VIABILITY & FEASIBILITY IN PLANNING

MITCHELL MCDERMOTT

PAUL MITCHELL

15.05.2020

IRISH PLANNING INSTITUTE
Institiúid Pleanála Na hÉireann

CONTENTS

1. INTRODUCTION
2. DEVELOPMENT APPRAISALS
3. IMPACT PLANNING GUIDELINES ON VIABILITY
4. APARTMENT VIABILITY
5. SUMMARY

IRISH PLANNING INSTITUTE
Institiúid Pleanála Na hÉireann

COMPANY INFORMATION

INTRODUCTION

60 Personnel in Dublin

DIRECTORS

Paul Mitchell
Anthony McDermott
Michael Gallagher

SERVICES

- Quantity Surveying
- Project Management
- Pre-Acquisition Technical Due Diligence
- Recovery
- Financial Modelling
- Expert Witness

SECTORS

- Healthcare (Nursing Homes & Primary Care Centres)
- Residential (Housing & Apartments)
- Student Accommodation
- Hotels
- Retail (Development & Fit Out)
- Data Centres
- Culture (Arts, Entertainment)
- Offices (New Build & Fit Out)
- Pharmaceuticals

OUR TEAM


Paul Mitchell
Director


Anthony McDermott
Director


Michael Gallagher
Director


Fergal Beacon
Divisional Director


Ronan Tynan
Divisional Director


Fearghal Rooney
Divisional Director


Rory Carter
Associate


Alan Maguire
Associate


Conor Dempsey
Associate


Dean Elcock
Associate


Paul McAteer
Associate


Adrian Lynch
Associate


Martin Andrews
M&E Consultant


Ian Kilcoyne
Capital Allowances


Ciara Mulholland
Senior Project Manager


Kevin Culhane
Senior Project Manager


Paul Conlon
Senior Project Manager


Jannes Van Rensburg
Senior QS


Patrick Blennerhassett
Senior QS


Neil O'Loughlin
Senior Quantity Surveyor


Aaron O'Hara
Senior Quantity Surveyor


Riain O'Connell
Senior Quantity Surveyor


Conor McBrearty
Senior QS


Bronagh Duggan
Senior Quantity Surveyor


Lisa Cleary
Project Manager


Amandy Jap
Quantity Surveyor


Kieran O'Leary
Project Manager


Charlie Myles
Project Manager


Adam Roche
Project Manager


Robert McNamara
Senior QS


Mark McElhinney
Quantity Surveyor


Andrew Baldwin
Quantity Surveyor


Dean Gallagher
Quantity Surveyor


Noel Kane
Quantity Surveyor

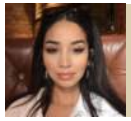

June Koay
Quantity Surveyor


Terry O Rourke
Quantity Surveyor


Jeff Hughes
Quantity Surveyor


Tommy Murphy
Quantity Surveyor


Patrick Darcy
Quantity Surveyor


Imane Hachadi
Ass. Project Manager

Kristyan Murray
Quantity Surveyor

Niall McLarnon
Ass. Quantity Surveyor

Orla Cahill
Ass. Quantity Surveyor

Jack Cronin
Ass. Quantity Surveyor

Tom Molony
Ass. Quantity Surveyor

Orna Daly
Ass. Quantity Surveyor

Andrew Doohan
Ass. Quantity Surveyor

Peter Hammond
Ass. Quantity Surveyor

Jessica Harris
Ass. Quantity Surveyor

Martin McGettigan
Ass. Quantity Surveyor

Megan O'Brien
Ass. Quantity Surveyor

Wai Kee Chan
Ass. Quantity Surveyor

Cally Loi
Ass. Quantity Surveyor

Marie-Claire Kerrin
PM & Office Admin

Joy Hall
Office Manager

Christina Van Aesch
Finance Manager

Birute Maskyte
HR Manager

COMPANY INFORMATION

INTRODUCTION

Paul Mitchell

- 25 years in industry
- QS
- PM
- Development Advisory

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1. DEVELOPMENT APPRAISAL

DEVELOPMENT APPRAISAL

WHAT IS IT?

- It is a financial calculation to see if a development returns the required profit from Sales after all costs are met

Total Revenue

- Total Costs

Profit

DEVELOPMENT APPRAISAL

WHAT IS IT?

REVENUE – COSTS =/≠ PROFIT

- Sales
- Rent

- Site
- Development Contributions
- Statutory Fees
- Construction Costs
- Professional Fees
- Sales and Letting Fees
- Legal costs
- Accounting
- Finance (Debt/Equity/Mezz)
- Inflation
- Contingency

DEVELOPMENT APPRAISAL

Worked example..

