwest

These are referred to as "opportunity sites" throughout the report.

This report identifies challenges and opportunities within Hopewell's food system to provide City officials with options and recommendations to increase food access. The "Snapshot of Hopewell" section provides a summary of relevant history and demographics as well as an overview of food access issues within Hopewell and a description of the opportunity sites. The demand-side analysis section covers surveys and interviews with residents on their preferences and experiences and concludes with a summary of findings. The supply-side analysis section covers a survey of existing merchants, a competitive market analysis, and an evaluation of food access options that could work in the Hopewell market. The report concludes with recommendations for four opportunity sites that could improve food access.



Food and signage in Hopewell grocery and convenience stores

Snapshot of Hopewell

Location

The City of Hopewell, located at the confluence of the Appomattox and James Rivers, is twenty-four miles southeast of Richmond and seventy-three miles northwest of Virginia Beach. The surrounding localities include the City of Colonial Heights and the City of Petersburg, and Prince George, Chesterfield, and Charles City Counties. Fort Lee, an Army installation on the western end of Hopewell, is located in neighboring Prince George County (see *Figure 1*).

History

Hopewell developed as a port city, with a large amount of transportation and manufacturing business that created economic vitality from the early 19th century into the 20th century. In 1914, the DuPont Company built a dynamite factory in Hopewell before switching to the manufacturing of guncotton during WWI. The company left after the war, but Hopewell retained its manufacturing reputation, attracting a variety of companies that manufactured a variety of products.

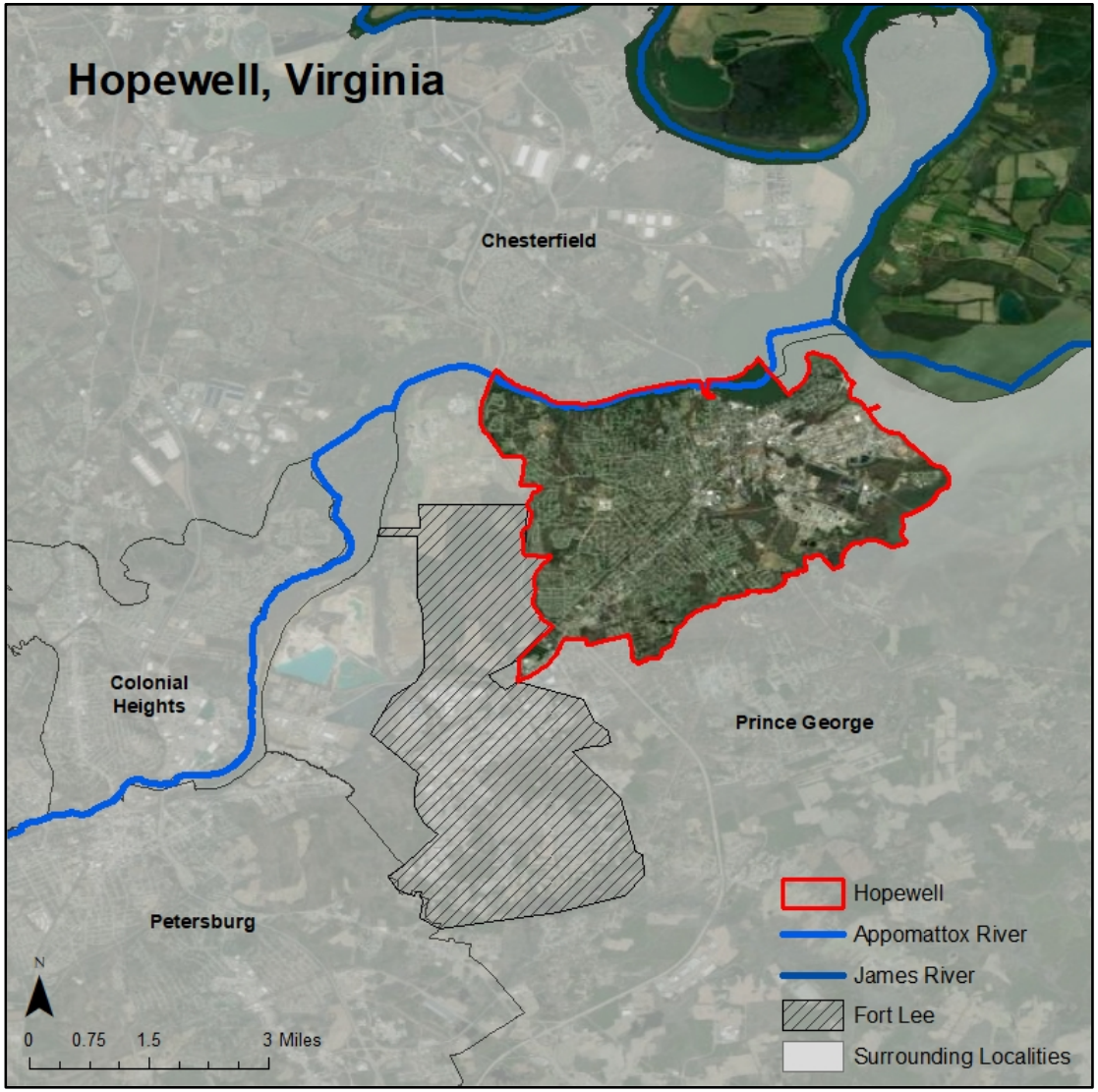


Figure 1: Map of Hopewell, Virginia

Beginning in the 1960s, Hopewell experienced a decline in population and economic investment due to deindustrialization and suburbanization. During this time, many of the businesses located in the downtown corridor relocated to newer shopping centers being developed in neighboring Chester, Petersburg, and Prince George Counties. Much of the middle-class population followed to neighboring municipalities for newer housing.

Demographics

Hopewell's Comprehensive Plan explains why demographic information is relevant to understanding food access issues: "The demographic profile of those who reside under City rooftops bears on the character and productivity of the local business climate. In turn, this points to weaknesses in Hopewell's urban economic metrics" (City of Hopewell Comprehensive Plan, page 5). Hopewell currently has a population of 22,408 residents and experienced a population loss of approximately 5% from 1970 to 2018. Of Hopewell's 2018 population of 22,408, 51% identified as White or Caucasian, 42% as Black or African American, 1% as Asian, 3% as one or more races, and 3% as other. A higher percentage of Hopewell residents identify as Black or African American compared to the total in Virginia: 43.5% in Hopewell compared to only 19.9% in Virginia. The current Median Household Income (MHI) in Hopewell is $40,497, compared to Virginia's MHI of $71,564. Hopewell's unemployment rate has decreased from 11% in 2011 to 4% in 2019, however, in August 2020 during the COVID-19 pandemic, Hopewell recorded a 12% unemployment rate, compared to only 7% in Virginia.

Housing trends are important to consider when working towards increasing food access. Over 75% of all housing units in Hopewell are detached, single-family houses. Large apartment buildings or condominium complexes account for approximately 12% of housing units. Low-density housing reduces walkability, making more households dependent on cars for transportation which can create a challenge when connecting residents to local resources.

Note: More detail on demographic and housing analysis is located in the Technical Appendix

Food Access

Food insecurity is defined as "a household's inability to provide enough food for every person to live an active, healthy life" (Feeding America). The effects of food insecurity are complex and range from serious health complications to damaging a child's ability to learn and grow. The Federation of Virginia Food Banks designated Hopewell as highly food insecure, and Feeding America found that 19% of Hopewell residents, or 4,130 people, were considered food insecure in 2018. The Virginia Cooperative Extension's 2014 report *Food Deserts in Virginia: Recommendations from the Food Desert Task Force* studied food access issues within Hopewell. It was found that 29% of residents had low food access and 26% were SNAP[1] eligible. According to the report, there were 7 grocery stores, 16 convenience stores, 23 fast-food restaurants, and no superstores per 1,000 residents in Hopewell. The adult obesity rate in the city was 33%.

Food access issues most affect citizens who earn a low income and do not own a car. Two of the seven census tracts in Hopewell (8201 and 8205) have been defined as having low access to supermarkets (see *Figure 2*). The USDA defines low access in two ways: 100 households over half a mile away from a supermarket without a vehicle, or 500 people or 33% of the population living more than half a mile away from a supermarket regardless of vehicle access (Food Access Research Atlas). In 2015, census tracts 8201 and 8205 had 834 and 4,219 residents respectively who were considered to have low access. Census tract 8201 and 8205 had 112 and 179 housing units without a vehicle and half a mile away from the nearest supermarket.

Citizens dependent on public transportation are often left with limited choices of where to buy groceries. Accessibility is extremely important, and without the convenience of a car, the closest store has to suffice, regardless of the type of food it stocks.

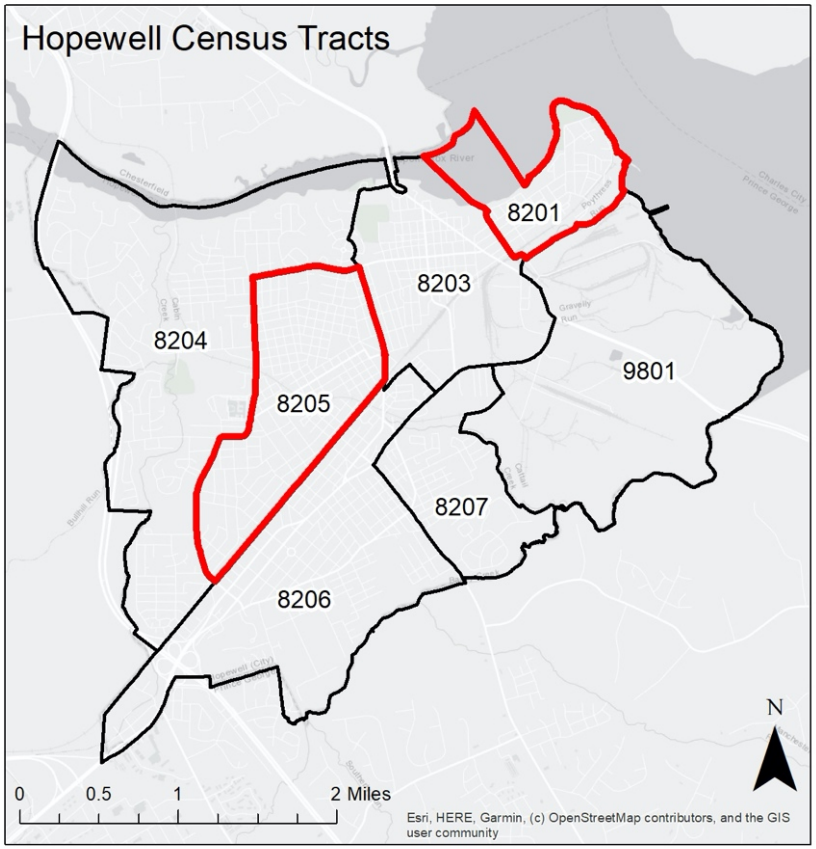


Figure 2: Hopewell Census Tracts (low access tracts outlined in red)

[1] The Supplemental Nutrition Assistance Program (SNAP) is a federal program that helps millions of low-income Americans put food on the table

Challenges to Food Access

Hopewell is a geographically small and compact city, just under eleven square miles in total area and roughly five miles from the southwestern city line to City Point in the northeast. Much of the eastern section of Hopewell is largely industrial and conservation land, although some homes exist within close proximity to industrial areas. Several natural and man-made barriers complicate mobility and access to food sources. Chief among these are waterways and railroad lines *(see Figure 3)* which isolate certain sections of the city and make travel more convoluted. Fort Lee is another physical barrier to the west of the city.

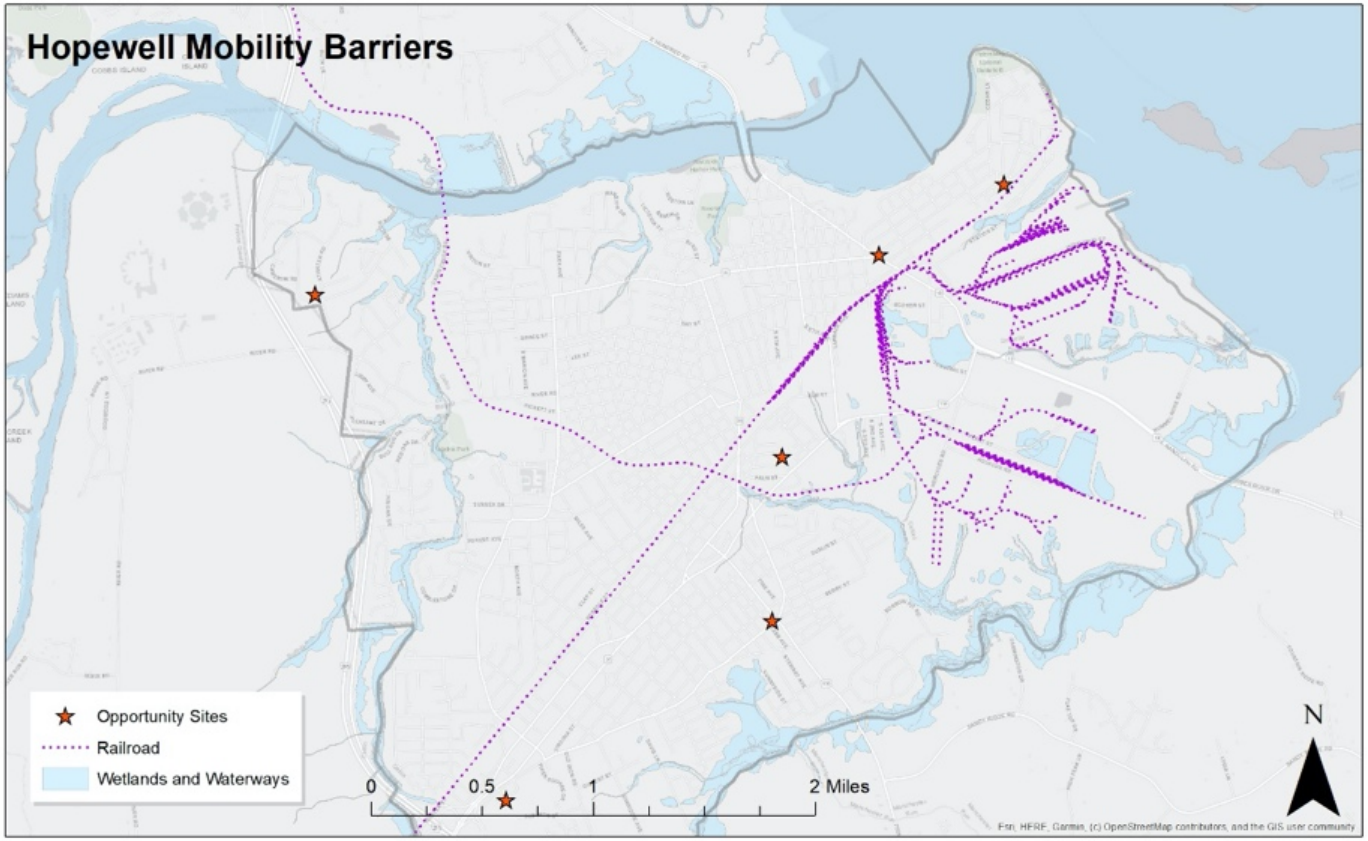


Figure 3: Barriers to mobility in Hopewell

The City of Hopewell subsidizes a fixed bus route that is operated by Petersburg Area Transit *(see Figure 20)*. Known as the Hopewell Circulator, this route connects the City of Hopewell to the Blandford/Hopewell route via a connection at the Food Lion off Tri City Drive. It currently connects the Appomattox Regional Library in Hopewell, the John Randolph Medical Center, and Riverside Regional Jail. The bus service operates Monday through Saturday and takes 60 minutes to make each round trip.

Opportunity Sites

City officials identified six sites for development throughout Hopewell: Cavalier Square, Colonial Corner, Downtown, Five Forks, Heritage Gardens, and the Northwest corner *(see Figure 4).*

Note: Heritage Gardens and Downtown are combined in the market analysis and recommendations due to their proximity but are described separately.

Figure 4: Identified "opportunity sites" in Hopewell

1 – Cavalier Square

Cavalier Square is the most centrally-located opportunity area and a crossroads for Hopewell, located just north of the split of Oaklawn Boulevard/South 15th Avenue from Winston Churchill Drive and the intersections of Arlington Road. The site is comprised of a series of suburban-style strip malls centered around an 809-space parking lot. While large parts of the shopping center are vacant, several retail options are located in and around the periphery of Cavalier Square including a Save A Lot, Dollar Tree, Family Dollar, two mini-marts, and three restaurants. These options are primarily accessible by car from Winston Churchill Drive, Palm Street, Maple Street, and Elm Street and via a Petersburg Area Transit stop located in the center of the shopping center parking lot. Parcels that line 15th Avenue are mostly auto-oriented and include one industrial site at Elm Street. No current sidewalks connect to commercial options at Cavalier Square, although a bicycle lane exists along the west side of Cavalier Square on 15th Avenue.

2 – Colonial Corner

Colonial Corner rests at the gateway to Hopewell on State Route 36 (Oaklawn Boulevard/Woodlawn Street/Winston Churchill Drive), near the southern boundary with Prince George County at Fort Lee. Colonial Corner has an advantageous location that is easily accessible by car to I-295, neighboring localities, and other parts of Hopewell. Courthouse Road, which runs east-west through southern Hopewell, terminates at Colonial Corner. Ashland Street, which leads to Cedar Level Road and Mesa Drive, terminates at Courthouse Road less than a quarter mile from Colonial Corner. The site is home to the Hopewell-Prince George Visitor Center, which sits on an outparcel along Old Oaklawn Boulevard. Three restaurants are present at Colonial Corner, including two outparcels that flank the visitor center. Three hotels sit at the northeast corner of the site and a bowling alley is on the western edge hugging the interstate off-ramp. The main shopping center building on the south edge of the site is mostly vacant and in disrepair. Limited multi-modal connections exist to and from this site and residential areas around Colonial Corner, though the Hopewell Comprehensive Plan indicates bicycle lanes connecting this site and Hopewell.

3 – Downtown

Located in the northeast section of Hopewell just south of City Point, the Downtown area is accessible to the rest of Hopewell via Broadway, City Point Road, and Randolph Road. Comprised of the few square blocks surrounding the intersection of Randolph Road and Broadway, Downtown Hopewell sits along the road between Chesterfield County and Prince George County. This neighborhood is the site of many of the city's services and destinations, including retail, civic, health, and recreation options. Downtown features the densest mixed-use area of Hopewell, with important employment and institutional anchors such as the Hopewell Municipal Building, Hopewell Police Department, Hopewell Courts Facility, Appomattox Regional Library, and the Beacon Theater. Additionally, several apartment buildings have been built or renovated in recent

years, with more in progress— including the 179-unit Francisco Landing development along Appomattox Street. The neighborhood has a strong existing sidewalk network, and the Comprehensive Plan outlines an expanded bicycle facility network that strongly ties into the Downtown area. The Hopewell Farmers Market takes place on East Broadway under the direction of the Downtown Hopewell Partnership.

4 – Five Forks

Five Forks is located at the center of Arlington in Hopewell's largely residential southeast, at the nexus of Arlington Road, High Avenue, and Berry Street, which form a namesake intersection. The site is almost entirely residential aside from a few parcels near the intersection, including a church, funeral home, Elks Lodge, and Five Forks Food Mart. Arlington Park and Harry E. James Elementary School are about four blocks south of the site. A sidewalk network exists along High Avenue/Arlington Road, but doesn't extend into adjacent neighborhoods or to James Elementary School. The Hopewell Comprehensive Plan does not indicate investment in bicycle facilities in Arlington beyond a spur on High Avenue.

5 – Heritage Gardens

Heritage Gardens, located between Downtown and City Point, is a large open-space park and garden surrounded largely by residential neighborhoods and historic sites. It is primarily accessed via East Broadway, which ends a block past Heritage Gardens at Ramsey Drive, which circles back to Hopewell Street and Broadway. The only commercial parcel in the immediate area is occupied by an auto repair shop and other non-residential uses include several churches and historic sites. The gardens themselves are owned by the City, in addition to other nearby parcels including Fort Abbott Park and City Point Playground, each located about a block away.

6 – Northwest

The Northwest part of Hopewell (made up roughly of the area west of Cabin Creek and north of River Road) is accessible to the rest of Hopewell only by way of River Road, which features a recently completed dedicated bike lane. This is the most suburban part of Hopewell and does not feature the same gridded street network present in most of the city. The neighborhood features a mid-rise condominium at the end of Anchor Point Boulevard and is experiencing the development of townhomes along Eagle Drive. The site is centered around Atwater Park and Atwater Soccer Complex just off River Road at the city boundary. The only other non-residential use in the Northwest is the Anchor Point Marina and Yacht Club. The sidewalk network in this part of Hopewell is discontinued and mostly centered around the homes off of Atwater Drive. The Northwest section of Hopewell is the only opportunity area with a significant presence of Resource Protection Areas (RPAs) and Resource Management Areas (RMAs), due mostly to Cabin Creek

Demand-Side Analysis

Today in Hopewell, there is an underserved demand for local grocery stores and a leakage of spending into surrounding markets. The underserved demand causes local businesses to lose revenue, the City of Hopewell to lose on potential tax dollars, and residents to lose a sense of community and valuable time as they travel to shop outside the city. Studying the perspective and experience of Hopewell residents is critical. To truly understand the demand for improved food access in Hopewell, it is necessary to understand accessibility to grocery stores, what products existing retail does or does not offer, the obstacles shoppers face, and what matters most to them when shopping. Interviews and surveys provide the community's perspective on these issues.

Methods

To best understand the current needs of residents, several methods of surveying were used. They included an online survey through Google Forms, in-person surveys, interviews in-person and over the phone, and visits to popular areas. We believe that these various forms of contact provide an accurate snapshot of consumer demand. Efforts to implement a focus group were not achieved due to limitations caused by COVID-19.

Responses from the survey were gathered between October 22 and November 9, 2020, and the full survey is available in the Technical Appendix. The survey was anonymous and asked questions regarding grocery shopping experiences and challenges. It was distributed online and on paper with a QR code placed at various locations throughout Hopewell, including the Hopewell Community Center and the Hopewell Public Library. A link to the survey was published on the City of Hopewell's social media sites with the help of Charlie Dane, Tevya Griffin, and Chris Ward (officials from the City of Hopewell) and was distributed to the following groups: Hopewell Redevelopment & Housing Authority, Twin Rivers Apartment Complex, Hopewell Public Library, Hopewell Community Center, Beacon Hill Church, Hopewell Public Schools, and the Hopewell Farmer's Market. Several surveys were also conducted in person at the local Farmer's Market.

Interviews were conducted with individuals identified as well-connected in the community, such as church leaders and property managers. Conversations with these individuals provided insights into populations difficult to trace through an online survey. We attended a popular food drive at Beacon Hill Baptist Church, where conversations with church leaders and recipients of the food drive informed our findings on the needs of those facing severe food insecurity. All interviews were anonymous.

Survey Results

We received 150 responses through online, in-person, and paper surveys. The survey inherently favored those with internet access, and therefore likely higher wealth residents that have a lower likelihood of experiencing food insecurity. We attempted to balance online surveys with in-person surveys and interviews in areas with a higher concentration of poverty to gain a perspective on the needs of overlooked populations. The goal of the survey was to provide a picture of the food preferences of residents, where they buy groceries, how far they travel to purchase groceries, means of travel, and any recommendations they may have regarding food accessibility.

Store Preference

The most popular shopping location by far is the Food Lion in Hopewell. Approximately 40% of the residents surveyed choose to shop there. The rest of the responses are scattered throughout other locations in Hopewell and beyond, including Colonial Heights, Chester, Richmond, and Petersburg. In *Figure 5*, dark blue indicates stores located outside of Hopewell while gray identifies locations within Hopewell.

