URBN PLANNING · DECISION MEMO

Base case — residential-led

Al Barsha Mixed-Use (demonstration) · Plot 12 — Al Barsha South (fictional)

Scenario	Decision record	Currency
Approved · version 20	**Approved · summary v1**	**AED**
Generated	Jurisdiction	Geography
2026-09-25 12:55 UTC	**Dubai — demonstration controls**	**Dubai, United Arab Emirates**

Unresolved warnings and status

3 item(s) need attention before relying on this memo

- Massing: Conceptual repeated floorplates and proportional use shares are not architectural layouts.
- Massing: Open area is an unbuilt-site proxy excluding supplied hardscape; it is not verified landscape, permeability, statutory open space or physical parking supply.
- Massing: Directional setbacks use the largest recorded hard value uniformly on outer and hole edges; no frontage or road-edge designation is inferred.

Key outcomes

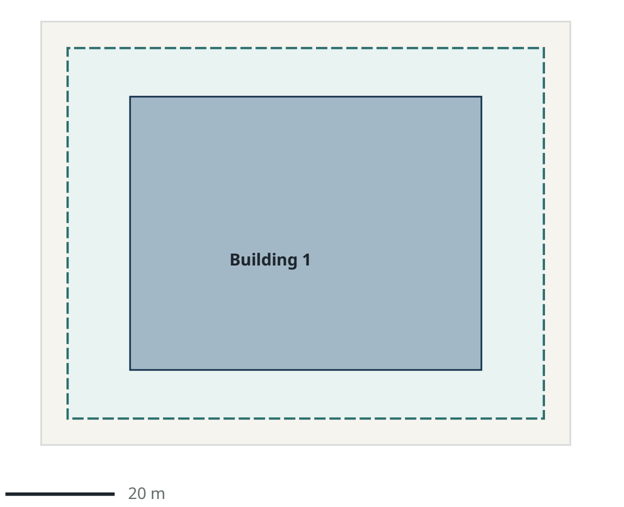
Copied from the identified saved results; see the stamp appendix.

Gross development value	Total development cost	Unlevered profit
AED 310,882,758.62	**AED 276,677,701.06**	**AED 74,155,702.62**
Margin on cost	Project NPV @ 10.00% p.a.	Project IRR (annual)
30.02%	**AED 10,979,648.43**	**12.31%**
Residual land value	Programme GFA	Residential units · hotel keys
AED 115,627,085.52	**24,000.00 m²**	**106 · 0**

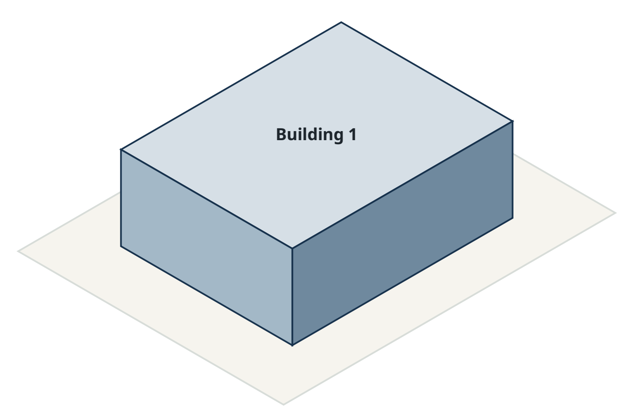
Site and massing

Schematic projections of saved massing geometry (working coordinates EPSG:32640).

Plan (north up)



Axonometric from the south-west



Pale fill: site boundary · dashed teal: buildable envelope · blue: building masses.

