

# Second Problem Set

# Real Estate Development

# Strategy

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Teddy Bolin, Josh Johnson, Brandon Whitmore

# Our Venue: Richmond Coliseum

## COMPETITORS

### Housing Competitors:

Chesterfield and Henrico Counties

### Entertainment Competitors:

Norfolk, VA and Washington DC

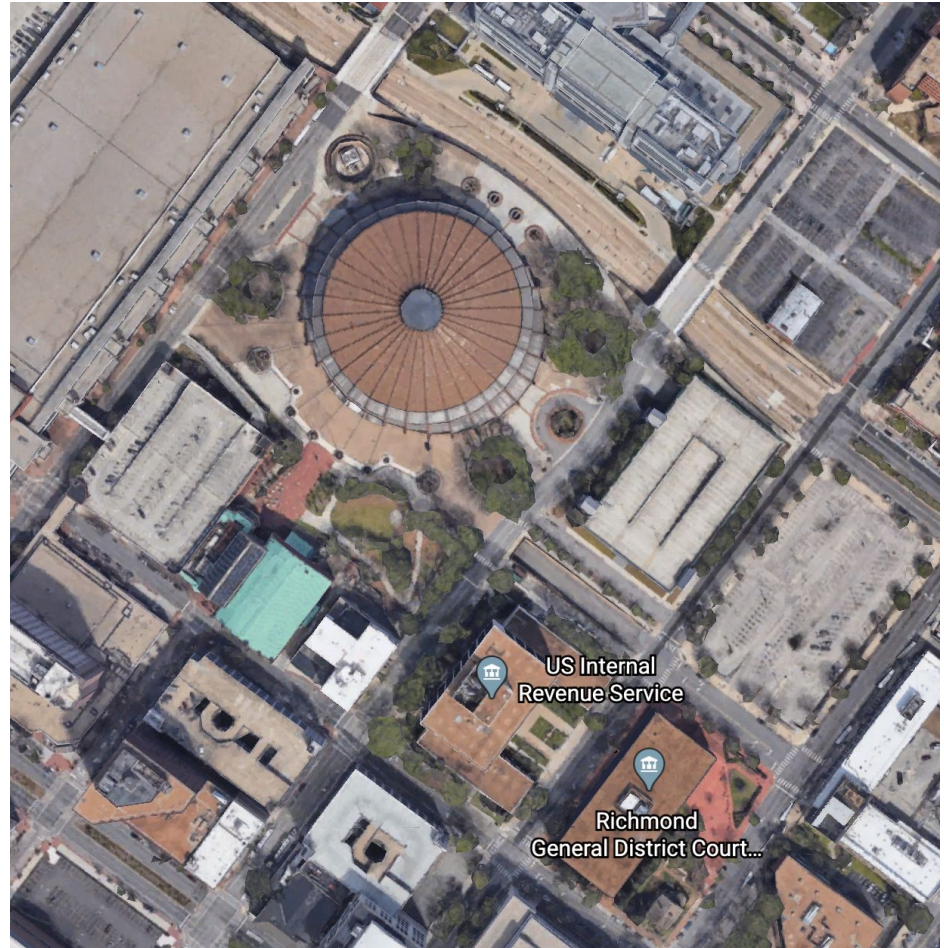


# Land Around the Site

We have the lot the current arena is on, the parking garage to the southeast and the parking lot further to the southeast. Also the parking lot on other side of highway.

