

Charlottesville's Affordable Housing Crisis

Regulatory Solutions



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Disclaimer

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On my honor, I have neither given nor received aid on this assignment.

Kimberly Curtis

Executive Summary

There is not enough affordable housing in Charlottesville for low-income renters. Renters are struggling to meet the ever-growing housing costs which forces them to make tradeoffs in health, education, and safety. The situation in Charlottesville is not unique to this city, rather the burden of extremely high housing costs is present throughout the nation. Even though it is a widespread problem, there are not enough federal or state resources available to meet the demand. Charlottesville may not be able to solve the problem but it does have the capacity to make some regulatory changes that will increase the supply and decrease the cost of housing in Charlottesville. The Charlottesville Planning Commission should make policy recommendations to City Council in the upcoming comprehensive plan that are feasible, affordable, and effective.

This report posits four potential ways the City can address housing affordability:

- Upzone by eliminating single-family zoning. Single-family zoning is the preferred housing type in the current zoning code and is by far the most expensive form of housing. The current code artificially limits housing supply by prohibiting more dense housing types throughout the City which increases the cost of housing.
- Expand the reach of the existing inclusionary zoning statute to apply to all new multifamily housing not just projects that receive special permits. A recent change in state law allows Charlottesville to make this change which would increase the supply of affordable housing by tying it to all new multifamily development.
- Increase the cash fees in the inclusionary zoning statute to \$5 from \$2. Developers can opt out of the inclusionary zoning statute by making a cash contribution to the Affordable Housing Fund. The current rate of \$2 per square foot is too low and does not come close to raising the funds needed for affordable housing construction.
- Transition the Affordable Housing Fund from a construction subsidy grant to housing vouchers for low-income renters. Rental support is substantially less expensive than constructing new units and it is a more immediate solution to the problem.

These alternatives were scored against six criteria over a ten-year timeframe. Change in housing supply which is the expected number of new housing units created. Cost effectiveness or the City's cost to implement the alternative divided by the number of new units created. Change in private costs which represents the costs to developers. Public opinion measured by responses to the surveys conducted in relation to the comprehensive plan development. Speed of implementation which estimates how soon after adoption the City will begin to see the effects of the policy. Finally, placement in opportunity neighborhoods which is a proxy for racial equity.

Upzoning is the recommendation because it will create the most units and is the most cost effective. It is purely a market solution because it solely removes a barrier to development and allows landowners and developers to decide where and how much to build. Upzoning will not be easy to pass in City Council. Many current single-family homeowners are likely to oppose this proposal for fear of major changes to their community. Following the blueprint of cities that recently eliminated single-family zoning, there is a path for Charlottesville to adopt upzoning.

Introduction & Problem Statement

Too many low-income families cannot find housing they can afford in Charlottesville. These are households that are priced out of the market entirely and move elsewhere or become homeless as well as those who are spending too much of their monthly income on housing costs.¹ There are nearly 10,000 people in Charlottesville living in poverty (U.S. Census Bureau, 2020). A full-time worker must earn \$24.27 per hour or about \$50,000 annually to afford a two-bedroom apartment in the City of Charlottesville (*Out of Reach*, 2020). This wage is well above the poverty line which shows that the affordable housing crisis effects even households living above the poverty line who work full time or even have multiple incomes. While the effects of housing affordability may be most obvious in and most acutely felt by the extremely low income, the burden extends throughout our community. Housing is a basic necessity and housing affordability is key to many of the outcomes we care about including health, education, and employment. There are as many ways to address housing cost as there are communities in the United States.

This report is designed to provide potential solutions to Charlottesville's affordable housing crisis that can be implemented by the City in a reasonable time with limited resources. While the housing crisis is beginning to get national attention, there is still a substantial shortage of federal and state resources to address the magnitude of the problem. The City of Charlottesville is not financially positioned to fully address the needs of the community but it can make regulatory changes that will increase the supply and cost of housing in the City.

There are three guiding principles in this report that frame the problem and guide the analysis. First, the city wants to address this issue. Second, racial equity must be a component of the solution. Charlottesville has a long history of racist housing and land use policies that linger today and the Planning Commission is determined to address this past in the new comprehensive plan. Third, the resources of the City are limited. To ensure that no one in Charlottesville was cost-burdened by rent would take far more money than the City is realistically going to provide. With that in mind, this report focuses on regulatory changes that the City can adopt to address housing affordability at little cost.

This document provides four potential regulatory changes that would impact the supply and cost of housing in the City and evaluates each against six criteria Council is likely to consider. The truth is no one solution can solve the housing crisis but that does not mean the City should do nothing. Maintaining the status quo is not an option because the gap between incomes and housing costs is growing rapidly. Between 2015 and 2019 the fair market rent for a two-bedroom apartment in Charlottesville increased 21.6% while median household income only increased by 7% (*Out of Reach*, 2019; U.S. Census Bureau, 2020). As the saying goes, the best time to enact equitable housing policies was 100 years ago, the second-best time is now.

¹ According to the federal government, a household should spend no more than 30% of their monthly income on rent and utilities.

The Housing Crisis

The United States has a significant housing affordability crisis particularly effecting the lowest income households. Nationally, there is a shortage of 7 million homes affordable and available for extremely low-income (ELI) renters (Aurand et al., 2020).² Virginia is missing 157,087 affordable and available units for ELI renters (Aurand et al., 2020). In other words, for every 100 ELI renter households in Virginia, there are 36 affordable and available homes (Aurand et al., 2020). Looking specifically at Charlottesville, a minimum wage earner would have to work 115 hours per week to afford a one-bedroom apartment, which is above the average for Virginia and higher than Richmond (*Out of Reach*, 2020). This goes to show that Charlottesville is no exception to the shortage of affordable rentals. There are real costs associated with the lack of affordable housing and the burden of unaffordability is not borne equally across society.

Unaffordable housing forces consumers to make tradeoffs in other areas including healthcare, food, education, retirement, and transportation. A 2019 report from Harvard's Joint Center on Housing Studies, showed that severely cost burdened renters spent 37% less on food, 77% less on healthcare, and 60% less on transportation than those who live in housing they can afford (*State of the Nation's Housing*, 2019).³ Additionally, when households struggle to afford rent they are more likely to be evicted which can lead to homelessness and has been associated with food insecurity, mental and physical health complications, and poor academic performance ("Housing Affordability Challenges," n.d.). Not only can housing instability and homelessness have personal long-lasting effects, it also costs society in terms of higher healthcare costs, lost economic productivity, and higher costs of emergency and social services.

People of color, seniors, and people with disabilities are more likely to struggle to afford housing. The affordable housing crisis hits ELI households the hardest, 72% of ELI households spend more than half of their income on housing which is substantially above the federal affordability limit (Aurand et al., 2020). Twenty percent of Black households, 18% of American Indian or Alaska Native households, 14% of Latino households, and 10% of Asian households are extremely low-income renters yet only 6% percent of white non-Latino households are extremely low-income renters (Aurand et al., 2020). Forty-eight percent of ELI renters are seniors or people with disabilities, again an overrepresentation of the general population (Aurand et al., 2020).

² Affordable as defined by the federal government means spending no more than 30% of household income on housing. Extremely low-income renters are households with incomes at or below the poverty guideline or 30% of AMI, whichever is higher. Rental homes are both affordable and available for households of a specific income group if the homes are affordable to them and they are not occupied by higher-income households.

³ A household is considered cost-burdened by rent if they spend more than 30% of their monthly income on rent and utilities. A severely cost-burdened household spends more than 50% of their monthly income on rent and utilities.

Literature Review

Federal housing policy and resources are at the center of housing policy nationwide. The federal government, through the Department of Housing and Urban Development and the Treasury Department, spends upwards of \$50 billion annually on housing assistance programs (*How Does the Federal Government Support Housing for Low-Income Households?*, n.d.). Notwithstanding this substantial investment only 1 in 4 households eligible for federal housing assistance receives it (*Three Out of Four Low-Income At-Risk Renters Do Not Receive Federal Rental Assistance*, 2017). Despite the federal government's substantial share of the housing policy pie, its role is shrinking in comparison to state and local governments (Katz et al., 2003). Local governments generally have autonomy in developing and implementing housing policies within their jurisdiction, subject to state and federal boundaries. This level of relative flexibility has led to dozens of local approaches to the affordable housing crisis nationwide. Discussed below are three categories of intervention the City of Charlottesville could take to address its housing crisis and the data available to show its effectiveness.

Inclusionary Zoning

Inclusionary zoning refers to the array of housing policies aimed at combatting traditional zoning practices which restrict the types of housing allowed in certain areas. Zoning is within the control of the City of Charlottesville, subject to state law. It controls the types of structures or land uses throughout the city by creating zones which correspond to specific uses. For example, R-1 zones are primarily single-family homes with 25 feet of front and back yards, do not exceed 35 feet tall, have side yards of at least 10 feet, and contain 1-8 people (*Residential Zoning Districts*). The idea of inclusionary zoning (IZ) was created in response to the notion that zoning excludes apartments and duplexes from residential neighborhoods, which has the effect of excluding low income households and limiting the supply of housing. Inclusionary zoning is about bringing other types of housing and residents into a community.