Physical yield · feasible

Measure	Value	Measure	Value
Site area	8,000.00 m²	Buildable envelope	6,300.00 m²
Target GFA	24,000.00 m²	Achieved GFA	24,000.00 m²
GFA variance	0.00 m² (0.00%)	Building footprint	3,428.57 m²
Site coverage	42.86%	Open area	4,571.43 m²
Open space	57.14%	Maximum height	25.20 m

Mass	Floors	Height	Footprint	GFA	Uses
Building 1	7	25.20 m	3,428.57 m²	24,000.00 m²	residential 13,200.00 m², office 7,200.00 m², retail 3,600.00 m²

Check	Status	Actual	Limit	Message
far	pass (hard)	3.00	3.00	far: measured 2.99999999998125 ratio; recorded control requires at most 3 ratio.
coverage	pass (hard)	42.86%	45.00%	coverage: measured 42.8571428568478500 percent; recorded control requires at most 45 percent.
max floors	pass (hard)	7.00	12.00	max_floors: measured 7 floors; recorded control requires at most 12 floors.
max height	pass (hard)	25.20 m	45.00 m	max_height: measured 25.2 m; recorded control requires at most 45 m.
floor to floor	pass (hard)	3.60 m	3.60 m	floor_to_floor: measured 3.6 m; recorded control requires equal 3.6 m.
minimum open space	pass (hard)	57.14%	30.00%	minimum_open_space: measured 57.1428571431521500 percent; recorded control requires at least 30 percent.
setback general	pass (hard)	—	5.00 m	setback_general is checked as a uniform 5 m offset on every outer and hole edge.
allowed uses	pass (hard)	—	—	All programme uses are recorded as allowed.
target gfa	pass (hard)	24,000.00 m²	24,000.00 m²	Measured GFA meets target within the documented geometry reporting tolerance.

Programme

Use	Share	GFA	Net area	Yield	Parking
Residential	55.00%	13,200.00 m²	10,560.00 m² NSA	106 units	106
Office	30.00%	7,200.00 m²	6,120.00 m² NLA	—	123
Retail	15.00%	3,600.00 m²	3,240.00 m² GLA	—	81
Total		**24,000.00 m²**	**NSA 10,560.00 m² · NLA 6,120.00 m² · GLA 3,240.00 m²**	**106 units · 0 keys**	**310**

Planning check	Status	Source	Message
allowed uses	pass (hard)	Demonstration planning controls · interpreted	Proposed uses are included in the saved allowed-uses rule.
far	pass (hard)	Demonstration planning controls · interpreted	Explicit programme GFA is within the saved FAR allowance.

Planning controls

The rule snapshot consumed by the saved programme calculation · jurisdiction Dubai — demonstration controls.

Control	Value	Type	Source	Confidence	Overrides
allowed uses	residential, office, retail uses	hard	Demonstration planning controls	interpreted	0
coverage	45 percent	hard	Demonstration planning controls	interpreted	0
far	3 ratio	hard	Demonstration planning controls	interpreted	0
floor to floor	3.6 m	hard	Demonstration planning controls	interpreted	0
max floors	12 floors	hard	Demonstration planning controls	interpreted	0
max height	45 m	hard	Demonstration planning controls	interpreted	0
minimum open space	30 percent	hard	Demonstration planning controls	interpreted	0
parking office	spaces: 1; per_unit: nla_m2; rounding: ceil; provision: basement; per_quantity: 50 parking_ratio	hard	Demonstration planning controls	interpreted	0
parking residential	spaces: 1; per_unit: units; rounding: ceil; provision: basement; per_quantity: 1 parking_ratio	hard	Demonstration planning controls	interpreted	0
parking retail	spaces: 1; per_unit: gla_m2; rounding: ceil; provision: basement; per_quantity: 40 parking_ratio	hard	Demonstration planning controls	interpreted	0
setback general	5 m	hard	Demonstration planning controls	interpreted	0

Financial outputs

Amounts in AED; every quarter is in the workbook.

