MEMORANDUM

Date: February 19, 2025
To: Skyline Capital Management Team
From: Market Research Dept.
Re: Investment Modeling Assumptions for Proposed Class B Apartment Development

This memo provides key guidance for our consultant investment analyst who will be developing the simulation-optimization model to determine the optimal unit mix in the planned 85-unit Class B apartment building. To ensure consistency in approach and assumptions, this document outlines: details on the new building's planned size and floor space, assumptions for future operating costs, and a structured approach to modeling market demand.

1. Building Size and Space Constraints

It has been predetermined that the new development will contain exactly 85 units. The analyst's model must determine the optimal allocation between Studio and 1-Bedroom units while ensuring that the total floor space remains within the following project limits:

- Total Number of Units: 85
- Total Available Floor Space: 80,000 square feet
- Studio Unit Size: 800 sq. ft.
- 1-Bedroom Unit Size: 1,200 sq. ft.

2. Operating Cost Assumptions

Based on the specs for the building's construction materials and design, we have developed the following pro forma operating cost structure to be used in for profit and cost modeling purposes:

Cost Type	Amount	Description
Fixed Costs	$320,000 per Year	Costs that do not change with unit mix (e.g., maintenance, admin, property mgmt.)
Studio Variable Costs	$720 per Studio unit per Month	Costs that scale with unit count (e.g., utilities, unit-level maintenance)
1-Bedroom Variable Costs	$1,000 per 1-Bedroom unit per Month	Costs that scale with unit count (e.g., utilities, unit-level maintenance)

3. Market Demand and Rent Simulation

The rental market determines pricing, and historical trends should guide rent simulations in the model. Since higher rent levels obviously reduce demand, the unit mix model must enforce demand constraints, ensuring that the number of leased units does not exceed market capacity.

To assist in modeling the market demand, the table below provides estimated demand limits based on rent ranges. ("Market Cap" indicates the maximum number of units that can be rented at a given rent level. For example, if rent is $1,550/month, no more than 45 Studios and 38 1-Bedroom units can be leased.)

Rent Level ($/month)	Market Cap (Studios)	Market Cap (1-Bedrooms)
Less than $1,500	60	75
$1,500 - $1,800	55	70
$1,800 - $2,100	48	65
$2,200 - $2,500	40	57
$2,500 - $2,800	30	48
$2.800 - $3,100	18	35

We look forward to leveraging data-driven insights for this exciting new development.