Inclusionary zoning has been implemented in localities nationwide in varying shapes and sizes. The most basic version entails giving developers a density bonus in exchange for making some of the units affordable to low- or moderate-income households.⁴ The IZ program might allow for those affordable units to be built somewhere else in the jurisdiction, allow developers to instead make a cash contribution to a local housing fund, or include other incentives like reducing the amount of required parking. Some communities require mandatory IZ while others make it optional. Charlottesville currently has a program which requires developments that are approved for rezoning or special use application to include affordable units, build them elsewhere, or make a cash contribution to the Charlottesville Affordable Housing Fund (*Affordable Dwelling Units*). Virginia recently amended Virginia Code §15.2-2304 adding Charlottesville to the list of localities with the flexibility to implement IZ for all developments not just in response to approved rezoning or special use permits. Charlottesville has an opportunity to amend its IZ ordinance to apply more

⁴ A density bonus allows developers to build more units than typically allowed by the zoning code. It is seen as a valuable incentive because the cost per unit of land and overhead decreases with the number of units allowed.

broadly but the evidence on the effectiveness of IZ in terms of creating more affordable housing is mixed.

It is challenging to measure impacts of IZ across jurisdictions because each program is designed differently and the housing markets vary significantly. Katz, et al. conducted a broad survey of housing policy nationwide and concluded that inclusionary zoning programs generally provide an effective and low-cost way for local governments to encourage affordable housing production (Katz et al., 2003). They cited Montgomery County, Maryland's program which is responsible for half of the county's new affordable units since the program's inception in 1974. On the other hand, a survey of IZ programs in the DC metro area showed no increase in affordable units over what would have been created otherwise except in Alexandria and Falls Church, Virginia (Washington, 2019). The author posited the exceptionally high cost of homes in Alexandria and Falls Church as the reason the density bonuses were more effective, the cost per square foot in Charlottesville is about half the price of Alexandria and Falls Church which suggests density bonuses may not be as effective here (Washington, 2019; *Charlottesville, VA Home Values*, 2020). On the other hand, Charlottesville is home to a university that creates substantial demand for housing and the gap between supply and demand is expected to continue to grow (The Impact of Racism on Affordable Housing in Charlottesville, 2020). Because of the existing shortage of housing and the robust ongoing demand new market rate buildings will continue to be built and inclusionary zoning would link some affordable units to those projects.

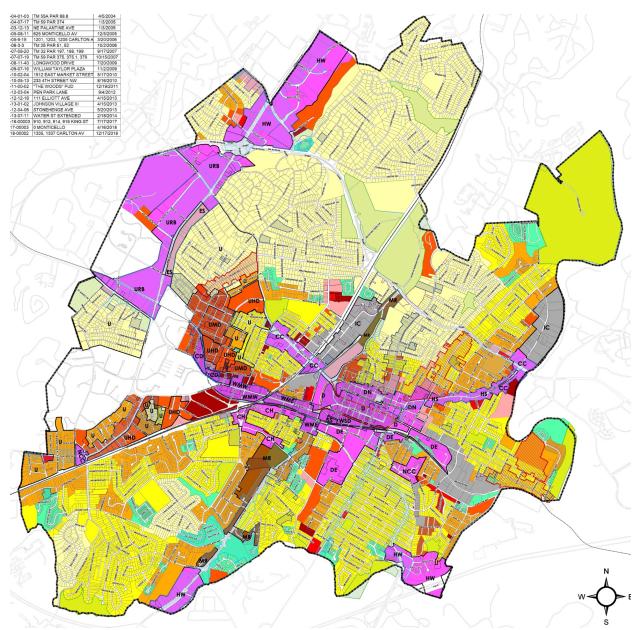
There is much debate over the fairness of IZ with opponents arguing that it essentially requires market rate renters and developers to subsidize low income renters, again the evidence is mixed. Some research has shown that market rates increase by 5.5% when developers are required to include affordable units (Kupiec & Pinto, 2018). Other research shows that the burden primarily falls on the landowners who sell to developers because developers factor the lost profits from affordable units into their bids for the land (Kautz, 2001). In cities with strong housing markets, inclusionary zoning has not negatively impacted building however in weaker markets it could have a negative impact on overall construction (Lerman, 2006). Overall, it appears that IZ's impact on housing starts and prices is minimal if existent (Washington, 2019; Bento et al., 2009). The biggest impact seems to be that the share of single-family homes compared to multifamily units decreases as IZ is implemented which is promising for low income households who are more likely to be renters in multifamily buildings (Bento et al., 2009; Schuetz, 2007).

The biggest indictment against relying on IZ is that it rarely, if ever, reaches extremely low-income households (Katz et al., 2003). This is because developers cannot offer rents low enough to meet the needs of the lowest income renters without substantial outside subsidies. IZ is a tool for increasing housing supply and creates units for low income renters but it has not ever been used alone to house extremely low-income renters.⁵

⁵ Low-income families are defined as families whose incomes do not exceed 80 percent of the median family income for the area. Extremely Low-Income Families are families whose incomes do not exceed the greater of 30 percent of the median family income for the area or the federal poverty guidelines.

Upzoning

Charlottesville has 11 residential zoning districts with each having its own set of rules about the type of housing allowed there. For example, single family detached dwellings are permitted by right in every district meaning a builder would not need any permission to build a single-family home in any residential district in Charlottesville (*Residential Zoning Districts*). Single family detached homes are the most expensive type of housing. By contrast, multifamily housing (anything larger than a duplex) is only permitted in four residential zones (*Residential Zoning Districts*). The code excludes triplexes, quadplexes, and apartments from the majority of the residential neighborhoods in Charlottesville without any opportunity for a permitted exception. Each type of permitted housing in Charlottesville also has requirements for building and lot size, how much of a yard is required, and more. It is widely accepted that restrictive land use policies, like zoning and lot size minimums, increase housing prices and exacerbate segregation along racial and socioeconomic lines (Rodríguez-Pose & Storper, 2020). Charlottesville could amend its zoning ordinance to allow more dense housing throughout the city to increase the stock of more affordable types of housing.



There is little doubt that regulations that limit density artificially cap the housing supply, however it is unclear how much savings can be captured and passed on to the tenants by relaxing those regulations. There are several papers documenting that land use policies limiting multifamily housing decrease housing supply and increase costs (Albouy and Ehrlich, 2011; Einstein et al., 2017; Glaeser and Ward 2006; Gyourko et al., 2008; Jackson, 2016; Kahn et al., 2010; Kok et al., 2014; Levine, 1999; Zabel and Dalton, 2011). A study of the effects of zoning on the rental market in Massachusetts showed that decreased regulation did increase the number of homes for rent and purchase, however it did not significantly decrease the rental price (Schuetz, 2007).

Charlottesville is 10 square miles so there are real space constraints in terms of how much housing it can realistically absorb and how much it would take to create significant downward pressure on market rents. The floor on rent is the cost of construction which means that (1) there will not be more units built than people who can afford to pay at least the cost of construction even if apartments are permitted everywhere and (2) even at cost the rents will be too high for extremely low-income renters (Glaeser & Gyourko, 2002). Nearly all academic supporters of upzoning consider it necessary but not sufficient to address the affordable housing crisis (Manville et al., 2020).

Amending the zoning code is essentially free for the city and it pushes some of the onus onto developers while also eliminating some of their regulatory burden. On the other hand, it is likely not enough to address the magnitude of the shortage of affordable housing in the city.

Rental Assistance

Rental assistance programs are a more direct approach to the problem of unaffordable housing. The program can be designed in a variety of ways but generally looks like a direct subsidy (e.g. voucher or cash transfer) to the low-income household to bridge the gap between what they can afford and market rent. Renters may be able to use the rental assistance anywhere or it may be tied to a specific property. The quintessential rental assistance program is HUD's Housing Choice Voucher (commonly called Section 8) but rental assistance programs are also administered by state and local governments as well as nonprofits. Charlottesville currently uses the proceeds of the Charlottesville Affordable Housing Fund to subsidize the acquisition, development, construction, and rehabilitation of affordable housing (*Affordable Dwelling Units*). Instead, the city could direct some or all of those funds to a rental assistance program which would directly help low income renters.

The cost to build a unit of housing is substantially higher than the price of rent for an existing unit (Katz et al., 2003). After a review of the federal voucher program, HUD concluded that it is more cost effective than housing production subsidies (*Section 8 Tenant-Based Housing Assistance: A Look Back After 30 Years*, 2000). While housing production may still be necessary to meet the demand, without deep long-term subsidies, those newly constructed units will not necessarily remain affordable or reach the lowest income renters (Katz et al., 2003).

One of the key benefits to a rental assistance program is that households can choose where to live as opposed to subsidizing specific units (e.g. the public housing model). In theory, this allows renters to choose neighborhoods with good schools, access to transportation and healthy foods, and high-quality jobs. In reality, renters using housing vouchers face substantial discrimination. A recent study of five diverse housing markets showed that 67% of landlords refused outright to accept vouchers (Cunningham, 2018). This rate is higher in low poverty communities, typically called “high opportunity” because of access to better schools and jobs, and for racial minorities (Cunningham, 2018). HUD’s housing voucher program has a reputation for being administratively burdensome for landlords which can make the tenants less attractive than those who can afford market rent without a subsidy. This discrimination inhibits mobility and tends to push voucher holders into low income, low opportunity communities somewhat defeating the purpose of the subsidy (Cunningham, 2018).

Alternatives

Four alternatives for the City of Charlottesville are discussed below. Three alternatives would be changes to the zoning code and the last is a change to the existing affordable housing fund program to better align with the goals of promoting affordable housing in the City. The focus on making changes to existing regulations/programs is intended to keep the solutions reasonably feasible both in adoption and successful implementation.