Measure	Value	Measure	Value
Unlevered CAPEX	AED 247,016,000.00	Financing costs	AED 29,661,701.06
Total development cost	AED 276,677,701.06	Gross development value	AED 310,882,758.62
Operating NOI received	AED 10,288,944.00	Total project receipts	AED 321,171,702.62
Unlevered profit	AED 74,155,702.62	Profit after financing	AED 44,494,001.56
Margin on cost	30.02%	Funded margin on cost	16.08%
Annual discount rate	10.00%	Quarterly discount rate	2.41%
Project NPV	AED 10,979,648.43	Project IRR (annual)	12.31%

Residual land value (margin on cost target 20.00%, unlevered): AED 115,627,085.52. Numerical bisection met the unlevered target within 0.000001 currency units.

Annual cash flow summary

Period	CAPEX	Receipts	Project cash flow	Discounted	Equity cash flow
t0 (land)	AED 95,000,000.00	AED 0.00	AED −95,000,000.00	AED −95,000,000.00	AED −47,975,000.00
Year 1 (Q1–Q4)	AED 60,806,400.00	AED 0.00	AED −60,806,400.00	AED −57,310,336.53	AED −35,005,747.59
Year 2 (Q5–Q8)	AED 60,806,400.00	AED 64,350,000.00	AED 3,543,600.00	AED 2,374,229.95	AED 27,125,475.38
Year 3 (Q9–Q12)	AED 30,403,200.00	AED 88,372,236.00	AED 57,969,036.00	AED 44,518,598.91	AED 64,421,223.92

Period	CAPEX	Receipts	Project cash flow	Discounted	Equity cash flow
Year 4 (Q13–Q16)	AED 0.00	AED 168,449,466.62	AED 168,449,466.62	AED 116,397,156.10	AED 35,928,049.85
Total	**AED 247,016,000.00**	**AED 321,171,702.62**	**AED 74,155,702.62**	**AED 10,979,648.43**	**AED 44,494,001.56**

Sensitivities (user-selected stresses, not forecasts)

Stress	Status	GDV	NPV	IRR	Margin
price rent −10.00%	ok	AED 279,794,482.76	AED −12,983,994.00	7.19%	17.02%
price rent +10.00%	ok	AED 341,971,034.48	AED 34,943,290.85	17.16%	43.02%
hard cost −10.00%	ok	AED 310,882,758.62	AED 23,817,789.01	15.15%	38.19%
hard cost +10.00%	ok	AED 310,882,758.62	AED −1,858,492.15	9.62%	22.76%
land cost −10.00%	ok	AED 310,882,758.62	AED 20,479,648.43	14.51%	35.22%
land cost +10.00%	ok	AED 310,882,758.62	AED 1,479,648.43	10.30%	25.21%
development timing −1 quarter(s)	ok	AED 310,882,758.62	AED 15,217,016.08	13.46%	30.02%
development timing +1 quarter(s)	ok	AED 310,882,758.62	AED 6,854,539.36	11.35%	30.02%
absorption duration −1 quarter(s)	ok	AED 310,882,758.62	AED 12,572,934.72	12.73%	30.02%
absorption duration +1 quarter(s)	ok	AED 310,882,758.62	AED 9,411,070.93	11.92%	30.02%

Scenario comparison

Saved results with this scenario as the base; ranking objective npv. Ineligible scenarios keep their evidence but are not ranked.

Scenario	Rank	IRR	NPV	RLV	GDV	Adverse
Base case — residential-led · Option 1	1	16.77%	AED 32,881,880.63	AED 139,984,171.03	AED 339,369,517.24	0
Base case — residential-led · Option 2	2	13.38%	AED 18,247,519.42	AED 131,148,571.03	AED 324,947,917.24	0
Base case — residential-led · Option 3	3	13.47%	AED 14,798,066.79	AED 113,748,140.34	AED 312,057,672.41	0
Base case — residential-led (base)	4	12.31%	AED 10,979,648.43	AED 115,627,085.52	AED 310,882,758.62	0