- Greenfield site
- 12 Houses + 49 Apartments
- Dublin
- Planning granted
- Willing Lender and Developer

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DEVELOPMENT APPRAISAL

1.	**Sales Values** (avg. €355k ea.)		**€19.07m**
2.	**Development Costs**		
	a.	Site Cost	€3.10m
	b.	Statutory Fees and Contributions	€1.81m
	c.	Construction Costs	€14.06m
	d.	Design Team Fees	€0.48m
	e.	Legals and Accounting	€0.20m
	f.	Sales & Letting Costs	€0.49m
	g.	Funding Costs	€0.31m
	Sub-total		**€20.45m**
3.	**Loss**		**-€1.38m**

DEVELOPMENT APPRAISAL

1.	**Sales Values** (avg. €355k ea.)			**€19.07m**
2.	**Development Costs**			
	a.	Site Cost	€3.10m	
	b.	Statutory Fees and Contributions	€1.81m	
	c.	Construction Costs	€12.29m	(-€1.77m)
	d.	Design Team Fees	€0.48m	
	e.	Legals and Accounting	€0.20m	
	f.	Sales & Letting Costs	€0.49m	
	g.	Funding Costs	€0.25m	
	Sub-total			**€18.62m**
3.	**Profit (2.4%)**			**€0.45m**
4.	**Enough?**			

DEVELOPMENT APPRAISAL

What's the difference between a Development Appraisal and a Residual Appraisal?

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RESIDUAL APPRAISAL

1.	**Sales Values** (avg. €355k ea.)			**€19.07m**
2.	**Development Costs**			
	a.	Statutory Fees and Contributions	€1.81m	
	b.	Construction Costs	€12.29m	-€1.77m
	c.	Design Team Fees	€0.48m	
	d.	Legals and Accounting	€0.20m	
	e.	Sales & Letting Costs	€0.49m	
	f.	Funding Costs	€0.31m	
	Sub-total			**€15.52m**
3.	**Total available for Site and Profit**			**€3.55m**
4.	**Deduct required profit/risk (15%)**			**-€2.33m**
5.	**Available for site purchase:**			**€1.22m**
6.	**Site on sale is guiding at €3.1m....**			

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RESIDUAL APPRAISAL

How much have I left after all projected costs to pay for the land?

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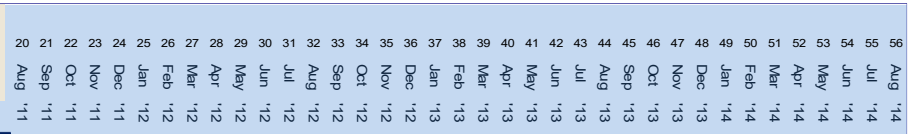
- The initial appraisal can be quite simple but more complex developments require more detailed financial models.

Appraisal



Construction Costs

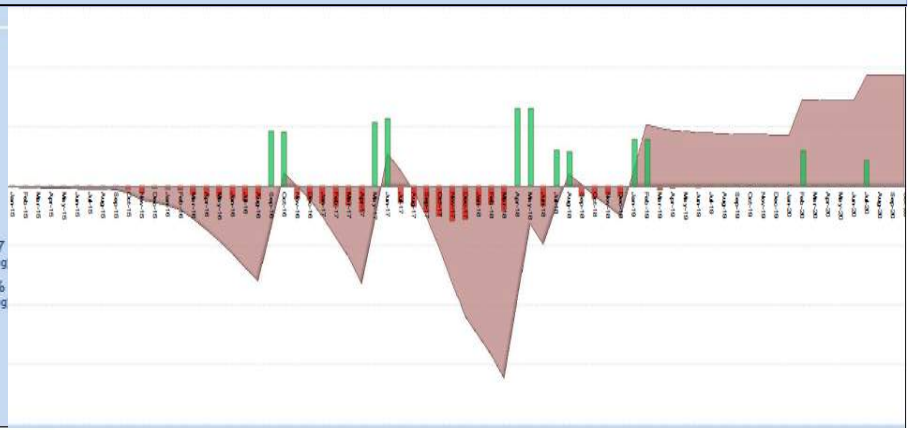
Car Parking / Loading			
Loading area	4,214	sq m	2,650
Basement car parking	44,067	sq m	2,800
Ground Level Car Parking	3,367	sq m	2,200
Roof Top Car Parking	31,258	sq m	2,200
Level 3 Roof Top Parking	21,475	sq m	1,500
2b. Four star Business Hotel			
Four star Business Hotel (70sq.m/Rm)	16,380	sq m	8,472
Car Parking / Loading			
Loading area	351	sq m	2,800
Basement car parking	2,338	sq m	2,800
Podium Car Parking	875	sq m	2,200
Contingency	-		
Pre-Contract Inflation	Yes	Avg: 2.35% pa	
No Post-Contract Inflation	No		
Cashflow S-Curve	S-Curve 1		
Retention (2nd Moiety)	12 Mth(s)	3.00%	