Although Food Lion is the store with the largest preference, it is not where most shoppers choose to purchase groceries. Over 60% of residents surveyed choose to shop at a variety of other stores, some local and some

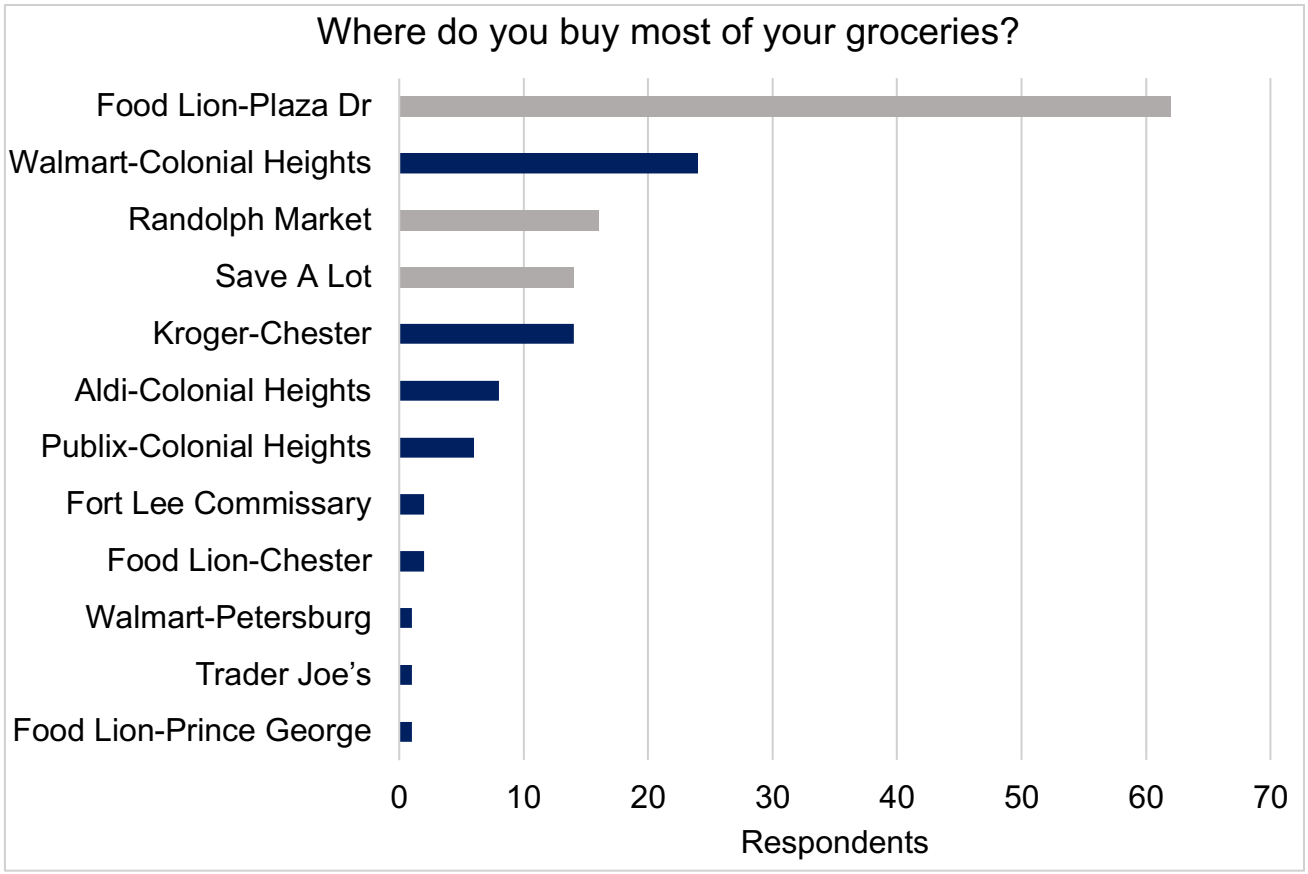


Figure 5: Grocery store preferences

chains, throughout the area. The most popular store other than Food Lion is Walmart in Colonial Heights, followed by Kroger in Chester, and Save A Lot and Randolph Market in Hopewell.

Reasoning Behind Store Preference

To understand why residents choose to shop at their preferred store, we asked if it is the closest store to their residence. If not, we asked why they choose to travel to shop. These questions were presented to gauge what is missing from current stores and understand demand. Only 46% of respondents indicated that their preferred grocery store is closest to them, with 54% stating they shop at a farther location (see Figure 6).

Figure 6: Proximity of respondents to where they shop

When asked what is missing from their closest location a variety of responses were given. Responses included vegetables, meat, fruit, dairy, prepared meals, and other *(see Figure 7)*. The most popular response was “Other” and the responses vary. Several indicated their closest store does not carry specific items like “spices”, “brand name pet food” or “salmon”. Others stated there is a lack of specialty food items or food that fits certain dietary requirements, such as dairy-free and gluten-free options, ethnic foods, or vegan options. The most cited reason within the “Other” category is that prices at their closest store are unaffordable and they are able to find lower prices elsewhere. Another popular response was quality. In general, many residents seem to agree that a wider variety of food would benefit their neighborhood.

Figure 7: Missing items from closer stores to where respondents live

Transportation Factors

Because so many residents choose to shop at a store that is not near their home, we wanted to gauge their overall one-way trip times. About 46% of this group indicated their drive to the grocery store takes 10 minutes or less, while 40% of people said they spend 10-19 minutes driving to the store *(see Figure 8)*. About 9% spend 20-29 minutes traveling, and 4% of respondents spend 30 minutes or more traveling to their preferred location (one-way). This indicates that although there is a large group of people who live relatively close to their preferred grocery store, there is still a number of people who travel long distances.

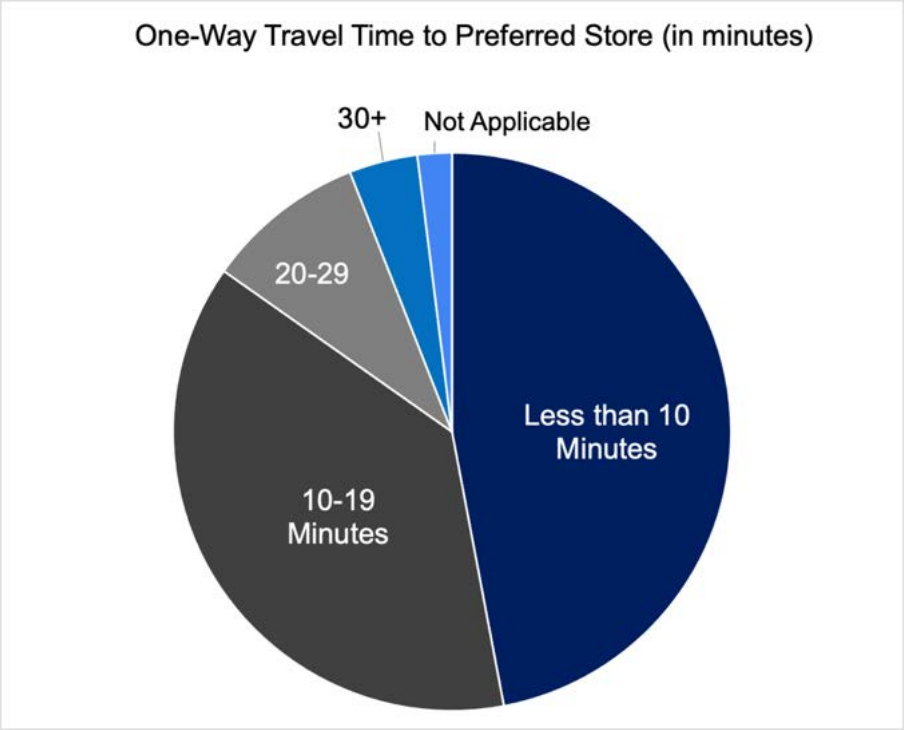


Figure 8: One-way travel time to store

Respondents were asked about their primary transportation method, whether that be a car, public transit, walking, cycling, or other *(see Figure 9)*. This question was posed to understand obstacles residents may face when trying to get to the grocery store, and whether this would impact their choice of where they decide to shop. Although 95% of respondents indicated that they drive, there are people who do not have access to a car and rely on public transportation. Several respondents also indicated that handicap accessibility is a major issue. Reasons for this difficulty were not described in detail but one person explained the struggle with getting groceries to and from their car. These findings were further clarified through resident interviews.

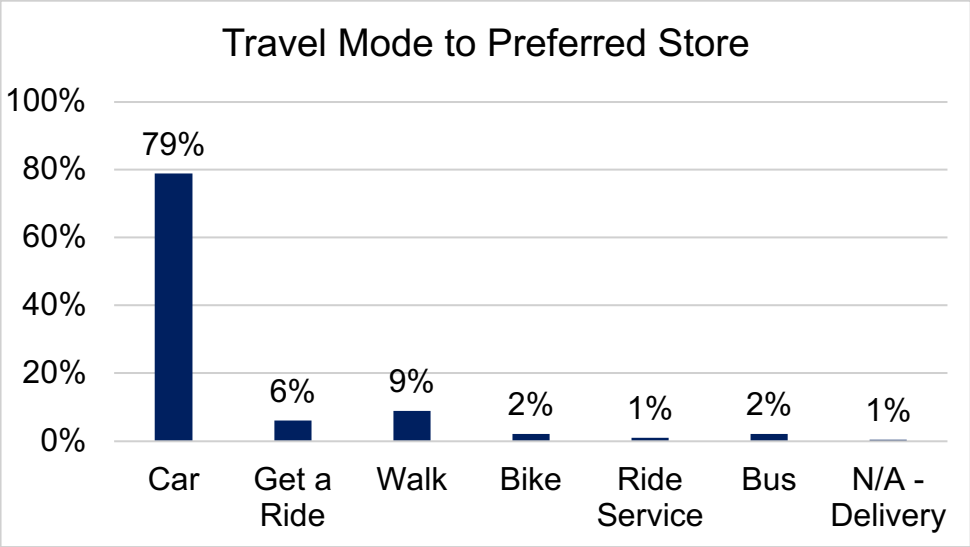


Figure 9: How respondents get to the store (percentage of total responses)

Resident Interviews

Transportation Issues

Interviews conducted illuminated the issues residents face accessing food. For example, one respondent in the Downtown area indicated that they do not drive a car and rely on public transportation or walking to purchase groceries. They indicated that the closest grocery store is Randolph Market, but they are unable to afford prices there, so they choose to walk to Save A Lot instead. When asked about their largest obstacle to grocery shopping, they indicated that the bus does not run very frequently, and they may wait up to an hour for a bus to come to pick up from Save A Lot. Due to this, they prefer to walk.

Another community member who does not have access to a car described their struggle with getting to the grocery store. They do not have easy access to a bus stop and cannot walk to most places in the city. Due to a lack of transportation, this family purchases most of their groceries at the local 7-Eleven close to the Downtown area. Prices at the store are often higher than in a traditional store, and options are limited. It is important to clarify that although the survey responses indicate the majority of people have access to a car, there are residents who struggle to access nutritious and affordable food.

Findings and Analysis

Transportation Access Impacts Food Access

Based on the survey and interviews, there appear to be two separate groups: those with access and those without access to an acceptable food store. The first group has access to adequate transportation, be it a personal automobile, walking distance to a store, or close proximity to a bus stop. This gives them the ability to travel farther to their preferred store to seek more affordable prices, higher quality produce, or more variety. The second group does not have access to adequate transportation via car, bus, or close proximity to a fully stocked grocery store, and must shop at the store that is immediately available to them. This demographic is more likely to shop at a convenience store or smaller corner store where prices are higher, quality is lower, and there are fewer options.

Affordable Prices

Residents, primarily in the Downtown area, state the grocery stores available provide nice quality but have unaffordable prices. Smaller convenience stores often lack fresh produce or meats. If residents wish to purchase groceries at their desired quality or price point they must travel farther away, and if they do not have access to transportation they are limited in their options. The factors of transportation and affordability highlight the need for increased food access, especially in the Downtown area. Many residents in this area experience issues accessing affordable, healthy foods.

Summary

Findings suggest there is a demand for fresh food in Hopewell at an affordable price. Although many residents may wish their local grocer carried a larger variety of products, the largest motivating factor for traveling out of the city is first for price, and then for quality. Many indicated a trade-off: there may be quality food at certain stores but with unaffordable prices or affordable prices but lower quality food. Many have the means to travel farther by car, but another portion of residents have limited mobility due to lack of access to transportation, and the same residents carry a larger burden when it comes to monetary and quality constraints when purchasing food. These residents have to either use more time and energy to access food or make the decision to forego nutritional value based on convenience.

Supply-Side Analysis

This section of the report discusses a competitive market analysis conducted to calculate the unmet demand for grocery and food retailers within the City of Hopewell. First, it summarizes existing food supply options in the city and quantifies an overall value of unmet demand in the market. Next, it reports on findings from surveys of existing food merchants and their perceptions, ability, and interest in providing fresh food. It concludes by offering four supply options selected specifically based on research findings.

Existing Supply

Current food retailers in and around Hopewell vary in size and product offerings. Five retailers were classified as grocery stores in the following market analysis: the Food Lion in Hopewell on Plaza Drive, another nearby Food Lion in Prince George, S&N Market, Save A Lot, and Randolph Market. The Walmart in Colonial Heights and the Kroger in Chester draw residents to spend money outside of the city but are beyond the boundaries of the trade areas for this analysis. There are 20 convenience stores within the market area and four specialty stores (international and smaller markets). The list of convenience stores includes at least six different dollar stores that have space dedicated to food sales. Overall, the existing supply of retailers that provide groceries and food to residents of Hopewell is largely represented by convenience stores, which typically serve processed and prepared foods rather than fresh produce.

Competitive Market Analysis

To understand the size of the local Hopewell market and the number of dollars available for grocery spending, a competitive market analysis was conducted. Specifically, this market analysis gathers the total potential expenditures for groceries from surrounding households and then estimates the total level of unmet demand for grocery stores in the market. This analysis uses the American Community Survey 2018 estimates for the number of households and household income by census block group. Additionally, the most recent 2019 Consumer Expenditures Survey provides data on spending habits by income level to estimate potential grocery expenditures in the market area. Based on this data, the market for food at home expenditures in Hopewell is estimated to be **$45,993,498** per year, in 2020 inflation-adjusted dollars.

This study also estimates grocery spending in five specific market areas for further analysis based on the site locations discussed earlier in this report. For each of the five market areas in this analysis, a convenience and community trade area were defined to calculate unmet demand *(see Figure 10)*. In many cases, the market area extends beyond the city of Hopewell to include areas bordering the city. The maps and boundaries for the market areas for the other four sites are presented in the Technical Appendix.

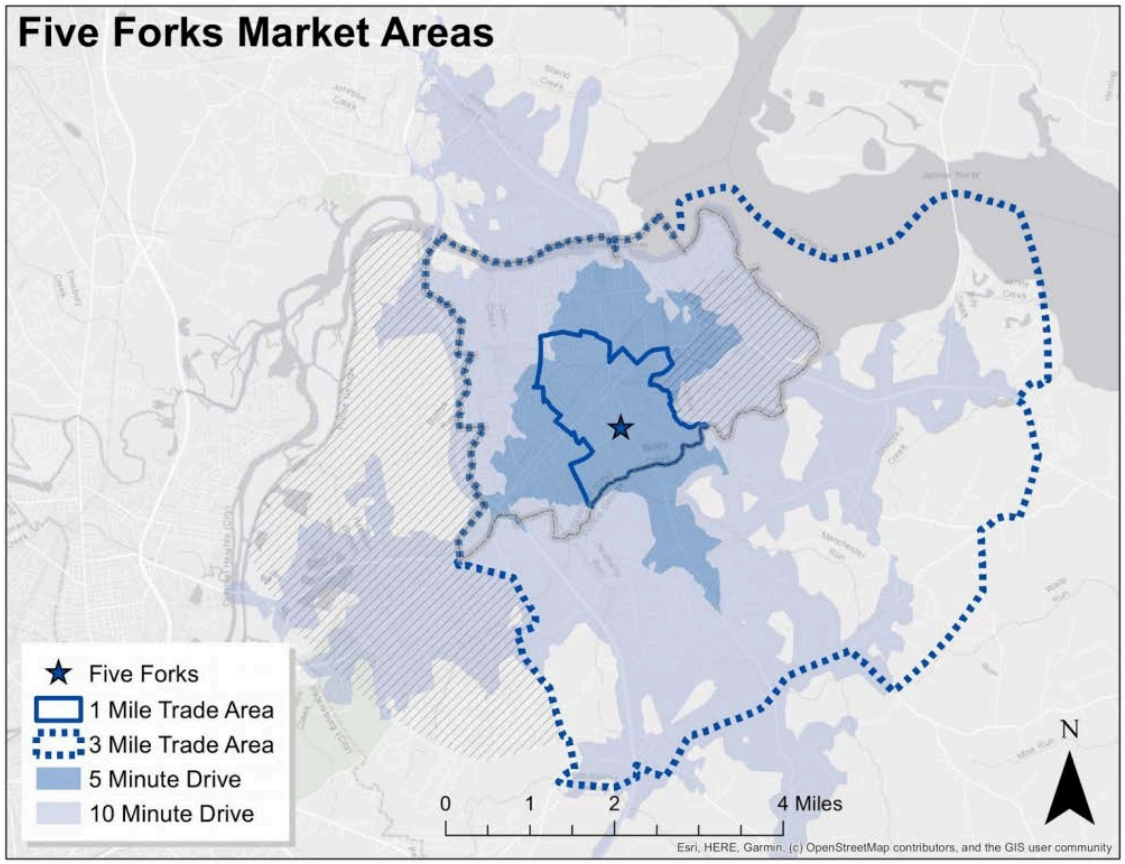


Figure 10: Five Forks Trade Area

The convenience trade area is intended to capture local food at home purchases that take place throughout the week for smaller needs and food purchases, while the community trade area is intended to capture the larger market for food at home purchases, that may occur less frequently. Customer behavior in the convenience trade area is more sensitive to distance and time. By comparison, the community trade area considers customers that are likely to travel farther for a better selection and price. The convenience trade area in this analysis is based generally on a 1-mile radius and 5-minute drive from each site. Census block groups serve as the boundaries for these trade areas to help isolate market and demographic data. The community trade area also follows census block group boundaries and is based on a 3-mile radius and a 10-minute drive. Given the size of Hopewell, the community trade areas often extend beyond the city boundaries to portions of Chesterfield or Prince George counties.

After calculating the potential grocery expenditures in each of the market areas, the analysis then compiles an estimated level of unmet demand in total square feet of food stores for each market area. This unmet demand calculation is divided into three categories of food stores which include supermarkets, convenience stores, and specialty stores. Estimating this level of unmet demand first requires compiling an inventory of the type and size of existing food stores in the market area. Next, an

estimate for the number of supportable square feet in the market area can be calculated by dividing the potential grocery spending in the market area by the national median sales per square foot of the three food store categories as reported in Dollars and Cents of Shopping Centers annual report. The existing square feet in the market area can then be compared with the number of supportable square feet to quantify the level of unmet demand. Finally, the analysis can also estimate the number of potential new stores based on the national median gross leasable area of food stores *(see Figure 11)*.

The Hopewell area also has a few constraints that limit the market reach of potential sites and the number of households that may contribute to food purchases in Hopewell. The presence of Fort Lee and other government operations to the west, the Appomattox River to the north, and the James River and industrial sites to the east serve as physical barriers that limit access for various market areas. These limitations were considered during the competitive market analysis when defining market areas and are noted in the map in Figure 10. Ultimately, the value of the total market in each trade area is heavily dependent on the number and spending habits of households in the market area near a potential site *(see Figure 12)*.

$$\frac{\text{Potential Expenditure}}{\text{Sales Per Square Foot}} = \text{Number of Supportable Square Feet}$$

$$\text{Supportable Square Feet} - \text{Existing Square Feet} = \text{Unmet Demand (in Square Feet)}$$

Figure 11: How unmet demand was calculated

Number of Households by Market Area

Location	Convenience Trade Area	Community Trade Area
Cavalier Square	4,085	12,945
Colonial Corner	4,316	11,439
Downtown	2,829	10,544
Five Forks	3,025	12,945
Northwest	450	7,576

Figure 12: Households by market area

The value of each market area based on expenditures for food at home purchases suggests that a sizable market exists to consider a variety of food supply options in Hopewell. Since potential food shoppers can also come from outside of the city, the market area values do not coincide with the total market value for Hopewell. Given their central location and high traffic counts, Colonial Corner, Cavalier Square, Downtown and Five Forks all have community trade area market values that surpass $45 million for food at home spending *(see Figure 13)*. For the smaller convenience trade areas, each of these market areas has values above $12 million in total grocery expenditures except for the Northwest site *(See Figure 14)*. This suggests that all of the market areas except for the Northwest site show some opportunity for future development given the existing demographic conditions and potential grocery spending.

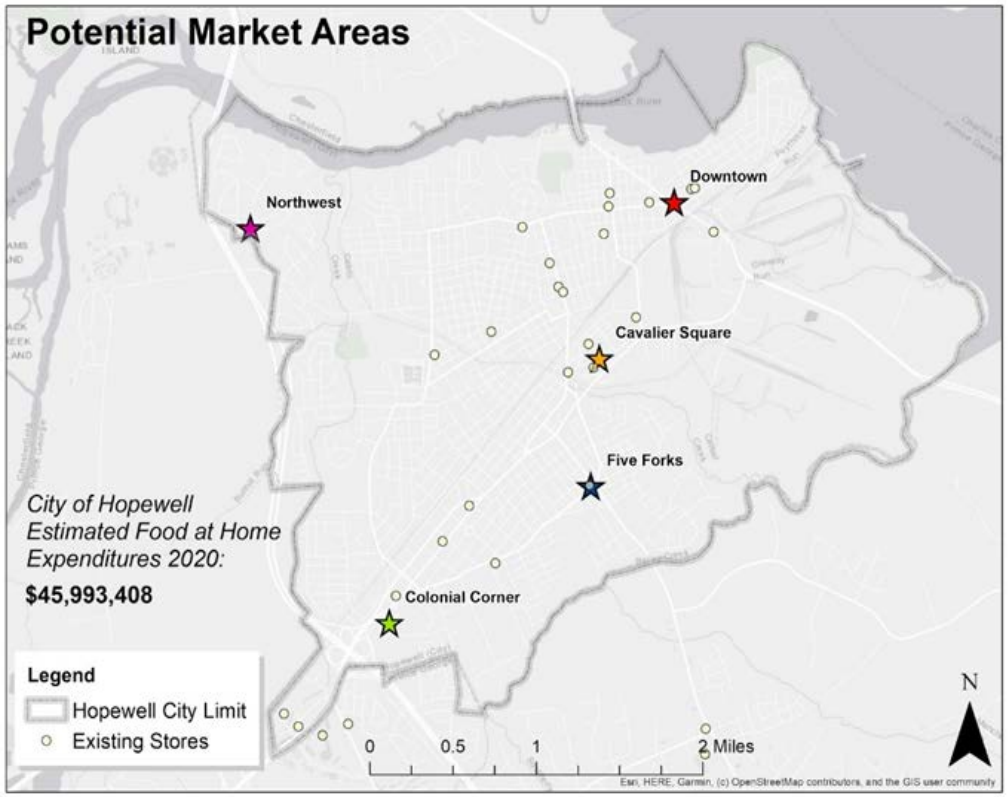


Figure 13: Potential market areas

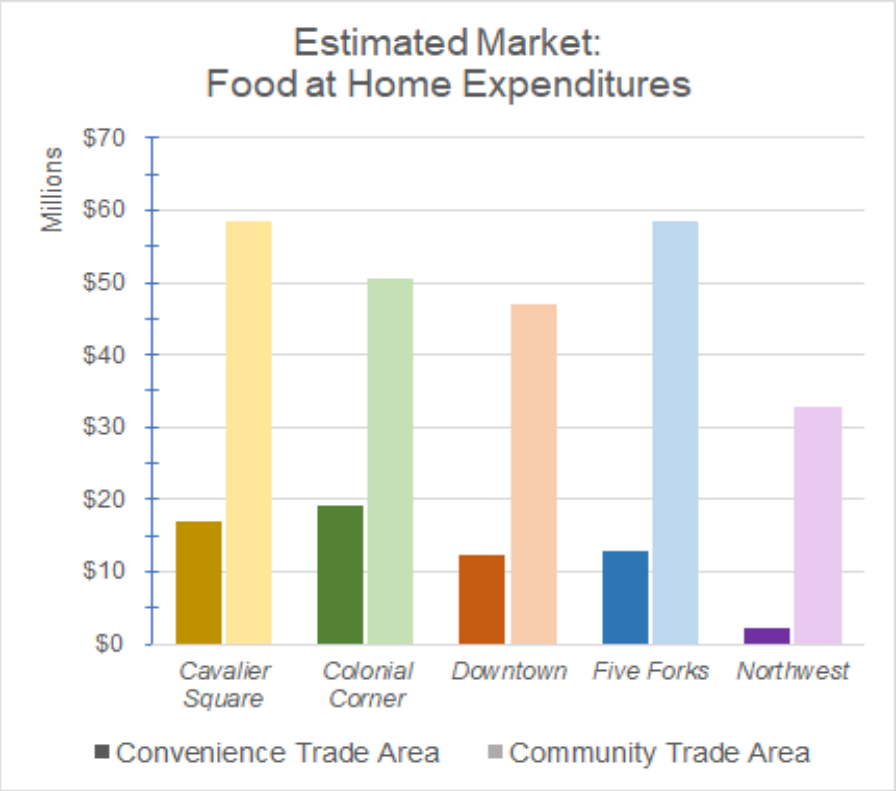


Figure 14: Food at home spending by opportunity site

However, estimates for unmet demand for each trade area in Hopewell provide a slightly different outlook. Even though Hopewell does seem to have a considerable amount of potential grocery spending, the market analysis shows little unmet demand for most market areas and store types *(see Figure 15)*. For supermarkets specifically, each trade area has an oversupply of at least 24,000 square feet at the community trade area level. The full analysis in the Technical Appendix does however show some unmet demand for specialty stores and limited amounts of unmet demand for convenience stores in certain areas in the city. Based on the market analysis, most trade areas could support at least one new specialty food store.

