TECHNICAL MEMORANDUM

To: Liz Webb, Housing Coordinator
City of Harrisonburg, VA
From: LPDA, Inc.
RKG Associates, Inc.
Blackwell Engineering
Re: Affordable Housing Development Site Analysis
Date: January 4th, 2023
Revised: April 28, 2023
Revised: June 19th, 2023

The purpose of the following technical memorandum is to identify the affordable housing options for the City of Harrisonburg specifically related to 2 City-owned properties and to try to set the groundwork for future affordable housing solutions for the City. The parcels being studied are parcel 87-G-2, also known as the Neff Avenue site, and parcel 19-E-9; also known as the Central Avenue site. The memo below outlines the opportunities, constraints, possible development solutions, and affordable housing solutions based on the development concepts.

A. DESCRIPTION OF SITE DEVELOPMENT CONCEPTS

1. Background Information-Parcel 87-G-2; Neff Avenue site

Site Location and Uses

Parcel 87-G-2, currently zoned R-1, is a City-owned site located along Neff Avenue east of Interstate 81 in the Southeast quadrant of the City of Harrisonburg. As mentioned, the subject property is currently zoned R-1 Single-Family Residential District with by-right uses including single family dwellings, churches, public/private schools, government uses (community centers, parks, playgrounds, and new buildings), and Public Uses. R-1 uses requiring a special use permit include child/adult day care centers, home for the aged, private clubs/golf courses, community buildings, short term rentals, and concealed wireless towers. The uses of the adjacent parcels surrounding the project site vary greatly. Across Neff Avenue to the north is University Park, which is an athletic facility owned by James Madison University. To the south is an established community developed in the early 1960s, consisting of single family detached homes. Directly to the east of the project site is a 7.23-acre site zoned B-2C which is currently undeveloped. The eastern end of the study parcel is the Dream Come True playground which will not be part of the development study. On the west side of Port Republic Road, the zoning designations are B-2 and R-1. These sites are developed with a mix of convenience-oriented retail and fast-food restaurants. Overall, the zoning surrounding the project site is a mix of R-1 residential and business-related uses.

Existing Site Conditions

The existing site conditions, in **Exhibit A** (below), show the study site is heavily wooded with a large amount of topography across the site. The site slopes continuously from the northeast to the southwest. The total amount of elevation difference from the top to bottom is approximately 90 feet (elevation 1470 to 1380). The site is heavily vegetated, so a large amount of tree removal is needed prior to development taking place. There does not appear to be any wetlands or streams on the site so no mitigation should be required.

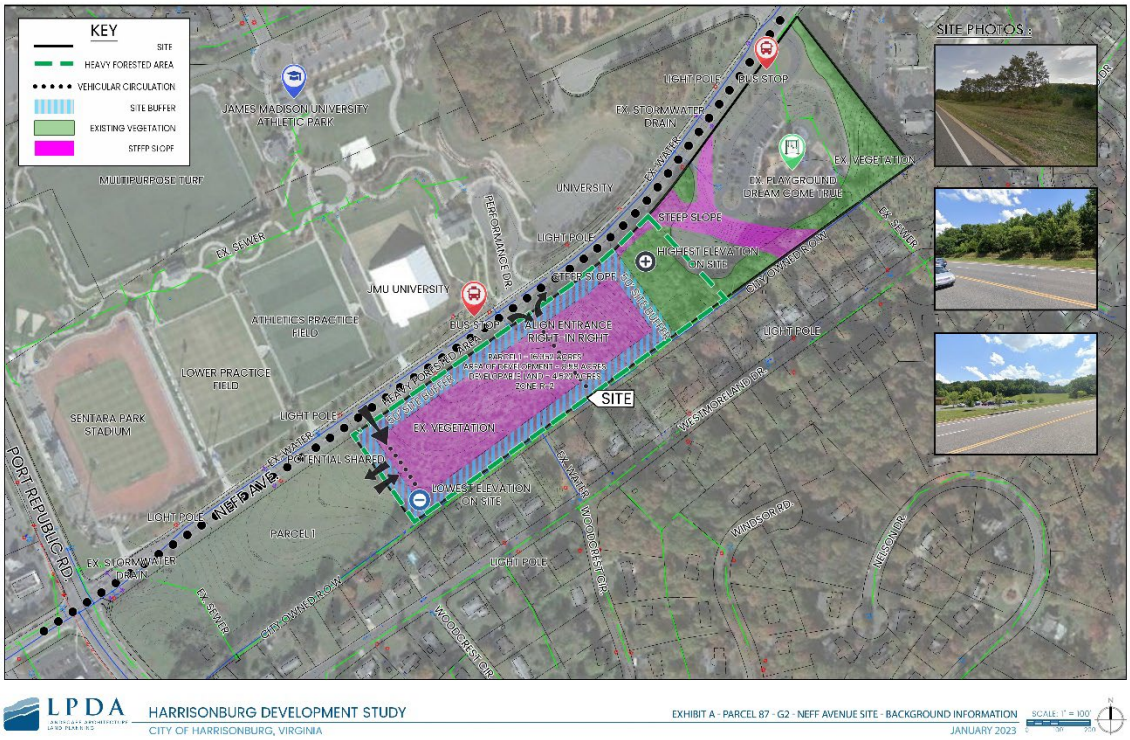

Exhibit A: Neff Avenue site existing conditions

Access/Transportation

The main access point to the site would be off Neff Avenue, which is a 4-lane road with a bike lane, (2 total) on each side of the road and no turn lanes. There are potentially 2 entrance locations needed to access this subject property; the first is near Performance Drive to encourage intersection alignment. This entrance would potentially have to be a right-in/right-out only due to the sight distance constraints of Neff Avenue. The grade climbs dramatically, potentially creating an issue; however, a study would need to be conducted once a development concept is complete. For initial planning purposes, this entrance should be shown as right-in/right-out as it is the most constrained option. The second potential entrance would be a shared entrance with the adjoining property to the west. Utilizing a shared entrance in this location would minimize entrances off Neff Avenue but would also be a cost-sharing opportunity for the property owner for that site and the City/Development partner.

Utilities

The subject property does not have existing utilities on the site itself, however, utilities needed for development currently surround the property. To the south of parcel 87-G-2 is a city owned 20' right-of-way that has existing water and sewer. Pressure and capacity tests will need to be performed to ensure connection at this location is feasible. Near Neff Avenue there are existing transformers so a power source for development is located nearby. The utilities necessary for development are within a reasonable distance of the site.

Summary of Constraints

a) Access and extreme topography across the site are the major challenges with this parcel.
b) Sight distance along Neff Avenue could potentially pose a problem when aligning intersections/entrances with the JMU athletic facility.
c) Product selection due to the extreme grade may be limited to multi-family buildings to help retain grade and limit the use of site walls.
d) Single-family units like duplexes or single-family detached homes will potentially be cost prohibitive to construct due to the elevation change.
e) Site walls may be needed to make the grades more developable, which will add cost.

Summary of Opportunities

a) Site location is good for a housing development.
b) Several convenience retail uses, entertainment uses, and the potential for future development of the adjoining parcel located within walking distance of this site.
c) The utilities needed for development (electric, sewer, water) are already within proximity and accessible.
d) The City-owned 20' right-of-way to the south of the site adds an additional buffer between the project and the existing residential neighborhood.
e) Neff Avenue is in great condition and appears to be sized to handle the additional traffic a development project would add.
f) Utilizing a shared entrance at the parcel line of the adjacent property Parcel 87-G-1 would be beneficial to the City and the owner of that property.

2. Development Concept Descriptions-Parcel 87-G-2; Neff Avenue Site

Townhouse Concept Description

Shown in **Exhibit B** one option for the Neff Avenue site is to rezone the property to allow townhouse development.

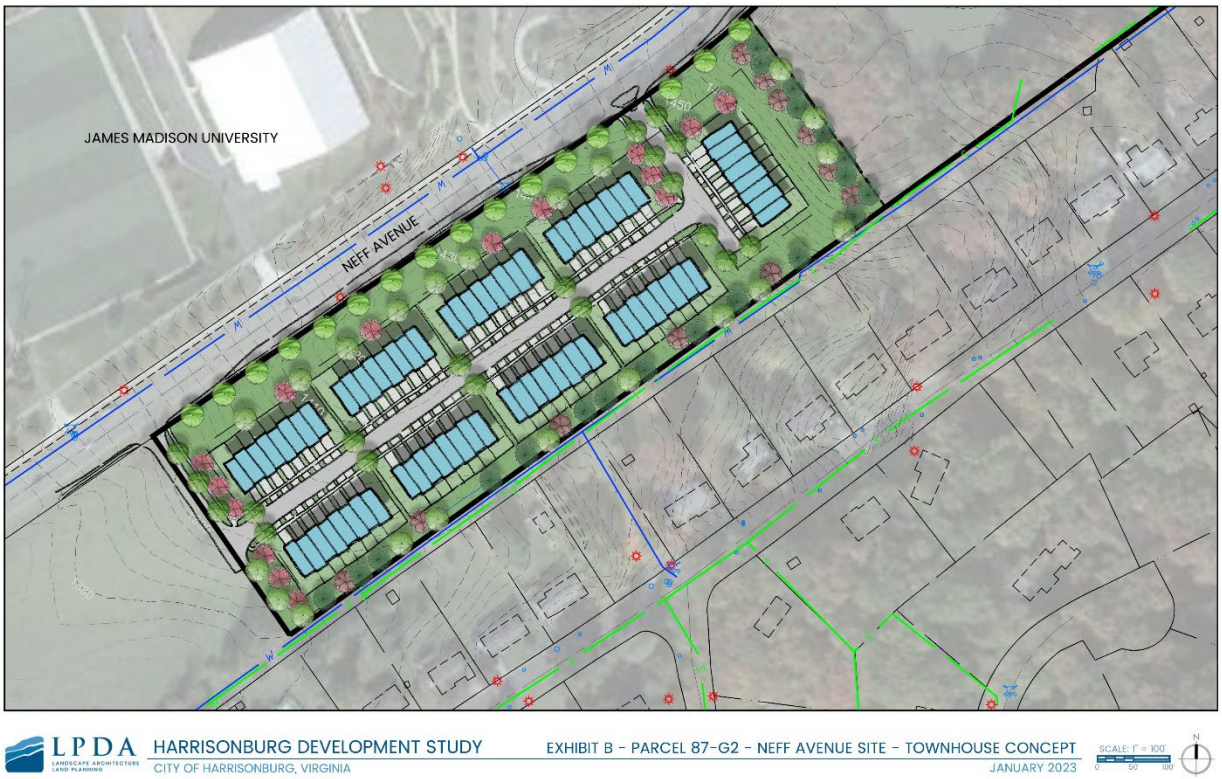

Exhibit B: Neff Ave townhouse concept plan

As mentioned previously, this site has approximately 90 feet of elevation change across the site and is covered in mature trees so developing this site is going to be a challenge, but not impossible. To keep the earthwork and site walls to a minimum, the townhome layout is designed to "step" up the topography of the site as shown in the conceptual grading plan, **Exhibit B-1**. Typically, townhomes can be constructed to absorb 8" of vertical grade between the individual units but in some cases can step as much as two (2) feet in grade; however, there will need to be a small wall between each driveway or unit as it steps up the grade. These walls could be integrated into the driveways and not need to be a separate material or wall. The townhome buildings themselves should be utilized as much as possible to retain topography or create walk-out conditions to ease the earthwork burden to the extent possible. Utilizing this same layout another potential option is to create more custom architecture and design a condo-style townhome building. The exterior elevations would look like townhomes, but the interior of the building layout would consist of 12 condos/apartments, totaling 108 units. This could allow the architecture to work more with the existing topography, reducing site development costs. The current townhouse development concept shows a yield of 72 18'-wide townhomes with lot depths

of approximately 95'. A 25' landscape buffer is currently being shown to try to encourage buffering/screening to minimize views of the new development from Neff Avenue.