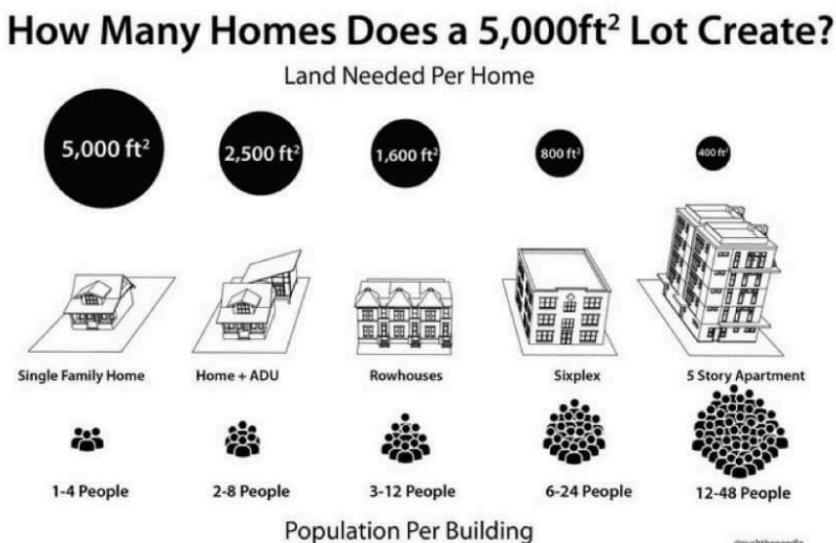
Zoning Code Changes

Housing development is governed by the zoning code. Zoning is within the control of the City of Charlottesville, subject to state law. It controls the types of structures or land uses throughout the city by creating zones which correspond to specific uses. The code currently excludes triplexes, quadplexes, and apartments from the majority of the residential neighborhoods in Charlottesville without any opportunity for a permitted exception.

Amending the zoning code is essentially free for the city and it pushes some of the onus to meet market demand on developers. The key difference between the policies discussed below is that inclusionary zoning tacks affordable units onto projects that are currently permitted by the zoning code whereas upzoning changes where development is allowed and relies on the forces of supply and demand to lower the cost of housing.

Upzone the City

One of the main problems in Charlottesville is that too much of the city is zoned R-1 residential meaning only single-family homes can be built there. Single-family homes are the most expensive types of homes and this restriction against other types of housing artificially caps the supply and increases prices overall. Additionally, since R-1 zoning covers most of the residential neighborhoods, whenever someone wants to build a duplex or apartments they must go through a lengthy and expensive appeals process. This alternative proposes eliminating single family zoning so that the default minimum in the code is a duplex. This means that the new zoning map would allow for more density “by right” without lengthy appeals. Upzoning would not eliminate single-family homes, it would raise the cap on how much housing can be built within the city.



As the image above demonstrates, single family homes take up the most amount of space per person out of all housing types. In a landlocked community like Charlottesville, land is at a premium and limiting its use to the least dense type of housing further drives up the cost of property.

The purpose of upzoning is to lower the regulatory burden and therefore the cost to develop new housing. It likely would not create housing that is affordable to the lowest income households, rather it would put some downward pressure on housing costs (as supply increases) and make it more feasible for affordable units to be built. In other words, it is currently cost prohibitive to build affordable units such that even if a developer wanted to it would not financially make sense. Reducing the cost of development would increase the likelihood of naturally occurring affordable units.⁶ Whereas now the cost of the land is only borne by the single home built on the lot, with upzoning the cost of the land would be split across the duplex thereby lowering the cost of each house. The zoning code is not neutral as is, it currently incentivizes building the largest and most expensive houses possible on a given lot because that is how developers can make the most money. Building a modest single-family home is not as profitable as building a large luxury home which contributes to the lack of housing affordability throughout the City and pushes middle class out of the City.

Technically this would be very easy to do, changing the zoning code is logically simple, but would likely face substantial public backlash from existing owners of single-family homes. Research has shown that existing homeowners cite three primary concerns for opposing upzoning: housing issues like displacement, infrastructure capacity, and neighborhood character (Ramiller, 2020). Concerns over parking and school capacity as well as neighborhood character came up somewhat frequently in Charlottesville's recent community survey indicating that this type of opposition would likely appear in the upzoning debate(Moran, n.d.).

Expand Inclusionary Zoning

The present inclusionary zoning statute requires that new multifamily construction developed under a special use permit must (1) include affordable units onsite, (2) build affordable units elsewhere, or (3) contribute to the Housing Fund mentioned in alternative four. The reason the statute was limited in scope is because of a state law that only permitted Charlottesville to used inclusionary zoning in the case of rezoning or special use permits. Last session the Virginia Legislature passed a law allowing Charlottesville to apply this inclusionary zoning statute to all new multi-family development (Affordable Dwelling Unit Ordinances in Certain Localities, 2020). Pursuing this alternative would capture more development thereby increasing the number of affordable units built and/or the contributions to the Housing Fund. As an amendment to the zoning code it would be a relatively simple process, however developers are likely to oppose any additional burdens on their projects.

⁶ Naturally occurring affordable units are units whose market rent is affordable without outside subsidies.

Increase Inclusionary Zoning Fees

The current inclusionary zoning statute requires a very low cash contribution of \$2 per square foot of gross floor area in lieu of building affordable units. It is so low that no developers choose to build affordable units (*Affordable Dwelling Units*).⁷ The problem is twofold. First, the City is not encouraging developers to include affordable units into their existing developments which would be cheaper than the city (or a grantee) having to build something new. Second, the contributions are so small that the Housing Fund is not impactful.

If the cash contribution amount was increased developers would be more inclined to include affordable units in their projects and/or the Housing Fund would be more impactful. In the past 5 years, the affordable housing fund has distributed an average of about \$2.1 million each year. The average cost to build 1 new apartment unit is \$201,978 so that \$2.1 million could create a maximum of 10 units per year. This is not enough to meet demand. This alternative would raise the cash contribution rate to \$5 per square foot meaning the fund could distribute \$5.25 million annually.⁸ This would be administratively simple to adopt and enforce however developers are likely to oppose the increase in fees.

Housing Vouchers

Currently, the City collects contributions from some developers who opt out of including affordable units in their multi-family projects. This money goes into a fund that is awarded to grantees for the development of affordable units. Construction of new units is certainly important; however, it is vastly more expensive than subsidizing rent in an existing unit. This alternative would transfer the funds received from developers into a rental assistance voucher program rather than the current construction subsidy program. Charlottesville currently has a mechanism for collecting these funds and operates the Charlottesville Supplemental Rental Assistance Program so making the switch should not be very difficult.

A substantial potential flaw is that the money coming into the fund fluctuates yearly so if there is a recession and new building halts, there will be no money to meet the commitment to the households in the program. This could be solved by setting it up as an endowment as opposed to giving out every dollar received each year but this would add to the timeline and administrative costs. Vouchers always come with the threat of discrimination which could make it difficult for participants to find housing, or very likely, they will end up in high poverty neighborhoods leading to equity concerns. Despite these challenges, vouchers would serve more people more quickly than construction subsidies. An extension of this concept could include incentives for landlords in high opportunity neighborhoods who accept vouchers, education campaigns to assuage landlords' fears about vouchers, or housing navigators to help voucher recipients find their best housing options.

⁷ Except where it was intended as an affordable development separate from this statue.

⁸ For comparison Arlington, Virginia's rate is \$10.82 per square foot.

Criteria

The above alternatives will be evaluated against the following six criteria to compare the potential outcomes. Each criterion was designed to capture an important element that the City would consider before approving any alternative.

Change in Housing Supply

This criterion is the number of units expected to be created in the next 10 years as a result of the implementation of each alternative. This will be estimated against the counterfactual that the alternative was not implemented. This calculation will be based on Charlottesville building data and similar programs that have been implemented elsewhere. Rather than a rubric, change in housing supply will be displayed as the estimated change in the number of units created over 10 years in the outcome matrix.

Cost Effectiveness

Cost effectiveness will be the measure of total cost to the City divided by the number of new units of housing created. Ideally it would be per unit of affordable housing but affordability depends on family and unit size and is a standard that is subject to change. The cost will be the personnel and administrative costs of adopting the alternative. The number of units created will be based on Charlottesville building data, current program participation/effectiveness, and similar programs elsewhere. Rather than a rubric, cost effectiveness will be displayed as the estimated cost per unit in the outcome matrix.

Change in Developer Cost

This will be the change in cost per unit as a result of the implemented alternative assumed by developers. This will be calculated primarily based on Charlottesville building data and similar programs that have been implemented elsewhere. The purpose of this criterion is for the City to weigh the impact on the community. For example, if the program is very affordable for the City but would double the cost of development for developers the City may not want to implement it. This could also end up being a negative number (i.e. reducing the cost of development by reducing the regulatory burden) which would be more support for implementing the alternative. Rather than a rubric, change in developer cost will be displayed as the estimated private cost per unit in the outcome matrix.

Public Opinion

Public acceptance will be very important for the effective implementation of any of these alternatives because housing is a sensitive topic in Charlottesville. Part of the Planning Commission's Comprehensive Plan preparation includes widespread public outreach and opinion polling. This will be the primary source for this criterion. All the survey responses are publicly available. The survey asked people to rank a series of issues with three options: Most Critical (i.e., needs to be a priority in this plan update); Less Important (i.e., should be addressed after other, more pressing, issues); Not a Major Area of Concern Right Now. The relevant questions used in this analysis are:

- Community design (for example: building design and density, mix of uses and demographics in neighborhoods, zoning regulations, protection of historic resources, community character)
- Housing (for example: affordability/availability at all price points, availability of housing options)
- Racial Equity (Ensuring that all people can access the same housing opportunities regardless of racial identity.)
- Displacement or Gentrification (Offering ways to reduce the number of people being displaced from their communities because of rising costs, neighborhood cultural changes, or other factors.)
- Rental Affordability (Ensuring fair and reasonable rental options for people of all incomes.)
- Housing Supply (Ensuring the availability of housing options that can meet the needs of a wide range of households, including housing of different sizes and types.)
- Location of affordable housing options (Ensuring accessibility to employment, public transportation/bus, schooling, healthcare, and other needs.)

