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## **1815 Riggs Place, NW Apartment Feasibility**

Bolan Smart Associates has been asked to provide an overview of economic issues pertaining to constructing additional units on the third floor of an existing apartment building at 1815 Riggs Place, NW in Washington DC.

The economic feasibility of redeveloping the subject property, comparing adding three units (@ 2.16 FAR) with adding one unit (@ 1.8 FAR), is constrained by a number of factors associated with economies of scale. The high cost per square foot of building one unit, totaling 565 gross square feet, versus constructing three units, totaling 1,927 gross square feet, requires an end rent under the single unit scenario that is over market by a factor of approximately one third, rendering a single-unit addition uneconomic.

As detailed in the attached Table 1, development costs and income were compared for the respective construction scenarios. Based on a review of the applicant's development assumptions, costs and revenues were divided into the fixed and incremental components. The net effect of limiting the project size to 565 gross square feet is summarized as follows:

- 4% reduction in achieved leaseable (rentable) square feet per area of gross square feet, attributable primarily to the space needed to add a stairwell serving only one unit.
- 40% increase in average development cost per apartment unit, due to the combination of substantial fixed costs, less efficient construction costs, and higher per unit soft costs.
- **33% over market rent** required to break even on a one unit addition.

**Table 1**  
**1815 Riggs Place, NW**  
**FINANCIAL FEASIBILITY**

**Project Description**

- 1) Units
- 2) Gross Square Footage
- 3) Efficiency (rentable sf / gross sf)
- 4) Total Rentable Square Footage
- 5) Average Rentable Square Footage / Unit

| 2.16 FAR     | 1.80 FAR     |
|--------------|--------------|
| 3            | 1            |
| 1,927 gsf    | 565 gsf      |
| 87%          | 84%          |
| 1,681 rsf    | 474 rsf      |
| 560 rsf/unit | 474 rsf/unit |

3.7% less efficient / unit

**Development Costs**

- 6) Fixed Costs
- 7) land
- 8) stairs / second floor modifications
- 9) approvals / other fixed elements
- 10) **Total Fixed Development Costs**
- 11) Incremental Costs
- 12) construction / FF&E per gsf for single unit
- 13) economies of scale for multiple units
- 14) total construction cost
- 15) **Net Incremental Development Costs**
- 16) **Total Fixed and Incremental Costs**
- 17) Other Soft Costs (A&E, admin, financing) & Contingencies
- 18) **Total Soft Costs & Contingences**
- 19) **Total Development Costs**
- 20) total cost per unit
- 21) total cost per gsf

|                 |                 |
|-----------------|-----------------|
| \$0             | \$0             |
| \$35,000        | \$35,000        |
| \$30,000        | \$30,000        |
| \$65,000        | \$65,000        |
| \$190 /gsf      | \$190 /gsf      |
| \$165 /gsf      | \$190 /gsf      |
| \$317,955       | \$107,274       |
| \$317,955       | \$107,274       |
| \$382,955       | \$172,274       |
| 25%             | 30%             |
| \$95,739        | \$51,682        |
| \$478,694       | \$223,956       |
| \$159,565 /unit | \$223,956 /unit |
| \$248 /gsf      | \$397 /gsf      |

15.2% more expensive

20.0% more expensive

40.4% more expensive

**Funding Requirements**

- 22) Mortgage Debt 75 00%
- 23) 25 years amortization 5 00% interest rate
- 24) Cash Equity 25 00%
- 25) net equity yield 12 50% min required yield
- 26) **Net Annual Financing Cost** 8 45% cash-on-cash equivalent

|           |           |
|-----------|-----------|
| \$359,020 | \$167,967 |
| \$25,473  | \$11,918  |
| \$119,673 | \$55,989  |
| \$14,959  | \$6,999   |
| \$40,433  | \$18,916  |

**Required Market Rent**

- 27) Op Expenses (net of heat & elec) \$8 00 /rsf
- 28) Replacement Reserves \$1 00 /rsf
- 29) Real Estate Taxes \$4 00 /rsf
- 30) Total Operating Expenses \$13 00 /rsf
- 31) per unit / year
- 33) Vacancy / Credit Loss 7 50% of market rent
- 34) Annual Financing Costs
- 35) Total Annual Cost
- 36) Total Monthly Market Rent \$3 50 / rsf / month
- 37) per unit / month
- 38) Total Annual Project Revenue
- 39) Monthly Required Rent
- 40) per unit
- 41) per rentable square foot
- 42) **Annual Profit / Loss**

|                |                 |
|----------------|-----------------|
| \$13,448 /year | \$3,794 /year   |
| \$1,681 /year  | \$474 /year     |
| \$6,724 /year  | \$1,897 /year   |
| \$21,853 /year | \$6,165 /year   |
| \$7,284 /unit  | \$6,165 /unit   |
| \$5,295 /year  | \$1,494 /year   |
| \$40,433 /year | \$18,916 /year  |
| \$67,581 /year | \$26,576 /year  |
| \$5,884 /month | \$1,660 /month  |
| \$1,961 /unit  | \$1,660 /unit   |
| \$70,602 /year | \$19,919 /year  |
| \$5,632 /month | \$2,215 /month  |
| \$1,877 /unit  | \$2,215 /unit   |
| \$3 35 /rsf    | \$4 67 /rsf     |
| \$3,021 /year  | (\$6,657) /year |

33.4% over market rent