Sales Revenue

	Quantity	Unit	Rate ($)
Residential Apartment Tower Plot	3,744	sq m	6,859
Rate based upon best use (I.e. Hotel)			
Sale of Serviced Plot No.1	6,336	sq m	12,000
Sale of Serviced Plot No.2	6,336	sq m	12,000
Sale of Serviced Plot No.3	6,336	sq m	12,000
Sale of Serviced Plot No.4	6,336	sq m	12,000
Sale of Serviced Plot No.5	6,336	sq m	12,000
Sales Escalation	Sales Escalation		Avg: 5.92% pa

Output Summary

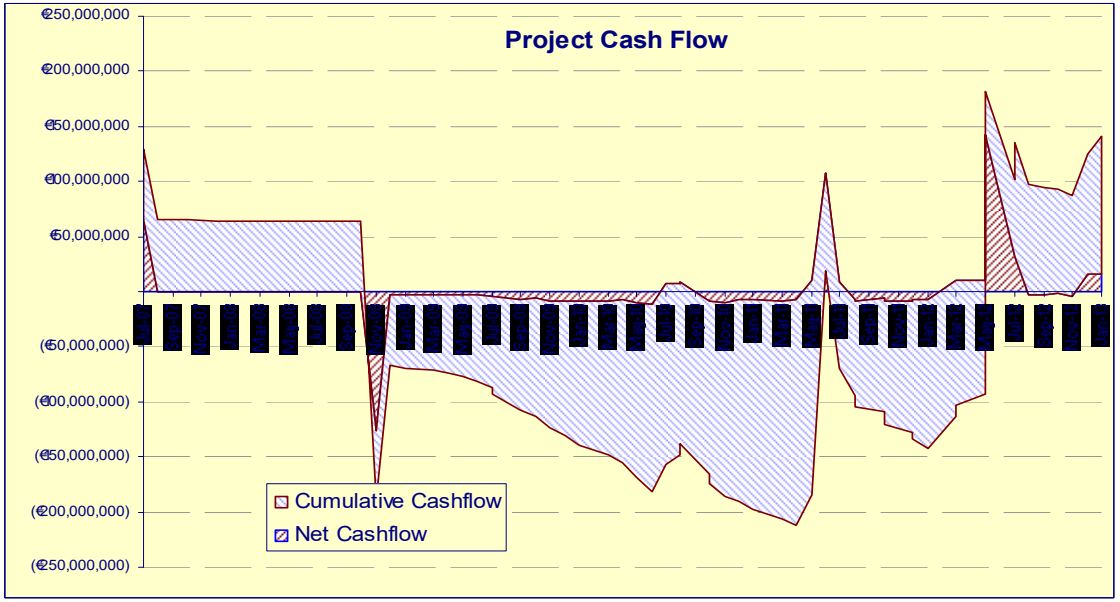
Total Costs	€	107,984,869	
Total Revenue	€	126,690,057	
Profit	€	18,705,188	17.32%
Peak Debt	€	32,381,676	
Loan to Value Ratio	Discount Rate	25.56%	
NPV at 6.0%	6.00%	14,902,883 (Pre-financing)	12,865,037 (Post-financing)
IRR		48.22% (Pre-financing)	40.22% (Post-financing)
Return on Equity		-	
Debt/Equity Ratio		-	
Total Debt drawn	€	73,186,972	



DEVELOPMENT APPRAISAL

Development Model KPI's

- NPV, IRR
- Peak Debt
- LTV
- Debt / Equity
- Cashflow smoothing



DEVELOPMENT APPRAISAL

Inflation

- Inflation modelling

Macroeconomics

Inflation / Cost Escalation

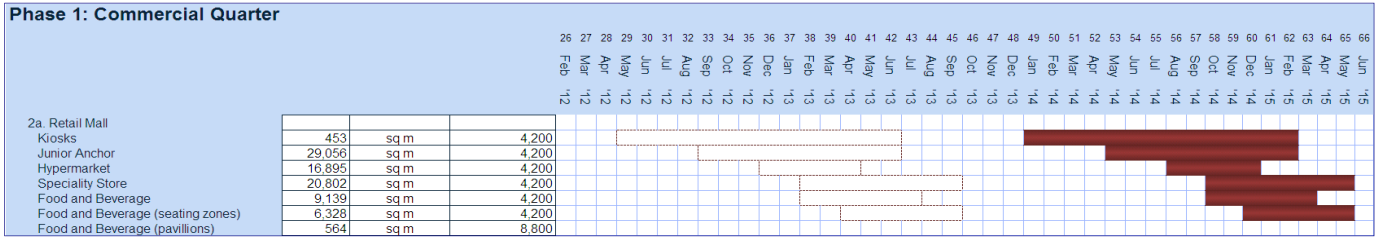
Construction Cost Escalation

Construction Cost Escalation		Yr 2010	Yr 2011	Yr 2012	Yr 2013	Yr 2014	Yr 2015
Pre-Contract Inflation	% p.a.	4.50%	5.60%	6.00%	6.00%	6.00%	6.00%
Post-Contract Inflation	% p.a.	3.00%	4.00%	6.00%	6.00%	6.00%	6.00%