Each of these questions also has a text box for respondents to include additional thoughts which will also inform the ranking.

1	Weak support 0-24%
2	Moderate support 25-49%
3	Sufficient support 50-74%
4	Strong support >75%

Speed of Implementation/Effect

This criterion measures how quickly the effects of the proposed alternative would be observable. This includes the time for the proposal to take effect (i.e. administrative time to change the code after approval) plus the time for the market to react (i.e. time for developers to complete a new project after the zoning code is changed). The time will start once Council has adopted the change so it will not capture the time to build support and lobby Council. This will also consider administrative feasibility. This will be based on administrative information from the Planning Commission and similar programs that have been implemented elsewhere.

1	5-10 years
2	2-5 years
3	1-2 years
4	<1 year

Placement in Opportunity Neighborhoods

This criterion is intended to get at the Planning Commission's racial equity goals. It will estimate the likelihood of the new units created being located in opportunity neighborhoods (i.e. neighborhoods with good schools, access to transit, parks, etc.). BIPOC are disproportionately represented in the low-income renter population and have suffered the consequences of racially motivated housing policy throughout history in Charlottesville and nationwide. The Planning Commission has identified racial equity as a key component to any changes moving forward thus any alternative recommended must not worsen these patterns and must actively work against them. As part of the racial equity goal, the City wants to ensure that new housing is being built all over the city and not concentrated in high poverty communities. This will be measured by looking at the impact of the alternative, capacity for neighborhoods to develop more housing, the presence of HOAs, and other relevant factors. Neighborhoods will be categorized high/low opportunity and high/low density using the Opportunity Atlas.

1	Unlikely to be located in opportunity neighborhoods
2	Somewhat likely to be located in opportunity neighborhoods
3	Strong likelihood to be located in opportunity neighborhoods
4	Very likely to be located in opportunity neighborhoods

Evaluation

The four potential alternatives will be evaluated against the six criteria to compare their outcomes. The four alternatives are: (1) increasing housing density throughout the city through upzoning; (2) expanding the existing inclusionary zoning statute to include all new multifamily housing; and (3) increasing the cash fee developers can pay in lieu of complying with the inclusionary zoning statute; and (4) redirecting the city's affordable housing funds from construction to rental assistance vouchers. The criteria for evaluation are: (1) the expected impact on the rental housing supply; (2) cost effectiveness or the cost per new unit of rental housing divided by the cost to the City; (3) the cost to private actors like developers; (4) public opinion; (5) the speed with which the alternative could be implemented and effects seen; and (6) the potential for the placement of new units in opportunity neighborhoods.

All analysis is forecasted 10 years into the future. The findings are summarized in the outcome matrix following this section and a detailed explanation of the calculations can be found in Appendix A.

Upzoning

This alternative would eliminate single family zoning (R-1, R-1(S), R-1U, and R-1U(S)) in Charlottesville. The new lowest density designation would be two-family homes (R-2, R-2U). This would not eliminate single family homes or the right to build them, rather it would allow duplexes by right everywhere in the City. The purpose of this alternative is to allow somewhat greater density by right which will increase the supply of housing and put downward pressure on housing costs.

Studies from Boston and Portland tracking the impact of upzoning show a range of 18-67% increase in units produced following upzoning (Dong, 2021; Schuetz, 2007). This is a large range and given the small size of Charlottesville, I estimate a 20% increase in units produced by this policy. In 2020, 95 new units were created in Charlottesville (*Real Estate Residential Details*, n.d.). I estimated a three-year ramp up period until we can expect 20% growth each year. Over the next ten years Charlottesville should expect 162 additional units above would have been created without upzoning. The total cost is made up of administrative time to rewrite the zoning code for which I estimated 1,200 hours (5 people working full time for one month) plus 5 hours per week for the next 10 years to capture any ongoing administrative tasks. This comes out to a total cost of \$95,760 or just over \$593 per unit.

The cost of this program is purely administrative for the City. Private citizens, landowners, and developers will not incur any cost from this change. In fact, early research from Minneapolis' recent elimination of single-family zoning showed that single family homes in locations desirable for density saw 3-5% increases in home value attributable to their potential for development (Kuhlmann, 2021). This effect is too small to make a strong case for home value increase, but it

shows that homeowners are not harmed by upzoning and there is no additional cost to developers.

Based on the community survey, upzoning has moderate support. It is called out by many respondents as a desired policy but it does not cross the 50% threshold for support, therefore it receives a two in public opinion (Moran, n.d.). The speed of implementation will be quick for this alternative however the effect will lag behind because of development and construction timelines. I have estimated that the change in the zoning code will happen within one year and then the full effect should be seen by year four; therefore, upzoning earned a 2 for speed of implementation.

This alternative will apply to the whole City equally, however where these new units are created will depend on property owners' and developers' preferences. The easiest place to build new units is undeveloped land. There 54.45 acres of available vacant land in the City, only 0.71 acres of which is located in high median income neighborhoods (*Land For Sale Near Me*, n.d.).⁹ Since vacant lots are the easiest to develop and the majority of vacant lots are located in relatively low-income neighborhoods, this alternative is not likely to produce a substantial number of units in high opportunity neighborhoods. This alternative earned a 1 for opportunity neighborhood placement.

Expand Inclusionary Zoning

Charlottesville currently has an inclusionary zoning statute which requires developments that are approved for rezoning or special use application to include affordable units, build them elsewhere, or make a cash contribution to the Affordable Housing Fund (*Affordable Dwelling Units*). This statute is only applied to developments that apply for and are approved for rezoning or a special use permit. This means that any apartment buildings built within the areas already zoned for multifamily (R-3, R-UMD, R-UHD) are not required to comply with the statute. Recently, the law has changed to allow Charlottesville to apply inclusionary zoning to all new developments (*Affordable Dwelling Unit Ordinances in Certain Localities*, 2020). This alternative would apply Charlottesville's existing inclusionary zoning statute to all new multifamily developments.

In 2020, 46 multifamily units were completed in Charlottesville (Wrabel, 2021). One of these projects did receive a special use permit and was required to comply with the inclusionary zoning statute. The Kenilworth contributed \$75,780 to the fund in lieu of building affordable units. The other project was located in areas zoned for multifamily housing, thus was not subject to the inclusionary zoning statute. Assuming these developers would also choose the cash fee in lieu of constructing affordable units, the second project would have contributed an additional \$107,687 to the affordable housing fund. Assuming this is a representative year, applying this alternative would produce \$1,076,70 for the affordable housing fund over the next decade. Those funds would be directed to affordable housing construction and would create about five units.

The cost to the City is administrative, the City will have to amend the zoning code and enforce this statute moving forward. I have estimated \$146,160 in costs to the City. This cost represents five

⁹ See the maps in Appendix B for reference.

people working full time for half a month to edit the zoning code and 10 hours per week for the next ten years to capture ongoing enforcement. The cost to the City is greater than upzoning because it will require more effort to enforce moving forward since it is not purely a market solution. The cost effectiveness for expanding inclusionary zoning is \$29,232.

The burden of this alternative is primarily borne by developers who must now provide affordable units or contribute to the Affordable Housing Fund on more projects than they previously did. We can assume, developers will choose to contribute \$2 per square foot to the Affordable Housing Fund, rather than build affordable units, which will cost about \$1,0768,70 over 10 years. Developers will be the primary opponents to this alternative. Many community members expressed interest in this alternative in the community survey because it puts the burden on the developers who are perceived to be in a better position to bear the burden than the City and its low-income renters. This alternative earned a three in public opinion.

This alternative can be implemented quickly and the effect should also be quick. From the City's perspective this is an edit of the zoning code and ongoing enforcement which is not wholly new, it will just be applied to more projects than under the current law. All new projects go through several rounds of approvals and this alternative would be included in that process (as it currently is for projects receiving rezoning/special use permits). The effect would not lag substantially because most developers will choose the cash contribution over constructing affordable units. I estimate that this alternative will be fully integrated into the approvals process and contributions will consistently be collected within 1-2 years, therefore this alternative earned a three in speed of implementation.

It is unlikely that this alternative will affect the siting of multifamily units in the City because the effect on developers is minimal. If anything, this may encourage multifamily developments in higher opportunity neighborhoods that are not zoned for multi-family use because the additional cost of complying with the inclusionary zoning statute will apply everywhere in the City. In other words, this alternative would bring the cost of developing in high opportunity (primarily single-family) neighborhoods and lower opportunity (usually multi-family) neighborhoods closer which would increase the likelihood of developing in high opportunity neighborhoods. It is not a silver bullet because land will still be more expensive in high opportunity neighborhoods and there will continue to be pushback from existing residents, but it moves the needle slightly towards equitable siting. Expanding inclusionary zoning earns a 2 for opportunity neighborhood placement.

[Increase Inclusionary Zoning Fees](#)

Inclusionary zoning is only as strong as the statute behind it. Charlottesville's inclusionary zoning statute allows developers to opt out of providing affordable housing by contributing \$2 per square foot to the Affordable Housing Fund (*Affordable Dwelling Units*). The national average cost for multifamily construction is \$125 per square foot (*How Much Does It Cost To Build An Apartment Complex?*, n.d.). The proposition presented by Charlottesville's inclusionary zoning statute is that developers build affordable housing at approximately \$125 per square foot or donate towards

affordable housing at \$2 per square foot.¹⁰ The cash contributions are collected by the City and granted to developers who are building affordable housing. There are administrative costs along the way that reduce the \$2 to even less for the construction of new affordable units. Several cities and counties in Northern Virginia have used inclusionary zoning for decades. Cash contributions in lieu of building affordable housing range from \$2.05-\$10.98 per square foot up to the value of the land on which the affordable units would have been built (*City of Alexandria Procedures Regarding Affordable Housing Contributions*, 2019; *Land Use & Zoning Tools - Housing - Arlington County*, n.d.; *Zoning Ordinance General Regulations*, n.d.). This alternative would increase the cash contribution to \$5 per square foot for developers who chose not to build affordable units in their projects.