Measure	Base case — residential-led · Option 1	Base case — residential-led · Option 2	Base case — residential-led · Option 3	Base case — residential-led
Programme GFA	24,000.00 m²	24,000.00 m²	24,000.00 m²	24,000.00 m²
Residential units	116	76	135	106
Hotel keys	0	0	0	0
Residential NSA	11,520.00 m²	7,680.00 m²	13,440.00 m²	10,560.00 m²
Office NLA	2,040.00 m²	6,120.00 m²	4,080.00 m²	6,120.00 m²
Retail GLA	6,480.00 m²	6,480.00 m²	2,160.00 m²	3,240.00 m²
Required parking	319	361	271	310
Site area	8,000.00 m²	8,000.00 m²	8,000.00 m²	8,000.00 m²
Buildable envelope	6,300.00 m²	6,300.00 m²	6,300.00 m²	6,300.00 m²
Massing GFA	24,000.00 m²	24,000.00 m²	24,000.00 m²	24,000.00 m²
Massing GFA variance	0.00 m²	0.00 m²	0.00 m²	0.00 m²
Building footprint	3,428.57 m²	3,428.57 m²	3,428.57 m²	3,428.57 m²
Site coverage	42.86%	42.86%	42.86%	42.86%
Open area	4,571.43 m²	4,571.43 m²	4,571.43 m²	4,571.43 m²
Open space	57.14%	57.14%	57.14%	57.14%

Measure	Base case — residential-led · Option 1	Base case — residential-led · Option 2	Base case — residential-led · Option 3	Base case — residential-led
Maximum height	25.20 m	25.20 m	25.20 m	25.20 m
Unlevered CAPEX	AED 247,016,000.00	AED 247,016,000.00	AED 247,016,000.00	AED 247,016,000.00
Financing costs	AED 29,661,701.06	AED 29,661,701.06	AED 29,661,701.06	AED 29,661,701.06
Total development cost	AED 276,677,701.06	AED 276,677,701.06	AED 276,677,701.06	AED 276,677,701.06
Operating NOI	AED 11,030,688.00	AED 14,849,568.00	AED 6,859,296.00	AED 10,288,944.00
Project receipts	AED 350,400,205.24	AED 339,797,485.24	AED 318,916,968.41	AED 321,171,702.62
Unlevered profit	AED 103,384,205.24	AED 92,781,485.24	AED 71,900,968.41	AED 74,155,702.62
Profit after financing	AED 73,722,504.18	AED 63,119,784.18	AED 42,239,267.36	AED 44,494,001.56
Margin on cost	41.85%	37.56%	29.11%	30.02%
Funded margin on cost	26.65%	22.81%	15.27%	16.08%

Key assumptions

The assumption revision consumed by the saved calculations. Unset inputs are omitted here; the workbook lists every input, and sources are in the appendix.

Input	Value
programme.total gfa m2	24000
programme.components[1].key	residential
programme.components[1].use	residential
programme.components[1].share percent	55
programme.components[1].efficiency percent	80
programme.components[1].residential unit mix[1].label	One bedroom
programme.components[1].residential unit mix[1].share percent	40
programme.components[1].residential unit mix[1].unit size m2	75
programme.components[1].residential unit mix[2].label	Two bedroom
programme.components[1].residential unit mix[2].share percent	45
programme.components[1].residential unit mix[2].unit size m2	115
programme.components[1].residential unit mix[3].label	Three bedroom
programme.components[1].residential unit mix[3].share percent	15
programme.components[1].residential unit mix[3].unit size m2	165
programme.components[2].key	office
programme.components[2].use	office
programme.components[2].share percent	30
programme.components[2].efficiency percent	85
programme.components[3].key	retail
programme.components[3].use	retail
programme.components[3].share percent	15
programme.components[3].efficiency percent	90
market.currency	AED
market.components[1].use	residential
market.components[1].method	sale

