# DRAFT APPENDIX H: FINANCIAL FEASIBILITY ASSESSMENT

## INTRODUCTION

Montgomery Planning engaged Partners for Economic Solutions (PES) to examine the financial feasibility of residential development in the University Boulevard Study Area, emphasizing housing typologies that could align with current market conditions and both existing and proposed regulatory frameworks. The study assesses the potential for residential infill on smaller lots and redevelopment of aging commercial properties through "pro forma" analyses of a variety of housing prototypes.

Overall, the study points to limited potential for redevelopment in the short- to mid-term. The value of existing development in most cases exceeds the potential value of new development. Under current and foreseeable conditions, "Missing Middle" housing types such as duplexes and stacked/piggyback townhouses offered for-rent are most likely to result from redevelopment. Even then, the estimated profit margins are small relative to the total development cost, which indicates that redevelopment will be limited in scope and scale.

## KEY HOUSING TYPES:

1. "Missing Middle" Housing:
    - Includes duplexes and stacked or piggyback townhouses.
    - Duplexes are financially viable with surface parking, especially for infill on smaller lots.
    - Stacked/piggyback townhouses offer higher density (up to 40 units per acre) but face feasibility challenges due to high construction costs, particularly with tuck-under parking.
2. Multi-Family Apartments:
    - Predominantly wood-frame structures, typically four to five stories, on three- to ten-acre sites.
    - Require rental rates 10-12% above current market levels to achieve feasibility.
    - Mixed-use configurations with ground-floor retail are constrained by the high costs of structured parking required for retail tenants.
3. Townhouses:
    - For-sale townhouses could become viable with a 15% increase in sale prices.

- Larger-scale developments (e.g., three-acre sites) face challenges due to mismatches between construction costs, including greater requirements for site work and utilities, and achievable sales prices.

4. Condominiums:

   - Currently limited by a lack of demand and financing hurdles.
   - May become feasible mid-term with price recovery and improved mortgage access, although this is outside the scope of the Plan and its implementation tools.

5. Single-Family Homes:

   - Traditional suburban-style homes are financially feasible with a 10% price increase, though development on smaller scales (e.g., fewer than 10 units) lacks efficiency.

## CONSTRAINTS AND OPPORTUNITIES:

- Parking Costs:
  - Surface parking is more affordable but limits density.
  - Above-grade structured parking, often necessary for denser developments, significantly increases costs beyond that supportable by market rents.
- Policy Adjustments:
  - Reducing parking minimums and allowing on-street parking could lower development costs and improve feasibility on the margins.
- Market Factors:
  - Current interest rates and construction costs strain project feasibility.
  - Potential for Bus Rapid Transit (BRT) in the area may enhance attractiveness for higher-density projects if the service is robust and accessible.

## CONCLUSION

The study suggests most areas of the University Boulevard study area may see a modest pace of redevelopment with duplexes, smaller infill developments, and potentially phased condominium builds on larger sites as conditions improve. However, significant increases in rents or sale prices, along with potential public subsidies or regulatory reforms, will be necessary to realize broader redevelopment goals. The feasibility gap for most housing types in the study area is driven primarily

by construction costs which are greater than achievable rents and/or sales prices, therefore policy tools such as greater density allowances will have limited ability to spur additional development.

This analysis presents evidence that policy recommendations may be most effective with an orientation toward shaping development as it occurs in a limited, piecemeal fashion.

## ATTACHMENT

Partners for Economic Solutions (PES) Financial Feasibility Report

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# Financial Feasibility

PES tested the financial feasibility of residential development within the University Boulevard Study Area, considering varying development programs, parking scenarios, and mixes of uses and unit sizes for sample property types found in the area. Static pro formas by product type outlined the cost to develop, the private investment justified by the future returns and the resulting financial surplus or gap, based on current market conditions for new development. The models estimated the dollars available to pay for land and in many instances the difference between the total development costs and the amount of supportable private investment that results in a financial gap.

This feasibility analysis is based on the best available data and information collected from a variety of local, regional and national sources, reflecting recent trends and current market conditions. However, changes in national and regional economic conditions, in financial market regulations and in the local land use regulatory environment could significantly impact the feasibility conclusions. Such changes could encompass a variety of regulatory changes. Currently, high interest rates, which follow changes in Federal Reserve policies, are having the greatest impact. Low-Income Housing Tax Credit regulations impact the feasibility of assisted housing. On the local side, development approval processes that require special use permits raise the cost and risk associated with development as compared with the predictability of matter-of-right zoning can affect development decisions. Impact fees and the rules as to how they are applied can affect the markets. Policies such as mandatory first-floor retail space in major residential developments can impact developer and investor interest if the right retailer willing to pay a high enough rent cannot be found. Parking minimums, MPDU policies and other policies that affect the basic pro forma can change the market's willingness to pursue such development. Generally, the market seeks predictability, speedy reviews and approvals, lower fees and fewer mandatory requirements that increase costs and/or risks.