Raising the contribution to \$5 per square foot is not likely to induce developers to choose to build affordable units onsite, however it would increase the funds contributed to the Affordable Housing Fund by 60%. This change may seem modest; however, it would substantially impact affordable housing construction without making the cost of development in Charlottesville prohibitive. There is a point at which inclusionary zoning can stifle development because the cost is too high. Along those lines, the City does not want to use inclusionary zoning to drive the rents on market rate units higher because this would make the City less affordable overall.

This alternative will likely result in increased contributions to the Affordable Housing Fund. In 2020, the City collected \$75,780 at the \$2 rate, if the rate had been \$5 the City would have collected \$189,450. Using the average cost of constructing one multifamily unit (\$201,978), the additional \$113,670 generated annually by this alternative will produce about 9 units over 10 years.

The cost to the City is purely administrative. The City will have to amend its zoning ordinance and will continue to run the program as it currently does. I have estimated 120 hours (5 people working full time for half a month) plus 5 hours per week for the next 10 years to capture any ongoing administrative tasks. This comes out to a total cost of \$80,640 or \$8,597 per unit.

The private cost will be the change in developers' contributions to the Affordable Housing Fund, \$113,670 annually. Measuring this cost against the number of new units created, the private cost is \$200,000 per unit which is astronomical. Looking at the average cost of construction of about \$201,543, it seems like developers are fully paying the cost of constructing the new affordable units. It is important to remember that this is a flow of contributions coming in over time, not just a single developer bearing this burden. Additionally, the developers are spreading this cost over multiple market rate units. Regardless of how the cost is spread over time, developers are likely to be strong opponents of this alternative. Similar to expanding inclusionary zoning, there is substantial support from the public survey for this type of alternative, therefore it earns a three in public opinion.

¹⁰ For context, Chicago's contribution in lieu of construction fee is \$100,000 per unit. Chicago is obviously a much more expensive city but it goes to show what cities that are serious about affordable housing are doing.

The speed of implementation should be quick. Similar to expanding inclusionary zoning, the process for collecting these contributions is already in place. The City will have to amend the zoning code to increase the dollar amount and then continue to enforce the program as it has been. Similarly, developers are used to paying this fee, while it may slow down developments at first while they rework their numbers there is no evidence that development would substantially lag behind because of the substantial unmet demand for market rate units. I estimate that this alternative would be fully operational in 1-2 years so this alternative earns a 3 for speed of implementation.

Making development more expensive is likely to push developers to build in lower cost areas which are generally low-opportunity neighborhoods. Without any guardrails, developers will be looking to make up this additional cost elsewhere and high-opportunity neighborhoods come with high price tags. This alternative earns a 1 for opportunity neighborhood placement.

Housing Vouchers

The City currently manages an Affordable Housing Fund which supports the construction of new affordable units. It is funded by cash contributions from developers who have opted out of participating in the City's inclusionary zoning statute. This alternative would redirect those funds into a housing voucher program which would provide rental assistance to low income renters who could use the vouchers to find rental housing on the private market.¹¹

There are two primary reasons for this proposal. First, vouchers are substantially less expensive than the cost of constructing a new unit, therefore more households could be served with vouchers than with construction subsidies (Katz et al., 2003). Second, vouchers provide more immediate relief whereas constructing a new unit or complex takes years.

Funding a voucher program will not create new units in the traditional sense. Rather, these vouchers will make existing units newly accessible to renters who otherwise could not afford them. Based on the past 10 years of allocations from the Affordable Housing Fund, I estimate that \$1 million will be available annually for housing vouchers (*Charlottesville Affordable Housing Fund / Charlottesville, VA, n.d.*). Data from the Department of Housing and Urban Development and Charlottesville Redevelopment and Housing Authority show that the administrative costs of running a voucher program range from \$52-\$79 per unit per month (*Housing Choice Voucher Program - Administrative Fee Study, 2015; Operating Budget, 2021*). I estimate that the cost will be on the lower end because the size of the program will be much smaller than a typical public housing authority's program. Next, I estimated an average voucher of \$800 per month per household, this would vary based on household size and income. This is almost double the average subsidy the Charlottesville Redevelopment and Housing Authority provides; however, this program would only focus on people living in the City of Charlottesville which is more expensive than the county and surrounding areas (*Operating Budget, 2021*). The range for the potential number of vouchers created based on all the related factors is 48 to 518. My conservative

¹¹ The voucher program would be the existing Charlottesville Supplemental Rental Assistance Program.

estimates suggest that the voucher program would provide 98 vouchers to low income families who otherwise could not afford housing. This program would cost \$1 million annually or \$10,224 per unit per year.

The cost of this program would exclusively be borne by the City. No landlords or other private entities would be impacted except the administrative burden of cashing two checks (one from the tenant and one from the City) each month. Because there is no private cost and voucher programs are nearly invisible to the community this is a fairly popular solution. This alternative earns a three in public opinion.

The timeline for implementation for this alternative is quite short for two reasons. First, the City already has a process for collecting and distributing these funds. Second, it is within the City's control and there is no delay for developers to adjust or construction. The program could be running within a year from the time City Council adopts the change to full implementation. To be conservative, this alternative earns a 3 in speed of implementation.

Finally, placement in opportunity neighborhoods is a measure of racial equity. There is widespread discrimination against renters who use vouchers (Cunningham, 2018). This discrimination is higher in low poverty communities, typically called "high opportunity" because of access to better schools and jobs (Cunningham, 2018). Research shows that historically redlined neighborhoods are home to a disproportionate number of voucher-assisted households today indicating that the harmful racial lines drawn in the mid-1900s persist today (Mazzara et al., 2019). Many states and localities have adopted source of income protection to prevent this type of discrimination, neither Virginia nor Charlottesville have adopted such policies. Because of this widespread discrimination and the lack of protections, housing vouchers earn a 1 in likelihood to be placed in opportunity neighborhoods.

Outcome Matrix

	Upzoning	Expand Inclusionary Zoning	Increase Inclusionary Zoning Fees	Housing Vouchers
Change in Housing Supply	162 units	5 units	9 units	98 units
Cost Effectiveness	\$593	\$29,232	\$8,597	\$10,224
Change in Private Cost	-	\$203,162	\$201,543	-
Public Opinion	2	3	3	3
Speed of Implementation	2	3	3	3
Placement in Opportunity Neighborhoods	1	2	1	1

This matrix summarizes the analysis of this report. The calculations and explanations are found in the Evaluation section above and Appendix A below. All criteria are weighted equally in this analysis however the raw numbers are included so users of this report can draw their own conclusions.

Recommendation

Based on this comprehensive evaluation, it is recommended that the City of Charlottesville pursue upzoning by eliminating the single-family zoning designation. This alternative has the highest number of potential new units and is very low cost. While the effect of implementation will lag due to development and construction time, it will catch up and continue to be a source of housing in perpetuity. As discussed, upzoning is likely to occur (at least initially) in vacant areas which are primarily located in low opportunity neighborhoods. Unfortunately, none of the alternatives are especially likely to create affordable housing opportunities in high opportunity neighborhoods. Upzoning has the potential to create new areas of opportunity if commercial development, transportation, and goods follow the new housing supply.

No single intervention will address all of Charlottesville's housing needs. Upzoning is a start to meeting demand and lowering cost. Its affordability and cost effectiveness should be a selling point for the City and make it an attractive option to address the overwhelming public support for a housing intervention in the City. The next best option is the housing voucher program because it will open up 92 units to households who otherwise could not afford them. It is slightly more popular than upzoning because it operates within the existing housing market and does not require new construction. It is fairly expensive for the City but could be implemented quickly as the foundation for the program already exists.

Neither inclusionary zoning proposal would make a substantial impact on the number of units created. Additionally, they are very expensive for developers which may result in less development or higher market rate rents. Inclusionary zoning could be successful if adopted in conjunction with zoning reform that made multifamily construction easier in Charlottesville but on its own it is unlikely to make a substantial impact in either supply or cost.

Implementation

Upzoning, in this case by eliminating single-family zoning, is technically a very simple task. The Planning Commission will make this recommendation to City Council. Once City Council approves the change to the zoning code it will be adopted as law in Charlottesville. This policy proposal does not put any responsibilities or tasks onto any parties, rather it removes a regulatory hurdle and waits for the market to react. As such the implementation is as simple as striking out a few lines in the zoning code. In reality, the steps to successfully passing this proposal and avoiding community discontent will be much more nuanced.

The primary hurdle to implementing this recommendation is resident opposition leading to Councilors rejecting this proposal. A key stakeholder in any local government decisions is existing residents. In a recent community survey conducted by the Planning Commission, residents were asked their opinions on a series of issues facing the community. Eighty-five percent of respondents responded that housing was the most critical need to be addressed (Moran, n.d.). Of the issues effecting housing, rental 80% of respondents cited housing affordability as most critical and 69% chose housing supply as most critical (Moran, n.d.).¹² Overall, this indicates a strong level of public support for an intervention to improve housing affordability in the City.