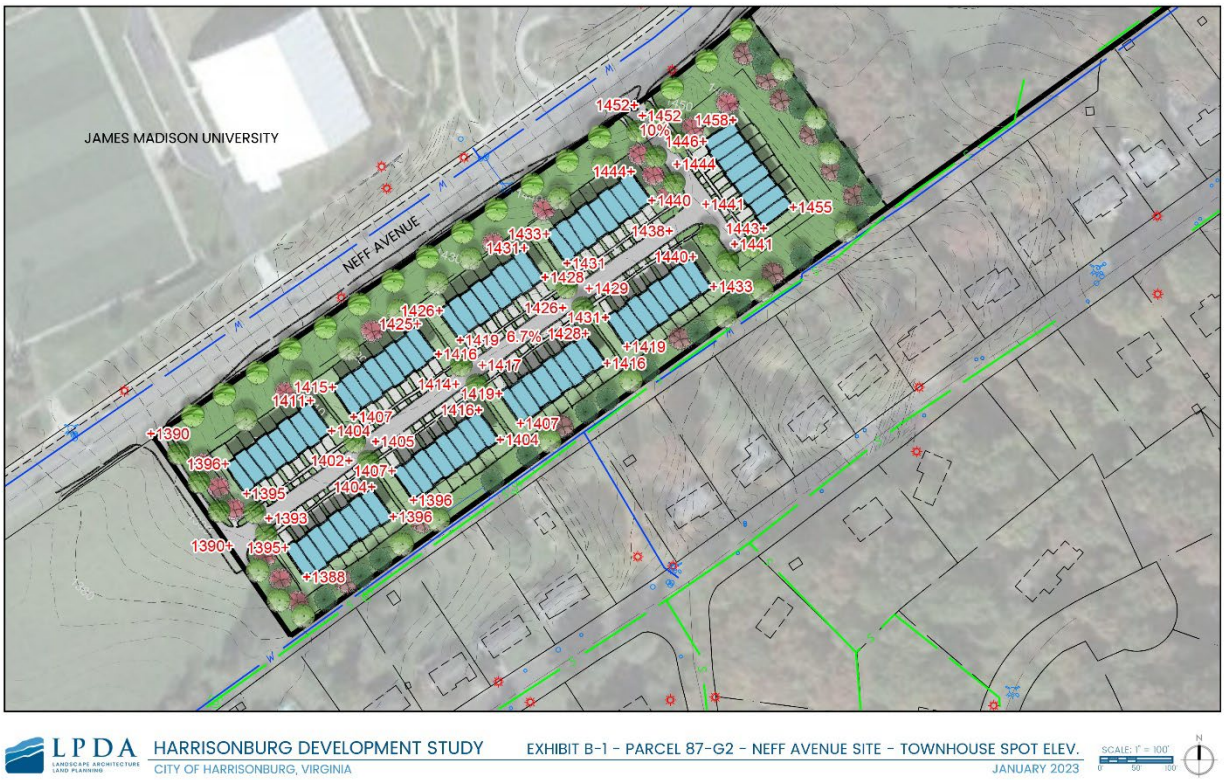

Exhibit B-1: Neff Avenue townhouse concept grading plan

Access / Transportation

The development study townhome concept has 2 access points off Neff Avenue: one on the west side and one on the east. The western entrance will be a full access entrance and ideally would be a shared access with the adjacent property. Moving the road slightly off the property will allow for more space for buffering/development and sharing this entrance could also provide an opportunity for cost sharing/reduced site development cost. Due to potential sight distance issues with Neff Avenue, the eastern connection is being shown as a right-in/right-out (RI/RO) only. The RI/RO connection would not have to be aligned with the existing intersection of the JMU Facility on the north side. The Neff Avenue frontage on the subject parcel would be upgraded to include sidewalks and street trees as existing utilities and sight distance restrictions would allow.

Stormwater management/Utilities

One of the bigger hurdles to developing this site would be meeting stormwater management requirements. The site topography is going to require creatively designed rain gardens, bio-retention areas, and possibly the utilization of underground storage/retention systems. Other

required utilities like water, electricity, and sewer are all within proximity of the site and should not be an issue**. Exhibit C** shows a proposed stormwater management and utility design based off the current concept.

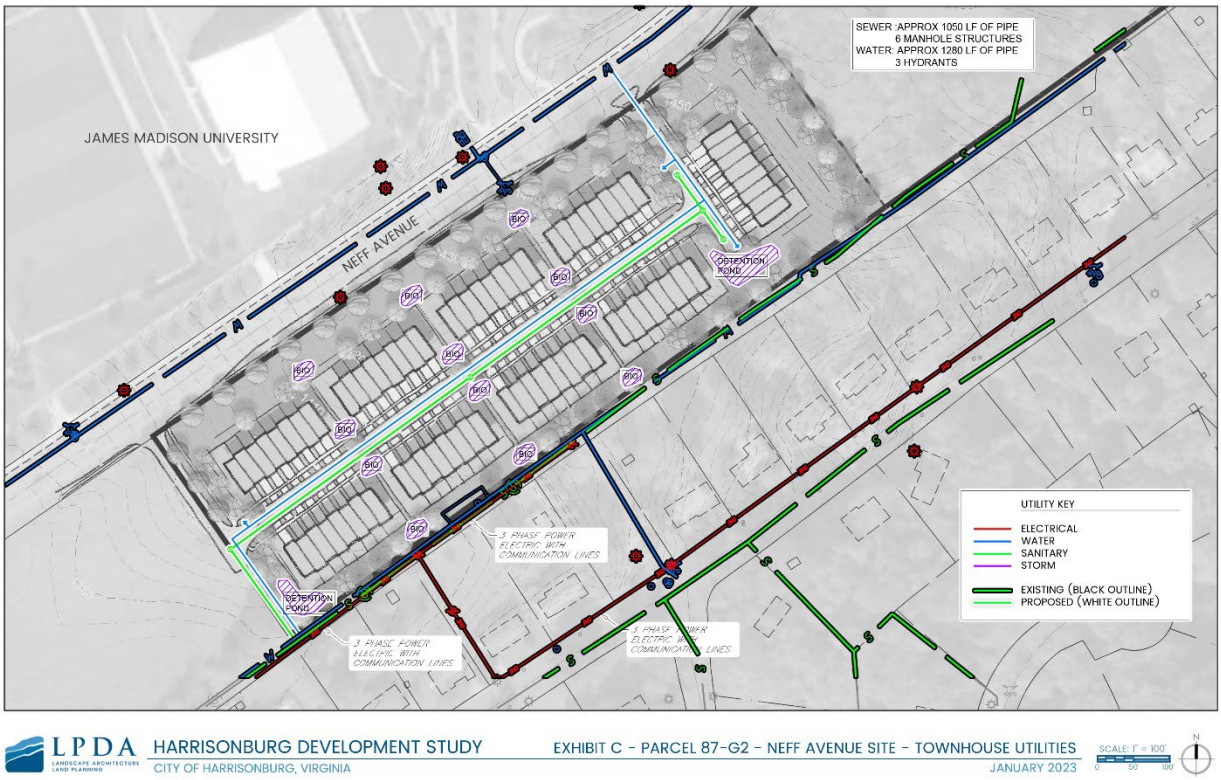

Exhibit C: Neff Avenue townhomes SWM/Utility concept plan

Townhouse Concept Summary:

a) 72 18'-wide traditional townhomes
b) Rezone property to allow for townhouse development.
c) Alternate concept of Townhouse style condominium building as an option, which would also require rezoning.
d) Vertical steps between each townhome unit are needed to work with site topography.
e) Utilities needed for development currently exist close to the site.
f) Stormwater management will be a challenge; may need to be underground.

3. Parcel 87-G-2; Neff Avenue Site-Multi-family/Apartment Concept

Multi-family/Apartment Concept Description
To create more density and the opportunity for more affordable housing on the site, a multi-family apartment/condominium concept shown in **Exhibit D** below was developed.

Exhibit D: Neff Avenue Multi-family concept plan

The property would need to be rezoned to allow multifamily buildings to include more than 12 units per building. Initial concepts explored using the topography to the advantage of the development by utilizing podium buildings to meet the parking requirements on the lower level of the buildings. Current market conditions in the area make construction of this concept financially challenging. However, as development opportunities are explored with this site this solution should still be considered as that concept yields the most units and fits best with the site topography. The topography on this property is a challenge but the larger multifamily buildings can function as retaining walls by creating walkout conditions with the architecture which would have 2-3 stories on the high side and 3-4 stories on the low side of the slope as shown in **Exhibit D-1**. The architecture could work well with challenging topography if designed correctly. The current concept is a traditional garden style development with surface parking lots due to market conditions. Options should be explored to decrease the required parking from the average of 2 spaces per unit to 1.1 to 1.3 spaces per unit to again ease the site development cost. Shown in the

concept are 4 garden-style buildings are 3-4 stories per building. The unit sizes average ranging from 830 to 1,000 sf per unit; totaling 180 to 200 units.

Exhibit D-1: Neff Avenue Multi-family conceptual grading plan

Access/Transportation

Like the townhouse concept, this layout includes 2 access points onto Neff Avenue. Again, the full/main intersection could be co-located with the adjacent property to provide a cost sharing opportunity. The secondary (northern) entrance is located across from the entrance to the JMU Athletic Facility but would be right-in/right-out due to potential sight distance concerns on Neff Avenue. As mentioned previously, a RI/RO is being shown as part of this concept.

Stormwater management/Utilities

The stormwater management for a garden-style apartment community would have to be underground, however with the steepness of the existing topography the installation of these underground facilities would be a little easier than other sites because there would be less excavation needed. Utilities like water, electricity, and sewer are all within proximity of the site and should not be an issue. **Exhibit E** shows a proposed stormwater management and utility design based off the current concept.

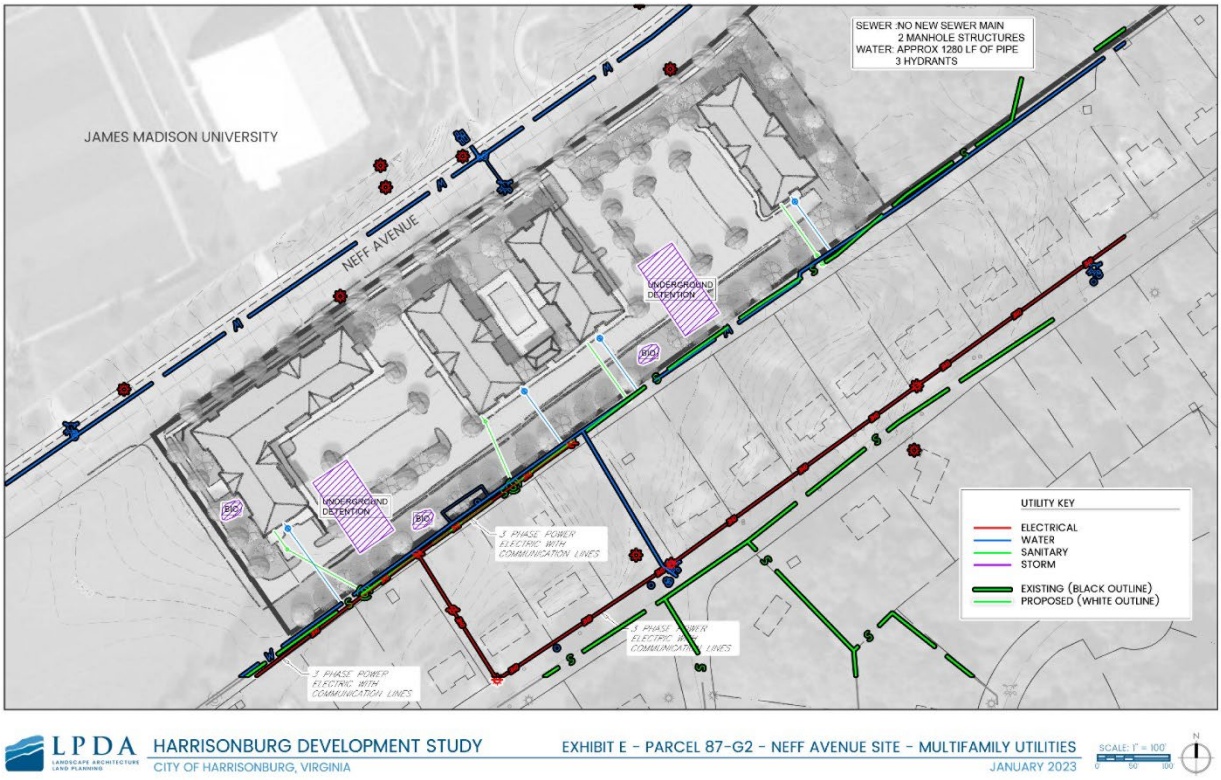

Exhibit E: Neff Avenue multi-family SWM/Utility concept plan

Multi-family Concept Summary:

a) 3-4 story Garden style surface parked option; unit totals of 200 units (830sf average unit size) to 180 units (1,000 sf average unit size).
   - Reduction in parking may be needed.

b) 3 story Podium style option; unit totals of 216 units (1,000sf average unit size) to 260 units (830sf average unit size).
   - Site topography can be used to create more parking underground.
   - Current market conditions may not sustain this construction type.

c) Architecture used to retain site topography.

d) Property rezoning to allow for multifamily buildings containing more than 12 units per building.

4. Background Information-Parcel 19-E-9; Central Avenue site

Site Location and Uses

Parcel 19-E-9, zoned R-2, is located along Central Avenue; west of Interstate 81 in the western part of the City of Harrisonburg. Central Avenue bisects the parcel into 2 parts (west and east). The west side is located between the existing railroad tracks to the north and Central Avenue to the east. To the southwest of the western parcel is an existing residential community built in the 1990's/2000's, consisting of both 2-story townhomes and 2-story apartments.

The east side of Parcel 19-E-9 is bounded by Central Avenue to the west. As mentioned, parcel 19-E-9 is zoned R-2 and is bounded by R-3, R-2 and M-1 zoned properties. The northern boundary is shared with Keister Elementary School with the track, open play field, and playground being the closest features to the subject property. Adjacent to the southern boundary of the parcel is a small 2-story apartment complex which is also zoned R-2 and a Nursing home facility which is zoned R-3. The subject property is currently zoned R-2 Residential. By-right uses include all R-1 by-right uses, duplex dwelling units, public uses, homestays and uses permitted. Special-use permit uses include child/adult care centers, cemeteries, private clubs/golf courses, short-term rentals, and concealed wireless communication facilities.