Input	Value
market.components[1].sale rate per m2	16500
market.components[2].use	office
market.components[2].method	rent_cap
market.components[2].annual rent per m2	1300
market.components[2].occupancy percent	90
market.components[2].operating cost percent	20
market.components[2].cap rate percent	7.5
market.components[2].other income annual	0
market.components[3].use	retail
market.components[3].method	rent_cap
market.components[3].annual rent per m2	1800
market.components[3].occupancy percent	92
market.components[3].operating cost percent	15
market.components[3].cap rate percent	7.25
market.components[3].other income annual	0
costs.currency	AED
costs.land cost	95000000
costs.hard cost per gfa m2	5200
costs.soft cost percent	12
costs.contingency percent	5
costs.infrastructure cost	6000000
finance.currency	AED
finance.construction quarters	10
finance.sales start quarter	6
finance.sales duration quarters	8
finance.stabilization quarter	12
finance.valuation quarter	16
finance.discount rate percent	10
finance.target margin percent	20
finance.interest rate percent	7.5
finance.loan to cost percent	50
finance.cash flow convention	quarter_end_uniform_costs_v1
finance.income cash flow method	stabilized_operations_and_exit
finance.financing method	interest_only
finance.debt interest convention	annual_effective
finance.debt fee percent	1
finance.rlv target method	margin_on_cost
finance.rlv max land cost	300000000
finance.sensitivity percent	10
finance.sensitivity timing quarters	1

Sources

Saved source metadata for planning rules and inputs. Confidence is declared by the person who entered it; it is not an independent verification.

Applies to	Label	Type · confidence	Dates	Reference or note
planning › allowed uses	Demonstration planning controls	client_rule · interpreted	2026-09-25	Fictional controls prepared for the URBN Planning user manual; not an official regulation.
planning › coverage	Demonstration planning controls	client_rule · interpreted	2026-09-25	Fictional controls prepared for the URBN Planning user manual; not an official regulation.
planning › far	Demonstration planning controls	client_rule · interpreted	undated	Fictional controls prepared for the URBN Planning user manual; not an official regulation.
planning › floor to floor	Demonstration planning controls	client_rule · interpreted	2026-09-25	Fictional controls prepared for the URBN Planning user manual; not an official regulation.
planning › max floors	Demonstration planning controls	client_rule · interpreted	2026-09-25	Fictional controls prepared for the URBN Planning user manual; not an official regulation.
planning › max height	Demonstration planning controls	client_rule · interpreted	2026-09-25	Fictional controls prepared for the URBN Planning user manual; not an official regulation.
planning › minimum open space	Demonstration planning controls	client_rule · interpreted	2026-09-25	Fictional controls prepared for the URBN Planning user manual; not an official regulation.
planning › parking office	Demonstration planning controls	client_rule · interpreted	2026-09-25	Fictional controls prepared for the URBN Planning user manual; not an official regulation.
planning › parking residential	Demonstration planning controls	client_rule · interpreted	2026-09-25	Fictional controls prepared for the URBN Planning user manual; not an official regulation.
planning › parking retail	Demonstration planning controls	client_rule · interpreted	2026-09-25	Fictional controls prepared for the URBN Planning user manual; not an official regulation.
planning › setback general	Demonstration planning controls	client_rule · interpreted	2026-09-25	Fictional controls prepared for the URBN Planning user manual; not an official regulation.
assumptions › programme › components › 1	Demonstration programme brief	user_input · user supplied	2026-09-25	Illustrative mixed-use brief: residential led with office and retail podium.
assumptions › programme › components › 2	Demonstration programme brief	user_input · user supplied	2026-09-25	Illustrative mixed-use brief: residential led with office and retail podium.
assumptions › programme › components › 3	Demonstration programme brief	user_input · user supplied	2026-09-25	Illustrative mixed-use brief: residential led with office and retail podium.
assumptions › programme	Demonstration programme brief	user_input · user supplied	2026-09-25	Illustrative mixed-use brief: residential led with office and retail podium.
assumptions › market › components › 1	Demonstration market evidence	market_dataset · interpreted	2026-09-25	Illustrative Dubai residential sale, office and retail rent assumptions for training only.
assumptions › market › components › 2	Demonstration market evidence	market_dataset · interpreted	2026-09-25	Illustrative Dubai residential sale, office and retail rent assumptions for training only.
assumptions › market › components › 3	Demonstration market evidence	market_dataset · interpreted	2026-09-25	Illustrative Dubai residential sale, office and retail rent assumptions for training only.
assumptions › costs	Demonstration cost plan	cost_library · interpreted	2026-09-25	Illustrative land, construction, soft cost and contingency allowances for training only.
assumptions › finance	Demonstration finance assumptions	user_input · user supplied	2026-09-25	Illustrative timing, discount rate and interest-only debt for training only.
massing	Demonstration massing settings	user_input · user supplied	2026-09-25	Generated orthogonal masses within the recorded controls.