Eliminating single family zoning in particular is likely to cause unrest among existing owners of single-family homes who fear substantial changes to their communities. This constituency is already making their position known both in the Planning Commission's survey and through public comment at City Council meetings. Single-family homeowners are what Patashnik and Weaver would call "imagined losers" (Patashnik & Weaver, 2020). There is a perception that single family homeowners will lose out when upzoning is implemented but there is no evidence that there will be widespread razing of neighborhoods to build greater density. In fact, some research has indicated that single-family homes experience an increase in value because of the potential for greater development (Kuhlmann, 2021). In other words, single family homeowners are not really at risk of losing anything and that message must be made clear. While they are most likely to oppose greater density, it is important to remember that single-family homeowners are not monolithic, many are engaged in the push for greater density or have no opinion at all.

Minneapolis famously eliminated single family zoning in 2018. Reviewing the path to success in Minneapolis provides a helpful template for Charlottesville. There are four lessons Charlottesville can adapt from Minneapolis to pass zoning reform: (1) secure a champion on City Council, (2) produce an engaging information campaign, (3) connect the dots to the incentives and impacts of housing policy, and (4) prioritize face-to-face organizing.

First, a vocal supporter on City Council is critical to moving the proposal forward. City Councilors have a large platform within the City and can speak publicly on the issue. They also have access to critical information about the housing supply and needs of the community and when one steps forward it makes it easier for others to show their support. Like Minneapolis, Charlottesville has a

¹² The options were "Not an area of concern," "Less important," and "Most Critical."

City Councilor who ran for council to address the affordable housing needs in the community. Councilor Michal Payne would be an ideal champion for this proposal because he campaigned heavily on affordable housing calling housing a human right and supporting major zoning reform (*Democratic Candidates for City Council Emphasize Affordable Housing, Living as Key Issues*, n.d.; *Michael Payne - Cvillepedia*, n.d.). The Planning Commission and advocates should work with Payne to move this proposal through Council and into implementation. Three of the four other Councilors campaigned on affordable housing. Although none have been as vocal as Payne about zoning reform, there is a baseline of support for a housing intervention from Council which bodes well for implementation.

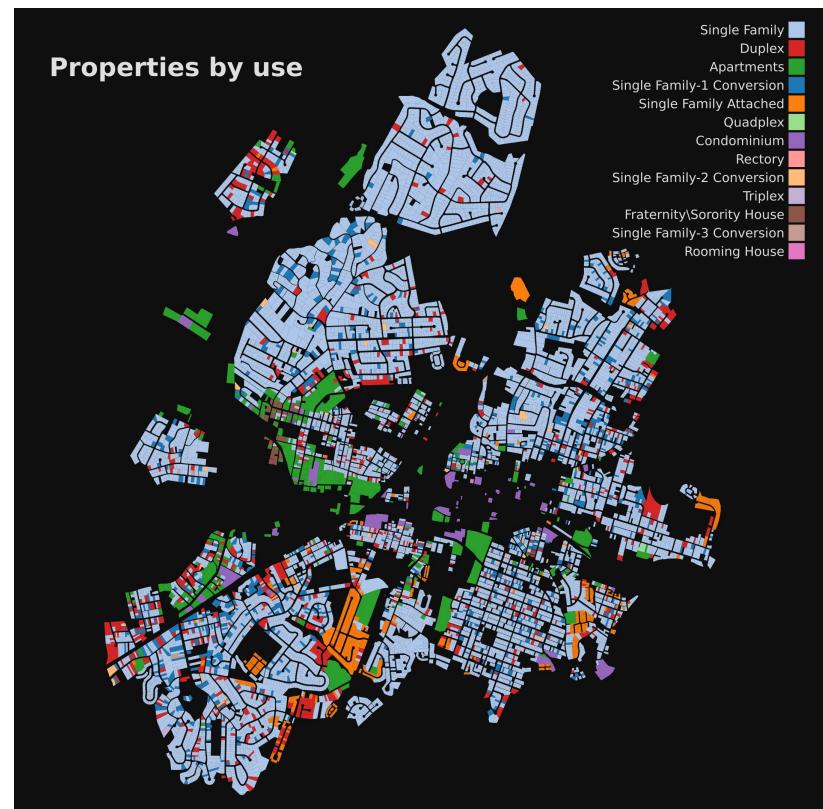
Second, advocates in Minneapolis acknowledged that housing policy is boring and people were responding to the negative emotions evoked by opponents, not actually understanding the proposal and its impacts. Opponents of density and affordable housing are known as NIMBYs, short for not in my backyard. Housing advocates in Minneapolis and elsewhere have named themselves YIMBYs (yes in my backyard). Minneapolis YIMBYs started an “anti-propaganda” campaign to battle the NIMBY fear mongering about upzoning (“Seattle and Minneapolis,” 2019). They created memes and posters to get attention from residents who otherwise were not engaged in the local zoning conversation. They also focused on the emotional side of housing policy to combat fear of change that was pushed by NIMBYs. This lesson can be applied in Charlottesville as well. As noted, there is a movement for upzoning in Charlottesville. Groups like IMPACT Charlottesville and Legal Aid Justice Center are already working on this issue in addition to individual citizens who are advocating through the planning process and City Council meetings (*IMPACT Charlottesville Pushes Affordable Housing Reform, Plans next Advocacy Efforts*, n.d.; *Housing - Legal Aid Justice Center*, n.d.). Ideally, groups of supporters will coalesce around this proposal and come together to organize this advocacy campaign. It is not within the Planning Commissions purview to organize this group but they can make public announcements of the policy proposal to inform and hopefully activate residents to organize themselves.

Third, housing policy effects much of our lives but it is not always clear to the average person what the larger effects of zoning policy are. For example, advocates in Minneapolis built a broader coalition by connecting with other interest groups and showing how their cause interacts with housing policy. The easiest bridge to build is with environmental groups, there is a substantial amount of research linking housing sprawl and single-family zoning with negative environmental impacts especially CO₂ emissions (Wiener & Kammen, 2019). Local environmental groups, like Community Climate Collaborative, have identified housing as an area in need of improvement, so they are likely supporters of this proposal (*C3's Policy Recommendations for Municipal Planning*, 2020). Other groups including those focused on racial equity, LGBTQ+ rights, children and seniors, and poverty are likely supporters of zoning reform and should be engaged in this process.

Another prong of connecting the dots is showing the negative incentives of our current zoning ordinance. It is important to show that maintaining the status quo is a choice with real consequences. Not only does it make the existing housing more expensive by limiting supply, it encourages redevelopment for the wealthy. Because the demand for housing is so high and many neighborhoods only allow single family zoning, developers have an incentive to knock down small

homes and replace them with expensive McMansions (“Seattle and Minneapolis,” 2019). This not only changes the makeup of the neighborhood (a common fear of upzoning) but it also makes housing more expensive. The only beneficiaries are the people who sold their house to be demolished and developers who make a profit off the transformation. Showing residents how housing policy connects to their interests and making the case that the status quo is not neutral will help build a coalition of support for this proposal.

Finally, organizers in Minneapolis cited face-to-face organizing as their most impactful action. While there are loud voices on both sides of the issue, most people are not engaged in housing policy discussions in Charlottesville so face-to-face organizing is critical to getting people involved. This means knocking on doors and making zoning ordinances accessible to the average resident. In Minneapolis, they organized neighborhood walks and invited City Councilors. The purpose was the get out and really see what housing looks like in their city. They also highlighted where small apartments and multi-family homes already existed within their single-family neighborhoods to show that this concept was not totally foreign or as scary as it may seem (“Seattle and Minneapolis,” 2019). In Charlottesville, organizing neighborhood walks in Belmont and Woolen Mills would be a great way to show that different housing types can peacefully co-exist. In fact, as the image here shows, there are no true single-family neighborhoods despite what the zoning code suggests (Stolzenberg, 2020). Through grandfathering in existing uses and special use permits the City’s housing is more diverse than residents may think.¹³



The key to implementing upzoning in Charlottesville is to build a broad coalition of community support. According to Patashnik and Weaver, there are three key elements to sustaining a public policy: robust political support, perception of affordability, and perception of effectiveness (Patashnik & Weaver, 2020). This policy is very affordable and will be effective at increasing the housing supply in Charlottesville. The biggest hurdle will be the political support which is where the lessons from Minneapolis will serve as a blueprint for Charlottesville NIMBYs. It is possible to enact upzoning in Charlottesville, it is just a matter of organizing supporters.

¹³ The light blue represents single family homes. It is still clearly the majority of the City but the various other colors show what is sprinkled throughout the majority single-family use.