Existing Site Conditions

As seen in **Exhibit F (**below), most of the site is currently grass/open field. The far eastern edge of the subject property is covered in a large existing tree stand with a stream and potential wetland within this treed area. There are some large/mature trees on site which, if feasible, should remain. The topography across the site is flat/gradual slope which is beneficial for development. The parcels have an irregular shape which makes some of the property undevelopable due to space constraints, however most of the parcel is open and useable. The eastern end of the parcel near the nursing home has an existing stream and wetland located on the property. Development beyond this stream would be difficult and potentially not cost-effective.

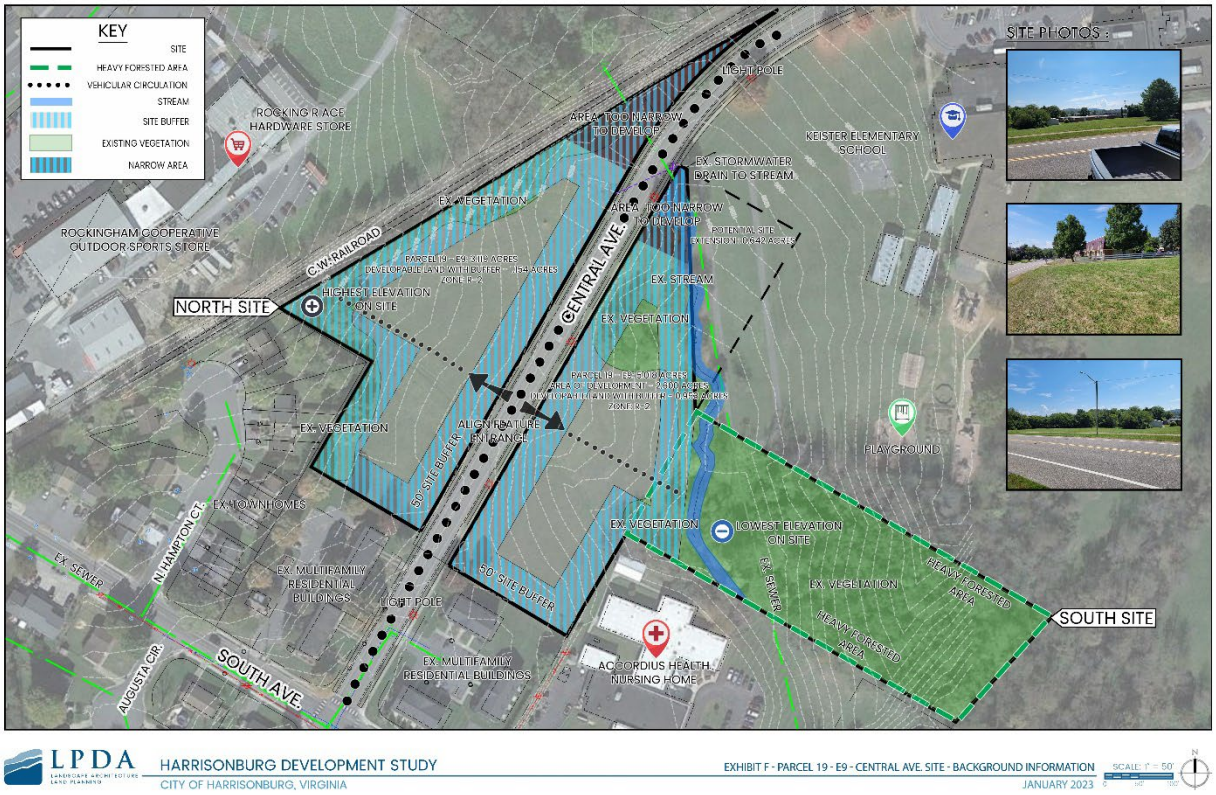

Exhibit F: Central Avenue existing conditions

Access/Transportation
The site would be accessed from Central Avenue which is a 2-lane road with no curb and gutter. The entrances into the two parcels should be aligned to not create a conflict with intersection spacing. As development takes place turn lanes may need to be added to accommodate the development; this will be determined by a traffic study based on the final design.

Utilities
Located near Central Avenue on South Avenue are existing electrical transformers so electric service is close. To the rear of the eastern section of the parcel is an existing sewer line. Connection to this line should be possible, however since it is in an environmentally sensitive area an alternate connection might be desired. There is also an existing sewer line located in the North Hampton Court cul-de-sac and in South Ave so there are multiple opportunities to connect to sewer. Size and capacity of the selected connection will need to be verified. Water lines/connection points are available within South Avenue.

Summary of Constraints
a) Potentially a need for turn-lanes on Central Avenue but would be based on the final concept.
b) A large percentage of the eastern side of this parcel is constrained due to the presence of wetlands/streams. Any development should take place close to Central Avenue to keep the cost of development low and limit disturbance to those areas.
c) The shape of the parcel is not ideal because it narrows as it gets closer to the school property which limits the area for development.
d) Water mains must be extended.

Summary of Opportunities
a) Provides a great opportunity for development because of its relatively flat topography.
b) Minimal existing vegetation that would need to be cleared prior to development.
c) The utility and transportation-related infrastructure also look adequate with potentially some small upgrades pending final design.
d) The surrounding uses of multi-family developments, a healthcare facility and a school would allow for the site to be utilized for a high-density development.

5. Development Concept Descriptions - Parcel 19-E-9; Central Avenue Site

Townhouse Concept Description
Located along Central Avenue, this property requires less site development work to prepare for development than the property located along Neff Avenue. **Exhibit G** shows the current concept for this site. The Central Avenue site is fairly flat and is mostly an open grass area with a small number of trees. The property is divided into two sections (separated by Central Avenue), but this provides a good opportunity to phase the project. The west side is near the Chesapeake Western Railway and on the west side of Central Ave and the east side is closer to Keister Elementary School. As mentioned above a portion of the east side is cut off by a stream/wetland area, is heavily treed and has a sewer line running across it so for the ease of development this part of the property will be left untouched. The site should be rezoned to allow for townhome

development. The concept plan yields 51 18'-wide townhomes, but this number is dependent on final grading and engineering. A townhome community in this location would fit nicely into the context of the existing surrounding neighborhoods and would provide a new housing close to the school.

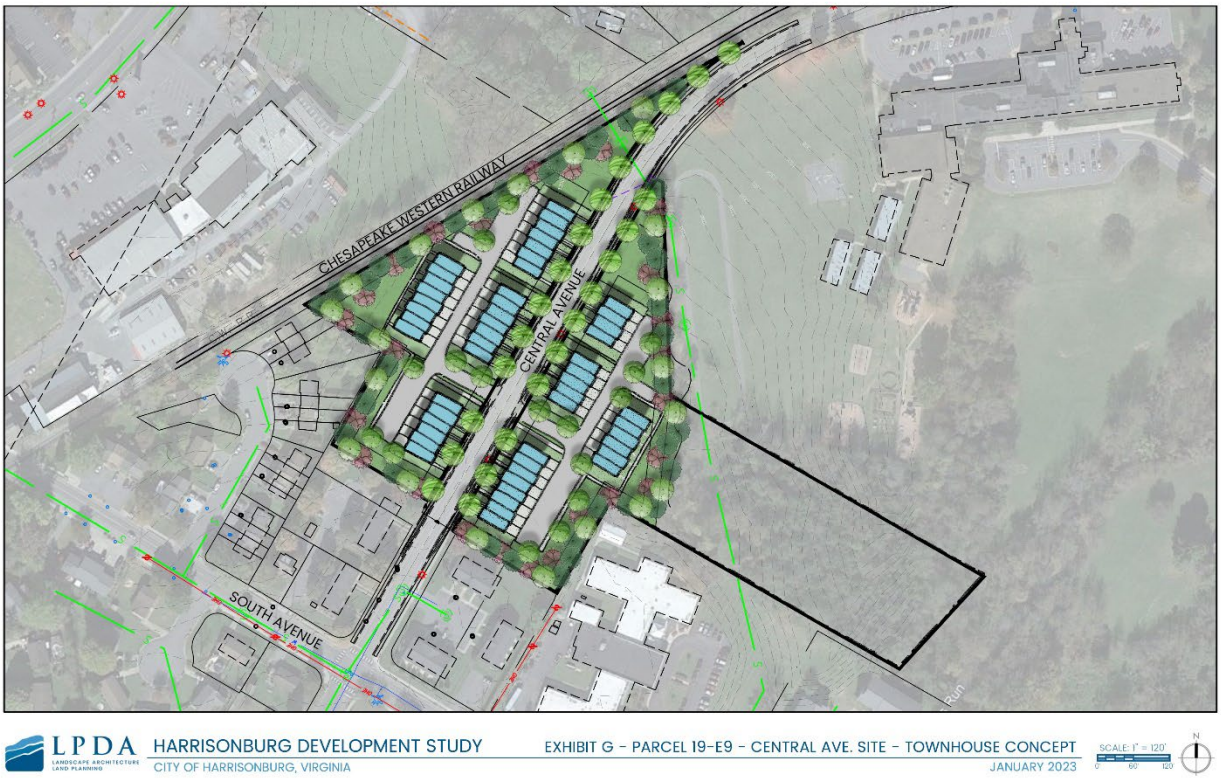

Exhibit G: Central Avenue townhouse concept plan

Access/Transportation

The townhomes will be rear loaded to keep the number of access points on Central Avenue to a minimum. There will be two entrances from Central Avenue: one into each section of the development. The west side property could potentially have a connection point to the parking lot of the adjacent property located on the corner of South Avenue and Central Avenue to increase circulation. The Central Avenue frontage should be upgraded with this project to include curb and gutter and sidewalks on both sides to provide an additional path to the school.

Stormwater management/Utilities

Since the site has mild topography, finding areas to provide stormwater management should not be a challenge and should be able to be integrated into the overall design to become an amenity to this new community. All utilities needed for a development are existing and near the site**.** **Exhibit H** shows a preliminary stormwater management and utility design.

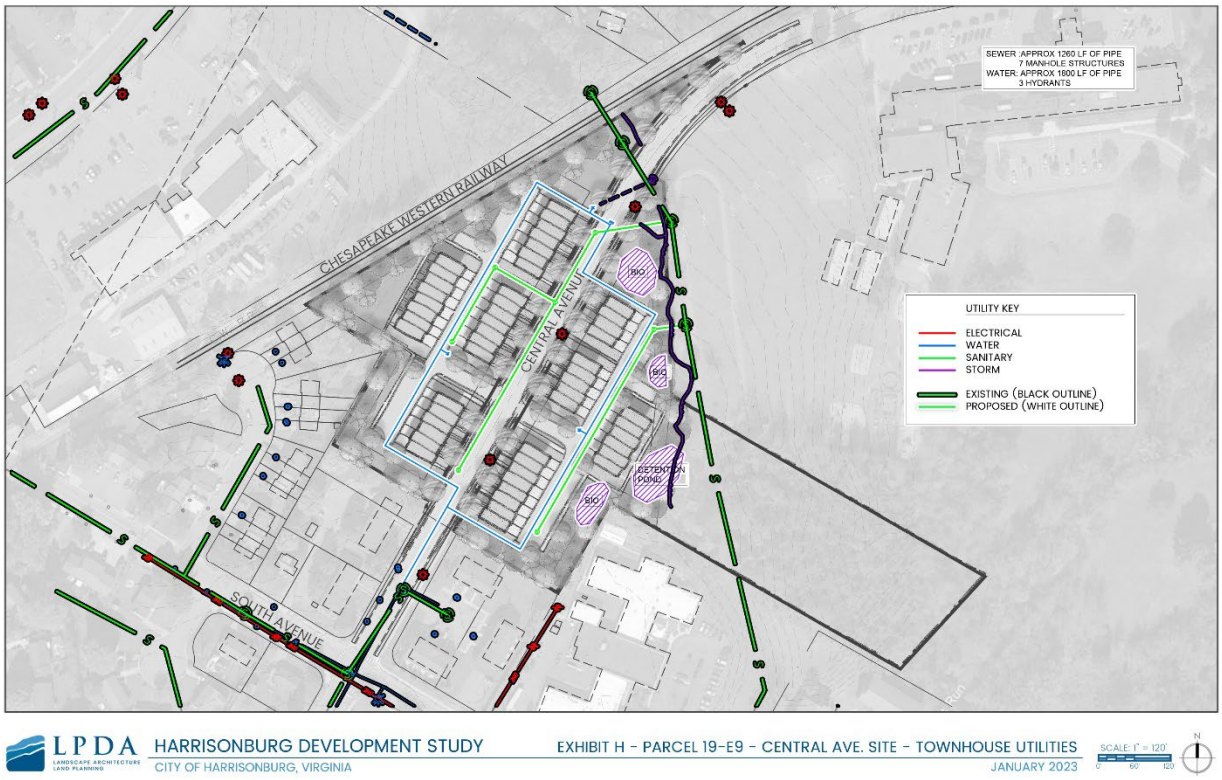

Exhibit H: Central Avenue townhouse SWM/Utility concept plan

Townhouse Concept Summary:

a) 51 18'-wide townhomes.
b) Property rezoned to allow for townhouse development.
c) The site is mostly open with minimal topography and tree cover.
d) Utilities needed are currently close to the site, but the water main will need to be extended on Central Avenue.
e) Rear loaded townhomes to minimize access points off Central Avenue

6. Parcel 19-E-9; Central Avenue Site-Multi-family Concept

Multi-family/Apartment Concept Description

Like the multi-family concept on the Neff Avenue parcel, to complete a multi-family development, the property would need to be rezoned with an approved special use permit to allow for multifamily buildings which contain more than 12 units per building. The concept shown in **Exhibit I** provides a range of 120-133 units between 4 garden-style buildings. The building orientations vary from one side of Central Avenue to the other to avoid creating an architectural tunneling effect while driving through the development. Having the buildings be close to the road on one side and away from the road on the other, creates a more interesting streetscape. Because of the garden style architecture, surface parking will need to be utilized. For these concepts, a reduction in parking is being shown from an average of 2 parking spaces per unit to 1.1 to 1.3 parking space per unit. If a reduction in parking is not approved the number of

units may need to be reduced to meet the parking requirement. This multi-family concept would also fit well into the character of the surrounding neighborhoods as they are multi-family developments as well. Being near the elementary school would again be a great location to provide additional housing for the City of Harrisonburg.