Given the lack of unmet demand as shown in Figure 15 for supermarkets in Hopewell, this analysis suggests that the market for food at home sales in Hopewell is defined more by underserved demand as opposed to unmet demand. Based on the potential expenditures and existing square footage of grocery stores, Hopewell seems to have enough stores to meet existing demand. However, as discussed previously in the demand-side section, residents are not adequately served by the existing stores for a variety of reasons which include price, quality, selection, and accessibility. The low level of unmet demand demonstrated in this analysis does not mean that the Hopewell market is successfully meeting the demand for groceries. Instead, this qualitative market perspective demonstrates the presence of an underserved market in Hopewell. The existing stores are not adequately meeting the actual preferences or interests of local consumers.

Convenience Trade Area (1 Mile): Supermarket Estimated Expenditures and Development Potential

	Number of Supportable Square Feet	Existing Square Feet	Unmet Demand in Square Feet	Potential New Units
Cavalier Square	19,357	43,336	-23,979	-0.5
Colonial Corner	21,902	34,670	-12,768	-0.3
Downtown	14,020	43,336	-29,316	-0.7
Five Forks	14,649	38,670	-24,021	-0.5
Northwest	2,441	0	2,441	0.1

Community Trade Area (3 Mile): Supermarket Estimated Expenditures and Development Potential

	Number of Supportable Square Feet	Existing Square Feet	Unmet Demand in Square Feet	Potential New Units
Cavalier Square	67,141	111,006	-43,865	-1.0
Colonial Corner	57,818	104,336	-54,854	-1.2
Downtown	53,803	78,006	-24,203	-0.5
Five Forks	67,039	111,006	-43,967	-1.0
Northwest	37,859	78,006	-40,147	-0.9

Figure 15: Convenience and community trade areas

Collectively this market analysis is also consistent with trends seen from ESRI's Business Analyst Tool and other similar market research software. They suggest that an oversupply of supermarkets and convenience stores exists in some areas. Nevertheless, this does not mean that the Hopewell food market lacks opportunities for growth and improvement. While the overall quantity of stores and square footage meets demand based on the potential expenditures of the surrounding area, the existing stores are contributing to underserved demand in Hopewell. This means that expanding and improving the quality of existing food stores is an important part of potential supply recommendations. Moreover, new stores and grocery retailers also have the potential to capture a portion of the underserved market from stores that are not meeting demand sufficiently. Despite some limitations in the ability to simply expand store square footage in the overall market, this market analysis still presents an opportunity for more food-related development and investment within Hopewell.

Survey of Local Merchant Experiences

Methodology

A survey of existing retailers was conducted to gain a better understanding of merchant experiences and opinions surrounding food access in Hopewell. The City of Hopewell provided a list of several important stores in the area. This list included large chain grocery stores, smaller corner stores, and convenience stores. The survey was anonymously conducted between October 22 and November 7, 2020. A full list of merchants contacted is listed in the Technical Appendix.

Merchants were first contacted via phone to ask if they were interested in participating in a survey. If they responded yes, then the merchant had the option to complete the survey by phone or in person. Some surveys were completed via phone and several were completed in person during business hours. Managers were contacted when possible but other employees served as participants when available.

The goal of this survey is to understand the needs of merchants along with the shopping patterns of customers. Some questions included what type of foods were mostly sold and purchased, whether or not they accept EBT/SNAP benefits, if there would be interest in carrying fresh produce if they did not already, and if there are any ways the City of Hopewell could aid their business. The full survey can be found in the Technical Appendix.

Survey Results

In total, nine merchants were surveyed. The stores represent a variety of merchants across a wide area of the city. Different stores have different needs. Results are varied in merchant opinions of food access in Hopewell, merchant needs, and shopper experiences.

View of Hopewell as a Food Desert

Not all merchants surveyed believe the City of Hopewell is a food desert *(see Figure 16)*. The majority of merchants surveyed, around 60% of respondents, believe the city is a food desert, but there is a gap in opinion. These responses vary by store size and location. The definition of a food desert used was whether an area has limited access to fresh produce and meat. Stores that indicated they do not believe Hopewell to be a food desert are either larger format grocery stores that sell fresh food themselves or smaller stores that have other reasons. This may have implications for the willingness of merchants to expand their inventory.

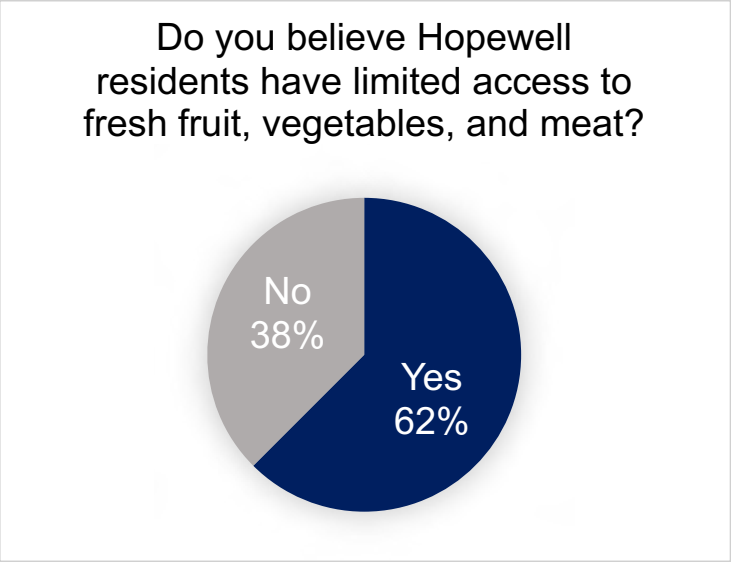


Figure 16: Merchant perception of Hopewell as a food desert

Acceptance and Use of EBT

Nearly all the merchants interviewed accept EBT. This indicates that stores are willing to accept shoppers who may not have adequate access to food. These merchants were also asked the approximate percentage of shoppers who use EBT in their stores when compared to the general public. These responses indicate the demographic of shoppers and potential issues the store may face. Two stores indicated that 20% or more of their customers use benefits, while one store indicated 15-20% of their customers use EBT, one store said 10-15% use benefits, and one store said less than 10% of shoppers use EBT *(see Figure 17)*. One store was unable to answer due to privacy policies.

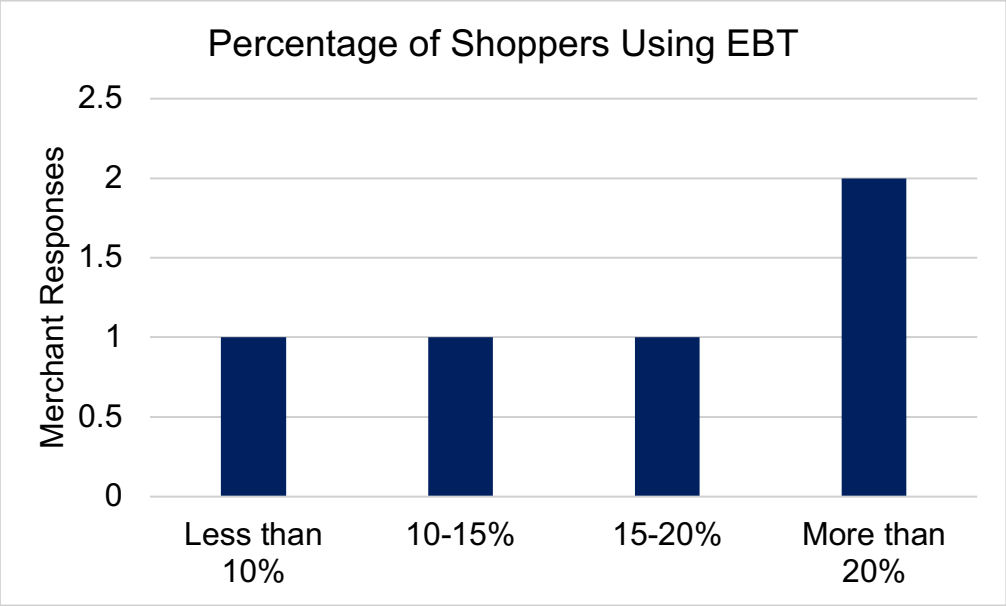


Figure 17: Merchant estimates of shoppers who use EBT

This indicates that many recipients of EBT shop for food at stores across the city whether or not there is adequate food available at their preferred store.

Interest in Stocking Fresh Food

Merchants who do not carry fresh produce or meat were asked if they would be interested in supplying fresh food. Responses were varied, from very interested to very disinterested. The final results indicated that 50% of respondents are interested, and 50% of respondents are not interested *(see Figure 18)*. Responses for reasons why stores would not like to sell fresh food included lack of freezer space, no desire to deal with the maintenance of keeping such items, and restrictions due to company policies. The stores that said yes were asked if there is anything they would need in order to sell those items. Several respondents indicated that they would like to sell more fresh food, but do not have space. They would be more willing to stock fresh food if they had more refrigerator or freezer space.

Figure 18: Merchant interest in stocking fresher foods

Findings and Analysis

These surveys and interviews offer insights into the merchant side of food access in Hopewell. Key issues are access to refrigerator space and perception of food deserts. An understanding of the existing supply of food retail within Hopewell shows there are many corner stores and local merchants who are located close to residents experiencing food insecurity, and some of them are willing to add infrastructure to their store to increase food access. There are limitations but also opportunities.

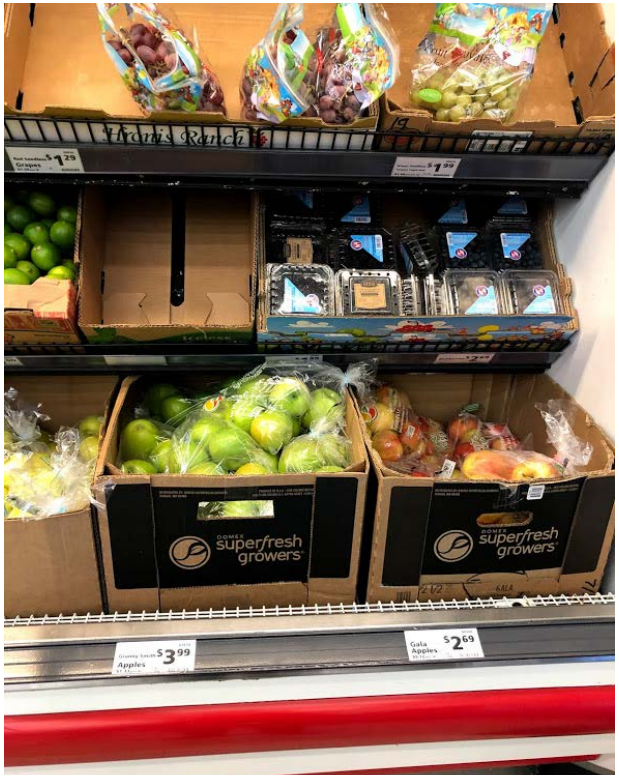
Refrigerator Space in Convenience Stores for Fresh Food

At the beginning of the study, the City of Hopewell asked if there is demand from local convenience stores for expanded refrigerator space to hold fresh foods. Some stores responded no, stating there were restrictions with corporate policies that prohibit selling fresh foods. Other stores have existing refrigerator space but are either unable or unwilling to carry such products. Some smaller stores expressed interest in expanding their supply of fresh food. Combining this information with the knowledge that some people may purchase most of their food at convenience stores adds to the demand of proper storage

for fresh produce. This is very important in an area like Downtown, which lacks affordable grocery options within a short distance from many neighborhoods.

Perception of Food Deserts

Disagreements among merchants as to whether Hopewell is a food desert may have implications for their willingness to work toward changes. If merchants do not perceive food access to be a need then there may be limited desire to stock fresh food. At the same time, there are merchants who perceive Hopewell to be a food desert and who would be willing to work in conjunction with the City of Hopewell to expand their selection. These businesses will be critical to establishing greater food stability in Hopewell.



Alternative Supply Options

After comparing feedback from citizen and merchant interviews with research on a variety of food access options, this discussion focuses on four specific alternative food access options. The Fall 2019 Urban Commercial Revitalization class at VCU prepared a report titled *Increasing Access to Food: A Comprehensive Report on Food Supply Options* that summarizes 13 retail and food access options. From those options, we propose two options (mobile markets and small format/traditional retailer) for adding new supply in Hopewell given the opportunities and constraints in the market. Based on results from the market analysis and demand-side feedback, we also propose two other options focused on improving the existing food stores in Hopewell through the Healthy Corner Store Initiative and improved transit accessibility.

1 - Mobile Markets

Mobile markets are an option for improving food access in Hopewell as high start-up costs can pose a significant barrier to entry for potential food retailers. Mobile markets require an initial investment significantly smaller than that of a brick-and-mortar grocery store while also providing additional convenience for those with limited access to transportation. Additionally, a mobile market can satisfy demand in multiple areas and promote economic viability in low-density markets. Since many existing merchants in Hopewell do not currently have the technology, maintenance ability, or space to sell fresh food at their stores, a mobile market could be an option for providing for a more localized supply of healthy food.

Description

Mobile markets can take various forms, but they are generally food retailers that operate out of retrofitted buses or trucks. Many mobile markets emphasize fresh produce and operate in cooperation with local farmers to fill in the gaps in food access for underserved communities.

While mobile markets may have similar offerings to those of traditional farmers markets, they can also make stops in areas with low rates of car ownership and/or limited access to public transportation. Mobile markets typically accept SNAP and WIC benefits, and the Virginia Fresh Match program provides matching funds for SNAP users to spend on fresh produce. Mobile markets make stops at natural gathering places, such as schools, parks, downtown squares, and other public spaces. While the stops vary with daylight and weather throughout the year, mobile markets are often able to make 3-4 stops each day,

each lasting 90 minutes to 3 hours. Mobile markets are often operated by local nonprofit organizations, and public-private partnerships can be critical for their success. Due to the relatively low up-front costs that can be funded in part through grants, mobile markets can be implemented as pilot programs and assessed after a fixed time (one to two years).

Source: Arcadia Center for Sustainable Food and Agriculture

Overcoming Challenges

As with any new business, getting organized during the initial phase can pose a significant burden when starting a mobile market. Forming partnerships and securing funding can be difficult and requires persistence. Finding local farmers interested in providing produce for a mobile market should be a high priority, while Main Street or downtown improvement programs can be assets in networking. One of the ultimate drawbacks of traditional farmers markets and mobile markets alike is the inevitable decrease in business during the winter months. Some produce, such as apples, herbs, and sweet potatoes are available in Virginia during winter, but offerings are reduced. Mobile market operators may choose to offer non-local produce or nonperishables during the winter, but seasonal peaks and troughs in revenue are important considerations for the business plan of any mobile market in Virginia.

While a mobile market in Hopewell could serve customers throughout the community, Hopewell's population of about 22,000 might not be a large enough market to make the venture worthwhile for a local farmer. The two most successful mobile markets in Virginia, the Local Environmental Agriculture Project (LEAP) mobile market in Roanoke and the Arcadia mobile market in Alexandria, operate in cities with populations exceeding 90,000 and 160,000 residents, respectively. Product affordability is essential for mobile markets, and large customer bases allow operators to purchase products from suppliers with smaller markups, translating to cheaper prices for customers. A mobile market collaboration among the Crater Health District localities of Emporia, Hopewell, Petersburg, Dinwiddie, Greensville, Prince George, Surry, and Sussex, with a collective population exceeding 150,000, is one way of increasing the scale of the project. There is also funding available at the health district scale, such as the CDC Chronic Disease Protection Grant the Crater Health District received in 2014. A regional mobile market program serving the Tri-Cities of Hopewell, Petersburg, and Colonial Heights would also represent a more favorable proposition in terms of the overall market and potential funding.

2 – Small Format Grocery Store

The demand side analysis in this report indicates that Hopewell residents have a desire for grocery stores closer to home that offer affordable prices, high quality fresh produce, and a wide selection of products. Feedback from local residents indicates that existing food retailers may not be adequately meeting the preferences or interests of local residents. The market analysis demonstrated that Hopewell has a value of $45.9 million in demand for groceries and that the existing supply is underserving this demand. Despite the lack of unmet demand, the presence of underserved demand suggests that a need exists in the market for a small grocery store willing to supply fresh food. The overall size of the market and the presence of underserved demand can serve as an opportunity for a new small format grocery store. Grocery retailers, when considering a location, must consider the buying power of the trade area and any leakage figures broken out by the types of stores where residents spend their money. Because of the large supply of convenience stores in Hopewell, a traditional retailer could view Hopewell as an opportunity to capture spending from existing retail stores and make a profit by meeting the underserved local demand.

Description

A small format grocery store requires less square footage compared to a traditional supermarket and therefore stocks more targeted items depending on location. A smaller format store is typically between 10,000 and 40,000 square feet and is often in more urban areas with smaller lot sizes. Given their size, smaller stores can better adapt to market constraints in Hopewell such as competition from nearby full-size retailers, and the development characteristics of the opportunity sites.

Source: Courier & Press

3 - Healthy Corner Store Initiative (HCSI)

As indicated in surveys of both consumers and merchants within Hopewell, there is a demand for improved equipment, like expanded refrigerator space, for existing retailers to provide fresh food. Many corner stores operate in Hopewell. While some, such as Five Forks Food Mart, also sell food prepared on site, their menus feature mostly fried foods. Healthy corner store programs add produce and other healthy options to existing stores to increase access to nutritious foods. These programs require relatively little start-up capital and take advantage of the customer bases of existing stores.

Description

The Healthy Corner Store Initiative (HCSI) in Virginia is funded in part by the Virginia Department of Health and serves as a program for improving access to healthy foods within underserved communities across the Commonwealth. Organizations facilitating healthy corner store programs seek out corner store operators interested in expanding their healthy food offerings, provide training and technical assistance, market the healthy offerings, and link store operators with community partners and local food suppliers.

Source: The Food Trust

Successful healthy corner store programs, such as the Philadelphia Healthy Corner Store Initiative that launched in 2004, use phased approaches that allow store operators to test the waters of healthy food offerings and receive additional benefits as they invest more time in the program and dedicate more shelf space to healthy options.

Overcoming Challenges

A Healthy Corner Store Initiative will only be successful if healthy options are offered at affordable prices. Without intervention, small retailers are unable to match the prices of large-format supermarkets, and customers opt for unhealthy options that are more affordable. To address this issue, the Philadelphia Healthy Corner Store Initiative, widely regarded as a model for the program, created an economy of scale through high levels of participation, growing from 40 pilot stores in 2010 to 630 participating stores in 2012 (The Food Trust, 2014). This level of participation allows corner store operators to purchase products at wholesale prices, which translates into lower retail prices for consumers.

Source: The Food Trust

While Hopewell does not have the population or density to support a Healthy Corner Store Initiative the size of Philadelphia's, the City could significantly improve the program's chances of success by connecting with store operators within Hopewell and in the surrounding localities, while paving the way for future partnerships regarding community health and wellbeing. As discussed regarding Mobile Markets, there is the possibility of collaboration among localities in the Crater Health District or among the Tri-Cities.

It will take time to build a network of stores, and grant funding can be essential during the start-up period. Shalom Farms, which provides produce for and helps oversee the Richmond Healthy Corner Store Initiative, is a subgrantee of a Food Insecurity Nutrition Incentive (FINI) grant awarded to the Richmond City Health District. This funding is essential in supporting the Healthy Corner Store Initiative. In addition to covering capital costs, such as food storage equipment, funding available from the USDA and nonprofits can be used to subsidize the costs of fresh offerings for merchants in the early phases of a Healthy Corner Store Initiative.

4 - Increased Transit Service

In surveys and interviews, residents indicated that the lack of access to a car is a significant challenge in buying groceries. In the Petersburg Area Transit Development Plan (December 2019), a surveyed group of riders stated that the top reason for why they do not ride the bus is because the journey time is too long, or the bus does not come frequently enough (*see Figure 19*). Transit is an extremely important factor in knitting a community together into a cohesive whole. With much of Hopewell's neighborhoods built before the proliferation of the automobile, there are many walkable areas along commercial corridors that are primed to respond well to higher-frequency bus service. Unfortunately, Hopewell does not have reliable and frequent transit. The infrequency of service, combined with the indirect and roundabout route of the Hopewell Circulator, makes most trips overly time consuming to be a reasonable and viable option.

Reasons for Not Riding the Bus	Response Frequency
It takes too long or isn't frequent enough	35%
I need a car because my schedule varies a lot	18%
I prefer to drive	18%
I don't know how to use the service	12%
I prefer to use other travel modes	12%
Cost	12%
I didn't know the service existed	6%
Other	6%

1. Sum of responses may be more than 100% because respondents had the option of choosing multiple categories.

Source: PAT Public Outreach Survey Results, 2018

Figure 19: Survey of PAT riders

The issue of ineffective service can be remedied by straightening routes and directly connecting the important centers of town. This creates a high-frequency spine of service, upon which increased ridership can result, due to shortened transit times and less planning needed by residents to utilize the bus. This is largely due to a shortened amount of waiting time until the 'next' bus arrives. These walkable, traditional neighborhood centers would also be able to function the way they were designed and become centers of the community again due to their proximity to transit. By providing high quality connectivity, and frequent service between important nodes in Hopewell, they all become more functional than they would on their own (and therefore valuable).

Description

Because the existing Circulator bus route (*see Figure 20)* connects Riverside Regional Jail and the Downtown Hopewell area, the route taken is not direct and adds significant travel time to an individual rider and makes it less useful for those who have time restrictions. The trip to get groceries from the Food Lion in Hopewell can take as long as three hours, which makes it an undesirable option that is only used by those with no other choice but to make the trip. We propose augmenting the Hopewell Circulator or adding an additional bus route, to be operated through PAT. This line would begin at the same Food Lion at Tri-City Drive, travel up Winston Churchill Avenue, then S. 15th Avenue, then along W. Broadway, into Downtown Hopewell, and finally end at John Randolph Hospital. It would then reverse back the same way, ending at the Food Lion.