## Development Program Alternatives

After consultation with Montgomery Planning staff, PES estimated the total project value by product type for various development alternatives for residential and mixed-use residential development with ground floor retail space. These design alternatives were developed to test a wide range of variables, including lot sizes and dimensions, number of housing units, unit sizes, number of stories, parking ratios and locations and setbacks from property lines.

Table 1 delineates the development program for both rental and for-sale alternatives including lot size, building program, residential unit characteristics, parking and scale. PES tested new development with static pro formas for new construction on existing small parcels (half acre lots) and redevelopment of larger parcels (3 to 10 acres).

In Montgomery County, the Moderately Priced Dwelling Units (MPDUs) program requires developers to set aside 12.5 percent of the residential units for low- to moderate-income individuals applying to projects based on scale. For those projects with fewer than 20 units, the MPDU program does not apply and more dense products result in 15.4 percent MPDUs.

For-sale residential and townhouse (both for-sale & rental) development assumes standard attached garage or tuck-under parking spaces allowing for 500 square-foot two-car garages and 250 square-foot tuck-under parking spaces, respectively. In structured parking, 350 square feet are allotted per space to allow for ramps and proper access.

For mixed-use alternatives, the prototype assumes ground floor retail of between 6,000 to 20,000 square feet. This does not represent a specific tenant and allows for higher parking ratios of 3.5 spaces per 1,000 square feet of commercial space. It should be noted that the parking structures must be calculated as a percentage of the buildable area and as such impact the amount of total development able to fit on each site.

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| Table 1. Rental Development Programs | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | Multi-Family, Townhouses | |
| | Townhouse | Duplex | Piggyback Towns | Multi-Family | Family with 6,000 sf of Retail | with 6,000 SF of Retail | with 25,000 SF of Retail |
| **FAR** | | | | **1.50** | **1.50** | **1.25** | **1.25** |
| **Max. Allowable Development** | | | | **196,020** | **196,020** | **544,500** | **544,500** |
| **Lot Size** | | | | | | | |
| Total Area (acres) | 0.5 | 0.5 | 0.5 | 3.0 | 3.0 | 10.0 | 10.0 |
| Total Area (sf) | 21,780 | 21,780 | 21,780 | 130,680 | 130,680 | 435,600 | 435,600 |
| Buildable Area (sf) | | | | 78,408 | 78,408 | 261,360 | 261,360 |
| Residential Development | | | | | | | |
| Attached Units | **13** | **6** | **26** | | | **100** | **100** |
| Market Rate | | | | | | 87 | 87 |
| MPDU | | | | | | 13 | 13 |
| Multifamily | | | | | | | |
| Total Dwelling Units | **13** | **6** | **26** | **167** | **149** | **300** | **279** |
| Market Rate | | | 22 | 146 | 130 | 262 | 244 |
| MPDU | | | 4 | 21 | 19 | 38 | 35 |
| Average Net Unit Size (sf) | 2,500 | 1,500 | 1,500 | 891 | 1,051 | 892 | 892 |
| Total Development (sf) | | | | 176,418 | 156,816 | 267,300 | 267,300 |
| Stories | 3.0 | 2.0 | 4.0 | 4.5 | 4.0 | 5.0 | 5.0 |
| Density (du per acre) | | | | 55.7 | 49.7 | | |
| Building Size / Floorplate (sf) | | | 3,840 | | | 53,460 | 53,460 |
| Commercial Development | | | | | | | |
| Total Development (sf) | | | | 6,000 | 6,000 | 6,000 | 25,000 |
| Stories | | | | 1.0 | 1.0 | 1.0 | 1.0 |
| Parking | | | | | | | |
| Type | Tuck Under | Surface | Tuck Under | Structured | Structured | Structured | Structured |
| Min. Required Spaces | 13 | 6 | 26 | 240 | 302 | 437 | 475 |
| sf per space | 250 | 300 | 250 | 350 | 350 | 350 | 350 |
| Total Parking (sf) | 3,250 | 1,800 | 6,500 | 84,000 | 105,700 | 152,950 | 166,250 |
| Parking Structure Floor Plate (sf) | | | | 26,400 | 26,400 | 26,400 | 26,400 |
| Stories of Structured Parking | | | | 4 | 5 | 6 | 6 |
| Total Structured Parking Spaces | | | | 352 | 440 | 616 | 616 |
| Total Building Development | | | | | | | |
| Built Area | | | | 266,418 | 181,816 | 172,835 | 172,835 |
| Stories | | | | 5.5 | 5.0 | 5.0 | 5.0 |
| **Size of Units** | | | | | | | |
| Studio | | | | 550 | 550 | 550 | 550 |
| 1 Bedroom | | | | 750 | 750 | 750 | 750 |
| 2 Bedrooms | | | | 1,000 | 1,000 | 1,000 | 1,000 |
| 3 Bedrooms | | | | 1,200 | 1,200 | 1,200 | 1,200 |
| 2 Bedrooms MPDU | | | | 800 | 800 | 800 | 800 |
| **Mix** | | | | | | | |
| Studio | | | | 5% | 5% | 5% | 5% |
| 1 Bedroom | | | | 35% | 35% | 35% | 35% |
| 2 Bedrooms | | | | 50% | 50% | 50% | 50% |
| 3 Bedrooms | | | | 10% | 10% | 10% | 10% |
| 2 Bedrooms MPDU | | | | 100% | 100% | 100% | 100% |