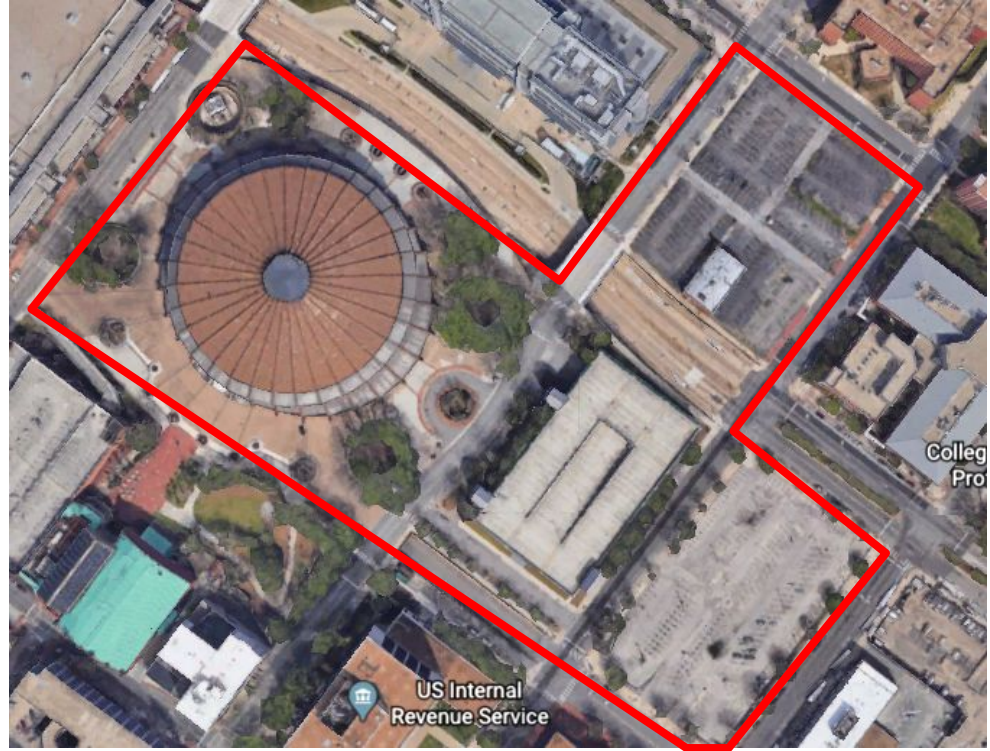
Nina F Adaby Festival Park and Atria Park exist near development area

US IRS, District court, and other government buildings are immediate surroundings



# Land Opportunities

The opportunities we saw available were the parking lots right around the arena. This “T” shaped area would be the foundation of our housing project with the highway passing through the project.