Other Cost Escalations

		Yr 2010	Yr 2011	Yr 2012	Yr 2013	Yr 2014	Yr 2015
No Escalation	% p.a.	-	-	-	-	-	-
Prof. Escalation	% p.a.	3.00%	4.00%	4.00%	4.00%	4.00%	
Misc. Escalation	% p.a.						
Sales Cost Escalation	% p.a.						
Sales Escalation	% p.a.	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Leases Escalation	% p.a.	2.50%	5.00%	5.00%	5.00%	5.00%	5.00%
Rental Escalation	% p.a.	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%

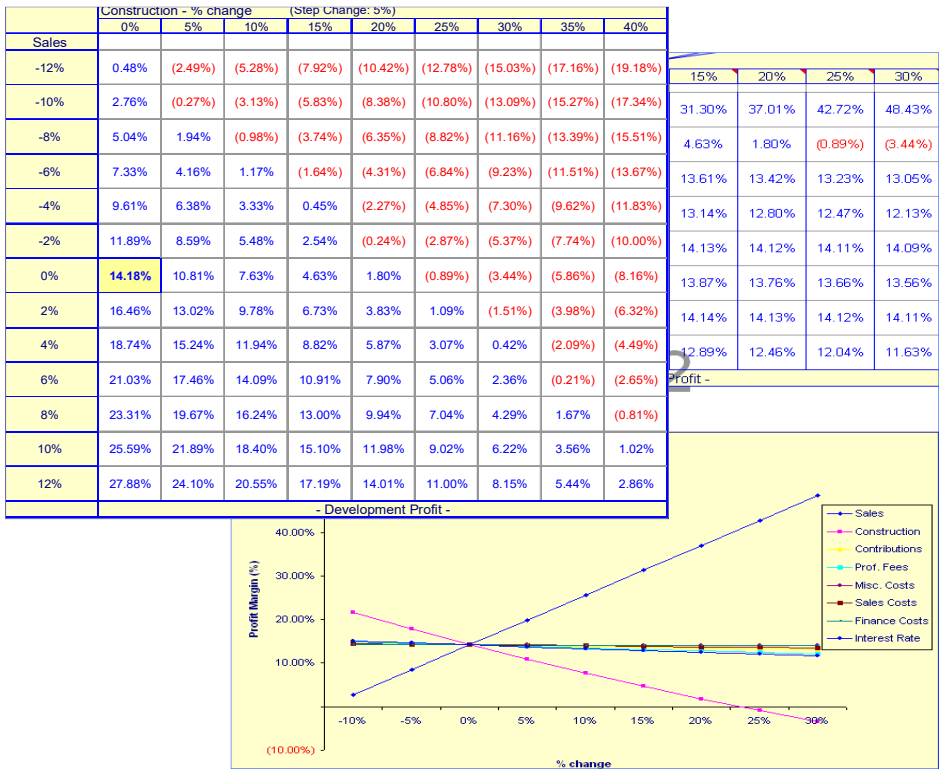
- Impact of programme delays



DEVELOPMENT APPRAISAL

Sensitivity Analysis

- Map main drivers
- Programme sensitivity analysis
- Test phasing of upfront Infrastructure
- Determine appropriate time for 3rd party funding e.g. public grants, investor funds etc
- Pre-empt Funder's due diligence



Sales	Construction - % change (Step Change: 5%)								
	0%	5%	10%	15%	20%	25%	30%	35%	40%
-12%	0.48%	(2.49%)	(5.28%)	(7.92%)	(10.42%)	(12.78%)	(15.03%)	(17.16%)	(19.18%)
-10%	2.76%	(0.27%)	(3.13%)	(5.83%)	(8.38%)	(10.80%)	(13.09%)	(15.27%)	(17.34%)
-8%	5.04%	1.94%	(0.98%)	(3.74%)	(6.35%)	(8.82%)	(11.16%)	(13.39%)	(15.51%)
-6%	7.33%	4.16%	1.17%	(1.64%)	(4.31%)	(6.84%)	(9.23%)	(11.51%)	(13.67%)
-4%	9.61%	6.38%	3.33%	0.45%	(2.27%)	(4.85%)	(7.30%)	(9.62%)	(11.83%)
-2%	11.89%	8.59%	5.48%	2.54%	(0.24%)	(2.87%)	(5.37%)	(7.74%)	(10.00%)
0%	**14.18%**	10.81%	7.63%	4.63%	1.80%	(0.89%)	(3.44%)	(5.86%)	(8.16%)
2%	16.46%	13.02%	9.78%	6.73%	3.83%	1.09%	(1.51%)	(3.98%)	(6.32%)
4%	18.74%	15.24%	11.94%	8.82%	5.87%	3.07%	0.42%	(2.09%)	(4.49%)
6%	21.03%	17.46%	14.09%	10.91%	7.90%	5.06%	2.36%	(0.21%)	(2.65%)
8%	23.31%	19.67%	16.24%	13.00%	9.94%	7.04%	4.29%	1.67%	(0.81%)
10%	25.59%	21.89%	18.40%	15.10%	11.98%	9.02%	6.22%	3.56%	1.02%
12%	27.88%	24.10%	20.55%	17.19%	14.01%	11.00%	8.15%	5.44%	2.86%