Figure 20: Hopewell Circulator route

The goal of this more direct route would be to reduce the travel time between population and workforce hubs in Hopewell and the grocery offerings at Food Lion. The service could also make several other connections on the route. All three alternatives stop at The Food Lion, Downtown Hopewell, and John Randolph Hospital, but others are bypassed in certain alternatives to decrease travel time and increase frequency.

Costs

As confirmed by Stephanie Harris, the Deputy Director of Mass Transit at Petersburg Area Transit, the operating cost of a full-sized bus is $100/hour, while a shuttle bus is calculated at $80.80/hour. Travel times also include an additional 20% buffer for recovery time to compensate for congestion, traffic lights, and other delays. For a full-sized bus, operating 12 hours a day, 360 days per year, the cost is expected to be $432,000/year. For a shuttle bus operating the same schedule, it is expected to cost $349,000/year. These expenses would be a consistent fixed cost based on time, regardless of the alternative route option selected.

Alternative #1 – Express: This route has the fewest stops and would therefore have the highest frequency of service. It only serves the Food Lion, the Hopewell City Manager's Office (Downtown), and John Randolph Hospital. It has a calculated round trip time of roughly 45 minutes and could make the loop nearly 16 times during a 12-hour service day.

Alternative #2 – Limited Stops: This route also stops in a limited number of locations but adds Cavalier Square Shopping Center and the Hopewell Food Pantry to the list found in Alternative #1. The round-trip travel time is calculated at 48 minutes, and a single bus would be able to make the loop 15 times during a 12-hour service day.

Figure 21: Proposed service alternative map

Alternative #3 – Local Stops: This final alternative has the most stops (10) and includes smaller neighborhood commercial centers along the route. These stops are roughly set ½ mile apart, on par with Bus Rapid Transit Standards, and provide maximum connectivity to the neighborhoods located along this spine. With a single bus, this route would take 125 minutes (2 hours and 5 minutes) to fully complete and would only be able to make the loop 6 times during a 12-hour service day. However, this time could be cut in half if treated as a high-frequency service and an additional bus (or more) were added.

Recommendations

In this section, site-specific recommendations for Hopewell are outlined based on the research and findings of the report. Recommendations are offered for four sites: Cavalier Square, Colonial Corner, Heritage Gardens/Downtown, and Five Forks. The Northwest opportunity site does not have the infrastructure or market to implement a food access option at this time, so recommendations are not made for the site. Heritage Gardens and Downtown are combined, due to the proximity and overlap of recommendations.

The recommendations are broken out by Food Access Recommendations and Supporting Recommendations. The Food Access Recommendations were selected specifically for each site based on the market analysis, survey of local residents and merchants, and an evaluation of existing conditions at each of the sites. Each site includes a Potential Parcel Map, which was created through careful work evaluating City-owned and vacant parcels at each site. Potential Parcels include City-owned parcels, and privately-owned parcels that are either vacant or 50% vacant/undeveloped. These parcel maps are offered as tools to identify where to implement the recommendations this report offers.

While increases in the overall supply of healthy food will go a long way in improving food security for Hopewell residents, transportation and land use are inextricably linked to food access. Supporting recommendations, including improvements to local transit level of service, multimodal infrastructure improvements, and aesthetic changes will help ensure the long-term success of food access interventions. Increasing the mobility of underserved residents and creating a better sense of place at each site will demonstrate Hopewell's commitment to health, equity, the local economy, and the environment.

We recommend the City of Hopewell begin by working with Crater Health District officials and surrounding localities to establish necessary networks for implementing a successful mobile market in Hopewell. These connections with neighboring localities can also be used to implement a regional Healthy Corner Store Initiative. Mobile markets and healthy corner stores would enhance food access at multiple opportunity sites, using parcels outlined in the following site recommendations.

Cavalier Square

The primary food access recommendations for Cavalier Square are attracting a corner store or a small format grocery store. A corner store near Cavalier Square would increase food access in the area, especially with the implementation of a Healthy Corner Store Initiative. As shown in Figure 22, a corner store could be located along 15th Avenue, Palm Street, or Winston Churchill Drive near the east entrance to Cavalier Square. Additionally, Hopewell should guide future development at this site that would encourage an additional small format grocery store. Survey results show that Cavalier Square is a popular destination for grocery shopping; however, there is a lack of product variety in current stores. Cavalier Square's central location within the city and the site's existing infrastructure make it a potential site for a small format grocery store. These characteristics would also serve Cavalier Square well as a mobile market stop location.

In terms of supporting recommendations, increased transit frequency at Cavalier Square would increase access for residents without a car, helping to provide the customer base needed for a new corner store or small format grocery store. Because it is the most centrally located opportunity area, improvements at this site have the opportunity to affect wide swaths of Hopewell residents. Despite Cavalier Square's optimal location, much of the site's potential remains unrealized, as is highlighted in Hopewell's Comprehensive Plan: "Relative to the City and regional market weaknesses for consumer goods and services, the deterioration of this otherwise excellently located property only contributes to Hopewell's retail leakage problems" (Chapter 6, page 1). To help address these issues, phased mixed-use development should be implemented at Cavalier Square to attract businesses and residents to the area.

Cavalier Square currently shows moderate use, but it suffers from maintenance issues and a high vacancy rate. Ineffective stormwater management is evident at the site. Awkwardly angled speed bumps that currently act as water channels contribute to maintenance issues and accessibility problems, particularly in inclement weather. Investing in green infrastructure, such as a central parklet or median trees, would help mitigate stormwater management issues and improve the overall aesthetics of the site. The significant amount of underutilized space around Cavalier Square provides opportunities for dense mixed-use development, which could be reinforced by affordable housing and increased access to regional transit. Sizable tracts of land owned by the Hopewell Redevelopment and Housing Authority along Highland Avenue east of the Cavalier Square could be incorporated into future development. Such improvements would make Cavalier Square a desirable location for a food retailer, while providing additional amenities for area residents.

Cavalier Square Recommendations

Primary Food Access Recommendations

1. ***Consider attracting a corner store near Cavalier Square*** to expand food access at the site, with access to public transit and bike infrastructure with community services, attracting new residents and businesses.

2. ***Guide development at this site that would encourage an additional small format grocery store**** within Cavalier Square Shopping Center, taking advantage of its central location with easy access to both Downtown Hopewell and the areas southwest towards Fort Lee and Petersburg.

Supporting Recommendations

3. ***Incorporate green infrastructure*** elements in and around site to reduce stormwater runoff and provide enhanced sense of space, inviting more retail use and commercial investment.

4. ***Encourage phased mixed-use development**** at current site to create a centralized walkable district with community services, attracting new residents and businesses.

5. ***Coordinate future development with parcels owned by Hopewell Redevelopment and Housing Authority*** along Highland Ave to ensure affordable housing options close to a revitalized Cavalier Square.

6. ***Realign existing streets***— such as Maple, Spruce, Cedar— to improve access to food and retail options to existing and future residents.

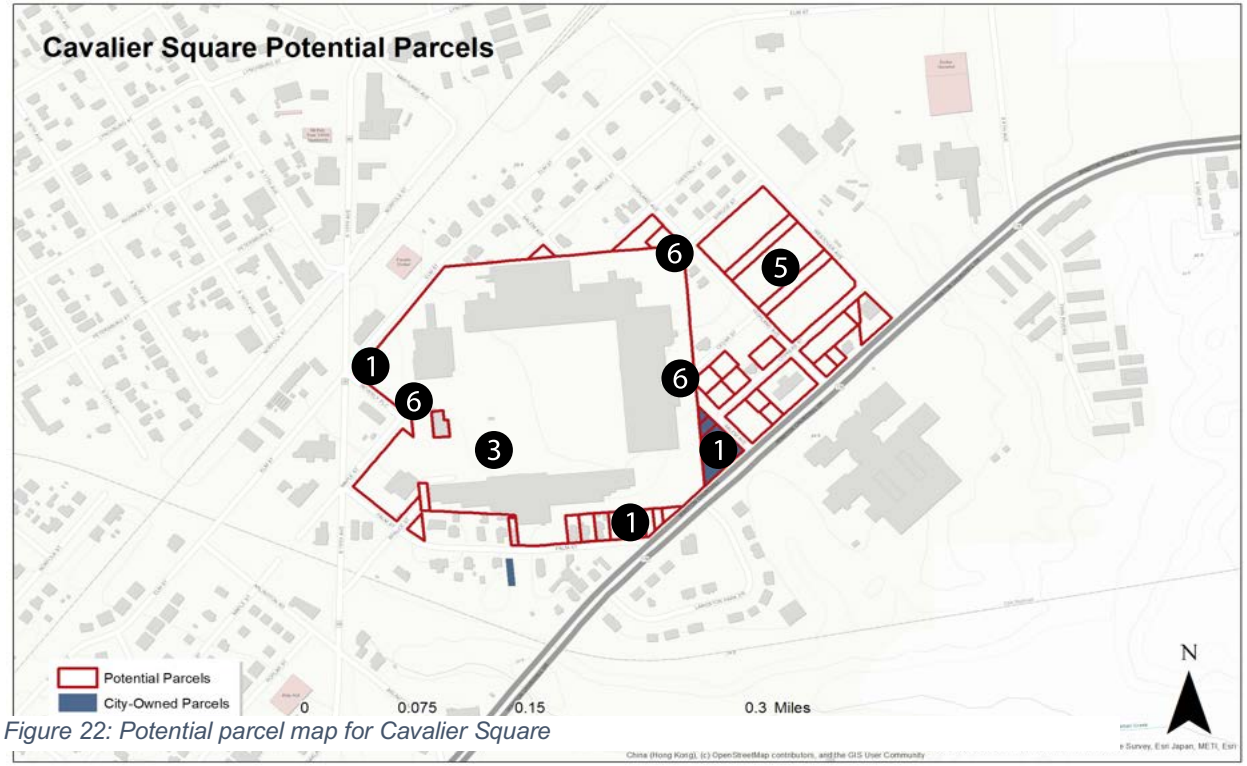


Figure 22: Potential parcel map for Cavalier Square

7. ***Invest in better transit accessibility**** to Cavalier Square with higher-frequency bus service (at least every 30 minutes) between Downtown Hopewell, John Randolph Hospital, and important nodes to the west along a direct route on Churchill Blvd/S 15th Ave/W City Point Rd.

*Recommendation can be implemented at various parcels throughout the site.

Colonial Corner

Primary food access recommendations at Colonial Corner include incorporating a mobile market stop at the site. Along with a mobile market, the City should attract a small format grocery store to Colonial Corner, ideally as part of the redevelopment of the site with both residential and commercial components. Due to the significant amount of vacant space on the site surrounding it, Colonial Corner is a prime location for either a small format grocery store or a mobile market stop. The many surrounding hotels at Colonial Corner and along Oaklawn Boulevard may also help support a grocery store, including a possible deli or café, but residential density is lacking due to a current lack of vehicular and pedestrian connectivity to surrounding neighborhoods.

Colonial Corner has the potential to meet the food needs of the surrounding community and serve as an important missing southern gateway to Hopewell. Supporting recommendations focus on improving accessibility to the site to ensure that future development and food access thrives at the location. Thanks to its location, along with serving communities in southern Hopewell, this site could possibly draw people from Prince George County, Petersburg, Colonial Heights, and Chesterfield County. Colonial Corner suffers from awkward access from Woodlawn Street and surrounding neighborhoods. A sufficiently wide right-of-way makes roadway reconfiguration possible north of the shopping center at Colonial Corner Drive, Oaklawn Boulevard, and Woodlawn Street. Better multi-modal connections are needed from this site to existing residential areas along Old Iron Road and Perrymont Road to better anchor Colonial Corner to South Hopewell. Transforming some of the asphalt and green areas (*see Figure 23*) around this location into a community-oriented gathering space could provide a food link to residential areas behind Colonial Corner and could even cater to hotel guests and nearby restaurants, who may be interested in securing some local produce though this method.

Colonial Corner Recommendations

Primary Food Access Recommendations

1. ***Incorporate this site as a community mobile market stop*** using existing asphalt and green space to create a meeting space for existing and future residents.

2. ***Pursue further opportunities for a small format grocery store**** at this site to capture retail leakage— much of which ultimately bypasses this location because of a lack of affordability and selection in Hopewell.

Supporting Recommendations

3. ***Invest in multimodal connections*** to surrounding residential areas to improve accessibility to existing communities within walking and biking distance.

4. ***Invest in better transit accessibility**** to Colonial Corner with higher-frequency bus service (at least every 30 minutes) between Downtown Hopewell, John Randolph Hospital, Cavalier Square, and important nodes to the east and west along a direct route on Churchill Blvd/S 15th Ave/W City Point Rd.

5. ***Encourage phased mixed-use development**** at current site to create a southern walkable district in the city with community services, attracting new residents and businesses.

6. If any residential development is built on the site, a ***small corner store should be considered**** as part of the plan.

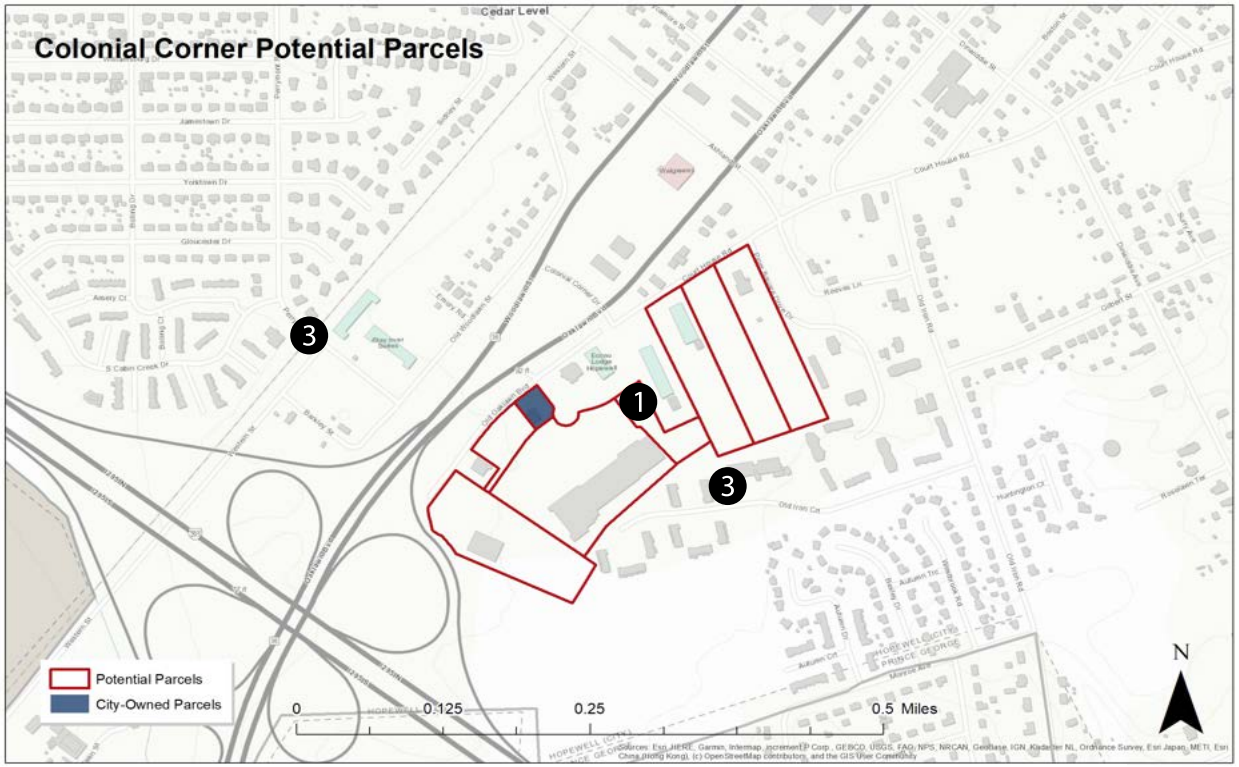


Figure 23: Potential parcel map for Colonial Corner

*Recommendation can be implemented at various parcels throughout the site.

Downtown/Heritage Gardens

Future land use, planned development, and projected population increases in the Downtown area will help increase the feasibility of additional food retail and restaurant options in the area. As such, the primary food access recommendations for these sites are to invest in a mobile market that serves the site, assist corner store operators in procuring equipment to store additional fresh offerings, and work to increase bus frequency and overall level of service. Natural gathering places, such as the public library, the Department of Social Services, and city parks present several options for mobile market stops.

Several residents interviewed near Downtown acknowledged transportation challenges in the area. Inadequate public transportation and lack of an affordable grocery store within walking distance of Downtown were concerns among some of those interviewed. An infrequent transit network and barriers from railroads further hamper mobility for residents who do not own a car. More direct and frequent transit from Downtown to the regional network would strengthen access to food options. One option is a higher frequency bus service, running at least every 30 minutes from Downtown, heading west along a direct route on Winston Churchill Boulevard and Oaklawn Boulevard.

Recent and planned developments in Downtown Hopewell are bringing more residents to this walkable urban neighborhood with access to recreation and historic destinations. For this reason, the supporting recommendations for Downtown/Heritage Gardens focus on accessibility and improving development opportunities to ensure that the primary food access recommendations are successful. Ongoing implementation of bike networks and the connections to the regional Appomattox River Trail will considerably improve active transportation to and from Downtown and support the City's multimodal goals. Future land use plans call for added density near Heritage Gardens, suggesting possibilities for better connection and integration with Downtown. The disjunction of East Poythress Street complicates mobility to and from Heritage Gardens, but there is potential to connect the road or build a shared-use path on City-owned right-of-way.

A sizable portion of land in Downtown Hopewell is City-owned, with a large percentage either vacant or underutilized. These properties should be leveraged to attract and secure private investment and provide public green space. Hopewell could use some of these City-owned parcels for a system of urban gardens for the benefit of surrounding residents. Additional green space would make the area more viable for mobile markets, grocery stores, and restaurants. To address the presence of invasive species at Heritage Gardens and along East Broadway and Riverview Avenue, environmentally friendly methods should be used to allow for continued gardening in the space.

Downtown and Heritage Gardens Recommendations

Primary Food Access Recommendations

1. ***Utilize mobile markets*** located at existing City-owned sites to reach pockets of low-wealth neighborhoods around downtown that face transportation issues.

2. ***Explore opportunities to assist with refrigeration needs*** for existing stores who have expressed interest in stocking fresh produce/meat.

3. ***Add higher-frequency bus service**** (at least every 30 minutes) between Downtown Hopewell and important nodes to the west along a direct route on Winston Churchill Boulevard and Oaklawn Boulevard (refer to "***Local Stop***" proposed alternative).

Supporting Recommendations

4. ***Establish a system of urban gardens*** centralized around downtown that can incorporate undeveloped parcels and open spaces that exist at and around Heritage Gardens and Fort Abbott Park— and to a lesser extent City Point Playground.

5. ***Utilize environmentally-friendly methods to eradicate invasive species*** at Heritage Gardens to more fully realize the value of that public space.

6. ***Explore better connection between Downtown and Heritage Gardens through existing public right-of-way*** on Poythress, Marks, and Bonaccord Streets to encourage active transportation links and increased accessibility.

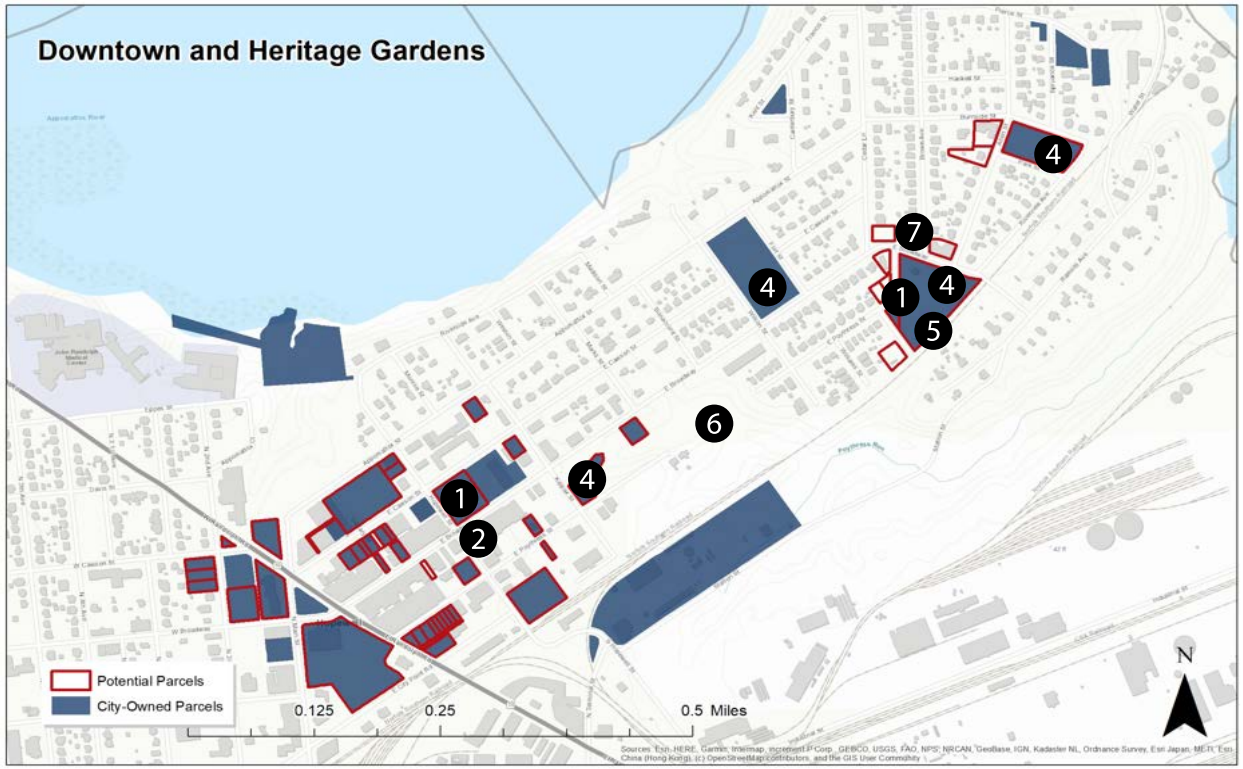


Figure 24: Potential parcel map for Downtown and Heritage Gardens

7. ***Explore pop-up retail and development opportunities*** using ground floor space at Heritage Gardens apartments and at undeveloped parcels at Broadway and Poythress Street. New neighborhood-oriented services could fill underutilized space in historic City Point and complement Heritage Gardens.

8. ***Relax parking requirements**** for new retail by forming shared-use agreements with vacant and underutilized lots downtown.

*Recommendation can be implemented at various parcels throughout the site.

Five Forks

Limited vacant land and relatively low density around Five Forks make options limited at this site in the short term. The recommendations should fit the scale of the need for the neighborhood, along with providing the greatest impact based upon the investment made. For that reason, the primary food access recommendations favor implementing a mobile market stop and assisting existing food retailers to increase healthy food choices. Testing the site as a mobile market stop could help meet needs for healthy food options and could utilize existing parking and infrastructure near Five Forks. Along with mobile markets, the City should coordinate with existing merchants to increase healthy options in their own stores by assisting in covering the costs of increased refrigeration, shelf space, and storage.

Supporting recommendations for Five Forks focus on how to best improve the site itself to become a better neighborhood hub and center for the neighborhoods that rely on it. This means that our set of supporting recommendations, while not directly connected to food access, are intricately tied to it, by providing a more 'fertile' location for the food access improvements to have the greatest impact.