Source: Partners for Economic Solutions, 2023.

The University Boulevard Study Area is dominated by single-family residential and strip commercial along major arterials (primarily University Boulevard and Colesville Road) while the potential exists for residential infill on redevelopment sites and small infill sites.

In much of the Study Area, the housing stock offers two standard housing types: detached single-family residential and townhouses. While these alternatives offer a variety of architectural styles, these products limit consumer housing options. Smaller lot redevelopment offers an opportunity to bring in new residential products, sometimes referred to as "missing middle housing" such as duplexes or piggyback townhouses. The development of new housing products can help to attract different audiences and expand alternatives for existing residents. Parking requirements from both market and lending institutions for these denser residential products impact the costs, particularly when the parking must be accommodated in above-ground garages.

Redevelopment of aging commercial buildings within the Study Area presents an opportunity to provide a new mix for the community with infill residential products. While these opportunities are limited, careful redevelopment of existing sites with the construction of new infill residential and preservation of commercial retail components may shift commercial strip development into a more vibrant mixed-use project. In nearby Silver Spring, newly constructed apartments have demonstrated the appetite for new housing products. It should be noted that this financial analysis does not consider the cost of purchasing or relocating existing retail businesses for the purpose of redevelopment.

For most of the residential products, PES tested three or four alternatives. The estimated hard construction costs for bricks and mortar range from $205 to $225 per square foot for newly constructed space. For parking spaces, the costs range from $10,000 per surface space to $30,000 per above-grade structured space.

PES evaluated current rental market rents for the Study Area and used the agreed unit size and mix assumptions laid out in the development program concepts (see Table 2). Generally, efficiency and one-bedroom units yield higher returns per square foot than do two- and three-bedroom units, so one would expect that a mix that emphasized smaller units would generate a higher return, assuming that market demand was sufficient to rent all the efficiency units.

| Table 2. Rental Market Sizes and Rents | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Apartments** | | | | | | | | | | | | |
| **Units** | **Square Feet** | | | **Mix** | **Rent Per Sq Ft** | | | **Monthly Rents** | | |
| Studio | 525 | - | 575 | 5% | $2.90 | - | $2.97 | $1,560 | - | $1,670 |
| 1 Bedroom | 725 | - | 775 | 35% | $2.80 | - | $2.85 | $2,070 | - | $2,170 |
| 2 Bedrooms | 975 | - | 1,025 | 50% | $2.65 | - | $2.70 | $2,630 | - | $2,720 |
| 3 Bedrooms | 1,175 | - | 1,225 | 10% | $2.50 | - | $2.55 | $3,000 | - | $3,060 |
| **Duplexes** | | | | | | | | | | |
| **Units** | **Square Feet** | | | **Mix** | **Rent Per Sq Ft** | | | **Monthly Rents** | | |
| 2 Bedrooms | 975 | - | 1,050 | 0% | $2.05 | - | $2.20 | $2,145 | - | $2,153 |
| 3 Bedrooms | 1,450 | - | 1,550 | 100% | $1.80 | - | $1.90 | $2,755 | - | $2,790 |
| **Piggyback or Stacked Townhouses** | | | | | | | | | | |
| **Units** | **Square Feet** | | | **Mix** | **Rent Per Sq Ft** | | | **Monthly Rents** | | |
| 3BR/2.5 BA | 1,600 | - | 1,800 | 70% | $1.75 | - | $1.80 | $2,880 | - | $3,150 |
| 4BR/2.5 BA | 2,050 | - | 2,125 | 30% | $1.65 | - | $1.70 | $3,490 | - | $3,510 |
| **Standard Rental Townhouses** | | | | | | | | | | |
| **Units** | **Square Feet** | | | **Mix** | **Rent Per Sq Ft** | | | **Monthly Rents** | | |
| 3BR/2.5 BA | 2,450 | - | 2,650 | 100% | $1.55 | - | $1.65 | $4,040 | - | $4,110 |
| Source: Partners for Economic Solutions, 2023. | | | | | | | | | | |