- Development Profit -

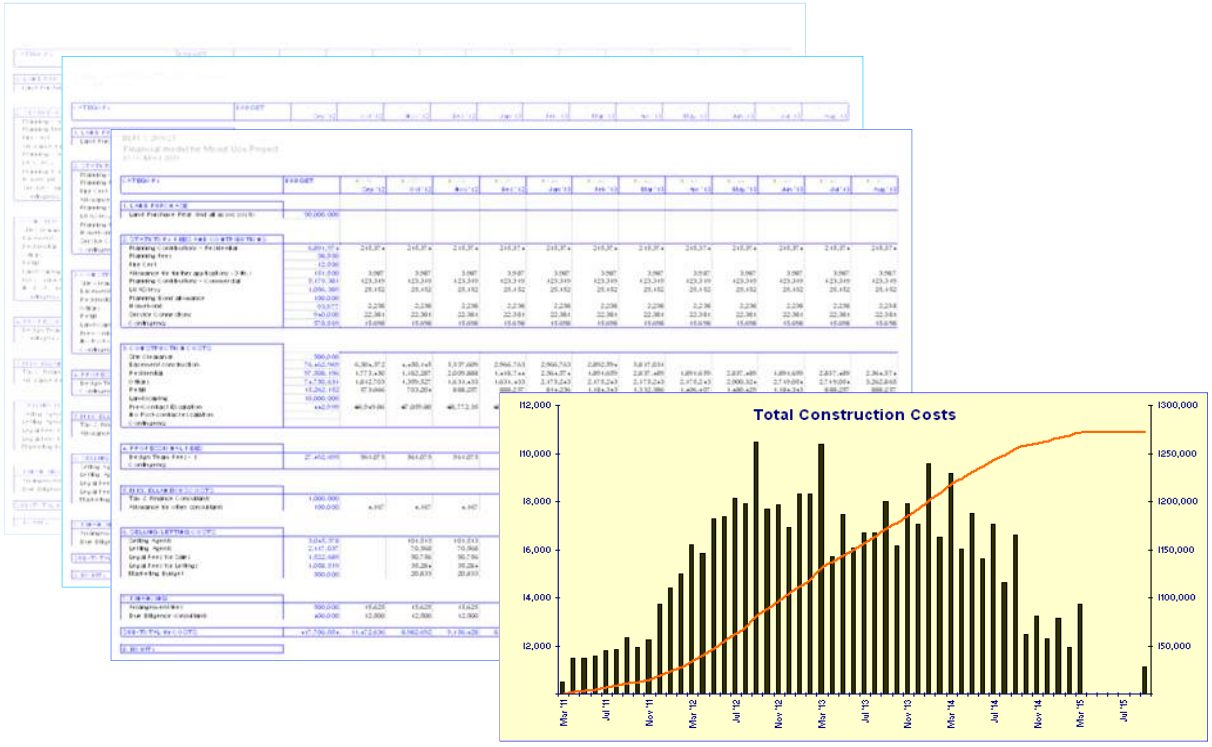
15%	20%	25%	30%
31.30%	37.01%	42.72%	48.43%
4.63%	1.80%	(0.89%)	(3.44%)
13.61%	13.42%	13.23%	13.05%
13.14%	12.80%	12.47%	12.13%
14.13%	14.12%	14.11%	14.09%
13.87%	13.76%	13.66%	13.56%
14.14%	14.13%	14.12%	14.11%
12.89%	12.46%	12.04%	11.63%

Profit -

DEVELOPMENT APPRAISAL

Cashflows

- Automatic ‘S-curve’ cashflowing
- Detailed cashflow reports
- Revenue
- Construction



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DEVELOPMENT APPRAISAL

Funding

- Senior Debt
- Junior Debt
- Equity
- Mezzanine
- Cashflow is critical

23 Apr 2015
Mixed Use Development
Our Ref: 111506

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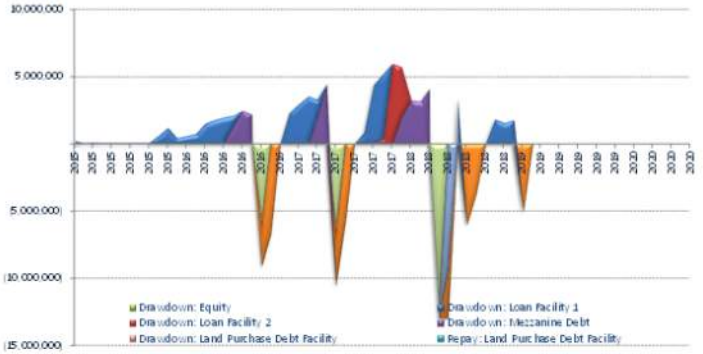
Headline Cashflows ('000 €)