The site around Five Forks Food Mart has a history of drainage issues, which have worsened since the parking lot at High Avenue and Freeman Street was constructed in 2019, adding a large swath of impervious surface at Five Forks. The recent removal of foliage behind Five Forks Food Mart has contributed to increased stormwater runoff, causing maintenance and access issues while channelizing water into the wider combined sewer overflow system. Incorporating green infrastructure at this site could capture stormwater for use in community gardens and virtually eliminate runoff entering surrounding waterways.

Since the area around Five Forks is mostly residential on the periphery of commercial and retail, Hopewell should invest more in sidewalks and bicycle boulevards throughout Arlington. This will increase accessibility to current food systems and provide connections to other nearby sites while filling missing gaps in the city's active transportation network. Since Five Forks and Arlington have the lowest income per capita in Hopewell, transportation issues that were presented in the community survey are most pronounced around this site. The City could also assist residents in establishing community gardens in park space and vacant lots around Arlington to help meet the food needs of residents and community stores *(see Figure 25)*.

Five Forks Recommendations

Primary Food Access Recommendations

1. ***Incorporate this site as a community mobile market stop*** with a shared use agreement with Elks Lodge parking lot at Freeman Street and Tabb Avenue during off-use times.

2. ***Work with existing merchants to increase healthy food choices in corner stores***, especially with the costs of increasing refrigeration, shelf space, and storage.

Supporting Recommendations

3. ***Capture stormwater for use in urban gardens*** to reduce runoff and associated accessibility and site issues.

4. ***Invest in sidewalks and bicycle boulevards throughout Arlington***, to increase accessibility by pedestrians and cyclists, with particular focus on adding clearly-identified crosswalks at Five Forks and surrounding intersections.

5. ***Expand the city's bike system within Arlington*** to connect the communities around Five Forks and provide better connectivity to Cavalier Square and Colonial Corner.

6. ***Consider integration or shared use agreements**** using existing underutilized infrastructure, such as parking lots or vacant parcels, during the development process.

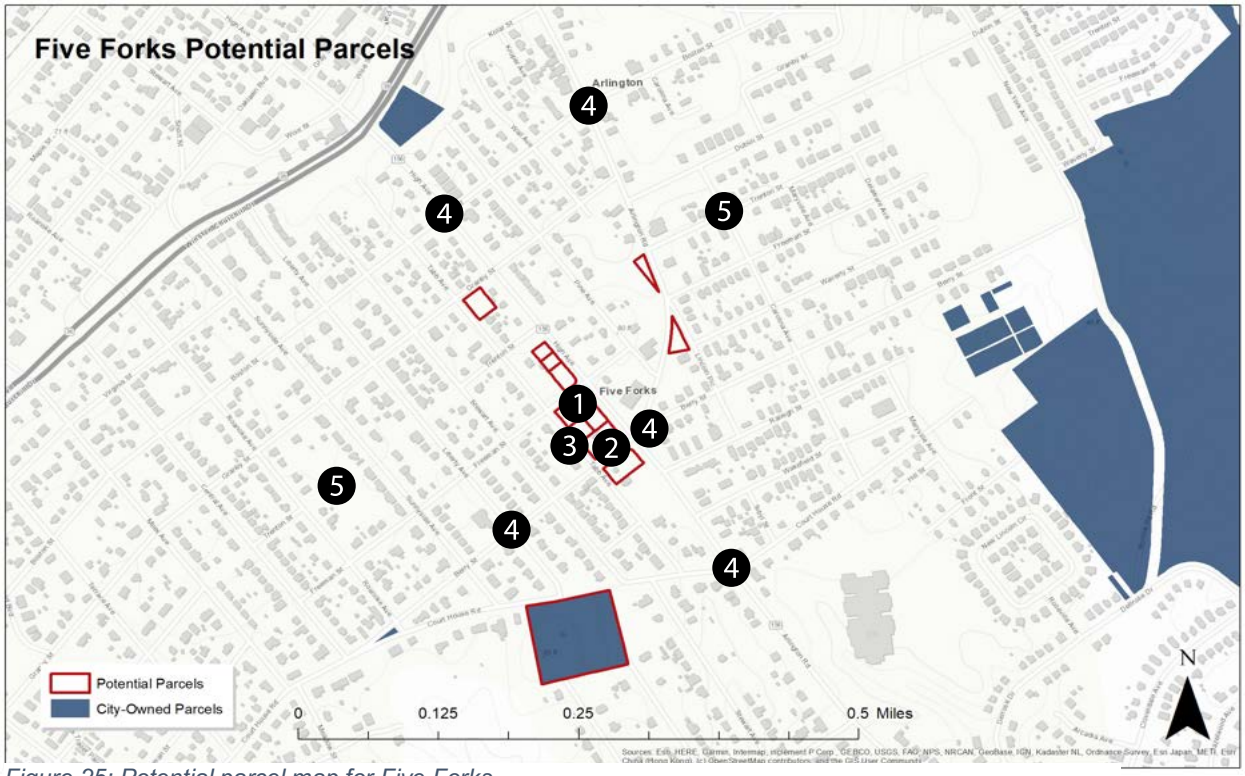


Figure 25: Potential parcel map for Five Forks

*Recommendation can be implemented at various parcels throughout the site.

Financing Options to Implement Recommendations

Every initiative or project requires funding in some capacity. What differs, however, is the particular type of funding needed as there are also distinctions between types of funding, such as grants, loans, and incentive programs with sources such as government entities, private loans, or non-profit organizations. It should be noted that no recommendation is intended to be covered fully by outside funds. Outside funding is typically used to cover the gaps in costs incurred by organizations throughout the development process.

The competitive market analysis found that Hopewell's market could support food-related development despite limitations in the expansion of square footage. However, despite the opportunity for new food-related development in Hopewell, both capital and operational costs must be considered along with possible funding options. Below are four recommendations and the possible funding options for each approach to improving food access in Hopewell.

Mobile Markets

Mobile markets utilize trucks or buses in order to provide fresh fruit and vegetables at various gathering places throughout a city. Mobile markets are often sustained by funds from supporting organizations, such as nonprofits or foundations. Mobile markets can often experience financial instability after startup costs have been depleted. Since mobile markets are also operated as proprietary businesses, funding could also come through public/private partnerships, such as the Randolph Foundation or Cameron Foundation.

Small Format Grocer

A smaller format grocery store requires less square footage compared to a supermarket while still providing the community with a variety of targeted products. For these smaller grocery stores, most funding opportunities come in the form of opportunity or enterprise zones and the tax incentives they offer. These organizations tend to have a corporate structure, and financial support is not a main concern.

Healthy Corner Store Initiative

The Healthy Corner Store Initiative is a program funded by the Virginia Department of Health. The goal of this program is to seek out local corner stores and provide technical assistance and equipment in order to expand fresh food offerings. Through this, residents without a vehicle can access fresh fruits and vegetables at locations closer to their homes. While the operational costs are usually covered by demand, assisting existing stores with capital funds may be necessary.

Transit

The lack of a vehicle creates a barrier between residents seeking out fresh and affordable groceries as public transportation can be unreliable and infrequent. Through improved transportation access throughout Hopewell, residents would be able to access affordable and fresh groceries more easily. Financial support for improved transit would likely fall solely upon City government, which may be able to access funding from the Regional Surface Transportation Block Grant, Congestion Mitigation and Air Quality Improvement (CMAQ) Program, or Better Utilizing Investments to Leverage Development (BUILD) Discretionary Grants. (Note: More detail on outside funding sources available for Hopewell can be found in the Technical Appendix.)

We recommend that the City of Hopewell should first evaluate the three recommendations of mobile markets, the Healthy Corner Store Initiative, and the development of a small format grocery. The City should evaluate both the strengths and weaknesses of each recommendation along with the possibility of obtaining outside funding sources for these projects. The above sections outline which recommendations we believe are the most appropriate for each individual site. After the City of Hopewell evaluates the recommendations, funding, and site analyses, we then recommend the implementation of the transit improvements detailed above.

Conclusion

The City of Hopewell is a defined food desert, struggling to meet the nutritional needs of residents at affordable prices in a way that is accessible to the whole community. The lack of access to fresh food can have a negative impact on physical health, mental health, and the overall quality of life for the residents of Hopewell. After carefully analyzing the available sites, demand for healthy food in Hopewell, and the current supply the food market provides this research found that the City of Hopewell and its residents need a new way to address food shortages in the area. Specifically, Hopewell residents are often leaving to find the food variety they need at the prices they can afford. To prevent further market leakage and provide resources for Hopewell residents who cannot access the foods and prices they need due to lack of transportation the City can take one or more of the four approaches outlined above.

The recommendations section of this report outlines steps to address food needs at Hopewell's opportunity sites. The City of Hopewell can work to address the food needs through mobile markets, attracting a small format grocery store, investing in existing corner stores as part of the Healthy Corner Store Initiative, or increasing transit service to improve access to food retailers throughout the area.

There is tremendous potential for the City of Hopewell to close the food accessibility gap and improve the quality of life for all residents. It is our belief that the recommendations in this report can guide the City and its agencies, merchants, residents, and other stakeholders toward achieving a Hopewell with opportunities for all.

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Food Access Report and Recommendations for The City of Hopewell, Virginia

Technical Appendix

November 2020

Prepared for the City of Hopewell
By the Fall 2020 Urban Commercial Revitalization Class
Master of Urban & Regional Planning Program
L. Douglas Wilder School of Government and Public Affairs
Virginia Commonwealth University

Table of Contents

Appendix A: Hopewell Housing Trends

Housing trends in the City of Hopewell are important to consider when working towards increasing food access throughout the city. Over 75% of all housing in the city are detached, single-family houses and large apartment buildings or condominium complexes account for approximately 12% of housing units. Most of the multi-family housing stock is aged, poorly designed, relatively low in density, aesthetically unappealing to young couples and first-time residents, and remotely located far away from the downtown center. In addition, there are nine
(9) mobile home communities in the City with a total of 119 hook-ups. Note that the current zoning ordinance prohibits establishment of new mobile homes in the city except through the establishment of planned unit development mobile home parks (PUD-MHP). To better appeal to a broad and diverse market, the city should encourage a mix of uses and housing types that appeal to a broad and diverse market, especially in areas near downtown.

Figure A-I below presents the housing data of Hopewell in comparison to the rest of Virginia. Living in affordable, stable housing is an important factor in the overall health status of an individual.

	Hopewell		Virginia	
	Population/Units	**Percent/Rate**	**Population/Units**	**Percent/Rate**
Housing Cost Burden (Exceeds 30% of Household Income)	3,176	36.2%	992,738	32.64%
Overcrowded Housing	218	4.31%	60,632	2.72%
Occupied Substandard Housing	3,241	36.94%	988,998	32.51%

Figure A-I: Table displaying the housing data of Hopewell to the overall housing data of Virginia.

Hopewell has also seen a marked increase in renter-occupied units and a decrease in homeownership. Housing affordability, particularly for renters, is increasingly becoming an issue for more and more residents in Hopewell. As of 2013, 48.1% of the city's rental households, approximately 1,900 households, were spending more than 30% of their income on housing.

Note that this number was 47% higher than it was in 2000. Hopewell's homeowners however, did slightly better, with 37.6% of homeowners carrying a mortgage (total of 897 units) spending more than 30% of their income on housing. While for owners without a mortgage, this rate fell to 14.7%, although this figure represents only 143 households.

Hopewell faces high rate of housing vacancy. Of all the housing units in Hopewell over 13% stood vacant as of 2013. The largest share of vacant housing units consists of rental housing, while a smaller proportion of properties are for sale. Other vacant units (at over 5% of all housing units), includes properties that may stand vacant for other reasons, or may have been abandoned entirely. In 2015, the City of Hopewell established the vacant building registry program to identify properties that are blighted and place them on the spotlight list for demolition, acquisition or rehabilitation. Vacant buildings are known for reducing the values of neighboring properties and cannot be left to sit for decades without holding the property owner accountable for maintenance and/or occupation. This requires partnerships between the city and organizations and/or developers that are able to rehabilitate such homes for the revitalization of the neighborhood communities.

In Hopewell, a large percentage of low-income residents does not have the means of private transportation or live in areas without access to public transportation, and a majority of the housing stock in Hopewell is rental (50%). Most of the housing stock in Hopewell is generally cheaper than in other localities within the region. Median sales prices of Hopewell housing stock are less than half of what they are in Chesterfield and about half of what they are in neighboring Prince George County. However, median sales prices in Petersburg are about $30,000 less than in Hopewell.

Hopewell City Areas of Interest: Community Trends
Downtown Area (City Center):
The median housing sales price in the City Center of Hopewell is $108,957. This is less expensive than 91.7% of Virginia neighborhoods and 83.0% of all U.S. neighborhoods. The median rental price in Hopewell's Downtown is currently $993. Rents in this area are currently lower in price than 82.9% of Virginia neighborhoods.

Hopewell's downtown is ultimately an inner-ring suburban neighborhood on a well-connected street grid, surrounding the commercial core area. Housing stock here is primarily made up of small (studio to two bedroom) to medium sized (three or four bedroom) single-family homes and apartment complexes. Most of the houses are renter-occupied. Many of the houses are older, having been built between 1940 and 1969., and a number of houses were also built between 1970 and 1999.

Hopewell's downtown area has a 11.9% vacancy rate. This is well above average compared to other U.S. neighborhoods. This rate is higher than 64.1% of American neighborhoods. Most vacant housing in this area remains vacant year-round.

This neighborhood has an income lower than 86.0% of U.S. neighborhoods. With 55.1% of the children living below the federal poverty line, this neighborhood has a higher rate of childhood poverty than 94.9% of U.S. neighborhoods.

A large number of residents (37.8%) in Hopewell City Center neighborhood take between 15 and 30 minutes commuting one-way to work. This is shorter than the time spent commuting to work for most Americans. Most residents (70.8%) drive alone in a private

automobile to get to work. Some (17.0%) carpool with coworkers, friends, or neighbors to get to work.

Five Forks Community and Colonial Corner, 4100 Oaklawn Boulevard (Cedar Level Neighborhood):
These communities are in Cedar Level neighborhood of Hopewell. In this area the median housing sales price is $114,032. This sale price is less expensive than 90.5% of Virginia neighborhoods and 81.6% of all U.S. neighborhoods. The median rental price in Cedar Level is currently $1,028. Rents in this area currently are lower in price than 80.5% of Virginia neighborhoods.

Cedar Level neighborhood is a suburban neighborhood and it is mainly made up of medium sized (three or four bedroom) to small (studio to two bedroom) single-family homes and apartment complexes. Most of the houses in this area is occupied by a mixture of owners and renters. Many of the houses were built between 1970 and 1999. A minority of homes were built between 1940 and 1969.

The Vacancy rate here is 13.4%. This rate is well above median compared to other U.S. neighborhoods. It is higher than 69.5% of American neighborhoods. As in the downtown area, most vacant housing in this area remain vacant year-round.

The residents of this neighborhood are low-income earners and this neighborhood is among the lowest income neighborhoods in America. This neighborhood's income is lower than 85.5% of U.S. neighborhoods. With 25.0% of the children living below the federal poverty line, this neighborhood has a higher rate of childhood poverty than 69.7% of U.S. neighborhoods.

Many residents (46.6%) take between 15 and 30 minutes commuting one-way to work. This is shorter than the time spent commuting to work for most Americans. Most residents (82.9%) drive alone in a private vehicle to get to work. Some (16.1%) carpool with coworkers, friends, or neighbors to get to work.

The North Western Portion of Hopewell (River Road/Puddledock Road Neighborhood):
The median housing price in this neighborhood is $217,187. This price is more expensive than 37.0% of the neighborhoods in Virginia and 49.2% of the neighborhoods in the U.S. The median rental price in this area is currently $1,724. The median rental cost in this neighborhood is higher than 60.8% of the neighborhoods in Virginia.

This neighborhood is a suburban neighborhood and mainly made up of small (studio to two bedroom) to medium sized (three or four bedroom) mobile homes and apartment complexes. Majority of the houses are owner occupied. Many of the houses in this neighborhood were built between 1970 and 1999. A minority were built between 2000 and the present. The housing stock in this neighborhood has more mobile homes than 97.7% of all neighborhoods in America, as mobile homes make 38.5% of the occupied housing.

In addition, renter-occupied housing is dominant in this neighborhood. It makes 89.7%, which is higher than 97.0% of the neighborhoods in America.

Vacant apartments/homes are a major aspect of this neighborhood. The current housing vacancy rate is 27.9%. This rate is higher than the rate of vacancies in 92.9% of all U.S. neighborhoods. Like the downtown area, Five Forks Community and Colonial Corner Boulevard, most vacant housing in this area remain vacant year-round.

The residents are lower-middle income, earning a below average income neighborhood. This neighborhood's income level is lower than 62.3% of U.S. neighborhoods. About 47.3% of the children in River Road neighborhood live below the federal poverty line. As such, this neighborhood has a higher rate of childhood poverty than 91.2% of U.S. neighborhoods

The greatest number of commuters at 44.7% spend under 15 minutes commuting one-way to work. This is one of the shortest commutes across America. Most residents (70.4%) drive alone in a private automobile to get to work. Others (22.2%) carpool with coworkers, friends, or neighbors to get to work.

Heritage Gardens-Urban Garden (E. Broadway Avenue/E. Poythress Street Neighborhood):

The average housing price in this neighborhood is $168,023. This price is less expensive than 78.4% of Virginia neighborhoods and 64.9% of all U.S. neighborhoods. The median rental price is currently $901. These rents are lower in price than 89.9% of Virginia neighborhoods.

This neighborhood is a suburban neighborhood as houses here mainly consist of small (studio to two bedroom) to medium sized (three or four bedroom) single-family homes and apartment complexes. Most houses are occupied by a mixture of owners and renters and were built between 1940 and 1969. A minority of the stock was built before 1940.

Vacant apartments/ homes are a major part of this neighborhood. The vacancy rate here is 22.7%. This is higher than the rate of vacancies in 88.5% of all U.S. neighborhoods. Majority of these vacant houses stay vacant year-round.

The residents of this neighborhood are lower-middle income earners and they make income lower than 75.8% of U.S. neighborhoods. With 22.5% of the children living below the federal poverty line, this area has a higher rate of childhood poverty than 65.9% of U.S. neighborhoods.

Over one third of the residents (34.9%) of this neighborhood spend between 30 and 45 minutes commuting one-way to work. This is at or slightly above the average length of a commute across all U.S. neighborhoods. The majority of residents (79.6%) drive alone in a private automobile to get to work. Some (19.3%) carpool with coworkers, friends, or neighbors.

Appendix B: Demographic Analysis of Hopewell

Population:
Hopewell has experienced a population decrease of approximately 5% between 1970 and 2018 *(see Figure B-I)*. The City has seen a slight increase in population beginning in 2000. The population of Hopewell was 22,408 as of 2018.

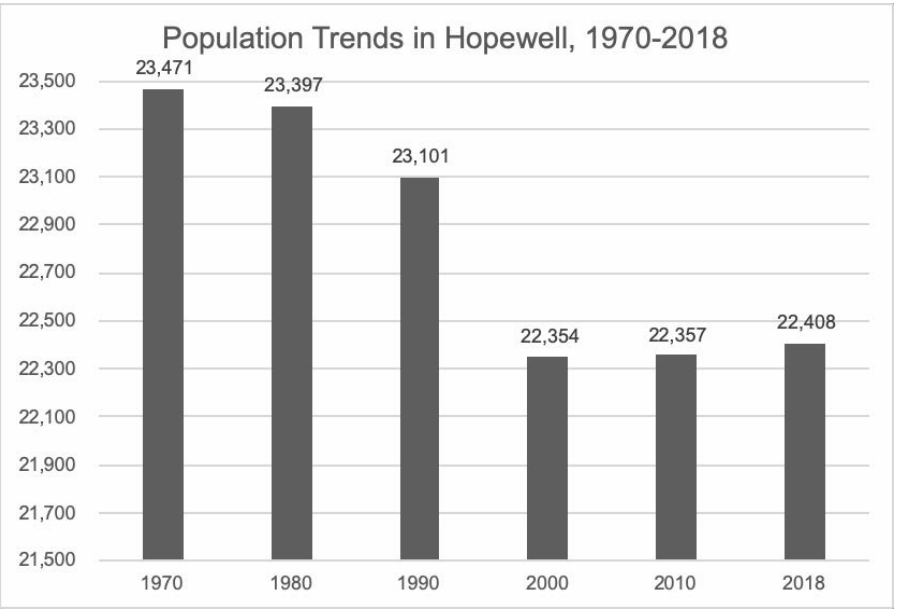


Figure B-1: Population trends in Hopewell over a five-year period.

Race:
As of 2018, the majority of Hopewell identified as either White or Caucasian with 51% (11,418) of the total population (22,408) *(see Figure B-II)*. Additionally, 42% (9,469) identified as Black or African American, 1% (323) identified as Asian, 3% (576) identified as multiple (one or more races), and 3% (598) identified as other.

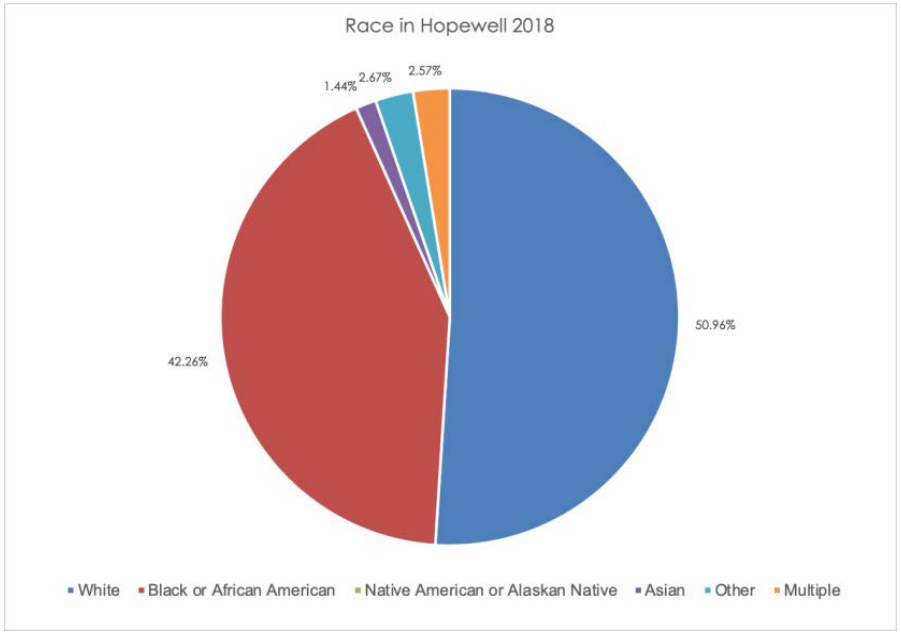


Figure B-II: Racial demographics in Hopewell as of 2018.

Income:
In 2018, the Median Household Income in Hopewell was $40,497. The U.S. Census Bureau defines households as all who occupy a shared housing unit, families are households of more than two people who are related through blood, marriage, or adoption that reside together, and non-family households consist of a householder residing by themselves or with individuals they are not related to. Of the 9,193 households, 5,607 families, 3,026 married couples, and 3,586 non-family households in Hopewell in 2018 the majority of them fell into the median income range between $35,000 and $49,999 a year *(see Figure B-III)*.