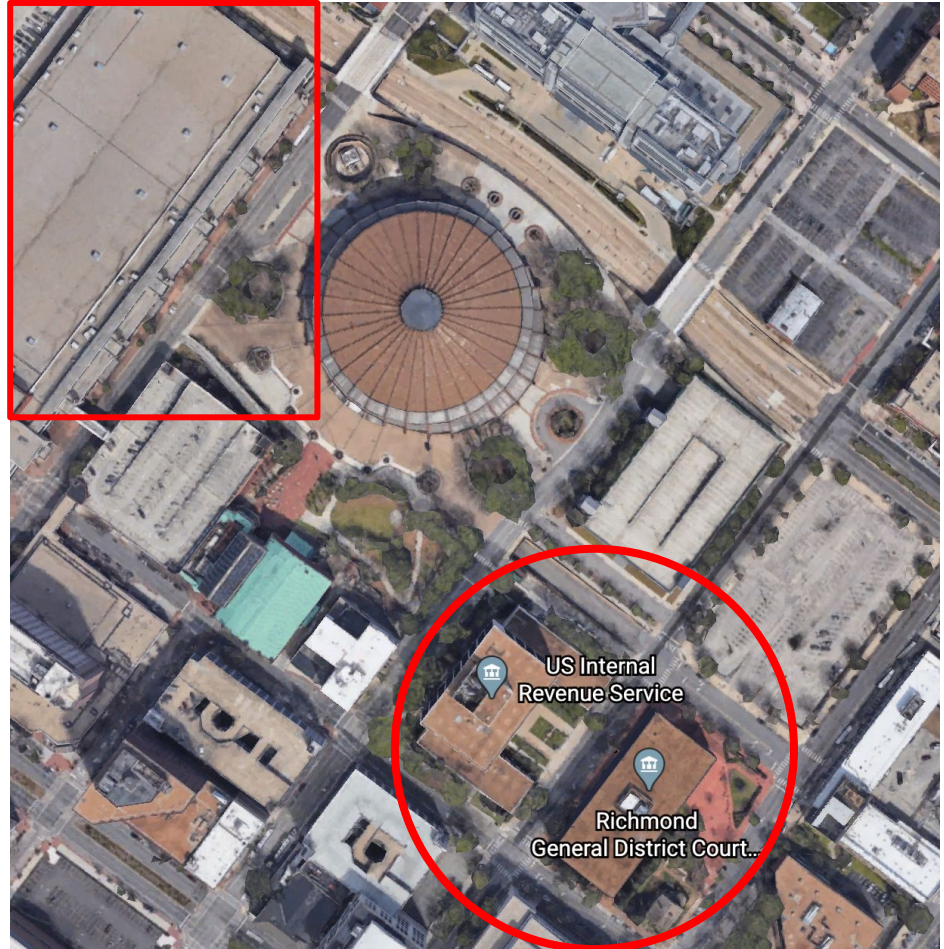




# Land Challenges

With multiple government buildings around the arena, we assumed that those buildings could not be tampered with.

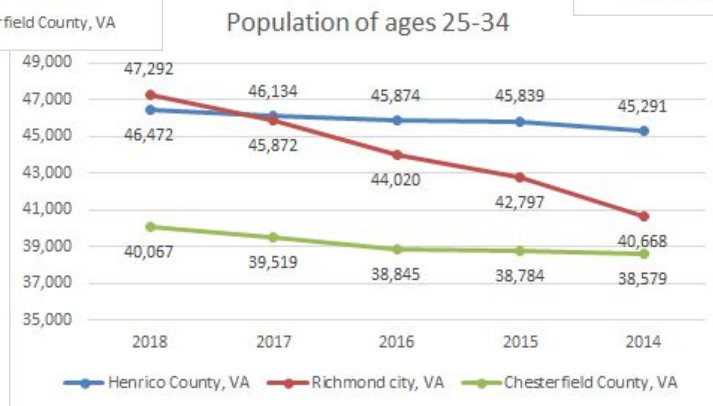
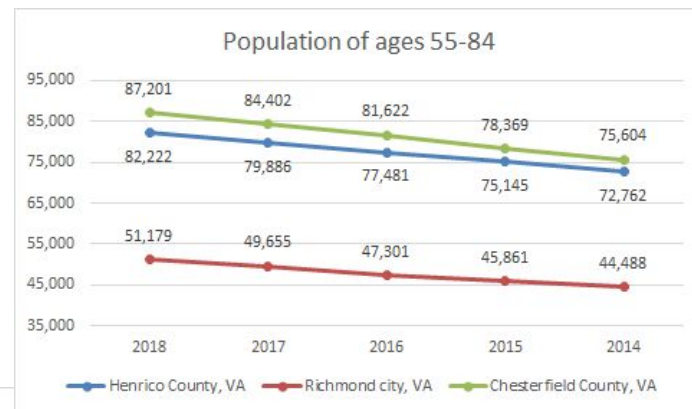
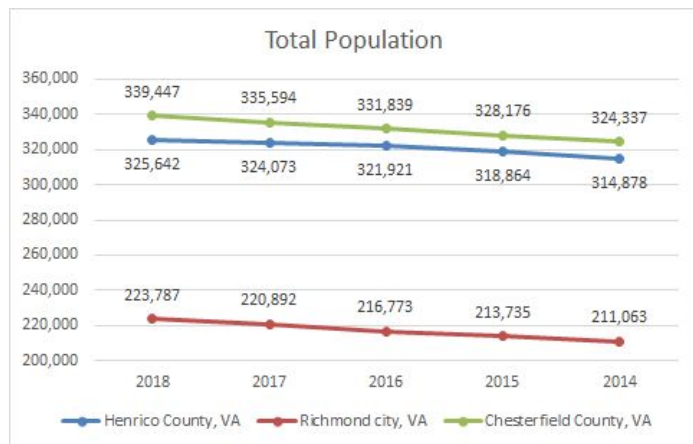
The convention center nearby also takes up a lot of valued space. It hosts multiple events a year and would not be worth taking down, especially if we were to put up retail and other stores.



# Demographic and Economic Analysis

On the next slide, there are charts for the population changes over the past five years in Richmond city, Henrico County, and Chesterfield County. Chesterfield and Henrico counties are the two main competitors for Richmond which is why they are included. In terms of total population, Richmond grows anywhere from 2,000-4,000 people per year. Henrico grows around the same rate while Chesterfield is pretty steadily growing around 4,000 people per year. We wanted to focus on the 25-34 and 55-84 segments because they are the single/newlywed millennials and the empty nesters. In the 25-34 age segment, Richmond grows around 2,000 per year while Henrico and Chesterfield only grow by 200 and 500 people per year respectively. Henrico and Chesterfield are popular in growth in the 55-84 segment as they grow by 2,500 and 3,000 people per year respectively while Richmond still has modest growth at 1,500 people per year in the segment. This growth is encouraging for Richmond, especially among the 25-34 age segment as it has more growth than its competitors.