The for-sale market relied heavily on using assumptions from the rental development program to establish a scale and sizing for condominiums. It should be noted that offering more than 100 to 150 condominiums at one-time may be challenging for the market to absorb and would likely be phased over time. Table 3 details the unit sizes and for-sale prices per product type. For all MPDU units, PES used the baseline rent and price calculations provided by Montgomery County.

| Table 3. For-Sale Market Sizes and Prices | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Condominium Apartments** | | | | | | | | | | | | |
| **Units** | **Square Feet** | | | **Mix** | **Price Per Sq Ft** | | | **Sales Prices** | | | | |
| Studio | 625 | - | 675 | 0% | $ 322 | - | $ 330 | $206,250 | - | $217,350 | | |
| 1 Bedroom | 825 | - | 875 | 35% | $ 305 | - | $ 315 | $259,880 | - | $266,880 | | |
| 2 Bedrooms | 1,075 | - | 1,125 | 50% | $ 275 | - | $ 285 | $306,380 | - | $309,380 | | |
| 3 Bedrooms | 1,275 | - | 1,325 | 15% | $ 260 | - | $ 270 | $344,250 | - | $344,500 | | |
| **Duplexes** | | | | | | | | | | | | |
| **Units** | **Square Feet** | | | **Mix** | **Price Per Sq Ft** | | | **Sales Prices** | | | | |
| 2 Bedrooms | 1,000 | - | 1,200 | 0% | $ 340 | - | $ 350 | $350,000 | - | $408,000 | | |
| 3 Bedrooms | 1,450 | - | 1,550 | 100% | $ 325 | - | $ 335 | $485,750 | - | $503,750 | | |
| **Townhouses** | | | | | | | | | | | | |
| **Units** | **Square Feet** | | | **Mix** | **Price Per Sq Ft** | | | **Sales Prices** | | | | |
| 2 Bedrooms | 1,800 | - | 2,000 | 0% | $ 320 | - | $ 330 | $594,000 | - | $640,000 | | |
| 3 Bedrooms | 2,400 | - | 2,600 | 100% | $ 305 | - | $ 315 | $756,000 | - | $793,000 | | |
| 4 Bedrooms | 3,000 | - | 3,150 | 0% | $ 290 | - | $ 295 | $885,000 | - | $913,500 | | |
| **Piggyback or Stacked Townhouses** | | | | | | | | | | | | |
| **Units** | **Square Feet** | | | **Mix** | **Price Per Sq Ft** | | | **Sales Prices** | | | | |
| 3BR/2.5 BA | 1,450 | - | 1,550 | 100% | $ 320 | - | $ 325 | $471,250 | - | $496,000 | | |
| 4BR/2.5 BA | 1,700 | - | 1,800 | 0% | $ 315 | - | $ 320 | $544,000 | - | $567,000 | | |
| **Single Family Houses** | | | | | | | | | | | | |
| **Units** | **Square Feet** | | | **Mix** | **Price Per Sq Ft** | | | **Sales Prices** | | | | |
| 2BR/2BA | 1,800 | - | 2,000 | 0% | $ 330 | - | $ 335 | $603,000 | - | $660,000 | | |
| 3BR/3BA | 2,200 | - | 2,400 | 0% | $ 315 | - | $ 320 | $704,000 | - | $756,000 | | |
| 4BR/3BA | 3,200 | - | 3,400 | 100% | $ 330 | - | $ 340 | $1,088,000 | - | $1,122,000 | | |

Source: Partners for Economic Solutions, 2023.

For this analysis, a review of comparable land sales in the broader community and market judgment suggested $740,000 per acre as the current price for smaller infill lots and $22 per land square foot ($958,000 per acre) as the current price for land with multi-family zoning. Land acquisition prices are based on lots where units have been torn down and replaced with larger units from 2016 to 2020. The assessed values of these properties in 2015 were increased by 40 percent to bring them to current values and calculated on a price per square foot basis for different-sized lots (5,000, 6,000, 8,000, 10,000, 12,500 and 15,000 square feet).[5] Model inputs are summarized in Appendix Table A-1.

## Rental Residential Analysis

The rental financial models solve for Return on Investment (calculated as net operating income in the stabilized year divided by total development costs) and for Financial Surplus or Gap, which is defined as the difference between the investment that can be supported by the net operating income and the total development costs. This analysis considers a cash-on-cash return of 6.0 percent for rental residential development as the required return on

investment based on current market conditions. A return on investment of at least 6.0 percent and a positive financial surplus indicate that the developer's return on investment would exceed the targeted return and the project could attract a developer.