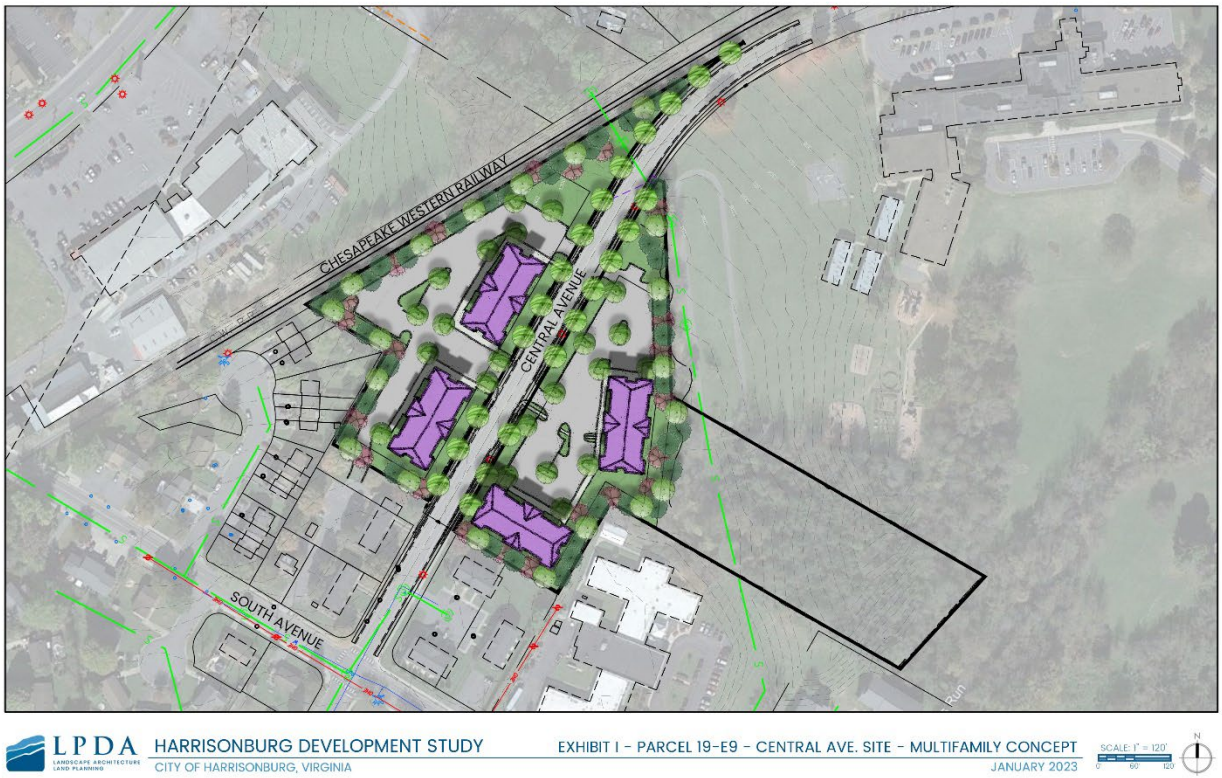

Exhibit I: Central Avenue multi-family concept plan

Access/Transportation

There will be 4 total access points from Central Avenue to provide better circulation through the 2 parking lots. An additional connection point for the west side could be through the adjacent property's parking lot as mentioned in the townhouse concept description above.

Stormwater management/Utilities

Stormwater management should not be an issue with this concept because of the topography of the parcel there should be enough open space area to accommodate stormwater management needs. All utilities needed for development are close to the site but the water main will need to be extended on Central Avenue**. Exhibit J** shows a preliminary stormwater management and utility design.

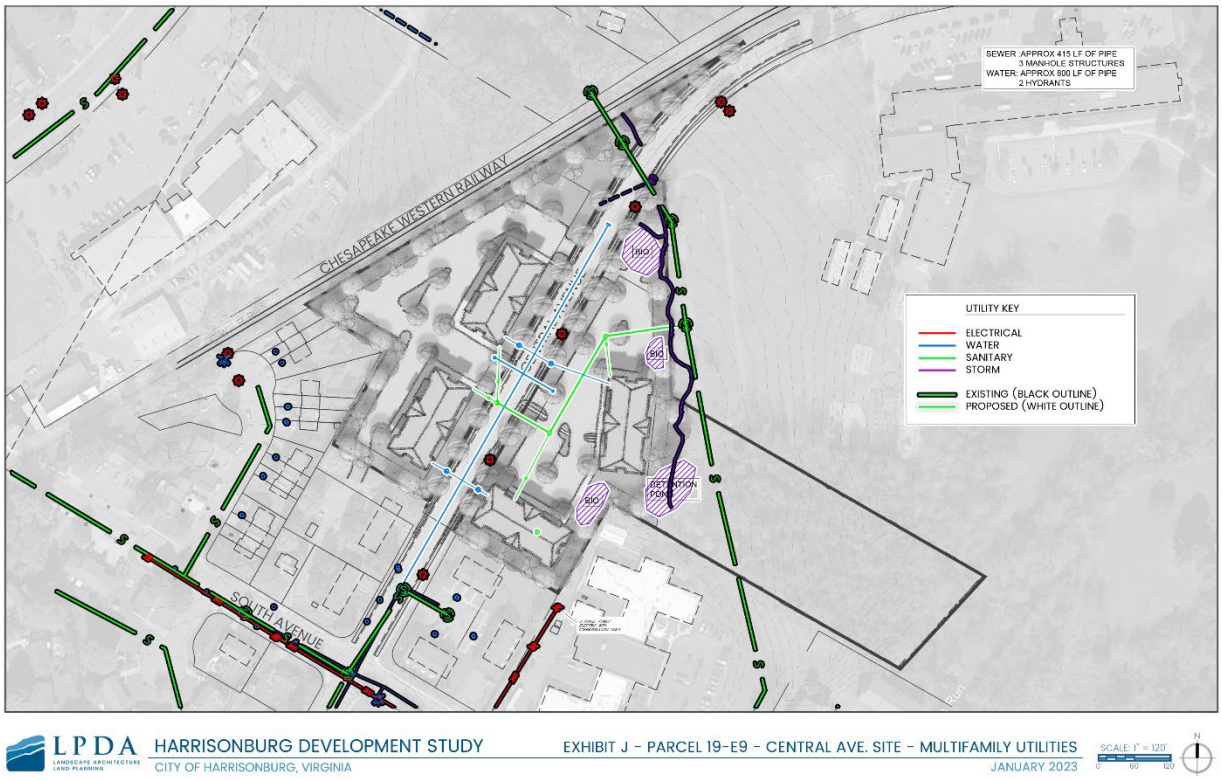

Exhibit J: Central Avenue multi-family SWM/Utility concept plan

Multi-family Concept Summary:

a) 3 story Garden style surface parked option – 120 units (1,000sf per unit average) to 133 units (830sf per unit average).
   - Reduction in parking may be needed.

b) Property to be rezoned to allow for multifamily buildings containing more than 12 units per building.

c) A divided site allows for phasing.

d) Traditional multi-family development project.

7. Parcel 19-E-9; Central Avenue Site-Small Lot Single Family

Small Lot Single-Family Concept

As an option to try to provide the most amount of affordable housing for the City, a small lot single family home concept was developed. This concept shown in **Exhibit K** could provide an affordable housing option that is not an apartment or townhome. The small lot single family concept provides approximately 36; 18'x50' units pending final engineering and approvals. This is the least dense/lowest yield of all the concepts but does provide a housing option that is different than the previous or typical affordable housing projects. The overall layout is very similar to the townhome concept and would follow the same development approach as the townhome concept described above.

Exhibit K: Central Avenue small-lot single family concept plan

Access/Transportation

Transportation and access for this concept are similar to Parcel 19-E-9 Townhouse Development Concept information outlined above.

Stormwater management/Utilities

The stormwater management and utility approach/design are similar to Parcel 19-E-9 Townhouse Development Concept information outlined above. **Exhibit L** shows a preliminary stormwater management and utility design.

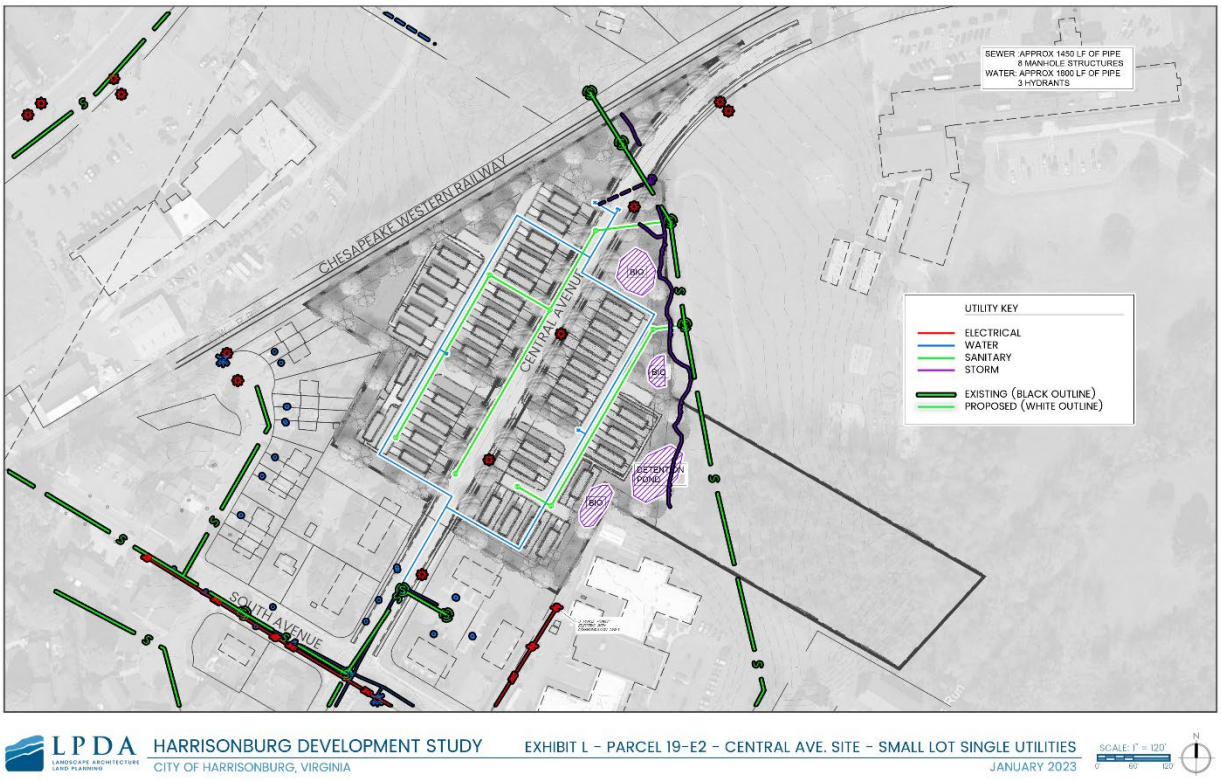

Exhibit L: Central Avenue small-lot single family SWM/Utility plan

Small Lot Single-Family Concept Summary:

a) 36; 18'-wide small lot single family lots
b) Provides affordable housing alternative to apartments or townhomes.
c) Development similar to townhouse development option.
d) Utilities needed for development area existing close to subject property. The water main will need to be extended on Central Avenue.
e) Use rear loaded lots to minimize access points from Central Avenue.

8. **Parcel 19-E-9; Central Avenue Site-Small Lot Single Family and Townhouse Concept**

Small Lot Single Family and Townhouse Concept Description

This concept combines the Townhouse and Small Lot Single Family concepts creating an opportunity to meet varied housing demands. This concept is shown in **Exhibit M**.

