LYRA

Feasibility Desk — Sample Memo

516-518 5th Street, Brooklyn, NY 11215

Prepared July 22, 2026 · Basic deliverable

ZONING ENVELOPE 10,000 sf R6B · FAR 2 · 4 floors	UNIT PROGRAM 12 units 8,200 net sf · rental
YIELD ON COST 5.76% Base case · 5.5% target	LEVERED IRR 15.5% Seeded p50 14.4%

EXECUTIVE ANSWER

Pursue only if the assumed R6B envelope and rent basis survive local diligence. The base case reaches 5.76% yield-on-cost and 15.5% levered IRR, while the seeded yield band spans 5.0% to 6.3%.

Concept-grade feasibility — not investment advice. Verify zoning + costs locally.

Site and zoning envelope

A transparent first-pass envelope from Lyra's bundled NYC starter table, with every manual assumption called out.

SOURCE RECORD

ADDRESS
516-518 5th Street, Brooklyn, NY 11215

SITE
Illustrative 5,000 sf two-lot assemblage

DISTRICT
Assumed R6B; confirm parcel mapping in ZoLa

USE
12-unit rental infill

ZONING SOURCE
lyra/data/zoning/nyc/rules.csv

CONTROL	VALUE	RESULT	SOURCE / STATUS
Lot area	5,000 sf	—	Illustrative assemblage
FAR	2	10,000 sf	Bundled R6B · NYC ZR §23-153
Coverage	65%	3,250 sf	Concept assumption · ZR §23-153
Max height	50 ft	4 floors	Bundled R6B · NYC ZR §23-662
Height × coverage	—	13,000 sf	3,250 sf × 4
Concept envelope	—	10,000 sf	FAR binds

VERIFY LOCALLY

Coverage is not populated in the bundled R6B row; 65% is a concept assumption for this sample. Section references are signposts, not a zoning determination. Confirm lot condition, street wall, setbacks, Quality Housing applicability, parking, overlays, historic-district review, and the current Resolution text. The massing thumbnail is diagrammatic: the renderer assumes a square lot and applies a 10 ft visual inset; it is not a parcel plan.

Massing and unit mix

A compact four-story rental concept sized to the FAR envelope.

PROGRAM

Recommended concept · 2 FAR · 4 floors · 10,000 gross sf · 8,200 net sf · 12 units · 662 sf average

UNIT TYPE	COUNT	AVG NET SF	TOTAL NET SF	SHARE	RENT / SF / YR
Studio	3	450	1,350	17%	$92
1BR	6	650	3,900	49%	$84
2BR	3	900	2,700	34%	$76
Total	12	662 avg	7,950	100%	$82.6

ASSUMPTION REGISTER

ASSUMPTION	BASE CASE	TYPE / NOTE
Efficiency	82%	Concept assumption
Parking	0 spaces	Concept assumption; verify applicability
Hard cost	$500 / gross sf	Illustrative NYC input
Soft costs	22% of hard cost	Concept assumption
Land	$1,500,000	Illustrative acquisition basis
Vacancy / opex	5% / 32%	Concept assumptions
Exit cap / growth	4.75% / 3.0%	Concept assumptions
Lease-up	2 units / month	Six-month modeled lease-up

Photoreal renders included in delivered projects.

Concept-grade pro forma

The capital stack and returns come directly from Lyra's developer pro forma and IRR modules.

USES	
Land	$1,500,000
Hard costs	$5,000,000
Soft costs	$1,100,000
Construction interest	$393,965
Total project cost	$7,993,965

SOURCES + DEBT	
Debt · 65% LTC	$4,940,000
Equity	$3,053,965
Interest-only rate	7.25%
Annual debt service	$358,150
DSCR	1.22x

YIELD ON COST
5.76%
5.50% target · pass

LEVERED IRR
15.5%
Five-year hold

EQUITY MULTIPLE
2.02x
Seeded base case

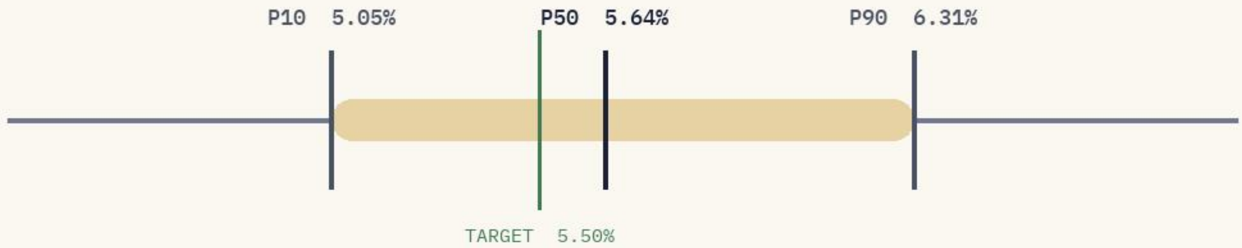
LEVERED CASH FLOW	AMOUNT
Equity in	$-3,053,965
Year 1	$-11,583
Year 2	$92,752
Year 3	$106,279
Year 4	$120,212
Year 5	$5,878,642

The return clears the sample's 5.50% yield target, but the margin is not wide. Rent, construction cost, and the exit cap are the assumptions most likely to reverse the decision.

Risk band and decision conditions

Seeded Monte Carlo over rent and construction cost; 5,000 trials, seed 42.

YIELD-ON-COST DISTRIBUTION



IRR P10

8.5%

Same seeded ranges

IRR P50

14.4%

Median case

IRR P90

20.1%

Upside range

RUN RECORD

Uniform independent ranges: rent 90%-110% of base; hard cost 90%-115% of base. Probability of clearing the 5.50% yield target: 61.0%. The band describes the entered ranges, not every project risk.

PROCEED IF

- R6B envelope and 65% coverage assumption are confirmed.
- Blended rent supports at least $82.6/net sf/year.
- Hard-cost budget remains near $500/gross sf.

PAUSE OR REPRICE IF

- Historic, overlay, or bulk controls reduce the 10,000-sf envelope.
- Verified rent or exit pricing pulls yield below 5.50%.
- GC pricing moves toward the modeled high-cost range.

Limitations and next diligence

What this sample can answer — and what it cannot.

STANDING LIMITATIONS

This memo is an early decision aid based on the cited sources and stated assumptions. Lyra is compliance-aware, never compliance-grade: this work does not certify zoning or code compliance and is not a survey, architectural or engineering service, appraisal, legal or tax advice, lending commitment, or guarantee of project performance. Confirm zoning, overlays, entitlements, code, dimensions, costs, market evidence, and financing with the relevant municipality and qualified local professionals before acquisition, design, financing, or construction decisions.

VERIFY NEXT

01 **Land-use counsel or zoning consultant**
Confirm district mapping, Quality Housing controls, lot coverage, height, setbacks, overlays, and parking.

02 **Surveyor + architect**
Confirm assemblage dimensions and test a code-aware plan against the 10,000-sf concept envelope.

03 **Local GC / cost consultant**
Price structure, envelope, MEP, sitework, escalation, and contingency against the $500/gross sf assumption.

04 **Broker + capital partner**
Validate rent, lease-up, exit cap, debt terms, and equity return threshold.

FINAL NOTE

Concept-grade feasibility — not investment advice. Verify zoning + costs locally.