The rental residential models consider rental duplexes, piggyback townhouses and more standard multi-family apartments along major arterials. For all rental products, the parking standards highlight the more suburban aesthetic and expectations in the rental market.

The feasibility of compact development would be improved by reducing parking construction costs. This can be through lower parking minimums, particularly for affordable housing, and policies such as letting on-street parking be counted toward meeting those parking minimums. The market will have an equal or greater impact than regulatory parking minimums on the amount of parking actually developed. These market judgments by developers and their lenders and investors will change over time as additional transportation alternatives, fuel cost increases and other changes reduce the demand for auto ownership. Even with ample bus service, many individuals require access to a private vehicle for work, daily errands and activities.

### Duplex, Stacked / Piggyback Townhouses

The model reviewed duplex, and stacked or piggyback townhouse rental options with two- to four-story structures. The duplex model offers an example of small-scale infill development that is financially viable given current market conditions, demonstrating the value of surface parking solutions on smaller sites.

The piggyback townhouses allow for a dense urban infill up to 40 dwelling units per acre. The stacking of the units, which may be structured as a two-story unit over a one-story unit or a two-story unit over a two-story unit, offers a smaller product viable for single occupancy. Stacked or piggyback townhouses allow for a more concentrated entry into the market with a product not currently available. Under this alternative, the parking space tucks under a portion of the ground level of the four-story structure; while not as expensive as an above-grade structure it is more costly than surface parking. Ultimately the high construction costs, which include the tuck-under parking, results in an infeasible project.

### Multi-Family

In general, the five-story wood-frame residential rental apartment development projects do not generate a residual land value in excess of the market value of the land without a boost to the rents on the three-acre site. Achievable market rents do not provide a net operating income sufficient to cover the cost of acquiring the existing sites, site preparation and building costs, and the high cost for on-site above-grade parking and provide a return on investment that would interest private developers and investors. Market-rate rents would need to be roughly 10 percent above the current market to support new multi-family infill development on half-acre lots.

Similarly, development of the multi-family rental apartments on the 10-acre site with townhouses requires a 10-percent increase in market rents to provide a financially viable opportunity. The financial model shows that the rents do not justify development given current rental rates in the University Boulevard Study Area marketplace. The alternative with 6,000 square feet of retail space would need at least a 12-percent boost in rents to achieve feasibility as the retail space requires structured-parking beyond what the retail rents would support.

A third option for multi-family rental apartments and townhouses on a 10-acre lot includes 25,000 square feet of retail space. This option provides a better return to the developer based on the assumed retail rent of $45 per square foot with a $50 per-square-foot tenant improvement allowance. That rent would be subject to an intense negotiation and could be lower. At that retail rent level, the residential rents would need to be increased by five percent to provide an adequate return on investment.

While some jurisdictions have been very successful at creating new infill residential development alongside existing commercial strip uses, all real estate is local and the value of the underlying land and existing conditions in the local market as well as the nature and location of the sites available for redevelopment greatly impact the potential for residential and commercial uses to locate in close proximity or be vertically integrated in mixed-use alternatives.

Table 4 shows the relative costs, returns and financial surplus/gap for each development and the sensitivity analyses completed for each option. Again, the return on costs is compared to a targeted return of 6.0 percent.