Appendices

A: Evaluation Methodology

Upzoning

Change in Housing Supply

Minimum increase in housing supply: 18.4%

Maximum increase in housing supply: 67%

My estimate: 20%

Years to full production capacity: 3

Total housing units built in 2020: 95

Year	1	2	3	4	5	6	7	8	9	10	Total	Change
Status Quo	95	95	95	95	95	95	95	95	95	95	950	-
18.4% Increase	99.37	103.74	108.11	112.48	112.48	112.48	112.48	112.48	112.48	112.48	1,099	149
67% Increase	110.9125	126.825	142.7375	158.65	158.65	158.65	158.65	158.65	158.65	158.65	1,491	541
My Estimate	99.75	104.5	109.25	114	114	114	114	114	114	114	1,112	162

Cost Effectiveness

Average weekly wage for local government employee	\$ 1,008
Average hourly wage for local government employee	\$ 25.20
# of people needed to update	5
Hours to update code	240
Ongoing hours/week	5
Total cost	\$ 95,760
Number of units created	162
Cost effectiveness	\$ 592.94

Expand Inclusionary Zoning

Change in Housing Supply

2020 Contribution from Kenilworth	\$75,780
Contribution/unit	\$3,988
# Units in no contribution building	27
Contribution not collected	\$107,676
Over 10 years	\$1,076,760
Cost/unit to build	\$201,978
# of units built with new contributions	5.3

Cost Effectiveness

Average weekly wage for local government employee	\$ 1,008
Average hourly wage for local government employee	\$ 25.20
# of people needed to update	5
Hours to update code	120
Ongoing hours/week	10
Total cost	\$ 146,160
Number of units created	5
Cost effectiveness	\$ 29,232

Change in Private Cost

Total Developer Contribution	\$ 1,076,760
# of units created	5.3
Private Cost/Unit	\$ 203,162

Increase Inclusionary Zoning Fees

Change in Housing Supply

2020 Contribution	\$75,780
2020 Contribution at \$5 rate	\$189,450
Over 10 Years	\$1,894,500
Cost/unit to build	\$ 201,978
Number of units built	9.4

Cost Effectiveness

Average weekly wage for local government employee	\$ 1,008
Average hourly wage for local government employee	\$ 25.20
# of people needed to update	5
Hours to update code	120
Ongoing hours/week	5
Total cost	\$ 80,640
Number of units created	9.4
Cost effectiveness	\$ 8,597

Change in Private Cost

Total Developer Contribution	\$ 1,894,500
# of units created	9.4
Private Cost/Unit	\$ 201,543

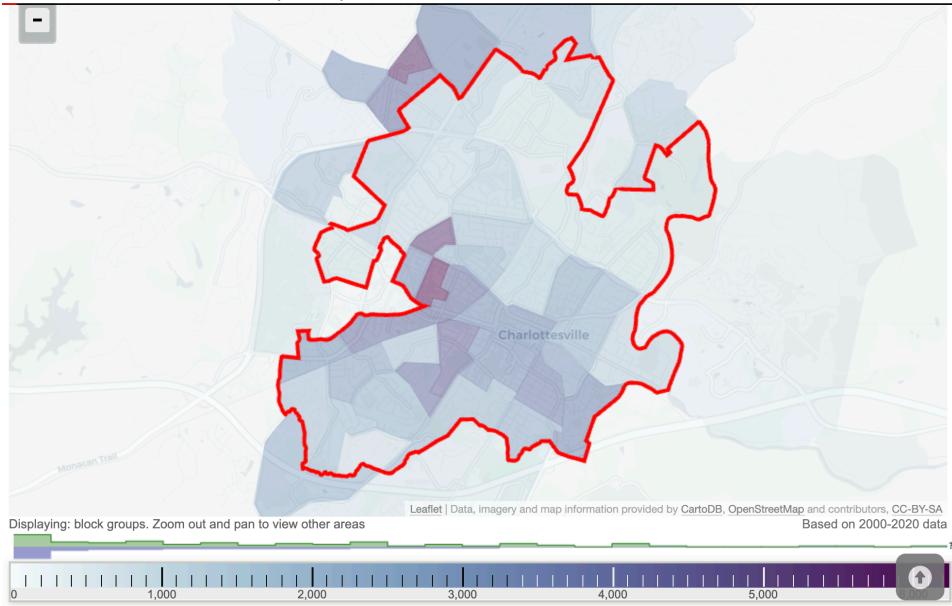
Housing Vouchers

Change in Housing Supply

Program Budget	\$1,000,000
Rent/Unit/Month	\$800
Admin Cost/Unit/Month	\$52
Total Cost/Unit/Year	\$10,224
Number of Units Served	97.8

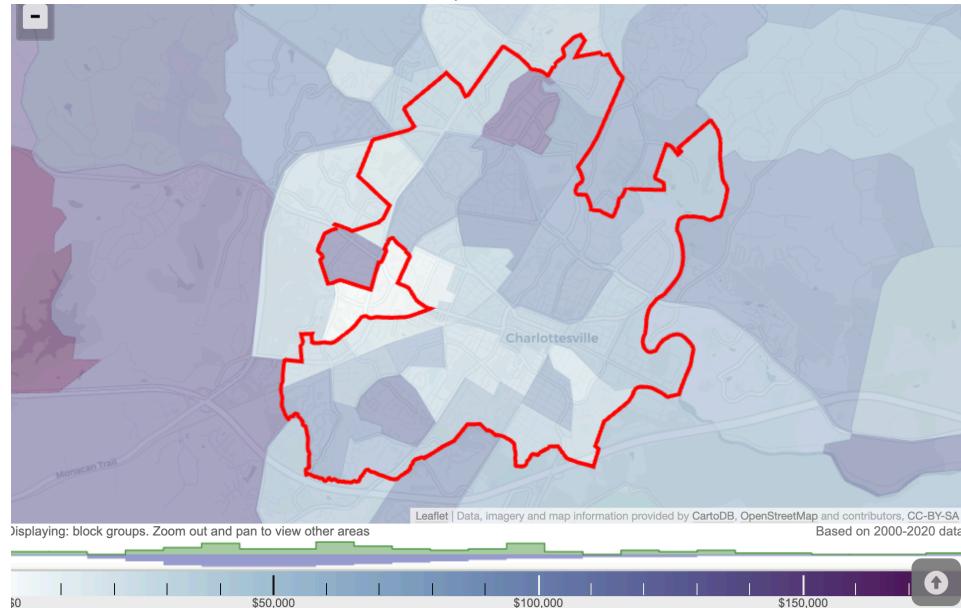
B: Density, Median Income, and Vacant Land Maps

Charlottesville Density Map



(Charlottesville, Virginia, n.d.)

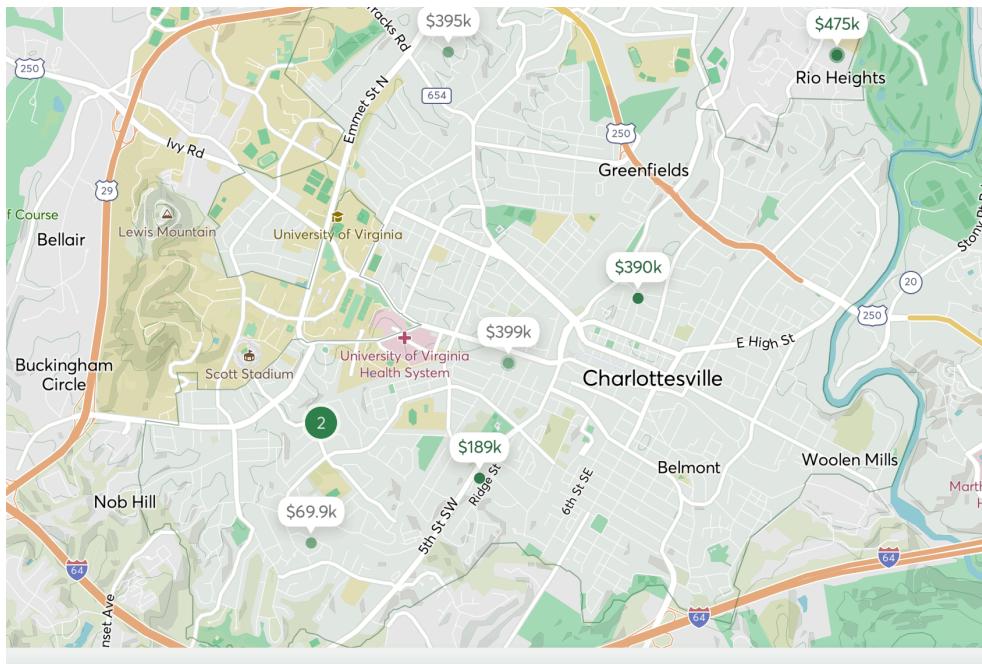
Charlottesville Median Income Map



(Charlottesville, Virginia, n.d.)

Comparing the density map to the median income map, we can see that density is currently concentrated in lower income areas of the City. This is indicative of the current zoning code that sites denser housing types away from high income neighborhoods and the likely outcome high income neighborhoods resisting density.

Charlottesville Vacant Land Map



(Land For Sale Near Me, n.d.)

Comparing the vacant land map to the median income map, we can see that most of the available vacant land is located in lower income neighborhoods. This shows that it is likely any of the new housing built through the proposed alternatives would be sited in those neighborhoods.

C: Costs to Society

The problem of unaffordable housing manifests itself in a number of ways including homelessness, increased use of emergency services, worse education and employment outcomes, inability to afford other necessities, overcrowding or living in substandard conditions, and more. The biggest challenge in quantifying these costs is not wrongfully conflating issues. For example, there is a lot of data on the costs of homelessness but it is not necessarily true that every incidence of homelessness is caused by the cost of housing. Additionally, it is challenging to quantify the tradeoffs people make in order to afford housing. For example, we may know how many people make use of food banks in Charlottesville but we do not know whether their housing costs are reason they need food assistance. For education and health care tradeoffs, it is impossible to get a city-wide analysis on the educational opportunities or preventative medical care forgone as a result of housing costs. We know anecdotally and from qualitative surveys in other communities that people are making these tradeoffs but it is difficult to assign a cost to those tradeoffs. Nevertheless, the discussion below begins to estimate the cost to society of unaffordable housing.

Homelessness

Homelessness is a visible symptom of housing unaffordability. Homelessness can be caused by a number of other factors so not all costs associated with homelessness are attributable to the lack of affordable housing but the costs associated with homelessness are a good place to start. According to the 2019 annual point in time count, there were 165 people experiencing homelessness in Charlottesville (Department of Housing and Urban Development, 2019).¹⁴ Charlottesville is somewhat unique in that the shelter that serves the most people, The Haven, is exclusively a day shelter meaning guests do not stay overnight. Serving about 65 daytime guests, which includes breakfast, showers, laundry facilities, providing toiletries and supplies, housing counselling, and other services costs \$1,250 per day, that is \$456,250 per year (*Give Money*, n.d.). Charlottesville has a small overnight shelter through the Salvation Army. The Salvation Army provides similar services as The Haven and offers 58 beds for overnight guests (*Ways We Help*, n.d.). The Charlottesville Salvation Army does not have their operating costs posted publicly but it seems reasonable to assume that its expenses are similar to The Haven because they serve similar numbers and a similar population. Combining the expenses of the two shelters, we spend about \$1 million annually on shelter services for people experiencing homelessness in Charlottesville.