		2015	2016	2017	2018	2019	2020
Revenue							
Total Revenue	126,690	-	21,762	29,604	48,090	16,920	10,315
Costs							
Total Cost	(107,985)	(2,770)	(21,279)	(49,278)	(31,221)	(3,294)	(144)
Funding							
Drawdown: Land Purchase Debt Facility	-	-	-	-	-	-	-
Drawdown: Loan Facility 1	38,480	2,770	9,517	17,713	8,480	-	-
Drawdown: Loan Facility 2	10,000	-	-	10,000	-	-	-
Drawdown: Equity	-	-	-	-	-	-	-
Drawdown: Mezzanine Debt	24,707	-	5,905	8,381	10,421	-	-
Total Funding	73,187	2,770	15,422	36,094	18,901	-	-
CFADS	91,892	-	15,905	16,420	35,770	13,626	10,170
Repayment							
Repay: Land Purchase Debt Facility	-	-	-	-	-	-	-
Repay: Loan Facility 1	(38,480)	-	(10,000)	(10,000)	(13,389)	(5,092)	-
Repay: Loan Facility 2	(10,000)	-	-	-	(10,000)	-	-
Repay: Mezzanine Debt	(24,707)	-	(5,905)	(6,420)	(12,382)	-	-
Total Repayment	(73,187)	-	(15,905)	(16,420)	(35,770)	(5,092)	-
Dividends	-	-	-	-	-	-	-
Equity: Additional Injection	-	-	-	-	-	-	-
Net Cashflow	18,705	-	0	0	(0)	8,535	10,170



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DEVELOPMENT APPRAISAL

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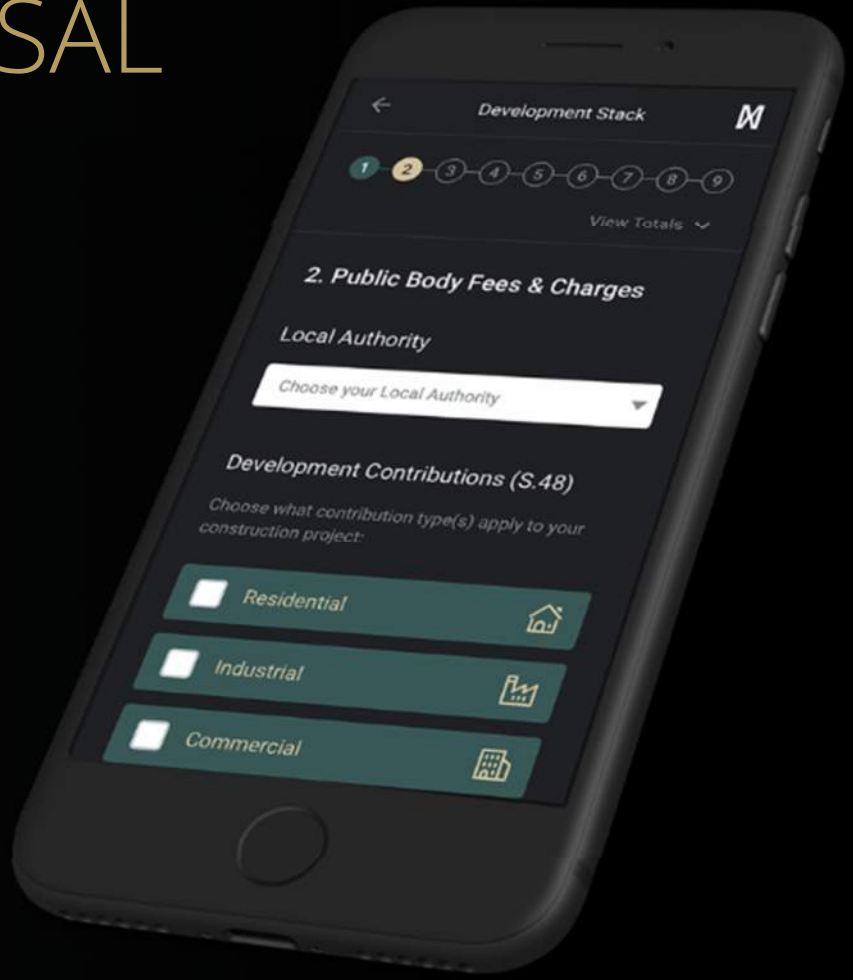
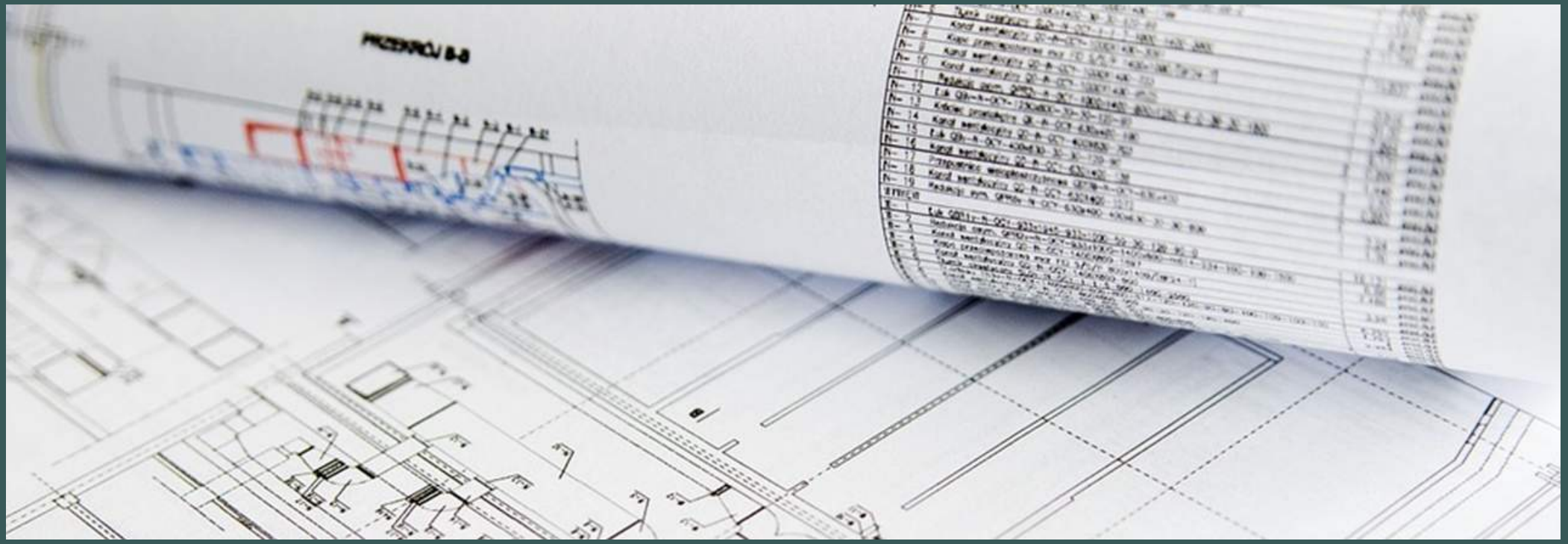