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| Table 4. Financial Conclusions by Housing Type, Rental Alternatives | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | Unit Characteristics | | | |
| Housing Type/ Alternative | Return on Investment[1] | Financial Surplus/Gap per Unit | Development Cost per Unit | Stories | Parking | Average Size | Average Market Rent |
| Rental Models | | | | | | | |
| Duplex | 6.2% | $74,000 | $461,000 | 2 | Front / rear surface | 1,500 | $2,773 |
| Stacked Townhouses | 5.5% | -$37,275 | $478,429 | 4 | Tuck under - one space | 1,500 | $2,773 |
| Multi-Family Apartments (3 Acres) | | | | | | | |
| Alt. 1 Base | 5.5% | -$32,280 | $387,050 | 4.5 | Above-grade structure | 893 | $2,463 |
| Alt. 2 Different Mix | 5.5% | -$30,536 | $380,585 | 4.5 | Above-grade structure | 879 | $2,443 |
| Alt. 3 10% Higher Price | 6.4% | $28,349 | $387,050 | 4.5 | Above-grade structure | 893 | $2,710 |
| Mixed-Use Apartments with Retail (3 Acres) | | | | | | | |
| Alt. 1 Base | 5.8% | -$15,995 | $390,995 | 4 | Above-grade structure | 891 | $2,463 |
| Alt. 2 Different Mix | 5.8% | -$14,516 | $386,017 | 4 | Above-grade structure | 880 | $2,443 |
| Alt. 3 10% Higher Price | 6.4% | $24,732 | $390,995 | 4 | Above-grade structure | 891 | $2,710 |
| Multi-Family Apartments (10 Acres) | | | | | | | |
| Alt. 1 Base | 5.4% | -$44,512 | $468,983 | 5 | Above-grade structure | 891 | $2,463 |
| Alt. 2 Different Mix | 5.4% | -$43,157 | $463,822 | 5 | Above-grade structure | 878 | $2,443 |
| Alt. 3 10% Higher Price | 6.1% | $3,909 | $468,983 | 5 | Above-grade structure | 891 | $2,710 |
| Mixed-Use Apartments with 6,000 Square Feet of Retail (10 Acres) | | | | | | | |
| Alt. 1 Base | 5.5% | -$36,172 | $471,980 | 5 | Above-grade structure | 891 | $2,463 |
| Alt. 2 Different Mix | 5.6% | -$34,904 | $466,790 | 5 | Above-grade structure | 878 | $2,443 |
| Alt. 3 12% Higher Price | 6.0% | $603 | $471,980 | 5 | Above-grade structure | 891 | $2,759 |
| Mixed-Use Apartments with 25,000 Square Feet of Retail (10 Acres) | | | | | | | |
| Alt. 1 Base | 5.9% | -$9,288 | $487,872 | 5 | Above-grade structure | 892 | $2,463 |
| Alt. 2 Different Mix | 5.9% | -$8,505 | $482,422 | 5 | Above-grade structure | 879 | $2,443 |
| Alt. 3 5% Higher Price | 6.1% | $5,773 | $487,872 | 5 | Above-grade structure | 892 | $2,586 |

Note: [1]Target rate of return for rental products estimated at 6.0 percent of total costs.

Source: Partners for Economic Solutions, 2023.

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## For-Sale Residential Analysis

The for-sale financial models solve for Financial Surplus or Gap, which is defined as the difference between the net sales proceeds and the total development costs, including a developer profit of 10 percent of the purchase price. It is a mathematical variation on financial analyses that determine feasibility based on the developer's return on investment given the market land value. A positive financial surplus indicates that the developer's return on investment would exceed the targeted return. For-sale models consider nearly the same products including standard townhouses, duplexes, piggyback townhouses and condominium apartment buildings along major arterials, as well as a base case for a large-scale suburban style single-family home. For all options, the more suburban parking standards reflect both demand and lender requirements.

### Single-Family House

The traditional for-sale single-family houses proved to be financially feasible in the current marketplace with a 10-percent increase in sale prices. This reflects the lack of comparable sales of large-scale residential products and the inefficiencies of developing less than 10 units, reducing the economics of scale normally gained by land side developers selling lots directly to builders.

### Standard Townhouses

The large size of the for-sale townhouses on a three-acre lot (2,500 square feet for a market-rate unit) reflects a mismatch with the market requirements. In this marketplace the price of construction requires a higher sales price then is currently achievable in the market. If the developer were able to access more affordable land or receive a write-down by partnering with an area house of worship, it might be more viable. The model on a half-acre lot indicates that a 15-percent increase in market price could result in a feasible development.

### Duplex, Stacked / Piggyback Townhouses

As the model reviewed duplex, stacked townhouse or piggyback townhouse for-sale options with two- to four-story structures, the variability among product sizes and parking alternatives illustrates the range of financial viability. The duplex units would require a 20-percent increase in market prices to be feasible. As with the rental product, the higher costs of tuck-under parking for the piggyback townhouses coupled with the overall high cost of construction results in an infeasible project.

### Condominiums

Condominium development responds to somewhat different economics related to mortgage rates and homebuyer expectations of future appreciation. Historically, development of condominiums has often generated better returns than rental development. Currently, however, the economics favor rental development, particularly in the University Boulevard

Study Area where condominiums are an unproven market product. Assuming some recovery in the price of new condominiums in the broader market, the returns from condominium development in the mid-term would be somewhat higher or at least comparable to those from rental apartment development. Once mortgage financing is readily available again for condominiums, four-story wood-frame products could be feasible at select locations within the Study Area.

The model tests a five-story wood-frame residential condominium apartment development project with no studio or efficiency units, targeting a specific audience of first-time home buyers, empty-nesters and young professionals without children. The University Boulevard Study Area has a limited supply of condominiums with limited new condominium projects in nearby markets.

At this time, the financial costs of a newly built condominium project require outside equity and a higher return than justified given current sales prices achievable in the University Boulevard Study Area marketplace.