# Demographic and Economic Analysis



# Demographic and Economic Analysis

Next, we look at the Housing Units and their growth compared to the growth of our target population. For the analysis, we took into consideration 1 and 2 person households because most people in the target demographic would most likely be in 1 or 2 person households because of their age demographic. To determine if enough 1 or 2 person household units existed, we looked at the growth of those type of units per year and compared it to the total growth of our age demographic over the same amount of time. The increases in population and the increases in units (on the next slide) were divided into each other to find the people per unit ratio of this growth. The average people per unit ratio in the United States is 2.381<sup>1</sup>. Any ratio higher leads to a shortage of housing units whereas a ratio lower shows a surplus.

As the data on the next slide shows, the ratio between change people and units is above the 2.381 national average threshold. While the Richmond ratio is the closest to the threshold, it should not be concerning since the ratios for its competitors are high as well, showing there is a shortage of units all around that could be solved in Richmond.

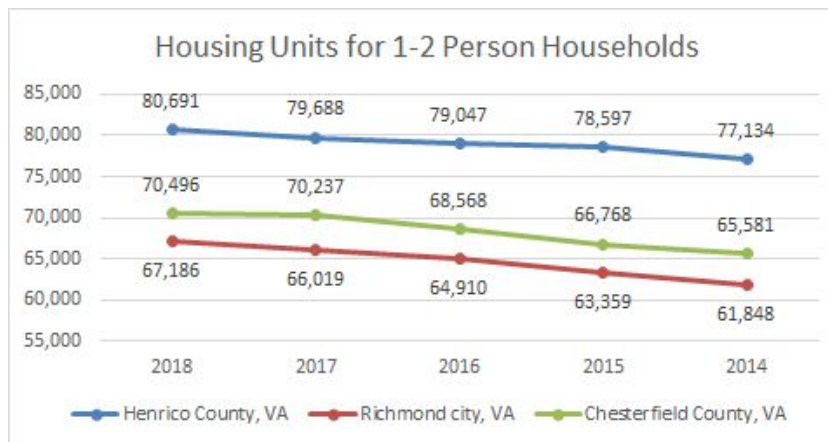
1: Kiefer, L. (2017, May 28). Housing supply, population, and house prices: The macro view.

Retrieved February 27, 2020, from

<http://lenkiefer.com/2017/05/28/housing-supply-house-prices>



# Demographic and Economic Analysis



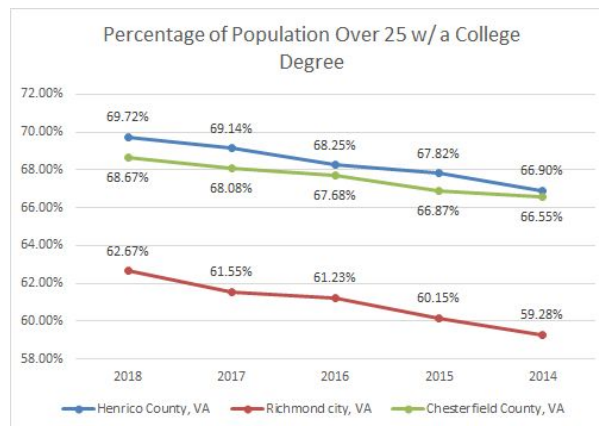
	Henrico Count, VA				Richmond city, VA				Chesterfield County, VA			
	2017-2018	2016-2017	2015-2016	2014-2015	2017-2018	2016-2017	2015-2016	2014-2015	2017-2018	2016-2017	2015-2016	2014-2015
Increase (decrease) in population 25-34,55-84	2,674	2,665	2,371	2,931	2,944	4,206	2,663	3,502	3,347	3,454	3,314	2,970
Increase (decrease) in 1 or 2 person household units	1,003	641	450	1,463	1,167	1,109	1,551	1,511	259	1,669	1,800	1,187
People per unit ratio	2.666	4.158	5.269	2.003	2.523	3.793	1.717	2.318	12.923	2.070	1.841	2.502