Exhibit M: Central Avenue townhomes and small lot single family concept plan

Access/Transportation

Reference Parcel 19-E-9 Townhouse, and Small Lot Single Family Development Concept information.

Stormwater management/Utilities

Reference Parcel 19-E-9 Townhouse, and Small Lot Single Family Development Concept information. **Exhibit N** shows a preliminary stormwater management and utility design.

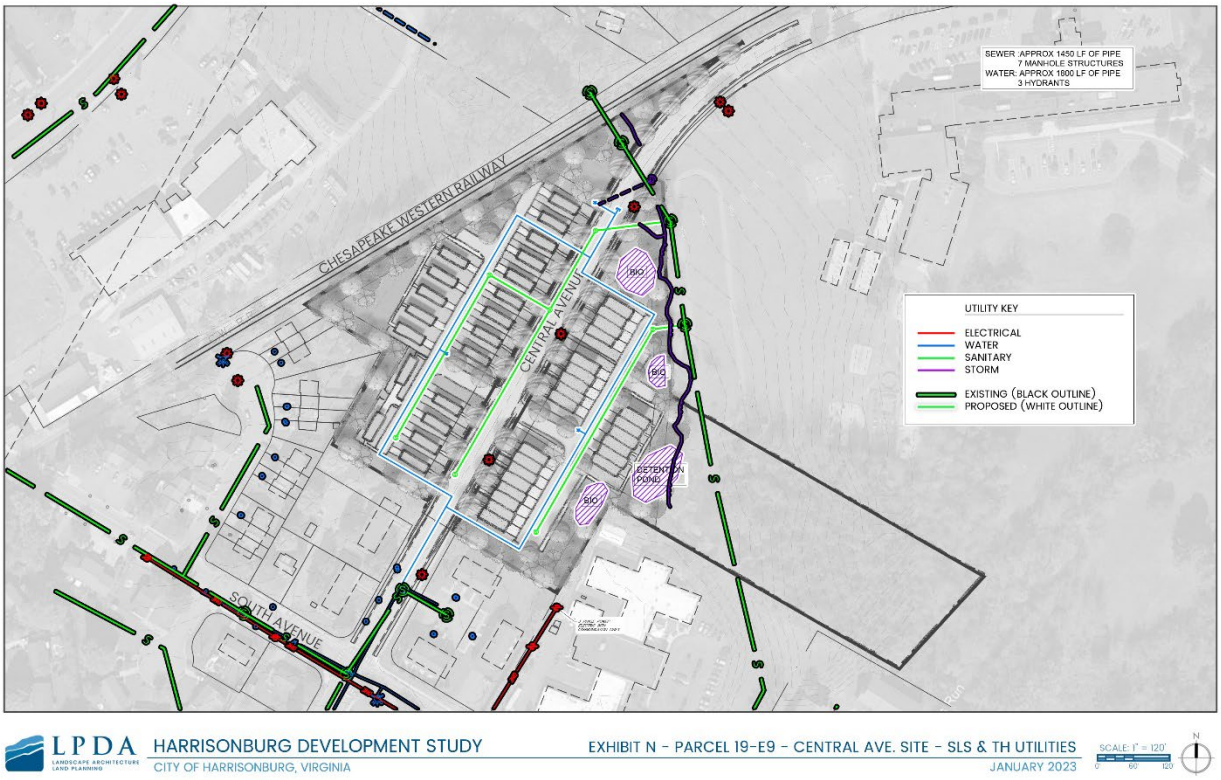

Exhibit N: Central Avenue townhomes and small lot single SMW/Utility plan

Small Lot Single and Townhouse Concept Summary:

a) 20; 18'-wide small lot single family lots.
b) 23-18'-wide rear loaded townhomes.
c) Small Lot Single Family Concept, and Townhouse Concept summaries apply.

B. RESIDENTIAL MARKET INDICATORS AND LIHTC REQUIREMENTS

1. Analytical Approach

RKG Associates, working under the LPDA team, conducted local residential market research and prepared development proformas for the two City-owned sites described previously. Relative to the local residential market, RKG examined residential developments currently in the City's development pipeline, documented annual absorption trends since 2015, and conducted a pricing and residential unit mix study based on recent new market-rate and LIHTC residential developments in Harrisonburg. Under many affordable housing scenarios seen nationwide in recent years, there is a mix of affordable and market-rate housing combined on the same site. In effect, the market rate units are used to partially subsidize the affordable units, which come with lower rents to accommodate lower-income households.

A series of interviews were conducted with residential developers active in the City of Harrisonburg and the region, commercial banks, mortgage brokers, and staff from Virginia Housing (formerly known as the Virginia Housing Development Authority) to understand local market-rate and affordable housing development assumptions, and potential funding sources and mechanisms. All this information was then used to inform the assumptions that were used to drive the proforma analyses conducted to evaluate the financial feasibility of the various residential development scenarios of the two sites.

2. LIHTC Program Overview

As part of the analysis, RKG researched Virginia's Low Income Housing Tax Credit (LIHTC) program, which is one of the most important and most used programs to create affordable housing throughout Virginia and the United States. The City of Harrisonburg has seen the construction of six affordable housing developments over the years utilizing this federal tax credit provision and those projects are presented in this analysis.

The Low-Income Housing Tax Credit (LIHTC) program is a federal program that subsidizes the acquisition, construction, and rehabilitation of affordable rental housing for low-income tenants. The LIHTC was enacted as part of the 1986 Tax Reform Act. Since the mid-1990s, the LIHTC program has supported the construction or rehabilitation of about 110,000 affordable rental units each year nationally (though there was a steep drop-off after the Great Recession of 2008–09)—over two million units in all since its inception[1].

The federal government issues tax credits to state and territorial governments. State housing agencies then award the credits to private developers of affordable rental housing projects. 9%

[1] *What is the low-income housing tax credit and how does it work?* Tax Policy Center. (n.d.). Retrieved April 17, 2023, from https://www.taxpolicycenter.org/briefing-book/what-low-income-housing-tax-credit-and-how-does-it-work#:~:text=The%20Low%2DIncome%20Housing%20Tax%20Credit%20(LIHTC)%20subsidizes%20the,has%20been%20modified%20numerous%20times.

and 4% housing tax credits are available under the LIHTC program. The general requirement for both programs is that at least 40% of the total units must be occupied by households with incomes at 60% of Area Median Income (AMI) or below, or at least 20% of the total units must be occupied by households with incomes at 50% of AMI or below. A third scenario under the requirement is that "40% or more of the units are both rent-restricted and occupied by persons whose income does not exceed the imputed income limitation designated in 10% increments between 20% to 80% of the AMI, and the average of the imputed income limitations collectively does not exceed 60% of the AMI (this is called the Average Income Test (AIT))".

In addition, LIHTC rents must be affordable and set so that housing costs, including an allowance for utilities, do not exceed 30% of monthly household income (from the AMI limits).

The 4% tax credit (30% subsidy) is usually used when the total development cost is relatively lower, for example, to acquire existing buildings for rehabilitation with tax-exempt bonds. The 9% tax credit (70% subsidy) is usually used to obtain a substantial amount of subsidy for high-cost projects, for example, new construction developments and substantial rehabilitation without federal subsidies. Either tax credit can be claimed for up to 10 years. The tax credit amounts are approximately equivalent to 4% or 9% of the project's eligible construction cost.[2]

The 9% program accepts applications once a year, usually in mid-March in Virginia, and the process is competitive, and applications are ranked according to a set of scoring criteria. For the 9% deal, applicants must score at least 400 points to qualify for consideration in Virginia. To fund a 9% LIHTC deal, Virginia Housing's taxable bond-funded loans provide fully amortizing, non-recourse mortgage loans that can also be paired with 9% LIHTC. A 9% LIHTC project can also use other funding sources, such as traditional commercial lending through banks, as well as HUD loans, and other local, state, and federal funding sources. Developers generally sell the credits to private investors in exchange for equity funding.

The 4% program accepts applications on a rolling basis throughout the year, and applicants do not have to compete for the credits. In terms of 4% deal financing, at least 50% and no more than 55%[3] of the approved development cost must be financed with Virginia Housing's tax-exempt bond-funded loans, and the remaining portion can be financed with the taxable bond-funded loan or other funding sources such as commercial loans.

In recent years, some projects in Virginia pursued the 4%/9% hybrid model, which allows costs (and thus the eligible basis for credit) for large or multi-phase projects to be spread across two LIHTC applications. Virginia Housing requires that the 4%/9% hybrid projects should meet the requirements from both the 4% and 9% models. More details will be discussed in a later section.

[2] "Low-Income Housing Tax Credits and the HUD 223(f) Loan Program", (https://www.hud223f.loans/glossary/4-and-9-percent-lihtcs/)
[3] Through interviews with VA Housing lending department staff in 2022

3. Harrisonburg's LIHTC Developments

The City of Harrisonburg has six LIHTC projects which have received Low Income Housing Tax Credit issued by Virginia Housing. The City's most recent LIHTC multi-family project was the Colonnade at Rocktown II with 60 units, which was built in 2010. The City's most recent LIHTC project is Commerce Village with 30 units that targets chronically homeless individuals and chronically homeless veterans and was built in 2015 (Table 1). There is another 88-unit LIHTC project Robinson Park located just outside of the City boundary in Rockingham County.

Table 1

Existing LIHTC Projects, 2022
City of Harrisonburg, VA

Property Name	Street Address	City	Total Units	Target Type	Cycle Name	Building Type	Has Rental Assistance ?*	Tax Credit Units	0BR	1BR	2BR	3BR	4BR	5BR
Chestnut Ridge I	181 Chestnut Ridge Drive	Harrisonburg	100	General	1996 9% Competitive	New Construction	FALSE	100	0	0	80	20	0	0
Chestnut Ridge II	181 Chestnut Ridge Drive	Harrisonburg	48	General	1997 9% Competitive	New Construction	FALSE	48	0	0	36	12	0	0
Colonnade at Rocktown II	351 North Mason Street	Harrisonburg	60	General	2008 9% Competitive	New Construction	FALSE	60	0	6	42	12	0	0
Commerce Village	181 and 241 Commerce Drive	Harrisonburg	30	General	2014 9% Non Competitive	New Construction	TRUE	30	0	30	0	0	0	0
Lineweaver	265 North Main Street	Harrisonburg	60	Elderly	1991 9% Competitive	New Construction	FALSE	60	0	60	0	0	0	0
Mosby Heights	2510 Mosby Court	Harrisonburg	112	General	2004 9% Competitive	Acquisition/Rehab	TRUE	112	0	0	76	24	12	0

Source: City of Harrisonburg, VA, 2022

4. Residential Development Pipeline and Annual Absorption

The consultant analyzed the residential pipeline in Harrisonburg as of October 2022 using online resources, the City's publicly available meeting and hearing notes, related development proposal materials, and with the assistance of the City's staff. In the development industry, it is standard practice to look at the existing pipeline data for the purpose of researching potential development prospects. Table 2 summarizes Harrisonburg's housing development pipeline by tenure and development phase. As of October 2022, Harrisonburg has 393 ownership housing units that are either approved or under construction, and 210 mixed-use and multi-family housing units either approved or under construction.

Table 2

Residential Development Pipeline, As of October 2022
City of Harrisonburg, VA

Category	Total Units	No. of Projects
Ownership Housing	**460**	**15**
Constructed/Under Construction	255	7
Site Plan Approved	138	4
Preliminary Plat Approved	11	1
Under Review	51	2
Site Plan Not Submitted	5	1
Mixed Use	**274**	**6**
Constructed/Under Construction	43	2
Site Plan Approved	100	1
Site Plan Not Submitted	131	3
Multifamily	**1,138**	**12**
Site Plan Approved	67	2
Under Review	288	3
Site Plan Not Submitted	783	7

Source: City of Harrisonburg and RKG Associates, Inc., 2022

Annual residential absorption between 2015 and 2020 was estimated using the City's property assessment database. For parcels with ownership homes (either single-family detached homes, duplexes, single-family detached homes on large lots over one acre, or

townhouses) built between 2015 and 2020, the average annual pace is 66 units per year. Note that the housing absorption rate in this context means the rate at which new homes are constructed and sold in a given market over a calendar year. Assuming this absorption rate will continue for Harrisonburg's newly constructed homes would be aggressive, given recent increases in mortgage interest rates, which have slowed market rate housing sales and construction nationwide. RKG would expect market-rate rental and ownership residential construction to slow, but affordable housing, in general, is an under-met need in the City. However, if a proposed project has both market-rate and affordable housing units, the demand for market-rate development should be taken into consideration as well.

As for multifamily developments, there have only been a few new apartment buildings constructed in Harrisonburg since 2015, and those developments with 10 or more units target the student population. There have been a few non-student, multifamily developments constructed within Rockingham County since 2015, in many instances just beyond the City's borders, including Robinson Park, a LIHTC project, finished in 2017. The consultant also developed a future housing demand projection model and estimated that Harrisonburg's new multifamily rental housing total demand between 2020 and 2030 averages 54 units per year based on the City's population and renter household growth projection. This means it will most likely take almost four years for the City to absorb the existing multifamily housing units in the pipeline.