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| Table 5. Financial Conclusions by Housing Type For-Sale Alternatives | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Financial Surplus/Gap | | | Unit Characteristics | | | |
| Housing Type/ Alternative | Total | Per Unit | Development Cost per Unit | Stories | Parking | Average Size | Average Market Price |
| For-Sale Models | | | | | | | |
| Single- Family Housing | | | | | | | |
| Alt. 1 Base | -$98,300 | -$98,300 | $986,300 | 2 | Standard garage | 3,300 | $1,122,000 |
| Alt. 2 4% Higher Price | $16,600 | $16,600 | $986,300 | 2 | Standard garage | 3,300 | $1,166,900 |
| Alt. 3 10% Higher Price | $188,500 | $188,500 | $986,300 | 2 | Standard garage | 3,300 | $1,234,200 |
| Townhouse (Half Acre) | | | | | | | |
| Alt. 1 Base | -$1,154,700 | -$88,823 | $747,500 | 3 | Tuck under - 2 spaces | 2,500 | $775,000 |
| Alt. 2 10% Higher Price | -$297,600 | -$22,892 | $747,500 | 3 | Tuck under - 2 spaces | 2,500 | $852,500 |
| Alt. 3 15% Higher Price | $130,000 | $10,000 | $747,500 | 3 | Tuck under - 2 spaces | 2,500 | $891,250 |
| Alt. 4 Smaller Units | -$856,500 | -$65,885 | $618,400 | 3 | Tuck under - 2 spaces | 2,000 | $650,000 |
| Townhouse (3.0 Acres) | | | | | | | |
| Alt. 1 Base | -$10,818,800 | -$135,235 | $713,600 | 2.5 | Tuck under - 2 spaces | 2,390 | $740,900 |
| Alt. 2 10% Higher Price | -$6,409,900 | -$80,124 | $713,600 | 2.5 | Tuck under - 2 spaces | 2,390 | $814,990 |
| Alt. 3 20% Higher Price | -$2,001,900 | -$25,024 | $713,600 | 2.5 | Tuck under - 2 spaces | 2,390 | $889,080 |
| Alt. 4 Smaller Units | -$9,894,400 | -$123,680 | $600,600 | 2.5 | Tuck under - 2 spaces | 1,950 | $604,500 |
| Duplex | | | | | | | |
| Alt. 1 Base | -$449,500 | -$74,917 | $495,700 | 2 | Front surface | 1,500 | $495,000 |
| Alt. 2 10% Higher Price | -$197,300 | -$32,883 | $495,700 | 2 | Front surface | 1,500 | $544,500 |
| Alt. 3 18% Higher Price | $5,400 | $900 | $495,700 | 2 | Front surface | 1,500 | $584,100 |
| Multi-Family Condominiums (3 Acres) | | | | | | | |
| Alt. 1 Base | -$22,559,707 | -$135,088 | $417,552 | 4.5 | Above-grade structure | 1,024 | $297,779 |
| Alt. 2 Different Mix | -$22,034,707 | -$126,636 | $417,552 | 4.5 | Above-grade structure | 979 | $289,680 |
| Alt. 3 10% Higher Price | -$18,863,107 | -$112,953 | $417,552 | 4.5 | Above-grade structure | 1,024 | $327,557 |
| Mixed-Use Condomiums (3 Acres) | | | | | | | |
| Alt. 1 Base | -$22,559,707 | -$135,088 | $417,552 | 4 | Above-grade structure | 1,024 | $297,779 |
| Alt. 2 Different Mix | -$22,034,707 | -$126,636 | $417,552 | 4 | Above-grade structure | 979 | $289,680 |
| Alt. 3 10% Higher Price | -$18,863,107 | -$112,953 | $417,552 | 4 | Above-grade structure | 1,024 | $327,557 |

Source: Partners for Economic Solutions, 2023.

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## Key Findings

- Achievable sales prices for new duplexes offer the greatest potential for a pure market deal without public investment.
- Development of for-sale townhouses generates sufficient returns to justify infill development where appropriate in the Study Area. Townhouse sales provide better returns than all of the scenarios for rental housing based on current underwriting standards.
- Repositioning in the market for use as mixed-use sites offers near-term potential for commercial redevelopment for three-acre sites.
- Parking costs are a major constraint on new development. The high cost of building above-grade structured parking generates a need for public subsidy.
- Reducing project parking requirements can be an important tool in reducing development costs and required subsidy, though the push for lower parking ratios must be tempered by market demand and lender expectations.
- In today's market, four- to five-story wood-frame development at 50 units per acre could generate enough revenue with a 10-percent increase in rents to interest a private developer.
- Adding ground-level retail to rental housing development or for-sale condominium projects requires expensive additional parking beyond what retail rents can cover.
- Redevelopment for four- to five-story condominiums could be feasible in the mid-term once the financing market again provides mortgages for condominiums. However, the need for a phased build-out and sales approach due to market absorption potential may dampen developer interest.