# Demographic and Economic Analysis

Now that the demographic need has been established, we can look to the economic analysis. The way to find the customer price point is by finding the education levels and determining median salaries from there. As shown on the next slide, there is a good percentage of the area which is educated. In Henrico and Chesterfield counties in 2018, 69.72% and 68.67% of citizens over 25 had earned a college degree. Richmond is a bit lower at 62.67%, but the percentage is still encouraging. These percentages as well as the numbers themselves have been increasing which shows that the area is attractive to college educated individuals.

When looking at the economics, it will reflect the college educated part of the demographic because they will most likely be the targets as they make up a high majority of the population. It is important to know the income of our college aged demographic to know how much housing they can afford. The table of median salary in 2018 for those with varying levels of college education in each of the target locations is on the next slide.

# Demographic and Economic Analysis



	Chesterfield	Henrico County,	Richmond city;
Some College or Associate's Degree	\$42,084	\$36,732	\$27,788
Bachelor's Degree	\$55,631	\$53,774	\$45,728
Graduate or Professional Degree	\$69,334	\$71,756	\$58,896

# Demographic and Economic Analysis

To try to figure out how much the demographic has to spend, the median Bachelor degree salary of \$55,631 for Chesterfield and \$53,774 and \$45,728 for Henrico and Richmond respectively for the three locations is used because it is between the Graduate and Associate degree levels and gives a good baseline. Looking at the Household Unit Cost as Percentage of Household Income shows how much the population spends on housing. Most people in Chesterfield and Henrico spend 20%-29% of their annual income on housing. In Richmond, most people spend 30% or more on housing. For determining the amount spent on Chesterfield and Henrico, 25% was used as the percentage spent, and 30% was used in Richmond. After the calculations, the average person in Chesterfield with a Bachelor degree salary would spend \$13,907.75 on housing per year. In Henrico, the amount spent is \$13,443.50 whereas the amount is \$13,718.40 in Richmond. These values are all similar to each other and show how the housing we would develop would not necessarily price discriminate against the demographic in any one of the locations.



# Demographic and Economic Analysis

	Chesterfield County,	Henrico County,	Richmond city,
Median Bachelor Degree Salary	\$55,631	\$53,774	\$45,728
Majority average Household Unit Cost as a % of Income	25%	25%	30%
Average annual cost of housing	\$13,907.75	\$13,443.50	\$13,718.40

# Why Should Richmond Have an Urban Housing Plan?

Urban housing is meant for two age brackets: Young adults and the elderly. When we look at Social Explorer's ACS 5 year estimates for the Richmond, VA MSA, we can see by looking at age population that **25-34** year olds account for **14.1%** of the population. **55-84** year olds account for **26.3%** of the population. That means **40.4%** of the population is our target market. The demand for urban housing is there, and there is clearly not enough urban housing available near Richmond Coliseum. Looking at Zillow, we can see the current market for urban housing on the next slide.

# Why Should Richmond Have an Urban Housing Plan?

According to Zillow.com, of all the “urban housing units” available, only two of them (circled) fit our description of downtown, multi-storied units. These units averaged \$235K. No units were available directly around the Richmond Coliseum either. This means that there is a demand for urban housing that is not being met.



# Why Should Richmond Have an Urban Housing Plan?

## Richmond City Schools Have Problems

**Chesterfield County School Accreditations**

Chesterfield County	Cosby High	Accredited	L1	L1	L1	L1	L1	L1	L1	L1
Chesterfield County	Crestwood Elementary	Accredited	L1	L1	L1	L1	L1	L1		
Chesterfield County	Ecoff Elementary	Accredited	L1	L1	L1	L2	L1	L1		
Chesterfield County	Elizabeth Davis Middle	Accredited	L1	L2	L1	L2	L1	L1		
Chesterfield County	Elizabeth Scott Elementary	Accredited	L1	L1	L1	L1	L1	L1		
Chesterfield County	Enon Elementary	Accredited	L1	L1	L1	L1	L1	L1		
Chesterfield County	Etrick Elementary	Accredited	L1	L1	L1	L2	L1	L1		
Chesterfield County	Evergreen Elementary	Accredited	L1	L1	L1	L2	L1	L1		
Chesterfield County	Falling Creek Elementary	Accredited	L1	L2	L1	L2	L1	L1		
Chesterfield County	Falling Creek Middle	Accredited	L2	L2	L2	L2	L2	L1		
Chesterfield County	Grange Hall Elementary	Accredited	L1	L1	L1	L1	L1	L1		