5. Residential Pricing and Unit Mix

The market assessment analyzed Harrisonburg's existing multifamily market in terms of rental pricing, unit size, and unit mix for both market-rate apartments and income-restricted LIHTC apartments. It should be noted that income-restricted units are not priced on a per-square-foot basis like market-rate units. Rents at tax credit projects are based on local affordability at specific income levels by household size. Detailed calculations of LIHTC unit rents are discussed in the Appendix at the end of this report.

Because the LIHTC rent calculations set the *gross* rent limit, a utility allowance must be deducted to determine the maximum allowable contract rent. An example of this calculation for 50% of AMI is in Table 3.

Table 3

FY 2022 Maximum Contract Rent Calculation for 50% AMI Units, HUD Harrisonburg, VA MSA

Unit Size	Efficiency	1 Bedroom	2 Bedroom	3 Bedroom
Household Size Calculation	1	2	3	4
50% AMI Income Limit	$26,800	$30,600	$34,450	$38,250
Affordable Gross Rent	$670	$765	$861	$956
Applicable Utility Allowance	$88	$101	$145	$176
Maximum Contract Rent (50% AMI Units)	$582	$664	$716	$780

Source: U.S. Department of Housing and Urban Development and Harrisonburg Redevelopment & Housing Authority, 2022

According to the HUD's 2022 AMI standards for the City of Harrisonburg and RKG's market research, below are the recommended unit size, unit mix, and pricing results (Table 4).

Table 4

Multifamily Apartment Pricing, Size and Unit Mix, 2022
City of Harrisonburg, VA

Bedroom	Units Mix	Avg. Size	Avg. Rent	Avg. $/SF
Market Rate Units				
Studio	12%	550	$1,155	$2.10
1	20%	660	$1,195	$1.81
2	47%	992	$1,488	$1.50
3	21%	1,113	$1,725	$1.55
Income Restricted Units				
Studio	0%	550	$783	
1	20%	660	$894	
2	52%	992	$975	
3	28%	1,113	$1,067	

Source: RKG Associates, Inc., 2022

The Multi-family/Apartment Concept Description sections estimated the average unit size at 1,000 square feet, with the Parcel 87-G-2 Neff Avenue site (**Exhibit D**) having 180 units, and the Parcel 19-E-9 Central Avenue site (**Exhibit I**) supporting 120 units. These are reasonable rules of thumb for rough estimates. However, RKG estimated the MF unit yields for both sites based on the unit sizes and unit mixes observed in the Harrisonburg multi-family market in recent years. The research indicates that the average unit size has been trending smaller than 1,000 square feet. This indicates that the estimated yield for Parcel 87-G-2 Neff Avenue would be closer to 200 units, and Parcel 19-E-9 Central Avenue would yield 133 units under these different assumptions.

C. ANALYSIS OF AFFORDABLE HOUSING DEVELOPMENT OPTIONS

1. Multi-Family Rental Development

This section utilized proforma models to examine the financial feasibility of the multi-family/apartment development concepts presented in the previous sections. In general, it is assumed that the 200 units at the Parcel 87-G-2 Neff Avenue site (**Exhibit D**) will be developed in two phases with 100 units in each phase. The 133 units at the Parcel 19-E-9 Central Avenue site (**Exhibit I**) will be developed in one phase.

Model Assumptions
The consultant obtained the FY 2022 Household Income Limits by household size for Harrisonburg, VA Metropolitan Statistical Area (MSA) from the U.S. Department of Housing and Urban Development (HUD) (Table 11 in Appendix). The gross rent charged for a low-income unit may not exceed 30% of the monthly income limit applicable.

RKG obtained the monthly rent rates of market-rate apartment units and the unit size and unit mix of both market-rate and income-restricted units by studying comparable new market-rate apartment buildings constructed in the past three years in Harrisonburg City. The consultant interviewed multi-family apartment developers active in the Harrisonburg area for development assumptions used in the proforma models such as construction costs, soft costs, vacancy rates, and expected developer return rate. The land development cost estimates were provided by Blackwell Engineering.

Through interviews with representatives from JPMorgan Chase Bank and Virginia Housing, the consultant also gathered the construction loan and permanent loan interest rates and terms for market-rate and LIHTC apartment developments. Note that many of the assumptions, especially interest rates, fluctuate daily, and the figures used in the proforma models serve as an example and snapshot of a particular point in time.

Additionally, details of Virginia's LIHTC program were researched, including interviews with Virginia Housing staff and LIHTC mortgage brokers; reviews of the 2022 LIHTC manual, the 2022 "Plan of The Virginia Housing Development Authority for the Allocation of Low-Income Housing Tax Credits" (QAP), and LIHTC 4% and 9% 2022 winners' applications.

Key Assumptions
Key assumptions in the proforma models include the construction cost per square foot, the desired developer internal rate of return, and the underlying land value that can be used as equity. These factors can vary and change the outlook of the project's feasibility.

- Construction Cost Per Square Foot
  According to the consultant's developer interview and the Marshall & Swift Commercial Building Cost Data, the construction cost for a Class C garden-style apartment building, which is typical in the Harrisonburg market is between $150 and $200/SF, with recent projects running closer to $200 /SF. For the proforma analysis, the midpoint of $175/SF was used. As defined by Marshall & Swift, a Class C building frame consists of "masonry or concrete load-bearing walls with or without pilasters," and "masonry, concrete, or curtain walls with full or partial open steel, wood, or concrete frame." This would just be a standard garden-style apartment to reduce construction costs.

- Expected Developer Return
  Interviewed developers indicated that the expected developer return is between 10% and 15% in the Harrisonburg multi-family apartment market. Therefore, 10% is used in the proforma models to assess whether the various development scenarios can meet the minimum developer return requirements. If the projects cannot achieve a minimum acceptable return, the City will not be able to attract conventional development partners. However, nonprofit development partners might be more willing to accept a slightly lower return.

- Land Value
  The LoopNet.com website was used to identify other competitive land parcels with comparable locations, acreage, and zoning entitlements. As of November 2022, parcels of similar size and zoning that are listed for sale were around $400,000 to $500,000 per acre for raw land without subdivided lots or onsite utilities, parking, or other amenities.

a) 4% LIHTC Multi-Family Rental Development

RKG researched all residential projects that received 4% LIHTC approval in 2022 and found that they are either acquisition/rehabilitation projects of existing properties or new construction projects as a part of a hybrid 4% and 9% deal. There were no new construction projects that were not part of a hybrid deal that received 4% LIHTC credits in 2022. This is because the available tax credit under the 4% LIHTC program is smaller and more limited than the 9% program. Given the current interest rates and affordable housing market conditions in Virginia, a new construction project not part of a hybrid deal would not be financially feasible if they only pursued 4% tax credits. In addition, all the new construction projects utilizing the 4% program as part of the 4% and 9% hybrid deal in 2022 had 100% of their units being income-restricted and affordable for households earning at or less than 60% of the AMI. On the other hand, acquisition/rehabilitation projects have lower total costs compared to new construction projects, and they can be feasible even with less tax credit offered by the LIHTC 4% program.
To test this assumption, RKG modeled the 4% scenario for both the Neff Avenue and the Central Avenue sites to analyze their respective Internal Rates of Return (IRR). Both project sites were judged against the developers' expected rate of return (10%, obtained through developer interviews). It is assumed that 100% of the units were income-restricted targeting households earning at 60% of AMI on average to maximize the eligible 4% credit as it is dependent on the percentage of income-restricted units.

LIHTC Internal Rate of Return (IRR) and Subsidy Requirements
For the Neff Avenue site with its land value used as equity, the project is not feasible without any additional subsidies. A total of $9.9 million in additional subsidy is needed for the project to achieve a 10% IRR. For the Central Avenue site, with its land value used as equity, the project is not feasible without any additional subsidies. A total of $7.2 million of additional financial subsidy is needed to achieve a 10% IRR. Therefore, a total of $17.1 million of subsidy is needed in addition to the 4% LIHTC credit to make 100% of the 333 units at the two sites affordable to households earning at or below 60% of AMI.

If the percentage of affordable units is reduced to 50% for both sites, the IRR for the Neff Avenue site is -0.04%, and the IRR for the Central Avenue site is 0.28%, which are still unacceptable for developers, and additional subsidies are required to achieve a 10% IRR. The financial infeasibility of only relying on the 4% LIHTC program is the reason there have not been any affordable housing new construction projects that only utilized the 4% LIHTC funding without other subsidies in the past two years.

b) 9% LIHTC Multi-Family Rental Development

New construction projects in Virginia that received 9% tax credits in 2022 had 100% affordable units targeting households earning at 55% of AMI on average. This is because the 9% program is significantly competitive in Virginia, and for developments to score high enough in the ranking system to win, projects need to include 100% of affordable units targeting 55% of AMI to be competitive. This assumption is used for the 9% scenario proforma models for both sites.

The 9% LIHTC scenario can be feasible for both sites without any additional funding. The IRR for the Neff Avenue site is 19.26% even without using land value as equity, exceeding the 10% minimum expected developer return. This is because, with 100% of the units being income-restricted and eligible for the 9% LIHTC credit, the total credit that the Neff Avenue site can qualify for is enough to cover 100% of development costs. In effect, the developer does not have to put any equity into the project. The Central Avenue site can achieve an IRR of 7.04% without the land value as equity, and an IRR of 14.5% with the land value of $1.6 million as equity. If a nonprofit developer develops the Central Avenue site, they may be willing to accept the 7.04% return rate and not need to use the land value as equity. However, if a for-profit developer develops the site, they may need to use at least some of the land value as equity to achieve an IRR above 10%.

c) Hybrid LIHTC Multi-Family Rental Development

Though the 9% LIHTC program produces financial feasibility for new multi-family construction projects, the program is highly competitive. As mentioned above, the 4%/9% hybrid model has been gaining popularity in Virginia in recent years, especially in highly competitive LIHTC markets such as Northern Virginia. Based on conversations with Virginia Housing staff, some developers in practice will also voluntarily reduce the requested credit under the 9% LIHTC program even though they can qualify for more. This is because to maximize points, particularly under the category of "Efficient Use of Resources (EUR) – Credit per Unit" in the scoring system, applicants may request a credit amount less than the maximum allowed by their projects' eligible basis. This is part of the balancing act developers undergo between project costs, credit requests, income targeting, soft funding sources, and more to score as high as they can and stand out in their respective application pools. According to a Virginia Housing representative, "sometimes it is a matter of a few points in terms of who is funded or not, so the EUR score and amenity selections (along with documentation accuracy) often become critical in rankings."

Development Considerations
The 4%/9% hybrid model can be complicated, and its success is dependent on how and when the developer strategizes and distributes the units between the 4% and 9% portions. Factors including but not limited to the timing of the two applications, ownership structure, unit distribution between the two portions, land deeds, timing of various funding sources, the physical design of the two portions, and the balance between the 9% and 4% portions in terms of costs, basis, and potential equity are all crucial to the viability of the combined 4% and 9% hybrid model. It requires sophisticated underwriting and LIHTC experts specializing in this topic to make hybrid model projects successful. It is also worth pointing out that each portion of a hybrid deal must be

able to be financially feasible on its own and not rely on incomes from the other side. Virginia Housing also requires developers without prior hybrid model development experience to schedule a meeting with Virginia Housing before their application submissions.

d) Non-LIHTC Multi-Family Rental Development Option

Internal Rate of Return (IRR)

Even when using their land value as equity, without the Virginia LIHTC program, neither the Neff Avenue nor Central Avenue projects will be financially feasible without additional subsidies. For the Neff Avenue site, even if only 10% of the units are income-restricted to be affordable to households earning at or below 80% of AMI, the projected IRR is 7.93%. Under the same assumptions, the Central Avenue site's projected IRR is 8.02%. If the target AMI goes down below 80% and as the percentage of income-restricted units increases, the projected IRRs for both sites will further decrease.

Subsidy Requirements

Assume the Neff Avenue project has 50% of its units being income-restricted targeting households earning 60% of AMI or below, even when using its land value as equity, it still needs $9.5 million additional subsidy to achieve a 10% IRR. When assuming 50% of the units are income-restricted targeting households earning 75% of AMI or below, an additional $7.3 million in subsidy is needed to achieve a 10% IRR. For the Central Avenue site, even when using its land value as equity, an addition of almost $7 million is needed if 50% of the units target 60% of AMI or below, and an addition of $5.1 million is needed if 50% of the units target 75% of AMI or below to achieve a 10% IRR. Under this target AMI and affordable unit mix assumption, a total subsidy between $12.4 million and $16.5 million is needed to make both projects feasible (Table 5). If the City wants to target lower AMI levels or increase the percentage of income-restricted units, more funding is needed (Table 6).