These conclusions represent one series of alternatives for how the future economy may unfold; it is likely that these findings will shift over future business cycles. Low-cost financing can result from a number of factors, including problems in other markets (e.g., stocks) that limit returns from alternative investments, tax policies that favor real estate and higher inflation that encourages investment in fixed assets. Under such conditions, project economics become more favorable and certain types of development will become feasible at some points over the 30-year life of the plan.

Bus Rapid Transit (BRT) service on University Boulevard could be expected to lead to higher rents/prices and developer interest, though BRT may not be enough in and of itself to make the difference in project feasibility. The quality of the service – bus frequency, operating hours,

operating speeds and convenient links to Metro – will play a part in determining how much influence the BRT has on development and investment demand for the corridor. Fifteen-minute headways, all-day and evening service, connections to where people want to go, and measurable speed advantages over driving alone (e.g., dedicated bus lanes) could have a significant impact (as opposed to rush hour service every 30 minutes in mixed traffic).

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# Appendix Table

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| Appendix Table A1. Input Assumptions | | | | |
|---|---|---|---|---|
| | Rental Options (Multi-Family Apartments) | | Standard Townhouse, Piggyback & Duplex | |
| **Developer Return** | 6% | of total costs | 10% | of total costs |
| Vacancy and Collection Loss | 5% | of revenues | 5% | of revenues |
| Building Efficiency (Leaseable/Gross S.F.) | 82% | percent | 85% | percent |
| Residential Parking Spaces (by bedroom type) | 1.0- 2.0 | per unit | 1.0- 2.0 | per unit |
| Monthly Parking Fees | $100 | per space | $100 | per space |
| Development Cost Assumptions | | | | |
| Off-Site Improvements | $100,000 | lump sum | $100,000 | lump sum |
| Site Preparation & Improvements | $4.00 | per g.s.f. | $4.00 | per g.s.f. |
| Hard Costs (Include General Conditions) Low / Duplex | $220 | per g.s.f. | $208 | per g.s.f. |
| Hard Costs (Include General Conditions) Mid / Piggyback | $225 | per g.s.f. | $212 | per g.s.f. |
| Hard Costs (Include General Conditions) Other | $230 | per g.s.f. | $217 | per g.s.f. |
| Retail Tenant Improvement Costs | $50 | per r.s.f. | NA | |
| Parking Costs (Assume Surface Parking) | $10,000 | per space | $10,000 | per space |
| Parking Costs (Assume Tuck-Under Garage) | $25,000 | per space | $25,000 | per space |
| Parking Costs (Assume Above-Grade Garage) | $30,000 | per space | $30,000 | per space |
| For-Profit Developer Fee | 4% | of non-land costs | 4% | of non-land costs |
| Non-Profit Developer Fee | 15% | of non-land costs | 15% | of non-land costs |
| Soft Costs as Share of Hard Costs | 24% | of hard costs | 28% | of hard costs |
| Land Price (per land SF) | $22 | per land SF | $17 | per land SF |
| Land Price (per acre) | $740,000 | per acre | $740,000 | per acre |
| Commercial Operating Costs | $1 | per 1,000 SF | $1 | per 1,000 SF |
| *MF Operating Costs (Excluding Tenant Utilities)* | $7,000 | per unit | $3,500 | per unit |
| **Replacement Reserves** | $300 | per unit | $500 | per unit |
| Construction Financing Costs | | | | |
| Interest Rate | 5.25% | of total loan | 5.50% | of total loan |
| Period of Initial Loan | 24 | months | 24 | months |
| Initial Construction Loan Fee (points) | 1.25% | of total loan | 1.25% | of total loan |
| Average Balance | 55% | of total loan | 55% | of total loan |
| Loan To Value Ratio | 65% | | 65% | |
| Interest Cost and Points | 5.00% | of total costs | 5.00% | of total costs |
| **Capitalization Rate** | 5.25% | 5.00% | 5.50% | |
| **Permanent Financing** | Multi-Family & Retail | Multi-Family | Townhouse, Duplex & Piggyback | |
| Interest Rate | 5.50% | 5.25% | 5.25% | |
| Term | 30 | 30 | 30 | years |
| Mortgage Constant | -6.813% | -6.626% | -6.626% | |
| Debt Coverage Ratio | 115% | 115% | 115% | of debt service |
| **Deferred Developer Fee** | 3% | 3% | 3% | of total cost |

Source: Partners for Economic Solutions, 2023.