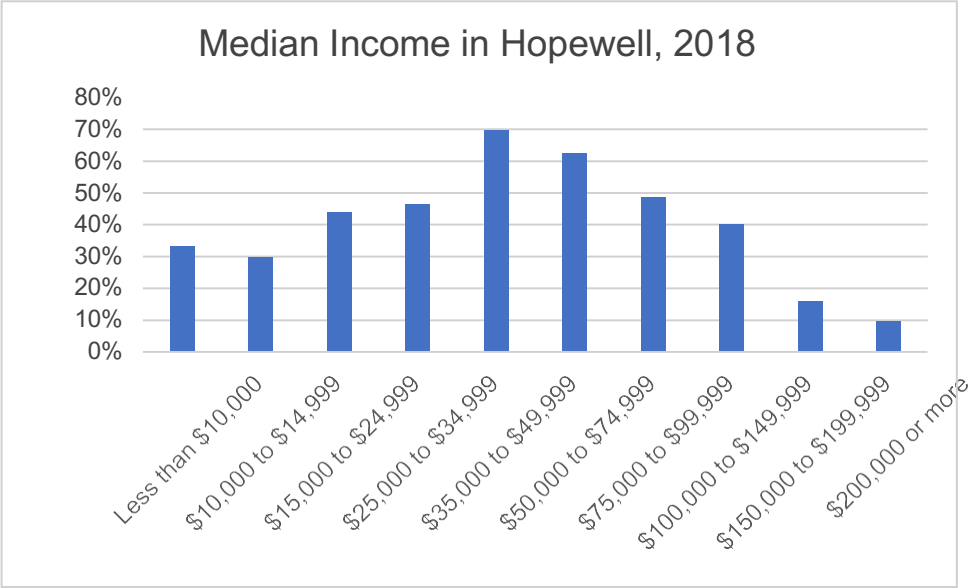


Figure B-III: Median income in Hopewell in 2018

Educational Attainment:
Educational attainment in Hopewell is comparatively low when compared to statewide education levels. Approximately 55% of residents in Hopewell either have not finished high school or are a high school graduate, compared to 35% statewide *(see Figure B-IV)*. Less than half as many residents in Hopewell obtain a bachelor's degree compared to the Commonwealth. In Virginia, 22% of residents have a bachelor's degree compared to 9% in Hopewell. Only 4% of residents in Hopewell have an advanced degree, compared to 16% in Virginia. The figure to the right shows the educational attainment of Hopewell residents compared Virginia's average educational attainment according to the U.S. Census in 2018.

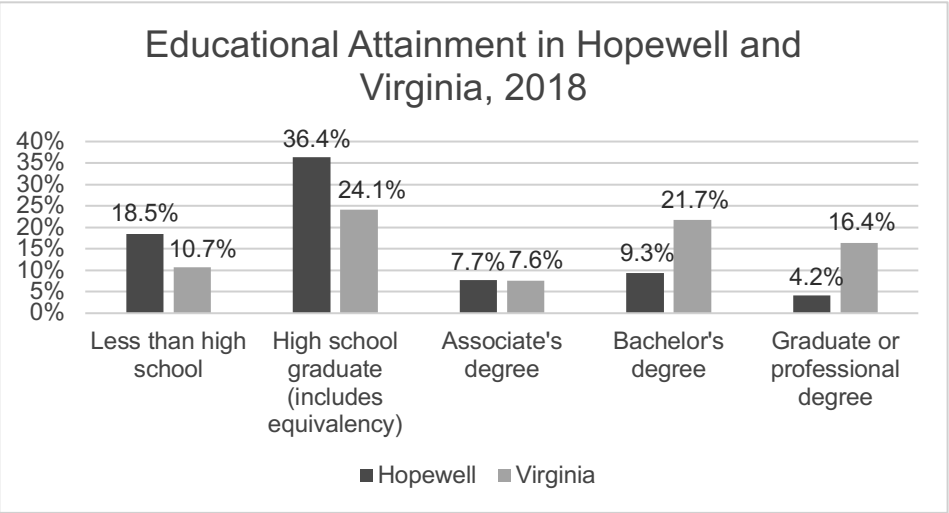


Figure B-IV: Educational attainment in Hopewell in 2018.

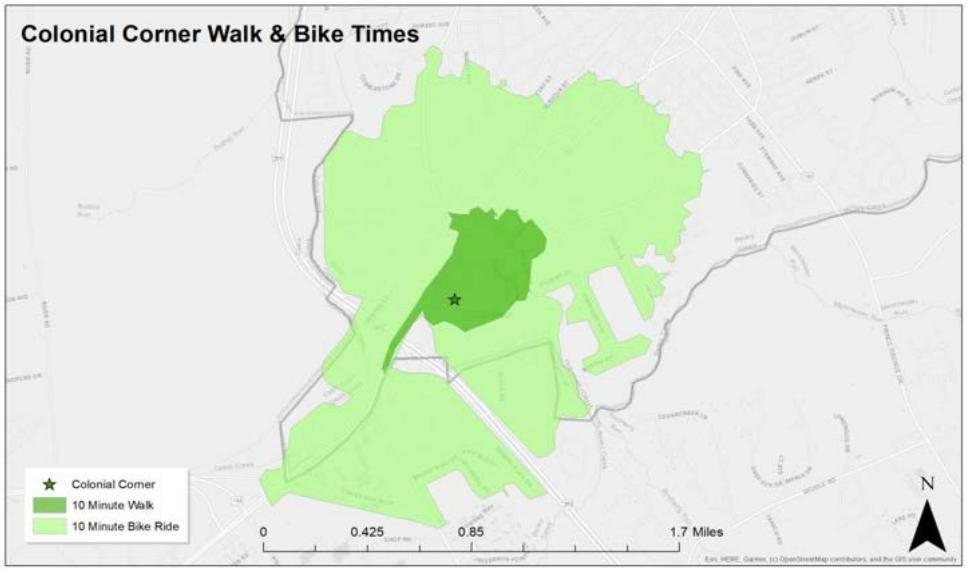
Employment:
According to the U.S. Bureau of Labor Statistics, the labor force represents the number of eligible workers, both unemployed and employed, within a designated area. Hopewell's unemployment rate between 2011 and 2019 has decreased from 11% in 2011 to 4% in 2019. However, in the midst of the COVID-19 pandemic, unemployment rates have increased, and the Bureau of Labor Statistics found that Hopewell in August 2020 had an unemployment rate of 12%. This amount is significantly higher than the Virginia state unemployment average of 7% as of August 2020. The figure to the right represents labor force trends in Hopewell from 2011 to 2019.

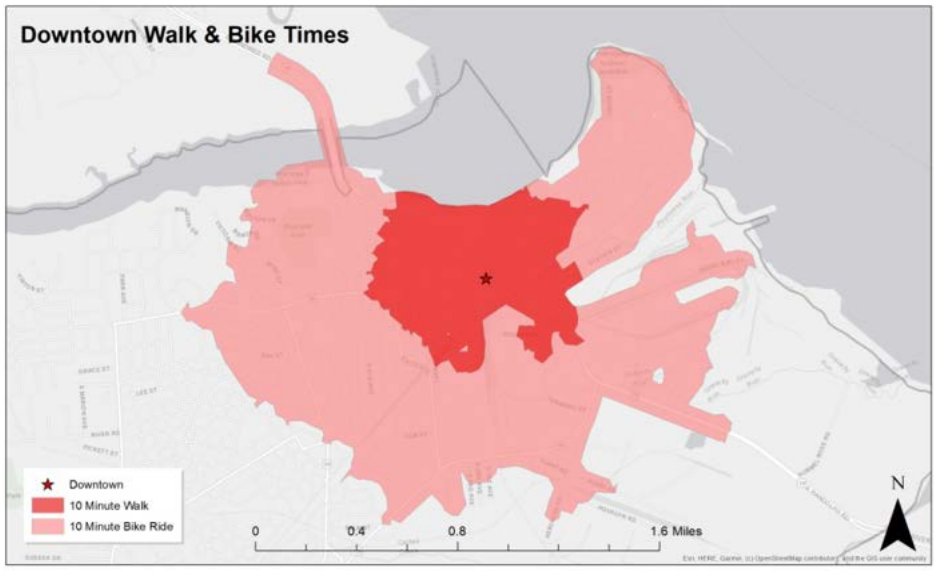
Year	Labor Force	Unemployed Persons	Unemployment Rate
2011	8,791	1,120	11.3
2012	8,762	980	10.1
2013	8,714	943	9.8
2014	8,782	869	9
2015	8,890	729	7.6
2016	9,122	644	6.6
2017	9,144	596	6.1
2018	9,178	470	4.9
2019	9,341	416	4.3

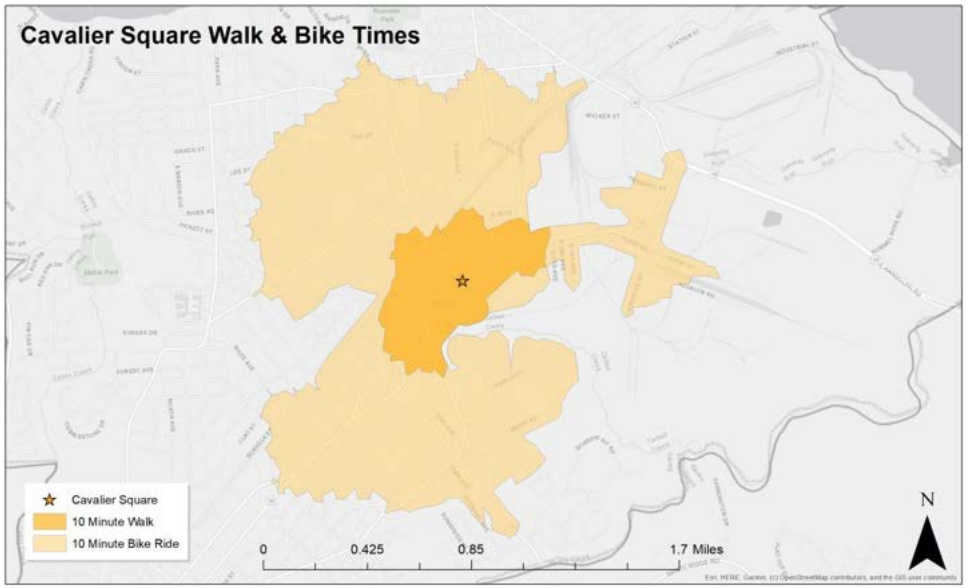
Figure B-V: Employment in Hopewell over a nine-year period.

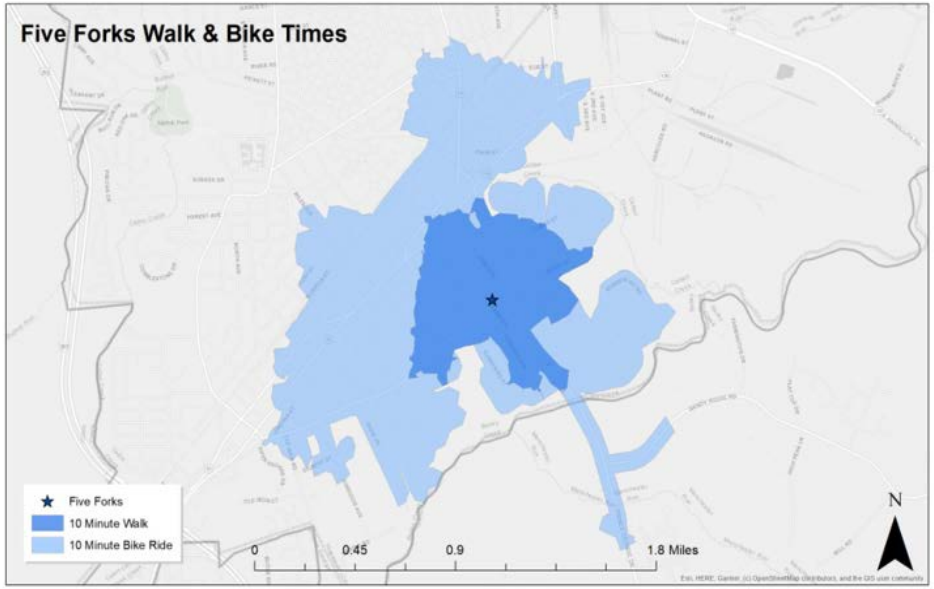
Appendix C: Analysis of Pedestrian and Bicyclist Travel Times

Each site was analyzed by their accessibility for pedestrians and bicyclists. The distance and time for each type of transportation for the subject areas were mapped, as seen below. These distance and time maps were then used to inform the recommendation section.










Northwest Walk & Bike Times
Northwest
10 Minute Walk
10 Minute Bike Ride
0
0.3
0.6
1.2 Miles
N

Appendix D: Hopewell Food Access Preference Survey

As part of the Neighborhood Revitalization graduate course at Virginia Commonwealth University under the direction of Dr. John Accordino, our class is partnering with the City of Hopewell to lean about food access opportunities and challenges in Hopewell. Our Goal is to suggest potential strategies to increase access to food, especially in areas without grocery stores.

In order to accomplish that goal, we need your input! Please take a few minutes to complete this short survey so we can make sure our strategies align with what residents actually want. These surveys are anonymous, optional, and there are no right or wrong answers. The more you tell us, the more likely we are able to find strategies that will work for you. Thank you for your participation!

1. Where do you get most of your groceries now? Name of Store & Street

   _____

2. Is this the closest store to where you live?
   Mark only one oval.
   - ◯ Yes
   - ◯ No
3. If the previous answer is no, what is missing from the closest store? Please check all that apply.
   Check all that apply.
   - ☐ Vegetables
   - ☐ Meat
   - ☐ Fruit
   - ☐ Dairy
   - ☐ Prepared Meals
   - ☐ Other
4. If Other, please write:

   _____

   _____

   _____

_____

5. What products are missing from your usual grocery store? Please check all that apply.
Check all that apply.

☐ Vegetables

☐ Meat

☐ Fruit

☐ Dairy

☐ Prepared Meals

☐ Other

6. If Other, please write:

_____

_____

_____

_____

7. If new shopping options became available in Hopewell, which of the following characteristics do you think are important for stores to focus on?
Check all that apply.

	Very Important	Somewhat Important	Not Important
Affordable Prices	☐	☐	☐
High quality, fresh produce	☐	☐	☐
Good Selection	☐	☐	☐
Delivery (food delivered to my house)	☐	☐	☐

Accepts SNAP/EBT of other food assistance programs	◻	◻	◻
Close to Home/Work	◻	◻	◻
Other	◻	◻	◻

8. If Other, please write:

_____

9. What street do you live on? Or what is the closest intersection?

_____

10. How long does it take you to get to the grocery store where you usually shop?
Mark only one oval.

◯ Less than 10 minutes

◯ 10-19 minutes

◯ 20-29 minutes

◯ 30 minutes or more

◯ Not applicable

11. How do you get to the store? Check all that apply.
Check all that apply.

☐ Car

☐ Bus

☐ Walk

☐ Bike

☐ Ride Service (Uber, Lyft, Taxi, etc.)

☐ Get a ride Other ◻:

12. Do you face any challenges when traveling to and from your grocery store (ex. Lack of access to public transit to transport groceries home)?

_____

_____

_____

_____

Appendix E: Flyer for the Hopewell Food Access Preference Survey

Hopewell & VCU Food Survey

We need your input! Please take a few minutes to complete this short, anonymous survey to help us better understand challenges to accessing healthy food in Hopewell.

You can access the survey by aiming your phone's camera at the code below. A link to the survey will pop up on your phone, please click the link to access the survey.

SCAN ME

You can also find the survey on Hopewell's main website: Hopewellva.gov as well as the Hopewell Facebook and Twitter.

Thank you so much for you input, and we look forward to hearing from you!

Appendix F: Where Respondents Live

Respondents were asked their primary street or intersection to best understand the locations of where people live and how that may impact their drive times to shopping, demographics, or store preferences.

The spread of the addresses indicates the surveys and interviews demonstrate coverage across the city. A significant number came from the Cavalier Square area, as well as close to the Downtown and Heritage Gardens opportunity sites. Responses can be seen in Figure G-I.

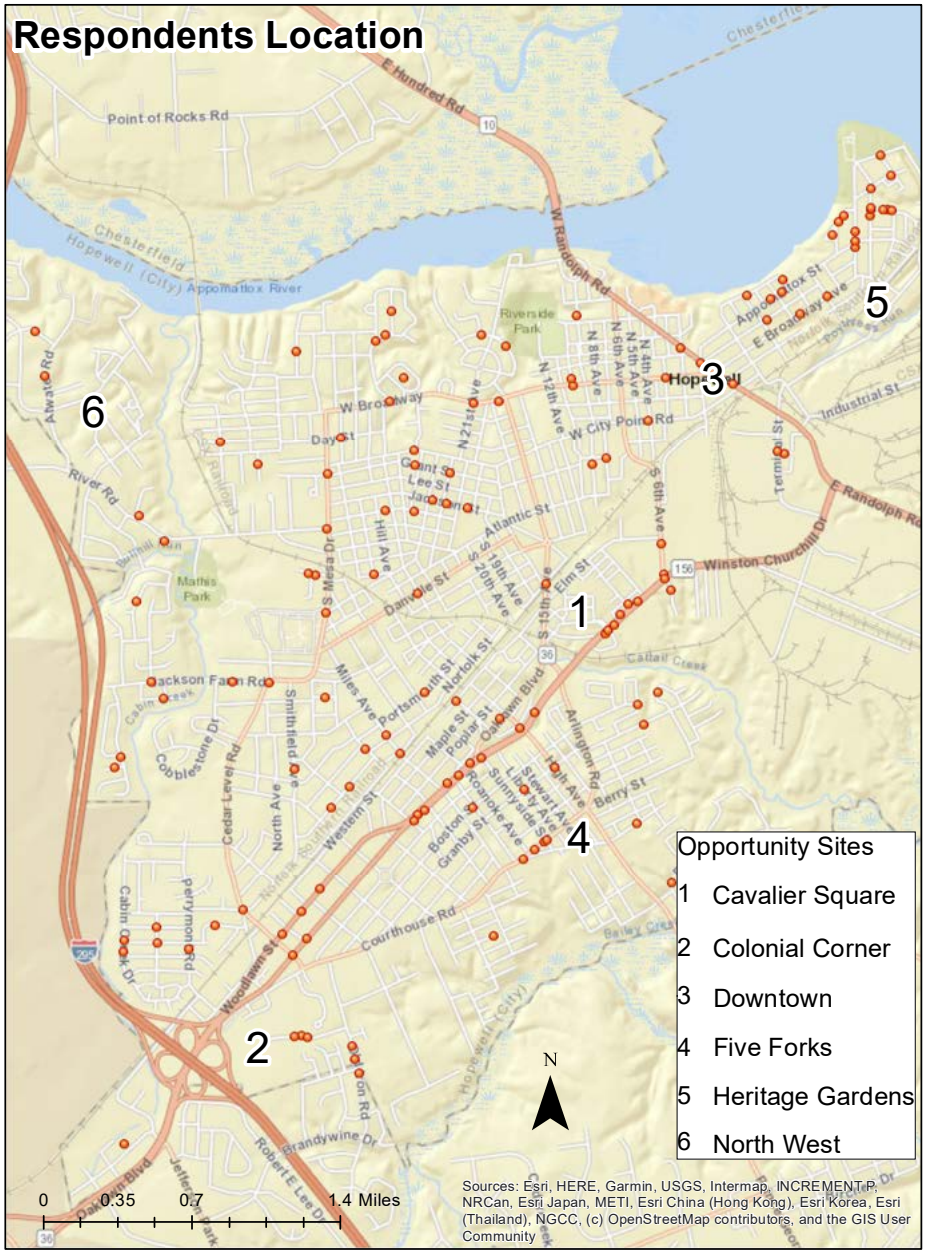


Figure G-I: Map of where the survey respondents identified their street of residence or nearest intersection to their residence.

Appendix G: Hopewell Merchant Survey

As part of the Neighborhood Revitalization graduate course at Virginia Commonwealth University under the direction of Dr. John Accordino, our class is partnering with the City of Hopewell to learn about food access opportunities and challenges in Hopewell. Our goal is to suggest potential strategies to increase access to food, especially in areas without grocery stores.

We're conducting a confidential survey of food retail businesses in Hopewell to find out how the area is working and what improvements are needed. If there are any questions you don't want to answer, leave the blank, or you can reach out to us personally. Your name and the name of your business will not be used in this report. If you have any questions, you can contact Dr. John Accordino jaccordi@vcu.edu or Tevya Griffin at tgriffin@hopewellva.gov. Thank you for your help!

1. On what street is your business located?

   _____

2. What are the most popular items you sell? (Please choose 5)
   Check all that apply.

   ☐ Prepared Meals

   ☐ Snacks (Chips, Crackers, Cookies, etc.)

   ☐ Alcoholic Beverages

   ☐ Non-Alcoholic Beverages

   ☐ Tobacco Products

   ☐ Fresh Vegetables

   ☐ Fresh Meat

   ☐ Fresh Fruit

   ☐ Frozen foods

   ☐ Canned foods

   ☐ Other

3. If Other, please write:

   _____

_____

_____

_____

4. Are there any items your customers request, that you don't sell?

_____

_____

_____

_____

5. Do you accept EBT?
   Mark only one oval.

   ◯ Yes

   ◯ No

6. If yes, what is the approximate percentage of shoppers that use EBT at your business?
   Mark only one oval.

   ◯ Less than 10%

   ◯ 10-15%

   ◯ 15-20%

   ◯ More than 20%

7. Do you believe Hopewell is a food desert? (Do you believe Hopewell has limited access to fresh fruit, vegetables, and meat?)
   Mark only one oval.

   ◯ Yes

   ◯ No

8. Do you sell any of these items?
Mark only one oval.

◯ Yes

◯ No

9. If you do not sell these items, what are some of the reasons?

_____

_____

_____

10. If you do sell these items, what are some of the challenges involved?

_____

_____

_____

11. Would you be interested in stocking fresh meat, vegetables, or fruit?
Mark only one oval.

◯ Yes

◯ No

12. If yes, how could Hopewell assist you in providing these products?

_____

_____

_____

_____

13. If no, would you like to explain why this would not work?

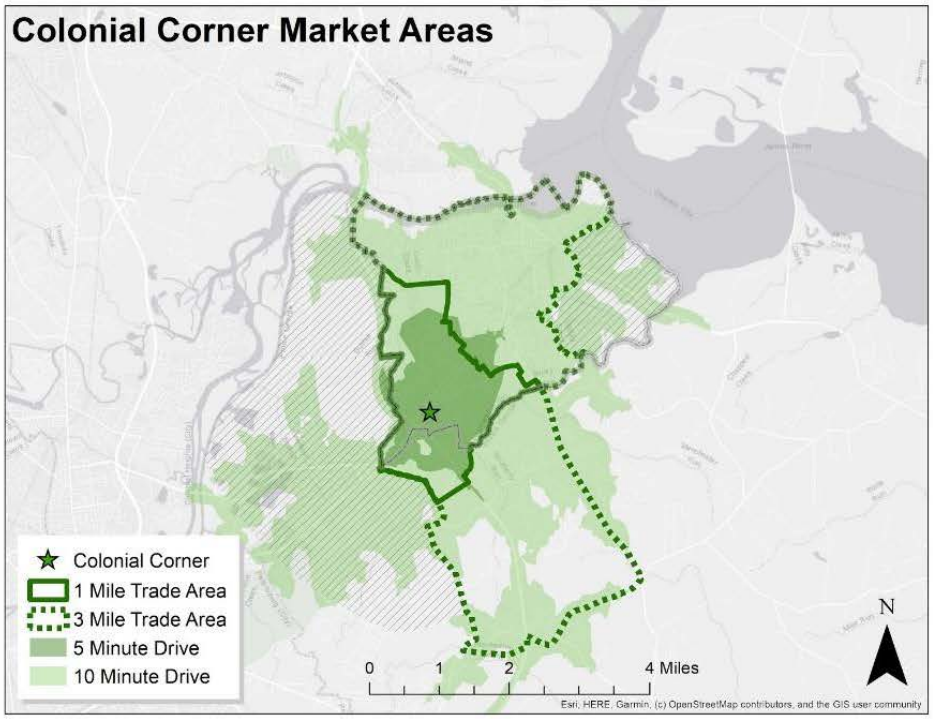
14. Do you have any advice for us?