Table 5

Neff Avenue Development Proforma Scenarios

	4% LIHTC	9% LIHTC	No LIHTC		
			Scenario 1	Scenario 2	Scenario 3
Affordability %	**100%**	**100%**	**10%**	**50%**	**50%**
Target AMI	**60% of AMI**	**55% of AMI**	**80% of AMI**	**60% of AMI**	**75% of AMI**
Development Cost Excluding Land Cost	$52,848,967	$52,848,967	$49,951,594	$51,222,954	$51,222,954
Land Cost	$0	$0	$0	$0	$0
Total Development Cost	$52,848,967	$52,848,967	$49,951,594	$51,222,954	$51,222,954
Financed Amount (%)	**34%**	**21%**	**60%**	**60%**	**60%**
Equity Amount (%)	**66%**	**79%**	**40%**	**40%**	**40%**
Land Value as Equity	$2,400,000	$0	$2,400,000	$2,400,000	$2,400,000
Local Subsidy	**$9.9 Million**	**$0**	**$0**	**$9.5 Million**	**$7.3 Million**
LIHTC Credit Equity	$20,941,946	$41,815,134	$0	$0	$0
Equity from Developer	$86,109	$0	$17,580,637	$18,089,182	$18,089,182
IRR	**10.00%**	**19.26%**	**7.93%**	**10.00%**	**10.00%**

Source: RKG Associates, Inc., 2023

Table 6

Central Avenue Development Proforma Scenarios

	4% LIHTC	9% LIHTC	No LIHTC		
			Scenario 1	Scenario 2	Scenario 3
Affordability %	**100%**	**100%**	**10%**	**50%**	**50%**
Target AMI	**60% of AMI**	**55% of AMI**	**80% of AMI**	**60% of AMI**	**75% of AMI**
Development Cost Excluding Land Cost	$34,136,129	$34,136,129	$32,326,187	$33,203,336	$33,203,336
Land Cost	$0	$0	$0	$0	$0
Total Development Cost	$34,136,129	$34,136,129	$32,326,187	$33,203,336	$33,203,336
Financed Amount (%)	**34%**	**25%**	**60%**	**60%**	**60%**
Equity Amount (%)	**66%**	**75%**	**40%**	**40%**	**40%**
Land Value as Equity	$1,600,000	$1,600,000	$1,600,000	$1,600,000	$1,600,000
Local Subsidy	**$7.2 Million**	**$0**	**$0**	**$7.0 Million**	**$5.1 Million**
LIHTC Credit Equity	$13,777,934	$23,846,424	$0	$0	$0
Equity from Developer	$0	$0	$11,330,475	$4,683,965	$6,549,908
IRR	**10.00%**	**14.50%**	**8.02%**	**10.00%**	**10.00%**

Source: RKG Associates, Inc., 2023

Potential Funding Sources

The consultant researched potentially available funding sources for the non-LIHTC scenario. A major funding program is the Virginia Department of Housing and Community Development's (DHCD) Affordable and Special Needs Housing (ASNH) program. It consolidates various state-level and federal-level funding resources into one program, and its application is a competitive process where applicants are ranked and selected. The ASNH program's funding sources include HOME funds, National Housing Trust Fund (NHTF), Virginia Housing Trust Fund (VHTF), State Permanent Supportive Housing Funds (PSH fund), and Home Innovations in Energy Efficiency (HIEE) program. Each project is limited to an award:

- $700,000 – Maximum request per funding source (HOME, NHTF, or VHTF),
- $2,100,000 – Maximum award for a project requesting HOME, NHTF, and VHTF.

Each project earning a competitive source award (HOME, NHTF, VHTF, or PSH fund) which is designed to meet the HIEE minimum performance requirements is eligible for an award of up to $2 million or ten percent (10%) of its total construction costs as calculated in the ASNH Application Workbook underwriting tab, whichever is the lesser amount.

Generally, an eligible project must meet the affordability requirements of every source for which it is requesting funds. Program requirements including the number of required assisted units are based on the total amount of HOME or NHTF assistance (including HOME from other resources) as compared to the total development costs. The final number of assisted units in a project will be determined by DHCD during underwriting.

The HOME fund under the ASNH program is the portion allocated to DHCD and is separate from the portions allocated directly to local municipalities. It requires rental units to target households earning at or below 60% of AMI, and 20% of the HOME-assisted units must further target 50% of AMI or below. Ownership units need to target between 60% and 80% of AMI. The Virginia Housing Trust Fund is a competitive low-interest loan pool for projects developing rental units or for sale homes targeting at or below 80% AMI income levels. DHCD awards all its NHTF funds through the ASNH program and uses NHTF to support the development of rental units made available to individuals or families with incomes at or below 30% AMI. The HIEE fund assists affordable housing project development teams in completing energy efficiency upgrades that would not have been feasible otherwise.

Because NHTF funds require projects to target 30% of AMI income levels or below, neither of the two sites will likely be qualified as they cannot support such an affordability level. However, both the Neff Avenue and Central Avenue sites can qualify for HOME, Virginia Housing Trust Fund, and HIEE, and therefore the potential maximum funding amount for each site under the ASNH program is $3.4 million ($700,000 for HOME, $700,000 for VHTF, and $2 million for HIEE).

The ASNH program also requires a minimum of five income-restricted units for the HOME fund and some income-restricted units for VHTF or HIEE without further specifications. Therefore, to meet the minimum requirements, for both the Neff Avenue and Central Avenue sites, it is assumed that five units will be income-restricted and funded by HOME, with four of them targeting 60% of AMI or below, and one (20% of five units) of them targeting 50% of AMI or below. It is also assumed that both development sites will respectively include 10 more income-restricted units targeting 80% of AMI or below to qualify for VHTF and HIEE, totaling 15 income-restricted units for each site. This renders a blended target AMI level of around 75%. Note that this is just an estimated scenario for the purpose of the proforma models, and the actual number of income-restricted units will ultimately be decided by DHCD.

If the Neff Avenue site only adheres to the minimum affordable unit percentage requirement and builds 10% of income-restricted units targeting households earning 75% of AMI or below while using its land value as equity and maximizing the $3.4 million ASNH funding, the baseline IRR is 9.56%. If the percentage of income-restricted units increases to 15%, the IRR will drop to 9.3%. If the project is developed by a for-profit developer without additional subsidies or funding, then this combination of the target AMI level and the affordable unit percentage may be the only option. However, if the City or the City's development partner (usually a community development organization) develops this project without additional funding and does not necessarily require a 10% IRR, then the City or its development partner can target even lower AMI income levels or increase the percentage of income-restricted units, even though this will reduce the IRR to below 10%.

If the Central Avenue site also only keeps to the minimum affordable unit percentage requirement and builds 10% of income-restricted units targeting households earning 75% of AMI or below while using its land value as equity and maximizing the $3.4 million ASNH funding, the baseline IRR is 10.45%. If increasing the affordable unit percentage to 30%, the IRR is 9.5%, which barely meets the 10% expectation. Again, if the project is developed by a for-profit

developer without additional subsidies or funding, then this combination of the target AMI level and the affordable unit percentage may be the only option. However, the City or its development partner can target even lower AMI income levels or increase the percentage of income-restricted units if they develop this project, but the cost will be to further reduce the IRR.

Other Potential Funding Options

a. ARPA Housing Fund

The Harrisonburg City Council allocated a $2 million ARPA (American Rescue Plan Act) Housing Fund in December 2022 that the City could potentially tap into to bridge the funding gap for the Neff Avenue and Central Avenue site development. Details of this Housing Fund have not been finalized yet, but some funding restrictions include:

- household income restrictions,
- minimum affordability period,
- tenant protection mechanisms,
- and mechanisms to ensure housing quality standards.

Though the City is still working to finalize the ARPA Housing Fund, City staff plans to recommend awarding grants and loans through a competitive application process, seeking projects that:

- increase housing choice while promoting diversity and vitality,
- preserve existing affordable housing or repurpose nonresidential spaces,
- expand rental and/or homeownership opportunities,
- serve identified underserved populations,
- demonstrate efficient use of funding and resources,
- are presumptively eligible under ARPA,
- expand and diversify capacity for nonprofit development and partnerships, and
- offer longer or deeper subsidies than the minimum requirement.

Analysis Conclusions

The proforma models show that only pursuing the 4% LIHTC program will not be financially feasible for either site even when building 100% of income-restricted units to maximize the 4% credit. The highly competitive 9% LIHTC model proves to be feasible for both Neff Avenue and Central Avenue sites. Pursuing the 4% and 9% hybrid LIHTC concept is an option to increase the chance of winning under the 9% LIHTC program and can be financially feasible, but it requires additional sophisticated planning and analysis.

Without the LIHTC program, it comes down to the balance between available funding, the targeted AMI benefits, and the percentage of affordable units that the City wants to achieve. For example, if the City wants to build 50% of the units to be income-restricted targeting households earning 60% of AMI or below for both sites, around $16.5 million of subsidies in total is needed to achieve this goal. Currently, the major available funding source other than LIHTC for affordable housing development is the Virginia Department of Housing and Community Development's (DHCD) Affordable and Special Needs Housing (ASNH) program with a

theoretically maximum funding amount of $3.4 million for each site, totaling $6.8 million at the maximum. Also, note that the actual awarded amount under the ASNH program may likely be lower than $3.4 million for each site.

Under the ASNH program scenario, without additional subsidies, if the two sites adhere to the minimum affordable unit requirements and maximize the $6.8 million total ASNH funding, they can achieve between 10% and 30% of their units being affordable (20 units for the Neff Avenue site and 40 units for the Central Avenue site) for households earning 75% of AMI or below with an IRR of barely 10%. For a private developer, this AMI level and the affordable unit percentage may be the only option to make the projects feasible without additional subsidies. However, if the City or a community development organization partner is the developer and is not necessarily constrained by the 10% IRR expectation, then the projects can target lower AMI levels and/or achieve higher affordable unit percentages, while at the cost of a lower IRR. Other than that, the only other option is to obtain additional subsidies.

2. Single-Family Home and Townhome Development Option

Reasons for Considering Homeownership Development Option

A single-family and townhome development is one affordable housing option under consideration by the City of Harrisonburg for the Central Avenue and Neff Avenue sites. Homeownership offers low- and moderate-income residents the opportunity to have their own space and build equity, which helps build generational wealth. However, to maintain longevity in homeownership programs, residents are often capped in the amount of equity they can capture and take with them when they sell their homes and move on to another residence. In addition, first-time homebuyer education programs require a number of associated classes to prepare households for homeownership and the added costs and responsibilities associated with owning versus renting. First-time homeownership training courses prepare new buyers on how to successfully apply and get approved for mortgage loans, as well as how to budget and care for home maintenance needs.

Programmatic Support for First-Time Homeownership

The number of programs for affordable homeownership varies across the country and includes a variety of different public subsidies to make it possible for moderate income households to own their first home. The City of Harrisonburg is evaluating homeownership options as part of its overall housing strategy. By comparison, most affordable housing units created throughout the country tend to be multi-family, benefiting from the unit density created by these projects and the ability to spread construction and land cost across a larger number of units.

Target Populations for Homeownership Program

As it relates to the Harrisonburg market, affordable ownership can come in many forms, from independent living units for seniors to family housing for first homebuyers and housing people in the workforce making up to 120% AMI. The cost of providing affordably priced single-family homes, townhouses and duplexes will be more expensive on a per-unit basis than constructing affordable rental units. The economies of scale that can make multi-family units more affordable are typically not available in ownership housing.

According to American Community Survey (ACS) data, the average ownership household size in the Harrisonburg MSA is 2.66 persons/household and most households range in size from 2 to 4 persons, it is appropriate to look at the HUD AMI levels for 2- to 4-person households between 80% and 120% of AMI. Typically, households between 100% and 120% of AMI are classified as "workforce" households, with many programs targeting households as low as 80% of AMI as potential homeowners. However, it is harder to achieve homeownership success at lower AMI levels without deep subsidies or other ways to subsidize the cost of housing construction.

Table 7 shows the relationship between 2- to 4-person households and AMIs at the 80% to 120% level. One would expect homeowners above the area median income to have some ability to afford a segment of the new housing market, but perhaps not the higher end of the price range. At 80% AMI, the maximum buying power of 2- to 4-person households range from a low of $163,815 to a high of $228,565. This range is below the typical sales price point for most of the city's new home sales. The maximum affordable home values in Table 7 include mortgage principle, interest, taxes, and insurance, and assume that other household expenses, which include utility costs, equal 12% of monthly income.