What impact does Planning have on Appraisals?



APARTMENT DESIGN GUIDELINES / STANDARDS

2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

DoE
Guidelines
Sep '07

LA
Guidelines
Dec '07
onwards

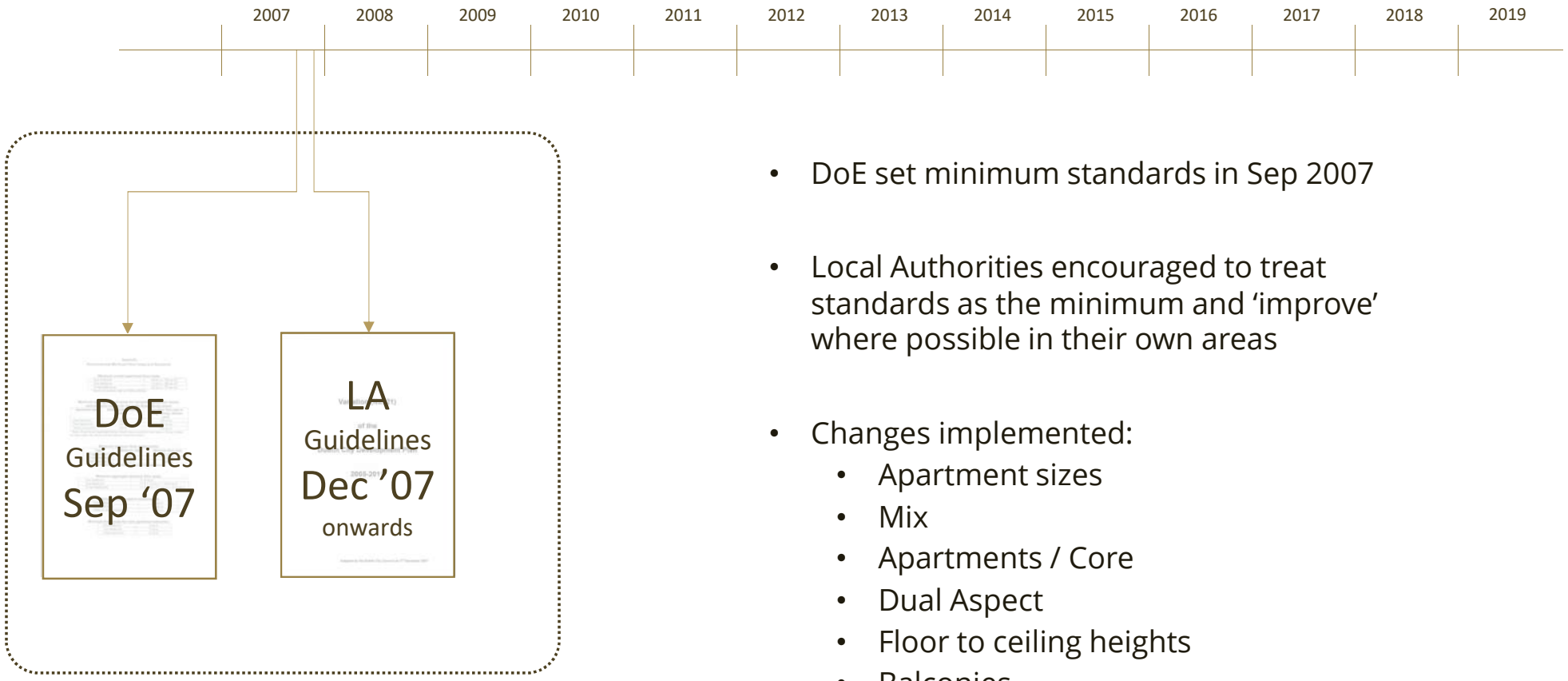