Homelessness is also associated with other public system costs including emergency rooms and criminal justice system interactions. Most research on housing interventions focuses on permanent supportive housing for chronically homeless individuals. This research generally shows cost savings across public systems (Rog et al., 2014). The research is not fully applicable here because we are not looking specifically at chronically homeless individuals and we are not looking to provide supportive services in addition to housing solutions.

¹⁴ The point in time count is an annual survey of people experiencing homelessness nationwide.

Housing Quality

Expensive housing markets push low income renters into substandard living conditions. The Urban Institute found that households living in poor quality housing had a 50% greater chance of an asthma-related trip to the emergency department in the past year compared to those living in higher quality housing (Hughes et al., 2018). In 2016, the average trip to the emergency room cost \$1,917 (Luhby, 2018). Additional risks include lead poisoning and low birth weight (Brennan et al., 2017). We can assume that many of the low-income households who are living in substandard housing are uninsured or insured through government programs meaning that the public is absorbing the costs of these emergency room visits one way or another.

Health Costs

Housing that is unaffordable causes mental and physical stress leading to poor health outcomes. Adults who are unable to afford rent are more likely to smoke, be in fair or poor health, struggle with depression and other mental health concerns, delay doctor visits, and lack sufficient sleep compared to those who never or rarely worry about affording housing expenses (Stahre et al., 2015). All of these health concerns lead to increased medical costs borne by society. The stress associated with unaffordable housing also impacts children. Children in households that struggle to afford housing are more likely to have behavioral, academic, or psychiatric disorders and experience food insecurity and abuse (Brennan et al., 2017). These problems have both immediate costs as well as long term effects.

Externalities

Because Charlottesville is unaffordable for many low-income renters, people who would otherwise live in the city choose to live in the surrounding counties. Low earners who work in Charlottesville and live elsewhere have long commutes, likely by car. This leads to CO₂ emissions that would not be created if they were able to afford to live in the city closer to their jobs and public transit. Relatedly, those who live outside the city are likely shopping and doing business outside the city as well. Instead of shopping at grocery stores in the city of Charlottesville or hiring a plumber from the city they likely opt for stores and services closer to where they live. The city of Charlottesville is therefore missing out on sales tax revenue because people cannot afford to live in the city. As the largest employers in the city, UVA is directly affected by its low wage workers' inability to live near their place of employment.

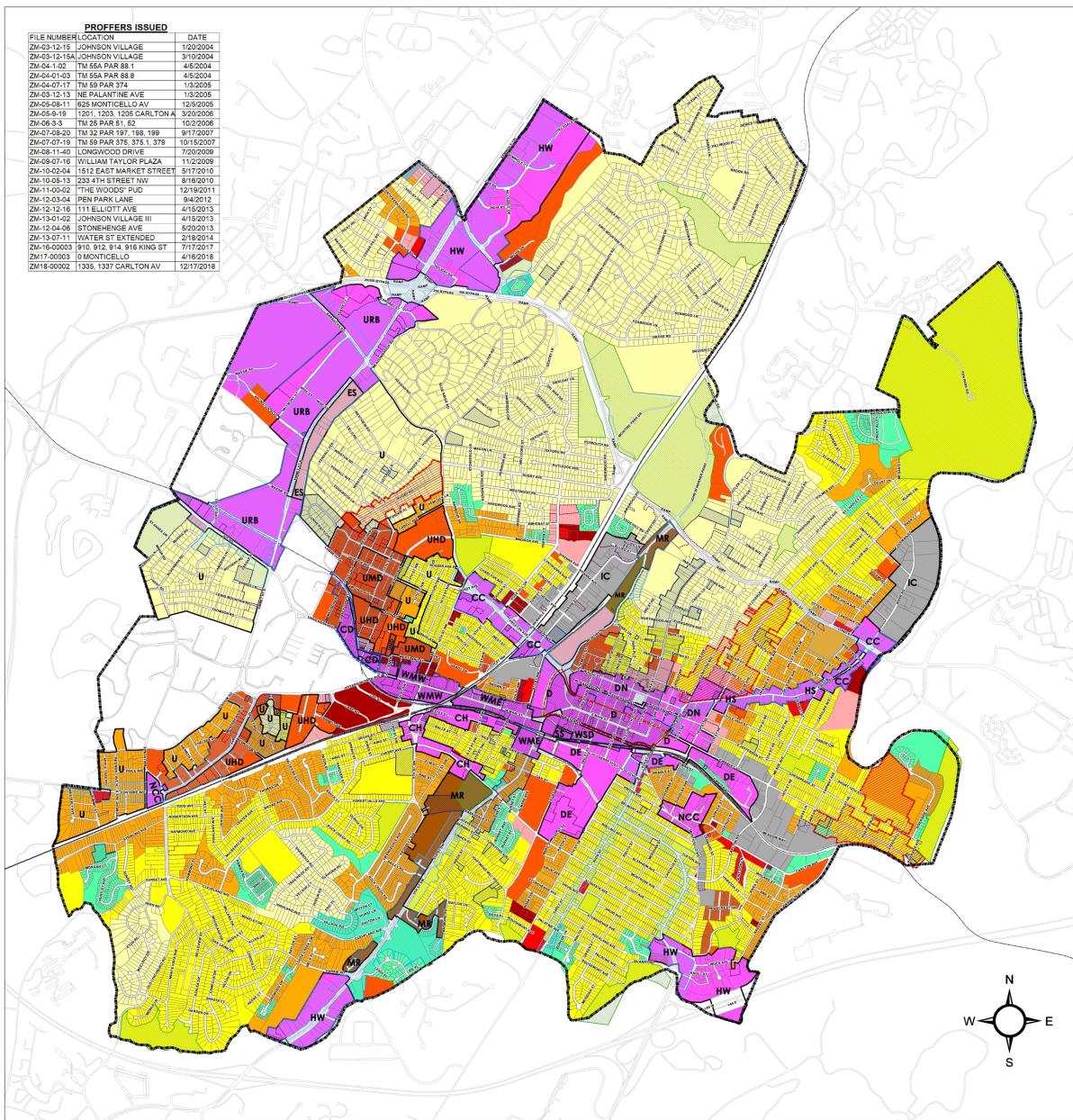
Opportunity Costs

Unaffordable housing leads to housing instability which may force people to move frequently. Moving frequently particularly effects children who may have to switch schools with each move. Studies show that students who frequently change schools lag behind their peers by a year or more in reading and math (Cunningham & MacDonald, 2012). Frequently moving and changing schools disrupts students' routines and social bonds. Schools with a large number of high mobility students are impacted as well as more time and resources have to go towards review and catch

up and there also tends to be lower teacher morale (Cunningham & MacDonald, 2012). The frequent changes add up to students in schools with highly mobile populations being one year behind in math and therefore performing poorly on standardized tests (Cunningham & MacDonald, 2012). When students fall behind in elementary school there are lasting effects impacting high school, post-secondary education, and employment outcomes all of which represent opportunity costs to society.

D: Land Use Map

CITY OF CHARLOTTESVILLE ZONING DISTRICT MAP



Neighborhood Development Services
Approved April 6, 2009

0 0.5 1
Miles

Special Use Permits are identified on the map for general reference only. Refer to the original XTF file for further information.

RESIDENTIAL

U
R-1U
R-1S
R-1SU
R-2
R-2U
R-3
UMD
UHD
MRE
MR
PUD

COMMERCIAL

B-1
B-2
B-3
E
Emmet Street Commercial
OVERLAY DISTRICTS
Public Park Protection
Architectural Design Control Districts and Individually Protected Properties
Historic Conservation District
Entrance Corridors
Corner Parking Zone
Parking Modified Zone
Urban Corridor Parking Zone
Planned Unit Development
Special Use Permits

MIXED USE

D
CD
DE
DN
ON
WME
WMW
CC
URB
HS
NCC
HW
CH

INDUSTRIAL

M-I
IC

AMENDMENT DATES

SS	South Street District Corridor	July 22, 2009	January 22, 2014
CD	The Corner District Corridor	October 1, 2009	February 18, 2014
DE	Downtown Extended Corridor	November 10, 2009	September 2, 2014
DN	Downtown North Corridor	November 10, 2009	December 1, 2014
ON	Downtown South Corridor	October 29, 2010	June 1, 2015
WME	West Main East Corridor	November 15, 2010	July 20, 2015
WMW	West Main West Corridor	July 2, 2011	October 15, 2015
CC	Central City Corridor	September 21, 2011	March 7, 2016
URB	Urban Corridor	December 5, 2011	March 21, 2016
HS	High Street Corridor	February 5, 2012	May 2, 2016
NCC	Neighborhood Commercial Corridor	March 5, 2012	September 5, 2016
HW	Highway Corridor	June 1, 2012	December 5, 2016
CH	Cherry Avenue Corridor	December 7, 2012	July 17, 2017
		April 15, 2013	October 2, 2017
		May 9, 2013	December 4, 2017
		May 20, 2013	April 2, 2018
		September 16, 2013	May 16, 2018
		November 4, 2013	June 4, 2018
		December 2, 2013	July 2, 2018
		December 16, 2013	October 1, 2018
			December 17, 2018
			February 4, 2019

(City of Charlottesville Zoning District Map, 2009)

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