Table 7

City of Harrisonburg, VA MSA AMI Levels by Household Size (2022)

	HUD AMI Levels by Household Size					
Household Size	**Extremely Low Income**	**50%**	**60%**	**80%**	**100%**	**120%**
1	$16,100	$26,800	$32,160	$42,850	$53,600	$64,320
2	$18,400	$30,600	$36,720	$49,000	$61,200	$73,440
3	$23,030	$34,450	$41,340	$55,100	$68,900	$82,680
4	$27,750	$38,250	$45,900	$61,200	$76,500	$91,800
	28% of Gross Monthly Income Allocated to Housing Costs					
Household Size	**Extremely Low Income**	**50%**	**60%**	**80%**	**100%**	**120%**
1	$ 376	$ 625	$ 750	$ 1,000	$ 1,251	$ 1,501
2	$ 429	$ 714	$ 857	$ 1,143	$ 1,428	$ 1,714
3	$ 537	$ 804	$ 965	$ 1,286	$ 1,608	$ 1,929
4	$ 648	$ 893	$ 1,071	$ 1,428	$ 1,785	$ 2,142
	Maximum Homebuying Price Point					
Household Size	**Extremely Low Income**	**50%**	**60%**	**80%**	**100%**	**120%**
1	--		--	--	--	--
2	--		--	$ 163,815	$ 221,226	$ 284,340
3	--		--	$ 195,810	$ 255,326	$ 317,488
4	--		--	$ 228,565	$ 281,400	$ 354,505

Source: U.S. Department of HUD, RKG Associates, Inc. 2023

Assumptions:

Assumes monthly housing expenses equal 28% of gross monthly income (principal, interest, taxes and insurance)

Assumes other households expenses equal 12% of gross monthly income

Assumes homebuyer has good credit score (670-739) and is accessing 30-Yr Fixed FHA Mortgage with 3.5% downpayment

Based on current FHA mortgage interest rates of 6.52% (February 2023)

New Construction Home Pricing (2015-2020)

Between 2015-2020, there were 210 new construction home sales in the City of Harrisonburg. Roughly 61% of these homes sold for under $250,000, although recent sales prices have been rising. Another 17% of new home sales occurred between $250,000 to $350,000 and would be accessible to most homebuyers at 100% and 120% of AMI (Table 8).

The data also indicate a modest supply of new housing constructed within the City over a 5-year period (210 units). By comparison, during the same period, Rockingham County saw three times the number of new homes constructed.

Table 8
City of Harrisonburg, Virginia
Distribution of New Homes by Sales Price (2015-2020)

Home Price	No.	% of Total
Under $150K	25	12%
$150K-$250K	103	49%
$250K-$350K	35	17%
$350K-$500K	16	8%
$500K+	31	15%
Grand Total	210	100%

Source: City of Harrisonburg and Rockingham County Property Assessments, and RKG Associates, Inc., 2015-2020

New Construction Home Size Per Square Foot

In terms of housing size for single-family and townhouses, most affordable housing products will be smaller in terms of total building square feet. Between 2015-2022, over 67% of newly constructed homes were under 1,750 SF in size (Table 9). At an estimated construction cost of between $100.00 and $140.00/SF for standard-grade construction, a 1,750 SF home would range from $175,000 to $245,000, not including land, site development, and utility costs. At 1,500 SF per unit, construction costs would drop to $150,000 to $210,000 per unit.

Table 9
City of Harrisonburg, Virginia
Distribution of New Home Sales by Size (2015-2022)

Home Size (Sq. Ft.)	No.	% of Total
Under 1,000SF	1	0.5%
1,000-1,249SF	12	5.7%
1,250-1,499SF	53	25.2%
1,500-1,749SF	101	48.1%
1,750-1,999SF	11	5.2%
2,000-2,249SF	12	5.7%
2,250-2,499SF	7	3.3%
2,500-2,749SF	6	2.9%
2,750-2,999SF	2	1.0%
3,000-3,499SF	4	1.9%
3,500-3,999SF	0	0.0%
4,000SF+	1	0.5%
Grand Total	210	100.0%

Source: City of Harrisonburg and Rockingham County Property Assessments, and RKG Associates, Inc., 2015-2020

Site Development and Utility Costs

Based on order-of-magnitude site development costs provided by Blackwell Engineering, recent townhome projects in Harrisonburg have proven to be high, depending on the available land area for stormwater detention ponds and the level of site grading required, including the need for retaining walls on steep sites. For a tight, fully built-out site the first acre typically costs $600,000 for site preparation costs, and each additional acre will cost $400,000 to $500,000. For sites with a little more land area for above-ground detention and water quality facilities or for a flatter site with no retaining walls, the first acre will cost $500,000 with each additional acre estimated at around $300,000.

On a site cost per unit basis for a tight, fully built out steep site the unit cost for townhouses will be between $35,000 to $40,000 per unit. For a flatter site with more room for above-ground stormwater management and water quality facilities, the site cost per unit will be between $27,500 to $35,000.

Cost to Deliver Modest Townhome Units to Subject Properties

Based on the above cost estimates, a modest-sized townhouse could be delivered for the following estimated cost. The Neff Avenue site is perhaps a slightly better-situated site in terms of access and visibility than the Central Avenue property and would probably have greater value for the raw land. RKG has assumed a townhouse unit with roughly 1,500 SF for each site, although the Neff Avenue site might be able to support a larger 1,650 SF townhouse. The calculated total acres shown in Table 10 represents the actual developable acreage, net of steep slopes and other development constraints and was estimated by LPDA.

Table 10

Neff Avenue Site **Single Family/Townhome/Duplex Scenario**		
Total Acres		8.59
Developable Acres		6.00
Unit Details		
Number of Units per Acre		12
Total No. of Units		72
Average Unit Size (SF)		1500
Building Construction Cost/SF	$	110.00
Average Unit Cost	$	165,000
Site Development Costs		
Site Development Costs		
Per Unit	$	37,500
Site Development Costs	$	2,700,000
Lot Details		
Lot Value/SF	$	12.50
Lot Size		3,600
Delivered Price Per Unit		
Average Unit Costs	$	165,000
Average Lot Cost	$	45,000
Site Development Cost/Unit	$	37,500
Total Hard & Soft Costs	$	247,500
Developer Profit (20%)	$	49,500
Total - Delivered Price	$	297,000

Central Avenue Site **Single Family/Townhome/Duplex Scenario**		
Total Acres		8.13
Developable Acres		4.00
Unit Details		
Number of Units per Acre		13
Total No. of Units		51
Average Unit Size (SF)		1500
Building Construction Cost/SF	$	110.00
Average Unit Cost	$	165,000
Site Development Costs		
Site Development Costs		
Per Unit	$	31,250
Site Development Costs	$	1,593,750
Lot Details		
Lot Value/SF	$	11.50
Lot Size		2,400
Delivered Price Per Unit		
Average Unit Costs	$	165,000
Average Lot Cost	$	27,600
Site Development Cost/Unit	$	31,250
Total Hard & Soft Costs	$	223,850
Developer Profit (20%)	$	44,770
Total - Delivered Price	$	268,620

Source: RKG Associates, Inc.

Based on the assumptions in Table 10, RKG estimates that the townhouse units could be delivered for a high of $297,000 for the Neff Avenue site and $268,620 for the Central Avenue site. A 1,650 SF home on the Neff Avenue site would have a delivered cost of $316,000. Based on this early analysis, it appears that both sites would be affordable to households making 100% of Area Median Incomes for the local market. This assumes a 20% rate of return to the developer, which was obtained through interviews.

With additional forms of subsidies, these new townhomes might be affordable to some households making less than 100% of the area median income. Depending on site topography, the total site development costs could make townhome development unaffordable without some subsidy. The dedication of the underlying land would help reduce the total cost and it is possible that other subsidies would be required to supplement buyer down-payments or soft second mortgages and closing costs. At 80% AMI, incomes appear to be too low to support this level of investment unless additional public funds are used to reduce the cost of construction. The price points of the two homes are still $40,000 to $71,000 higher than what a 4-person household could afford making 80% AMI ($61,200/yr.). A household making 90% AMI would be very close to affording a Central Avenue townhouse priced at $268,620.

D. CITY'S SUSTAINABLE AFFORDABILITY STRATEGIES FOR DEVELOPMENTS

Strategies to bridge the funding gap, especially under non-LIHTC development scenarios for both multi-family and ownership home options and preserve future long-term affordability for all development scenarios are among the most crucial factors that determine the sustainable success of the Neff Avenue site and Central Avenue site development.

1. Land Provider and Development Funding Role

Local Housing Trust Fund
Establishing a local housing trust fund would be a meaningful approach for Harrisonburg to bridge the funding gap for non-LIHTC scenarios for both multi-family and ownership housing development options for the two sites. It will also benefit other future affordable housing development efforts in the City.

Development Funding
The consultant examined Harrisonburg's potential of redirecting recordation fees to partially fund its affordable housing development at the Neff Avenue and Central Avenue sites. Based on the 2022 property assessment data and sales records provided by the City in October 2022, the total assessed value of all properties and lands sold in 2022 was $288,246,600. Based on the real estate service charge rate published on the City's website, the rate is $0.186 for every $100 assessed value for 2022 to 2023. Therefore, based on the 2022 sales records provided by the City, the service fee proceeds are $536,139. While that money could be used to fund affordable housing, it is not enough to have much impact. However, if this money is used to pay off the principal and interest on a 20-year revenue bond, it has the potential to support a much larger sum of money – perhaps a $7 to $8 million bond issue. The City of Raleigh, NC has passed several 5-year bond issues in

recent years of up to $80 million to subsidize affordable housing developments; particularly units that primarily benefit households making 30% of AMI and below.

Land Provision

For the Neff Avenue site and Central Avenue site developments, it may be an option for the City of Harrisonburg consider ground leases (usually 70 years to 99 years) of publicly owned lands and use the proceeds to fund affordable housing development and preservation, especially for the Neff Avenue site multi-family development scenario using the 9% program. This is because the subsidies that the LIHTC 9% program can provide are abundant to make the project financially feasible, developers can even afford to pay a certain amount for the land. The City should maintain the right to take back the lands and the associated properties/assets if the developers violate the affordability requirements. Even after the land leases expire, the City should still have the right to negotiate what happens next to the lands.

However, in the non-LIHTC multi-family development scenario, the land most likely needs to be provided to developers at no cost. For the ownership home development option, land provision could help off-set high development costs. This is because other forms of subsidies are most likely not enough for developers to have their desired rate of return on both the Neff Avenue and Central Avenue sites for both the multi-family and ownership home options without LIHTC.

The dedication of public-owned land can be helpful in making developments affordable for low- and moderate-income households at the two sites. In addition, the land has a market value to the developer that can be used as a form of project equity to increase their rate of return. This is especially meaningful for the non-LIHTC development scenarios because of the limited amount of funding and subsidies available for developers to construct affordable housing in Harrisonburg. In exchange, the City should be able to negotiate appropriate levels of affordability based on their financial contributions. What RKG's analysis shows is that land dedication alone is not enough on its own to make the developments at the two sites affordable, and all available funding and subsidies need to be utilized and layered.

2. <u>Affordable Housing Preservation Role</u>

It is also recommended that the City establish regulations to define an affordability period for new affordable housing development projects to adhere to, which will directly benefit the long-term affordability at the Neff Avenue and Central Avenue site development. This is usually 15 years at the minimum and usually can go up to 30 to 45 years. This will be especially beneficial for the non-LIHTC development scenario, as the LIHTC program already requires an initial compliance period of 15 years. A lot of other federal funding programs also have requirements for affordability periods. The establishment of this regulation can help affordable housing developments at the Neff Avenue and Central Avenue sites and beyond in the City to comply with these program requirements.

If the City is providing financial subsidies, including land resources, to an affordable development and rezoning land, they should negotiate with the developer a provision for maintaining project affordability once the legal term of affordability has expired. That may

include the right to provide additional operating subsidies to maintain the affordability of all or a portion of the units and/or the right to submit a purchase offer if the developer decides to sell the property or convert the units to market rate rents.

The Commonwealth of Virginia is a Dillion Rule state and does not allow cities and towns to enact "right of first refusal" programs to acquire expiring affordable housing/LIHTC developments.

APPENDIX

To be considered affordable, LIHTC unit rents are no more than 30% of the gross monthly adjusted household income according to Area Median Income (AMI) levels by household size (Affordable Monthly Gross Rent = 30% of the Applicable Income Limit, divided by 12). The U.S. Department of Housing and Urban Development (HUD) updates Income Limits annually for each reporting area throughout the country. The 2022 Income Limits for the Harrisonburg Metropolitan Statistical Area (including Harrisonburg City and Rockingham County) are in Table 11.

Table 11
FY 2022 Multifamily Tax Subsidy Projects (MTSPs) Income Limits, HUD Harrisonburg, VA MSA

Household Size	% of Area Median Income			
	30%	50%	80%	100%*
1	$16,080	$26,800	$42,880	$53,600
2	$18,360	$30,600	$48,960	$61,200
3	$20,670	$34,450	$55,120	$68,900
4	$22,950	$38,250	$61,200	$76,500

Source: U.S. Department of Housing and Urban Development, 2022

Note: * The 100% of AMI is calculated based on the 50% of AMI. The MTSP Income Limits are calculated based on the Section 8 Very Low-Income (50% Income Limits) calculations published by HUD, and are slightly different from the HUD Section 8 Income Limits

Income levels are set by household size, but LIHTC rents do not vary based on an actual renter's household size or income. LIHTC rents by bedroom size may be calculated using one of two methods for "household size calculation": either "bedroom size plus one," or "1.5 persons per room." In this assumption, RKG relied on the "bedroom size plus one" method. As such, studio rent is based on affordability for a one-person household; one-bedroom rent is based on affordability for a two-person household; two-bedroom rent is based on affordability for a three-person household, and three-bedroom rent is based on affordability for a four-person household.