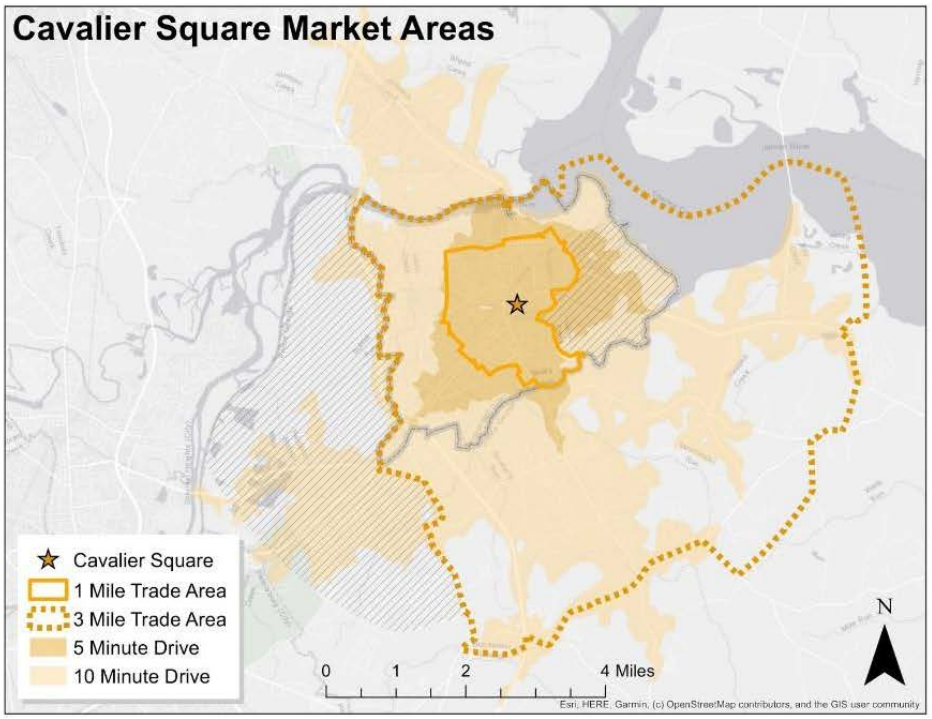
Appendix H: Merchants Contacted

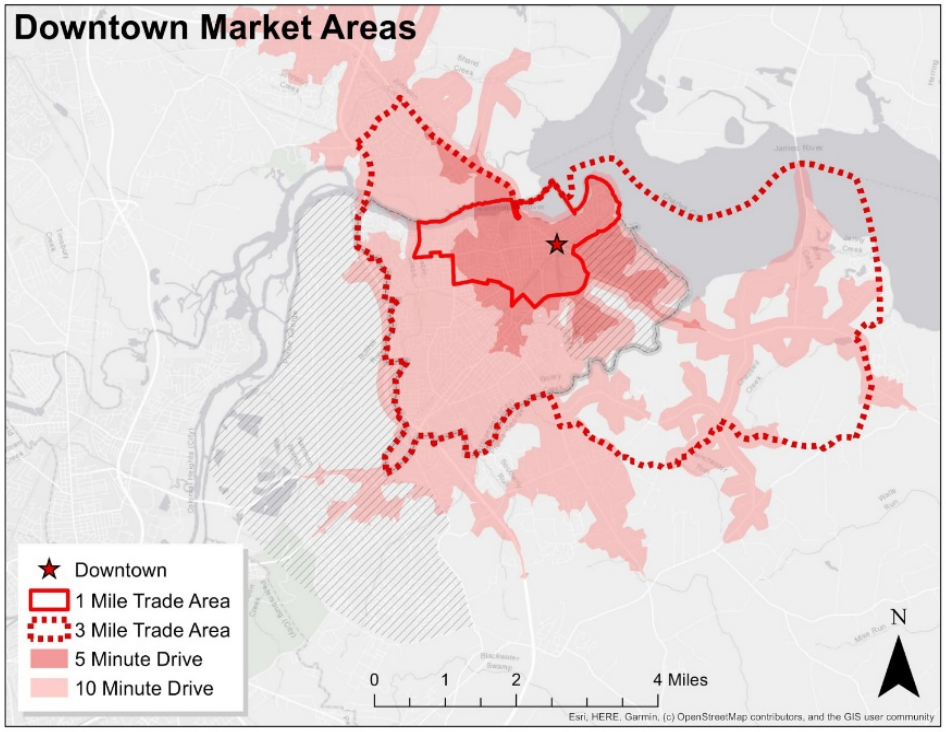
Merchant Contacts	***Date Contacted***
S&N Market	Called 11/4
Randolph Market	Called 10/21
Food Lion	Called 10/23
Save-A-Lot	Called 11/4
Hopewell Food Pantry	Called 10/21
Little's Convenience Store	Called 10/22
Broadway Express	Called 10/22
Golden Express	Called 10/22
7-Eleven	Called 10/23
Red Barn Food Store	Called 11/4
OK Food Mart	Called 11/4
Five Forks Food Mart	Called 10/23
N&Y Corner Stores	Called 10/22
City Point Food Land	Called 10/22

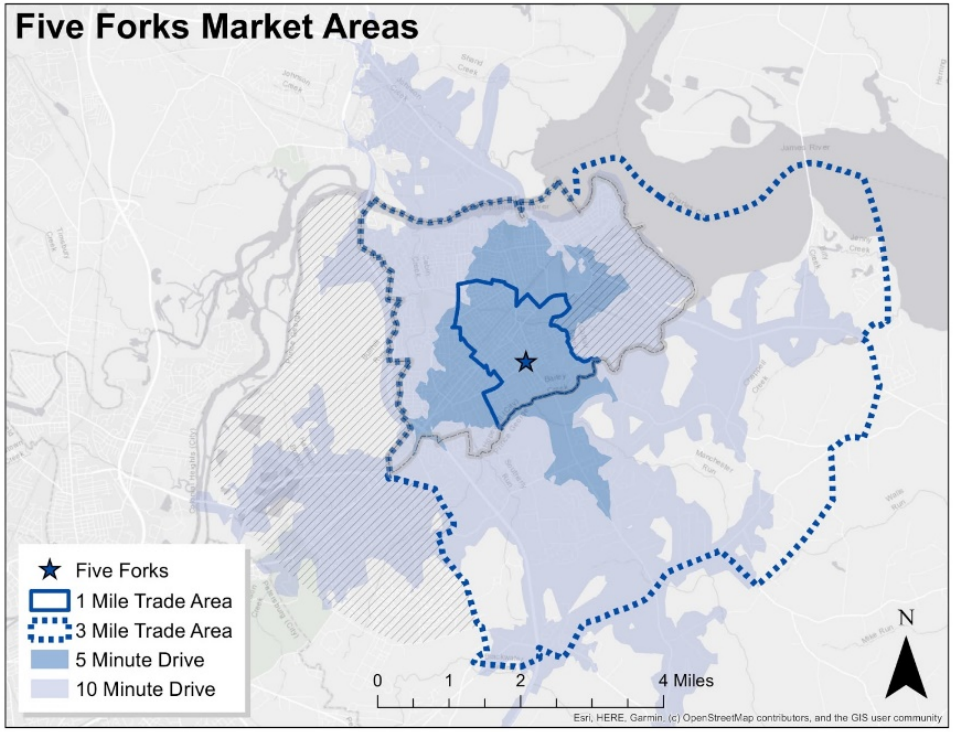
Appendix I: Competitive Market Analysis

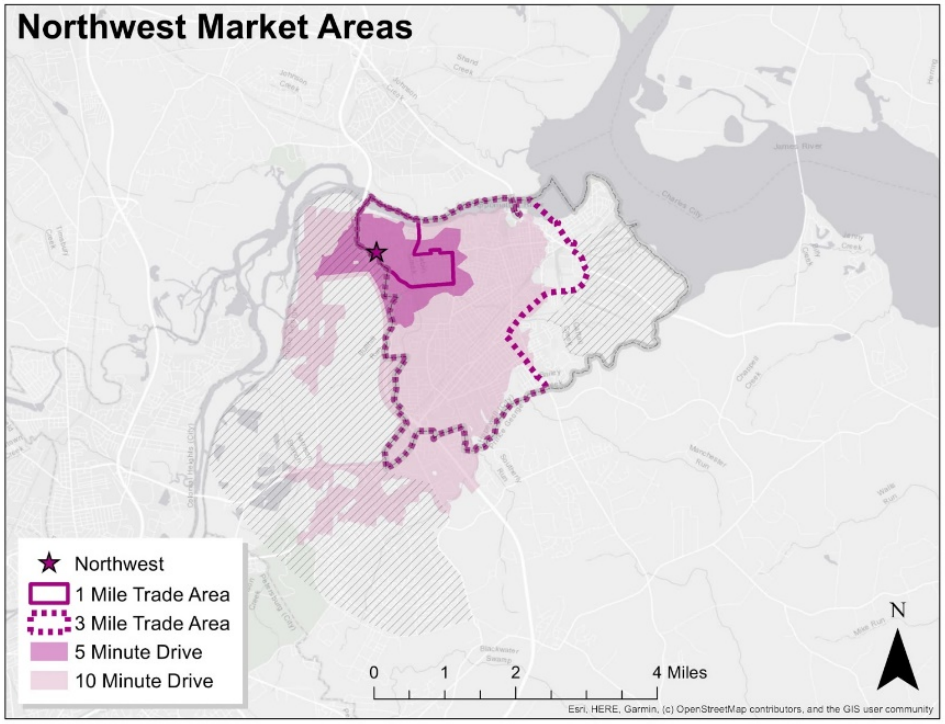
The competitive market analysis consists of two components to quantify the total market expenditures and supply of food stores in and around Hopewell: a demand side analysis and a supply side analysis. This analysis focuses on five different locations in Hopewell to study the value of the grocery market in various parts of the city. Each of the five locations in the city have a corresponding convenience (1 mile) and community (3 mile) trade area. The boundaries for the trade areas for each location are shown in the maps below. Trade area boundaries are based on the boundaries of census block groups to help isolate relevant demographic information for each trade area. The convenience trade area roughly follows a 1-mile radius and 5-minute drive time, and the community trade area broadly equates to a 3-mile radius and 10-minute drive time. Certain features were also considered in defining the boundaries of trade areas. The Fort Lee area was excluded since people living in Fort Lee are more likely to shop at the local commissary instead of visiting grocery stores in Hopewell. The Appomattox and James River were also considered as potential physical barriers that may limit the size of certain market areas. The industrial area of Hopewell was also excluded since that specific block group does not have any residents.






Downtown Market Areas
Downtown
1 Mile Trade Area
3 Mile Trade Area
5 Minute Drive
10 Minute Drive
0
1
2
4 Miles
N
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community


Five Forks Market Areas
Five Forks
1 Mile Trade Area
3 Mile Trade Area
5 Minute Drive
10 Minute Drive
0
1
2
4 Miles
N
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community


Northwest Market Areas
Northwest
1 Mile Trade Area
3 Mile Trade Area
5 Minute Drive
10 Minute Drive
0
1
2
4 Miles
N
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

Demand Side Analysis

The first portion of the analysis includes estimating spending on food at home purchases by income group in the Hopewell market area. The analysis specifically uses the Consumer Expenditures Survey, 2019 to calculate annual consumer expenditures. Since the Consumer Expenditures Survey only provides a single food at home spending category, this analysis further categorized spending into three distinct categories: Grocery, Convenience, and Specialty. Grocery stores included shopping at full-service supermarkets that provide a comprehensive array of prepared, fresh, and packaged foods. Convenience stores were considered smaller stores that stock a range of everyday food items that supplement the full offering of products at a grocery store. Finally, specialty stores can include stores that sell health foods, specialty foods, candy, and bakeries. This analysis estimated an adjustment factor for food at home spending where 60% was designated for grocery spending, 35% for convenience spending, and 5% on specialty spending. As estimates only, the adjustments can be changed depending on changes and developments in the market.

The estimated expenditures by household then was used to calculate a total annual expenditure estimate for food at home purchases in the city of Hopewell and for each of the five market areas. This calculation is based on the number of households within each respective convenience or community trade area and the income of those households. This data comes from the American Community Survey 2018 5-year estimates. The annual expenditures for each trade area are also categorized by store type. The analysis ultimately finds a sizable market does exist in the city of Hopewell and for many of the potential sites. Only the Northwest site emerges as having a limited market value, but all other surpass at least $10 million for the convenience trade area and $40 million for the community trade area.

Annual Consumer Expenditures by Household Income Before Taxes, 2019*

Item		F[1]	Up to $14,999	$15,000 to $29,999	$30,000 to $39,999	$40,000 to $49,999	$50,000 to $69,999	$70,000 to $99,999	$100,000 to $149,999	$150,000 to $199,999	$200,000 and more	Commuters[2]	Undercount[2]
Income Before Taxes*			$7,574	$22,189	$34,772	$44,831	$59,328	$83,558	$121,433	$171,061	$343,498	$67,703	$67,703
Food at Home			**9.7%**	**9.3%**	**8.9%**	**9.2%**	**8.0%**	**7.5%**	**7.0%**	**6.3%**	**5.0%**	**2.0%**	**7.5%**
	Grocery	60%	5.8%	5.6%	5.3%	5.5%	4.8%	4.5%	4.2%	3.8%	3.9%	1.3%	4.9%
	Convenience	35%	3.4%	3.3%	3.1%	3.2%	2.8%	2.6%	2.5%	2.2%	0.5%	0.5%	1.9%
	Specialty (Deli, Bakery, Open Air Market…)	5%	0.5%	0.5%	0.4%	0.5%	0.4%	0.4%	0.4%	0.3%	0.3%	0.2%	0.8%

*Adapted from Table 1203. Consumer Expenditures Survey, 2019; US Department of Labor, Bureau of Labor Statistics, 2019.
1) Consumer expenditures given in the survey were adjusted down because expenditure categories were very broad. The adjustment factors (F) used for each category are given in the column to the right of the description. The factors are estimates only.
2) Median income for the Richmond MSA was used for Undercount and Commuters. Figure was collected from U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates for the Richmond, VA Metro Area.

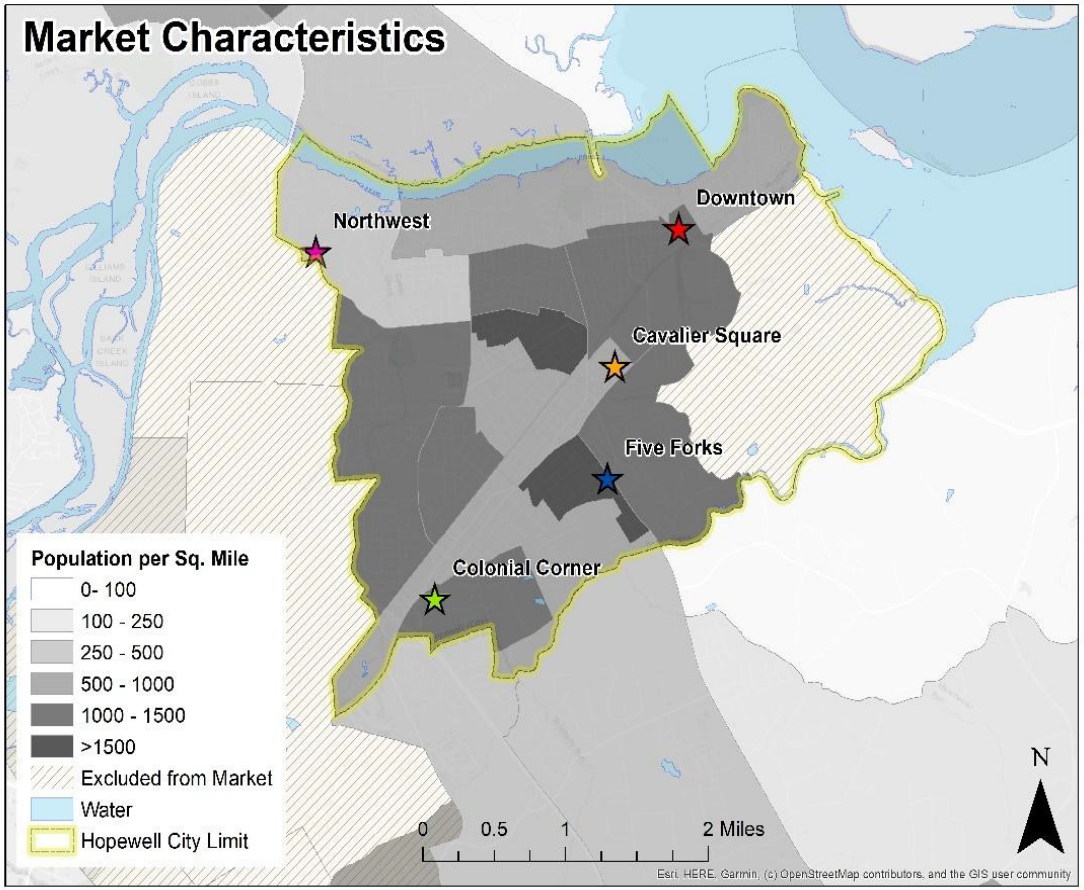


Figure J-I: Map of the population by Census Block Group, and the location of the sites chosen by the City of Hopewell for analysis.

Convenience Trade Area (1 Mile): Estimated Annual Expenditures

	Household Income Range			Total	Up to $14,999	$15,000 to $29,999	$30,000 to $39,999	$40,000 to $49,999	$50,000 to $69,999[1]	$70,000 to $99,999	$100,000 to $149,999	$150,000 to $199,999	$200,000 and more	Commuters[2]	Undercount[3]	Potential Expenditure
	Average Annual Expenditures				*$26,194*	*$34,201*	*$40,942*	*$47,299*	*$54,212*	*$66,801*	*$84,994*	*$109,020*	*$160,318*	*$67,703*	*$67,703*	
Cavalier Square[4]		*Number of Households 2010*		*4085*	*917*	*693*	*725*	*366*	*515*	*529*	*201*	*94*	*45*	*210*	*40.85*	
		Total Expenditures			$24,019,898	$23,701,293	$29,682,950	$17,311,434	$27,919,180	$35,337,729	$17,083,794	$10,247,880	$7,214,310	$14,217,630	$2,765,668	
	Food at Home				$2,329,930	$2,204,220	$2,641,783	$1,592,652	$2,233,534	$2,650,330	$1,195,866	$645,616	$360,716	$284,353	$207,425	**$16,346,424**
	Grocery		60%		$1,397,958	$1,322,532	$1,585,070	$955,591	$1,340,121	$1,590,198	$717,519	$387,370	$282,080	$184,829	$135,518	**$9,898,785**
	Convenience		35%		$815,476	$771,477	$924,624	$557,428	$781,737	$927,615	$418,553	$225,966	$33,186	$71,088	$52,548	**$5,579,697**
	Specialty		5%		$116,497	$110,211	$132,089	$79,633	$111,677	$132,516	$59,793	$32,281	$18,036	$28,435	$22,125	**$843,293**
Colonial Corner[4]		*Number of Households 2010*		*4316*	*684*	*830*	*465*	*686*	*464*	*582*	*501*	*42*	*62*	*358*	*43.16*	
		Total Expenditures			$17,916,696	$28,386,830	$19,038,030	$32,447,114	$25,136,297	$38,900,449	$42,581,994	$4,578,840	$9,939,716	$24,237,674	$2,922,061	
	Food at Home				$1,737,920	$2,639,975	$1,694,385	$2,985,134	$2,010,904	$2,917,534	$2,980,740	$288,467	$496,986	$484,753	$219,155	**$18,455,952**
	Grocery		60%		$1,042,752	$1,583,985	$1,016,631	$1,791,081	$1,206,542	$1,750,520	$1,788,444	$173,080	$388,643	$315,090	$143,181	**$11,199,948**
	Convenience		35%		$608,272	$923,991	$593,035	$1,044,797	$703,816	$1,021,137	$1,043,259	$100,963	$45,723	$121,188	$55,519	**$6,261,700**
	Specialty		5%		$86,896	$131,999	$84,719	$149,257	$100,545	$145,877	$149,037	$14,423	$24,849	$48,475	$23,376	**$959,454**
Downtown[4]		*Number of Households 2010*		*2829*	*708*	*402*	*310*	*297*	*415*	*336*	*132*	*150*	*79*	*115*	*28.29*	
		Total Expenditures			$18,545,352	$13,748,802	$12,692,020	$14,047,803	$22,516,051	$22,422,869	$11,219,208	$16,353,000	$12,665,122	$7,785,845	$1,915,318	
	Food at Home				$1,798,899	$1,278,639	$1,129,590	$1,292,398	$1,801,284	$1,681,715	$785,345	$1,030,239	$633,256	$155,717	$143,649	**$11,730,730**
	Grocery		60%		$1,079,339	$767,183	$677,754	$775,439	$1,080,770	$1,009,029	$471,207	$618,143	$495,206	$101,216	$93,851	**$7,169,138**
	Convenience		35%		$629,615	$447,524	$395,356	$452,339	$630,449	$588,600	$274,871	$360,584	$58,260	$38,929	$36,391	**$3,912,918**
	Specialty		5%		$89,945	$63,932	$56,479	$64,620	$90,064	$84,086	$39,267	$51,512	$31,663	$15,572	$15,323	**$602,462**
Five Forks[4]		*Number of Households 2010*		*3025*	*524*	*558*	*579*	*319*	*401*	*359*	*190*	*47*	*48*	*151*	*30.25*	
		Total Expenditures			$13,725,656	$19,084,158	$23,705,418	$15,088,381	$21,757,083	$23,959,292	$16,148,860	$5,123,940	$7,695,264	$10,223,153	$2,048,016	
	Food at Home				$1,331,389	$1,774,827	$2,109,782	$1,388,131	$1,740,567	$1,796,947	$1,130,420	$322,808	$384,763	$204,463	$153,601	**$12,337,698**
	Grocery		60%		$798,833	$1,064,896	$1,265,869	$832,879	$1,044,340	$1,078,168	$678,252	$193,685	$300,885	$132,901	$100,353	**$7,491,061**
	Convenience		35%		$465,986	$621,189	$738,424	$485,846	$609,198	$628,931	$395,647	$112,983	$35,398	$51,116	$38,912	**$4,183,631**
	Specialty		5%		$66,569	$88,741	$105,489	$69,407	$87,028	$89,847	$56,521	$16,140	$19,238	$20,446	$16,384	**$635,812**
Northwest[4]		*Number of Households 2010*		*450*	31	135	30	12	43	85	50	64	0	25	*4.5*	
		Total Expenditures			$812,014	$4,617,135	$1,228,260	$567,588	$2,331,116	$5,678,085	$4,249,700	$6,977,280	$0	$1,692,575	$304,664	
	Food at Home				$78,765	$429,394	$109,315	$52,218	$186,489	$425,856	$297,479	$439,569	$0	$33,852	$22,850	**$2,075,787**
	Grocery		60%		$47,259	$257,636	$65,589	$31,331	$111,894	$255,514	$178,487	$263,741	$0	$22,003	$14,929	**$1,248,383**
	Convenience		35%		$27,568	$150,288	$38,260	$18,276	$65,271	$149,050	$104,118	$153,849	$0	$8,463	$5,789	**$720,931**
	Specialty		5%		$3,938	$21,470	$5,466	$2,611	$9,324	$21,293	$14,874	$21,978	$0	$3,385	$2,437	**$106,777**

1) Number of households within this income threshold ($50,000 to $69,999) reflect two-thirds of the Census' $60,000 - $74,999 threshold. The other third of the household from the Census' $60,000 - $74,999 threshold were put into the $70,000 to $99,999 income threshold above. This was done to match Census income thresholds with Consumer Expenditure Survey income thresholds.

2) The number of commuters is derived from 2019 VDOT traffic counts. **Cavalier Square:** *Winston Churchill Dr. from Arlington Rd to S 6th, and S 15th between Arlington Rd and City Point Rd.* **Colonial Corner:** *Oaklawn Blvd from I-295 to Colonial Corner Dr, and Courthouse Rd. between Colonial Corner Rd and Berry St.* **Downtown:** *Randolph Rd from Main St. to Winston Churchill Dr, and East Broadway St. between Randolph Rd and Cedar Ln.* **Five Forks:** *Arlington Rd. from Berry St. to City Limits, and Berry St. between Courthouse and Arlington Rd.* **Northwest:** *Atwater Rd. from River Rd. and Anchor Point Blvd from Atwater Rd.* The sum of each road segment was taken to determine the total for each area. A capture rate of 1% was used to determine the number of commuters who shop in the area. Income level is the median income level of Richmond according to U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates for the Richmond, VA Metro Area at $67,703.