Version stamp and traceability

Item	Identifier
Scenario	e1f091ea-e960-4bf7-a981-14832ac3cf44 · version 20 · approved
Project · site	305482ef-fb27-474c-b46a-0643f54da418 v1 · cc66a555-a16f-4b3a-9745-f5b7c02e7f26 v2
Programme result	15a33ba7-3e82-4ef8-9eb9-16d0483a6fff · version 1 · programme-1.0.0
Massing result	bb4d107a-28e0-4b62-949a-f4cd2c39551e · version 1 · massing/1;shapely=2.1.2;geos=3.13.1;pyproj=3.7.2;proj=9.5.1
Finance result	64345f54-19eb-46f8-98dd-62ab998bca28 · version 1 · finance-1.0.0
Decision summary	fab61592-7c3c-4950-a915-40c46440e949 · version 1 · current
Comparison engine	comparison/1;stored-results;risk=adverse-check-count-v1;ties=scenario-id
Export engine	exports/1;pdf=fpdf2-a4;xlsx=xlsxwriter;digest=sha256-canonical-json
Evidence digest (SHA-256)	2d9f97fb0729b551460675a2d4505ce3854a2c8df3ae67aa2f021bc674626b91
Generated	2026-09-25 12:55 UTC

Limitations

- Figures are copied from the identified saved programme, massing and finance results. Stale or missing results are labelled and must be recalculated before they support a current decision.
- Source labels and confidence are saved user-provided metadata; this export does not independently verify regulations, market evidence or compliance.
- Massing drawings are schematic projections of saved geometry, not architectural, structural or code-compliance drawings.
- Sensitivities are user-selected stresses re-run by the finance engine, not forecasts.

Finance calculation notes

- All amounts use the declared currency. Accounting lines use eight decimal places, half-even. Uniform schedules floor earlier quarters to eight places and assign the final residual.
- Land occurs at t0. Hard, soft, contingency and infrastructure costs occur uniformly in quarters 1 through construction duration. Soft and contingency percentages apply to hard cost.
- Residential sales/rent use occupied NSA from whole units; office uses NLA and retail GLA. Hotel income uses whole keys and explicitly supplied available nights per year.
- Annual NOI = (base occupied rent/room income + explicit other annual income) minus operating cost percentage of that total. Terminal value = annual NOI / annual cap rate.
- Selected stabilized operations pay annual NOI / 4 from stabilization through the quarter before disposal. Disposal-quarter operating income is excluded; terminal value is paid then.
- GDV = sales + terminal values. Total project receipts add received operating NOI. Unlevered margin = (total project receipts - unlevered CAPEX) / unlevered CAPEX.
- Project IRR and NPV exclude debt. Effective annual discount converts to quarterly using (1 + annual rate)^(1/4) - 1; annual IRR = (1 + quarterly IRR)^4 - 1.
- Interest-only debt draws the selected LTC share of each CAPEX line. Fees apply to each draw. Interest accrues on opening debt; quarter-end draws accrue from the next quarter. Equity pays interest and fees. All principal is repaid in the final model quarter; no equity IRR is claimed.
- Residual land value solves an explicitly selected unlevered target on the nonnegative interval [0, user upper bound]. Sensitivities are labelled user-selected stresses, not forecasts.