**Richmond City School Accreditations**

Richmond City	Albert Hill Middle	Accredited with Conditions	L1	L3	L1	L3	L1	L1		
Richmond City	Amelia Street Special Education	Accredited with Conditions	L3	L3	TS	TS	TS	L1	TS	L3
Richmond City	Armstrong High	Accredited with Conditions	L1	L1	L3	L3	L3	L3	L3	L3
Richmond City	Barack Obama Elementary	Accredited	L1	L1	L1	L1	L1	L1		
Richmond City	Bellevue Elementary	Accredited	L2	L2	L1	L2	L1	L1		
Richmond City	Binford Middle	Accredited with Conditions	L2	L3	L2	L3	L3	L1		
Richmond City	Blackwell Elementary	Accredited with Conditions	L3	L3	L3	L3	L3	L1		
Richmond City	Broad Rock Elementary	Accredited	L1	L1	L1	L1	L1	L1		
Richmond City	Chimborazo Elementary	Accredited with Conditions	L3	L3	L1	L2	L3	L1		



# Why Should Richmond Have an Urban Housing Plan?

Based on the evidence on school accreditations from the last slide, we clearly see that Richmond does not have the best schools. School quality is the most important factor for families, so this means that less families will be moving to Richmond. If there are less families in Richmond, there is less of a need for single family housing. Urban housing is even more crucial now that we know that the market for single family housing will not be in Richmond.



# Why Should Richmond Have an Urban Housing Plan?

Metropolitan Statistical Area	140060	Richmond, VA	166	161	169	181	168	132	155	143	143	156	258	224	219	232	253	243	3003
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The table above shows the amount of patents filed in the Richmond MSA from 2000-2015. With a total of 3003 patents filed, we can predict that there is a fair amount of “market creativity” in the Richmond MSA. Although they are not on the top of the list, this should still give community leaders a good idea of how many new ideas/growth is happening in the MSA. More urban housing would bring more great ideas credited to the area.

# Retail and Entertainment: Worker to Total Population Ratios

	Richmond City	Norfolk	Washington DC
Retail Trade	0.039148666	0.04933736	0.03360078
Arts, Entertainment, and Recreation	0.015570492	0.00646089	0.01343138
Accomodation and Food Services	0.057185771	0.04727363	0.09621858

# Worker to Total Population Analysis

Richmond has the highest Arts, Entertainment, and Recreation ratio between its competitors suggesting that they provide enough of that area and perhaps already have that segment of activities overserved.

Richmond falls in the middle of the Accommodations and Food Service ratio between Norfolk and Washington DC, however their number is comparable to Norfolk which as a host to a minor league franchise we feel is a closer comparable. Also based on the direct surrounding of the arena we feel that the this area is properly represented.

Richmond is between Norfolk and Washington DC with their Retail Trade ratio and trailing Norfolk by a significant margin. Based on this, we feel that this is an area that could be currently underserved. In addition, the immediate area around the current arena is lacking of a retail presence. Ultimately there is room to build additional retail in Richmond as part of our development.



# Housing Plan

Our housing plan brought a couple new components to the area. We first shifted the arena to the other side of the parking deck to create more room for green space and retail, expanding the park currently next to the arena. We wanted to add retail shops to be more in line with the Norfolk retail ratio. The urban housing would optimize the bridge to cross the highway, giving residents easy access to the retail and arena space. Also, having the green space and retail next to the convention center would boost its visibility, use, and economic potential.



# Participatory Sport Component

In our housing development plan, we did not find it a priority to include a participatory sport component. As shown previously, the area already has a high ratio of art/entertainment/recreation workers to population already. Also, there will be a considerable amount of green space added near the arena as part of the plan. Therefore, we decided to focus adding more retail spaces instead of opportunities for participatory sport.