3) A 1% undercount was included based on a general estimate of 1% undercount from the 2010 Census

4) Convenience Trade Areas are based generally based of off a 1 mile radius and 5 minute drive time. Specific trade area boundaries follow full Census Block Group boundaries which are detailed in the attached maps.

Community Trade Area (3 Mile): Estimated Annual Expenditures

	Household Income Range			Total	Up to $14,999	$15,000 to $29,999	$30,000 to $39,999	$40,000 to $49,999	$50,000 to $69,999[1]	$70,000 to $99,999	$100,000 to $149,999	$150,000 to $199,999	$200,000 and more	Commuters[2]	Undercount[3]	Potential Expenditure
	Average Annual Expenditures				***$26,194***	***$34,201***	***$40,942***	***$47,299***	***$54,212***	***$66,801***	***$84,994***	***$109,020***	***$160,318***	***$67,703***	***$67,703***	
Cavalier Square[4]		*Number of Households 2010*		*12945*	*2019*	*2019*	*1528*	*1471*	*1691*	*1706*	*1634*	*577*	*297*	*210*	*129*	
		Total Expenditures			$52,885,686	$69,051,819	$62,559,376	$69,576,829	$91,672,492	$113,962,506	$138,880,196	$62,904,540	$47,614,446	$14,217,630	$8,764,153	
	Food at Home				$5,129,912	$6,421,819	$5,567,784	$6,401,068	$7,333,799	$8,547,188	$9,721,614	$3,962,986	$2,380,722	$284,353	$657,312	**$56,408,5**
	Grocery		60%		$3,077,947	$3,853,092	$3,340,671	$3,840,641	$4,400,280	$5,128,313	$5,832,968	$2,377,792	$1,861,725	$184,829	$429,444	**$34,327,7**
	Convenience		35%		$1,795,469	$2,247,637	$1,948,725	$2,240,374	$2,566,830	$2,991,516	$3,402,565	$1,387,045	$219,026	$71,088	$166,519	**$19,036,7**
	Specialty		5%		$256,496	$321,091	$278,389	$320,053	$366,690	$427,359	$486,081	$198,149	$119,036	$28,435	$70,113	**$2,871,8**
Colonial Corner[4]		*Number of Households 2010*		*11439*	*1975*	*1883*	*1449*	*1383*	*1527*	*1460*	*1136*	*426*	*200*	*428*	*114*	
		Total Expenditures			$51,733,150	$64,400,483	$59,324,958	$65,414,517	$82,763,653	$97,551,727	$96,553,184	$46,442,520	$32,063,600	$28,976,884	$7,744,546	
	Food at Home				$5,018,116	$5,989,245	$5,279,921	$6,018,136	$6,621,092	$7,316,380	$6,758,723	$2,925,879	$1,603,180	$579,538	$580,841	**$48,691,0**
	Grocery		60%		$3,010,869	$3,593,547	$3,167,953	$3,610,881	$3,972,655	$4,389,828	$4,055,234	$1,755,527	$1,253,687	$376,699	$379,483	**$29,566,3**
	Convenience		35%		$1,756,340	$2,096,236	$1,847,972	$2,106,347	$2,317,382	$2,560,733	$2,365,553	$1,024,058	$147,493	$144,884	$147,146	**$16,514,1**
	Specialty		5%		$250,906	$299,462	$263,996	$300,907	$331,055	$365,819	$337,936	$146,294	$80,159	$57,954	$61,956	**$2,496,4**
Downtown[4]		*Number of Households 2010*		*10544*	*1656*	*1801*	*1307*	*1158*	*1302*	*1494*	*1211*	*390*	*225*	*115*	*105*	
		Total Expenditures			$43,377,264	$61,596,001	$53,511,194	$54,772,242	$70,584,024	$99,800,694	$102,927,734	$42,517,800	$36,071,550	$7,785,845	$7,138,604	
	Food at Home				$4,207,595	$5,728,428	$4,762,496	$5,039,046	$5,646,722	$7,485,052	$7,204,941	$2,678,621	$1,803,578	$155,717	$535,395	**$45,247,5**
	Grocery		60%		$2,524,557	$3,437,057	$2,857,498	$3,023,428	$3,388,033	$4,491,031	$4,322,965	$1,607,173	$1,410,398	$101,216	$349,792	**$27,513,1**
	Convenience		35%		$1,472,658	$2,004,950	$1,666,874	$1,763,666	$1,976,353	$2,619,768	$2,521,729	$937,517	$165,929	$38,929	$135,633	**$15,304,0**
	Specialty		5%		$210,380	$286,421	$238,125	$251,952	$282,336	$374,253	$360,247	$133,931	$90,179	$15,572	$57,109	**$2,300,5**
Five Forks[4]		*Number of Households 2010*		*12945*	*2019*	*2022*	*1528*	*1471*	*1691*	*1706*	*1634*	*577*	*297*	*151*	*129*	
		Total Expenditures			$52,885,686	$69,154,422	$62,559,376	$69,576,829	$91,672,492	$113,962,506	$138,880,196	$62,904,540	$47,614,446	$10,223,153	$8,764,153	
	Food at Home				$5,129,912	$6,431,361	$5,567,784	$6,401,068	$7,333,799	$8,547,188	$9,721,614	$3,962,986	$2,380,722	$204,463	$657,312	**$56,338,2**
	Grocery		60%		$3,077,947	$3,858,817	$3,340,671	$3,840,641	$4,400,280	$5,128,313	$5,832,968	$2,377,792	$1,861,725	$132,901	$429,444	**$34,281,4**
	Convenience		35%		$1,795,469	$2,250,976	$1,948,725	$2,240,374	$2,566,830	$2,991,516	$3,402,565	$1,387,045	$219,026	$51,116	$166,519	**$19,020,1**
	Specialty		5%		$256,496	$321,568	$278,389	$320,053	$366,690	$427,359	$486,081	$198,149	$119,036	$20,446	$70,113	**$2,864,3**
Northwest[4]		*Number of Households 2010*		*7576*	1306	1420	959	843	880	1066	691	261	150	25	*76*	
		Total Expenditures			$34,209,364	$48,565,420	$39,263,378	$39,873,057	$47,706,560	$71,209,866	$58,730,854	$28,454,220	$24,047,700	$1,692,575	$5,129,179	
	Food at Home				$3,318,308	$4,516,584	$3,494,441	$3,668,321	$3,816,525	$5,340,740	$4,111,160	$1,792,616	$1,202,385	$33,852	$384,688	**$31,679,6**
	Grocery		60%		$1,990,985	$2,709,950	$2,096,664	$2,200,993	$2,289,915	$3,204,444	$2,466,696	$1,075,570	$940,265	$22,003	$251,330	**$19,248,8**
	Convenience		35%		$1,161,408	$1,580,804	$1,223,054	$1,283,912	$1,335,784	$1,869,259	$1,438,906	$627,416	$110,619	$8,463	$97,454	**$10,737,0**
	Specialty		5%		$165,915	$225,829	$174,722	$183,416	$190,826	$267,037	$205,558	$89,631	$60,119	$3,385	$41,033	**$1,607,4**

1) Number of households within this income threshold ($50,000 to $69,999) reflect two-thirds of the Census' $60,000 - $74,999 threshold. The other third of the household from the Census' $60,000 - $74,999 threshold were put into the $70,000 to $99,999 income threshold above. This was done to match Census income thresholds with Consumer Expenditure Survey income thresholds.

2) The number of commuters is derived from 2019 VDOT traffic counts. **Cavalier Square:** *Winston Churchill Dr. from Arlington Rd to S 6th, and S 15th between Arlington Rd and City Point Rd.* **Colonial Corner:** *Oaklawn Blvd from I-295 to Colonial Corner Dr, and Courthouse Rd. between Colonial Corner Rd and Berry St.* **Downtown:** *Randolph Rd from Main St. to Winston Churchill Dr, and East Broadway St. between Randolph Rd and Cedar Ln.* **Five Forks:** *Arlington Rd. from Berry St. to City Limits, and Berry St. between Courthouse and Arlington Rd.* **Northwest:** *Atwater Rd. from River Rd. and Anchor Point Blvd from Atwater Rd.* The sum of each road segment was taken to determine the total for each area. A capture rate of 1% was used to determine the number of commuters who shop in the area. Income level is the median income level of Richmond according to U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates for the Richmond, VA Metro Area at $67,703.

3) A 1% undercount was included based on a general estimate of 1% undercount from the 2010 Census

4) Community Trade Areas are based generally based of off a 3 mile radius and 10 minute drive time. Specific trade area boundaries follow full Census Block Group boundaries which are detailed in the attached maps.

Supply Side Analysis

The supply side analysis involved survey the number, type, and size of food stores present in Hopewell and the surrounding area to compare with the potential expenditures present in Hopewell to quantify grocery potential. Existing stores were inventoried through a visual survey of the area cross referenced with NAICS business data within a five-minute and ten-minute drive of each site. Store size in square feet was captured with city and county tax and parcel specific data. Depending on size and types of products sold, each store was categorized as Grocery, Convenience, or Specialty. In some cases, store size was reduced to better capture the amount of square footage dedicated for food. For example, dollar stores were included in this store survey, however, only 1/3rd of the store size was dedicated for food and therefore the square footage was reflected in this analysis. The total square footage of each store type within in each market area are in the tables below.

Additionally, this analysis also calculated an estimated number of supportable square feet in each market area based on the potential expenditures divided by the median sales per square foot for each type of store as reported by the Dollars and Cents of Shopping Report. Through a comparison of supportable square feet and existing square feet, this analysis ultimately calculated an estimate for unmet demand in square feet and total store units.

In most cases, this analysis did find that very little unmet demand existed for either grocery or convenience stores in each of the market areas. However, a clear level of unmet demand was present for specialty stores in all trade areas. Even though this analysis shows an oversupply of food stores from a quantitative perspective, it does not mean that demand does not exist in the market. As demonstrated by the surveys, needs and preferences are not necessarily being met by the existing stores and the selection that they offer.

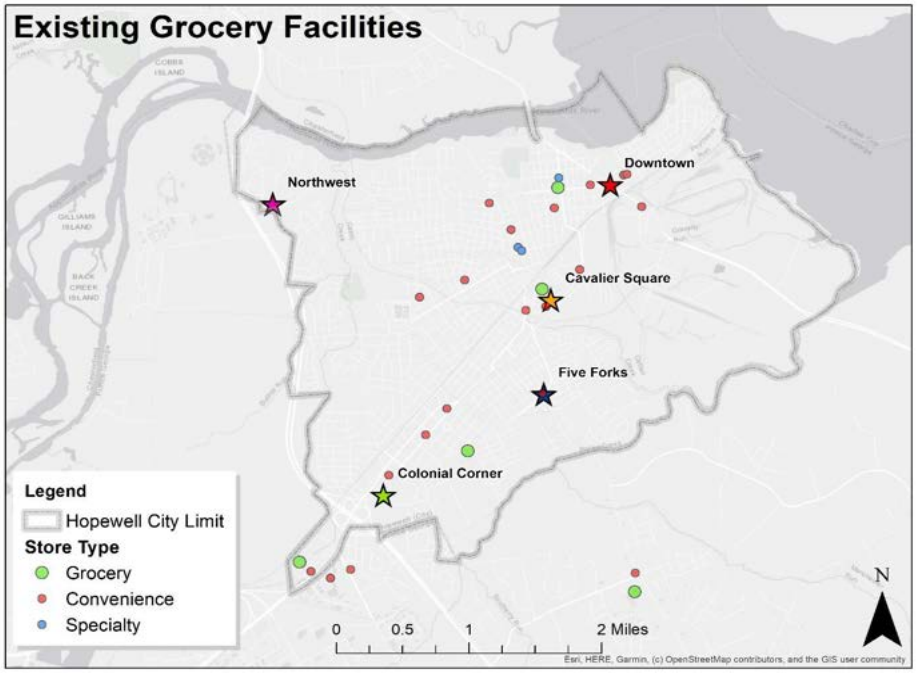


Figure J-II: Map of the locations of the sites chosen by the City of Hopewell for analysis and the locations of the identified existing food retailers.

Convenience Trade Area (1 Mile)- Estimated Expenditures and Development Potential

Site	Type	Potential Expenditure	Real Total Market[1]	Median Sales per Square Foot[2]	Number of Supportable Square Feet[3]	Existing Stores[4]	Existing Square Feet[5]	Unmet Demand in Square Feet[6]	Median GLA[7]	Potential New Units[8]
Cavalier Square	*Food at Home*	*$16,346,424.09*	*$16,951,242*							
	Supermarket	$9,898,784.98	$10,265,040	$530.29	19,357	2	43,336	**-23,979**	44,094	**-0.5**
	Convenience	$5,579,697.48	$5,786,146	$463.27	12,490	11	24,686	**-12,196**	2,023	**-6.0**
	Specialty	$843,292.92	$874,495	$260.68	3,355	2	2,298	**1,057**	1,651	**0.6**
Colonial Corner	*Food at Home*	*$18,455,951.71*	*$19,138,822*							
	Supermarket	$11,199,948.36	$11,614,346	$530.29	21,902	2	34,670	**-12,768**	44,094	**-0.3**
	Convenience	$6,261,700.47	$6,493,383	$463.27	14,016	5	11,307	**2,710**	2,023	**1.3**
	Specialty	$959,454.02	$994,954	$260.68	3,817	1	1,384	**2,433**	1,651	**1.5**
Downtown	*Food at Home*	*$11,730,730.01*	*$12,164,767*							
	Supermarket	$7,169,137.74	$7,434,396	$530.29	14,020	2	43,336	**-29,316**	44,094	**-0.7**
	Convenience	$3,912,917.69	$4,057,696	$463.27	8,759	8	17,070	**-8,312**	2,023	**-4.1**
	Specialty	$602,462.45	$624,754	$260.68	2,397	3	3,798	**-1,401**	1,651	**-0.8**
Five Forks	*Food at Home*	*$12,337,697.95*	*$12,794,193*							
	Supermarket	$7,491,060.89	$7,768,230	$530.29	14,649	2	38,670	**-24,021**	44,094	**-0.5**
	Convenience	$4,183,630.96	$4,338,425	$463.27	9,365	4	9,610	**-245**	2,023	**-0.1**
	Specialty	$635,812.12	$659,337	$260.68	2,529	0	0	**2,529**	1,651	**1.5**
Northwest	*Food at Home*	*$2,075,786.71*	*$2,152,591*							
	Supermarket	$1,248,383.25	$1,294,573	$530.29	2,441	0	0	**2,441**	44,094	**0.1**
	Convenience	$720,931.39	$747,606	$463.27	1,614	0	0	**1,614**	2,023	**0.8**
	Specialty	$106,776.73	$110,727	$260.68	425	0	0	**425**	1,651	**0.3**

** For further explanation refer to category composition sheet

(1) Real Market total is the potential expenditure normalized to account for inflation from 2018 to 2020 based on a cumulative inflation rate through September 2020 of 3.7% based on BLS CPI data.

(2) Median sales per square foot from Dollars and Cents of Shopping 2008 U.S. Super Community/Community Shopping Center tables. These numbers were adjusted to 2020 dollars (multiplier = 1.20). For specialty stores, there were no median sales per square foot for the category, but instead for a series of subcategories. The data provided for these subcategories was averaged.

(3) Supportable square feet calculated by real market total divided by median sales per square foot

(4) Existing stores were inventoried through a survey of the defined trade area within 1 Mile along Census Block boundaries. Google Maps, 2020 QCEW data, and ground-truthing were used to inventory stores.

(5) Existing square feet is based on information available through the city parcel mapper. Certain stores have been adjusted for square footage based on types of sales. Example: Dollar General sells food but less than 100% of square footage is dedicated to food. See attached food store sites table for adjustments.

(6) Unmet demand in square feet was calculated by subtracting existing square footage for each item from the number of supportable square feet

(7) Median Gross Leasable Area indicated by Dollars and Cents of Shopping 2008 U.S. Super Community/Community Shopping Center Report

(8) Potential new units=Unmet demand in square footage divided by median GLA

Community Trade Area (3 Mile)-Estimated Expenditures and Development Potential

Site	Type	Potential Expenditure	Real Total Market[1]	Median Sales per Square Foot[2]	Number of Supportable Square Feet[3]	Existing Stores[4]	Existing Square Feet[5]	Unmet Demand in Square Feet[6]	Median GLA[7]	Potential New Units[8]
Cavalier Square	*Food at Home*	*$56,408,556.89*	*$58,495,673.50*							
	Supermarket	$34,327,699.84	$35,597,824.73	$530.29	67,129	5	111,006	**-43,877**	44,094	**-1.0**
	Convenience	$19,036,793.19	$19,741,154.54	$463.27	42,612	20	46,628	**-4,016**	2,023	**-2.0**
	Specialty	$2,871,893.13	$2,978,153.17	$260.68	11,424	4	5,182	**6,243**	1,651	**3.8**
Colonial Corner	*Food at Home*	*$48,691,049.37*	*$50,492,618.20*							
	Supermarket	$29,566,363.45	$30,660,318.90	$530.29	57,818	4	99,670	**-41,852**	44,094	**-0.9**
	Convenience	$16,514,145.11	$17,125,168.48	$463.27	36,966	14	33,542	**3,424**	2,023	**1.7**
	Specialty	$2,496,443.67	$2,588,812.09	$260.68	9,931	2	2,326	**7,605**	1,651	**4.6**
Downtown	*Food at Home*	*$45,247,591.71*	*$46,921,752.60*							
	Supermarket	$27,513,146.39	$28,531,132.81	$530.29	53,803	4	78,006	**-24,203**	44,094	**-0.5**
	Convenience	$15,304,007.53	$15,870,255.81	$463.27	34,257	17	37,014	**-2,758**	2,023	**-1.4**
	Specialty	$2,300,504.50	$2,385,623.17	$260.68	9,151	3	3,798	**5,354**	1,651	**3.2**
Five Forks	*Food at Home*	*$56,338,209.43*	*$58,422,723.18*							
	Supermarket	$34,281,496.88	$35,549,912.27	$530.29	67,039	5	111,006	**-43,967**	44,094	**-1.0**
	Convenience	$19,020,160.53	$19,723,906.47	$463.27	42,575	19	44,812	**-2,237**	2,023	**-1.1**
	Specialty	$2,864,381.28	$2,970,363.38	$260.68	11,395	4	5,182	**6,213**	1,651	**3.8**
Northwest	*Food at Home*	*$31,679,619.59*	*$32,851,765.51*							
	Supermarket	$19,248,815.12	$19,961,021.28	$530.29	37,642	4	78,006	**-40,364**	44,094	**-0.9**
	Convenience	$10,737,079.83	$11,134,351.78	$463.27	24,034	16	35,992	**-11,958**	2,023	**-5.9**
	Specialty	$1,607,472.57	$1,666,949.05	$260.68	6,395	3	3,798	**2,597**	1,651	**1.6**

** For further explanation refer to category composition sheet

(1) Real Market total is the potential expenditure normalized to account for inflation from 2018 to 2020 based on a cumulative inflation rate through September 2020 of 3.7% based on BLS CPI data.

(2) Median sales per square foot from Dollars and Cents of Shopping 2008 U.S. Super Community/Community Shopping Center tables. These numbers were adjusted to 2020 dollars (multiplier = 1.20). For specialty stores, there were no median sales per square foot for the category, but instead for a series of subcategories. The data provided for these subcategories was averaged.

(3) Supportable square feet calculated by real market total divided by median sales per square foot

(4) Existing stores were inventoried through a survey of the defined trade area within 1 Mile along Census Block boundaries. Google Maps, 2020 QCEW data, and ground-truthing were used to inventory stores.

(5) Existing square feet is based on information available through the city parcel mapper. Certain stores have been adjusted for square footage based on types of sales. Example: Dollar General sells food but less than 100% of square footage is dedicated to food. See attached food store sites table for adjustments.

(6) Unmet demand in square feet was calculated by subtracting existing square footage for each item from the number of supportable square feet

(7) Median Gross Leasable Area indicated by Dollars and Cents of Shopping 2008 U.S. Super Community/Community Shopping Center Report

(8) Potential new units=Unmet demand in square footage divided by median GLA

Appendix J: Funding Options

There are additional funding options that could be accessed to better aid the implementation of food access in Hopewell. These funding options range from grants to incentive programs. The following funding sources have the potential to be implemented for one or more of the recommendations. They are broken into two sections, one that are applicable to food access or commercial support and transit-oriented funding.

Food Access and Commercial Support

Small Business Administration (SBA) Loans

Funding for small organizations often focused on business growth and job creation. This is particularly helpful for vendors in the area looking to expand via increasing the number of locations or the size of their current location. This loan type would be beneficial to support the current retail in expanding their selection types to increase access to fresh foods.

Gus Schumacher Nutrition Incentive Program (formerly FINI)

Funding provided for pilot and multi-year projects involved with increasing fruit and vegetable purchases and improving the community's nutrition and health. This incentive program would help boost opportunities for organizations participating in the mobile markets and provide more incentives to attract potential small format grocers to the area.

Community Food Projects Competitive Grant Program (CFPCGP)

Funding provided for programs that help increased food access to low-income people, focused on community self-sufficiency and projects that link to one or more co-benefits.

Racial and Ethnic Approaches to Community Health (REACH)

Funding provided to state and local health departments, tribes, universities, and community-based organizations aimed to reduce racial and ethnic health disparities. As food access is directly linked to health, this funding source may provide support for implementing mobile markets, healthy corner stores, and small format groceries within the city.

Community Development Block Grants (CDBG)

Federal funding that can be used to provide loans to public or private businesses to implement commercial infrastructure that would aid low to moderate income populations. These funds can also be used to acquire real property, rehabilitate existing buildings (such as the structures currently found at Oaklawn Boulevard), and fund construction of new structures that would serve these populations. Using these funds could provide the support or incentives needed to attract mobile market participants, healthy corner stores, and small format grocers.

CARES Act Funding (CDBG-CV)

Federal funding provided to the use of aiding populations affected by COVID-19. These funds can only be used for projects that mitigate the effects of the pandemic. The use of these funds could provide the city with a mobile grocery program that delivers food and

other necessities to low to moderate income households which are following quarantine guidelines or cannot access public transit due to COVID-19. The use of these funds would act as a bridge as the City of Hopewell explores more permanent options.

Transit Oriented Funding

Regional Surface Transportation Block Grant
This funding type provides a flexible source for improvements related to pedestrian and bicycle infrastructure and transit capital projects, including intercity bus terminals. This grant would be beneficial to support the proposed implementation of a bus route corridor to increase food access.

Transportation Alternative (TA) Set-Aside
Funding for smaller-scale, non-traditional transportation projects focused on non- motorized transportation and improving the transportation experience. This funding opportunity would be beneficial for increasing pedestrian and bicyclist access to the current and future retail opportunities in the city. With two Census Block Groups within Hopewell having limited access to cars, increasing pedestrian and bicycle access would be beneficial in providing alternate transportation options to residents.

Congestion Mitigation and Air Quality Improvement (CMAQ) Program
Funding for transportation projects and programs that contribute to air quality improvements and reduction of traffic congestion, including transit, active transportation, e-bikes, bike share, and public education and outreach. This program would help aid improvements for pedestrian and bicyclist access to current and future retailers within the city.

Better Utilizing Investments to Leverage Development (BUILD) Discretionary Grants (formerly TIGER Grants)
Funding provided for multi-modal and multi-jurisdictional projects including active transportation, transit, and wayfinding. This type of grant could be used to support the development of diverse transit options within the city. This includes the proposed changes to the bus route, and increasing access for pedestrians and bicyclists.

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