DoH
Standards
Dec '15

BTR
Standards
Oct '16

DHPLG
DRAFT
Standards
Dec '17

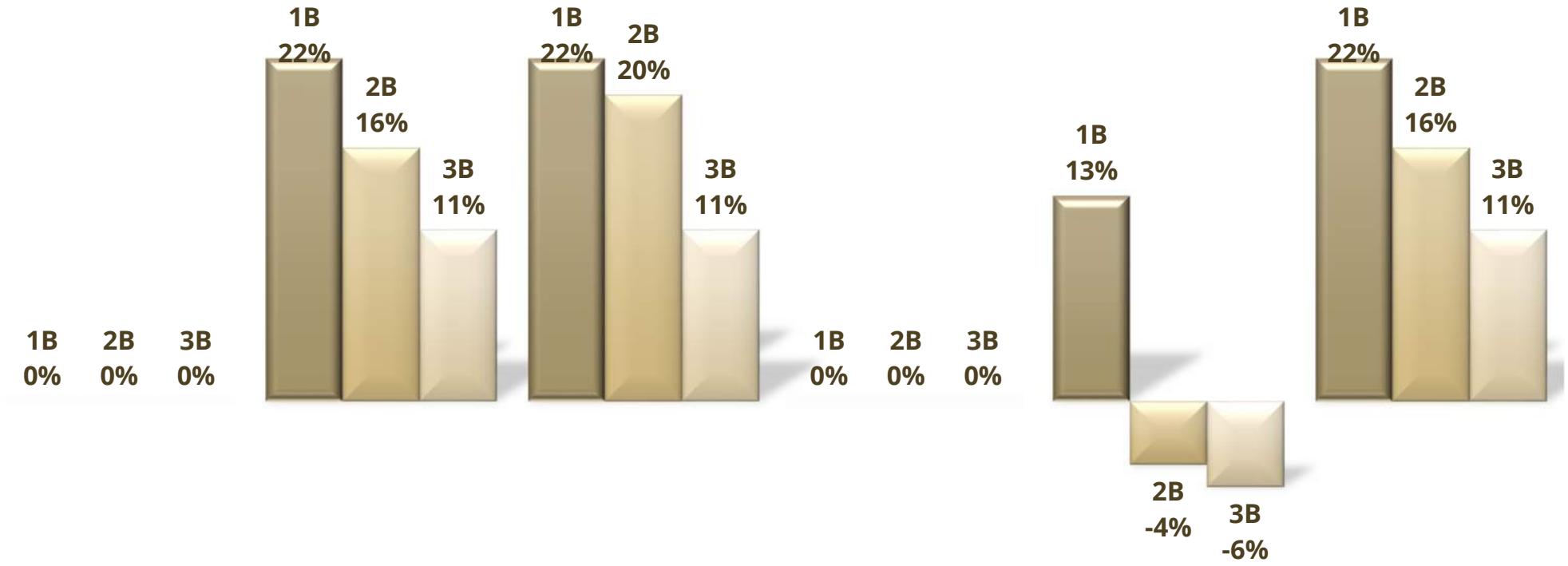
DHPLG
Apartment
Standards
Mar '18

APARTMENT DESIGN GUIDELINES / STANDARDS

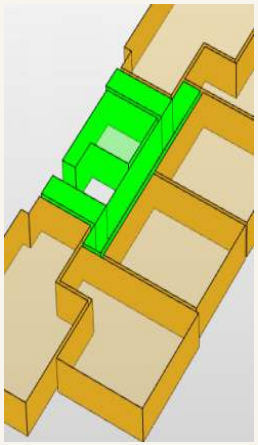
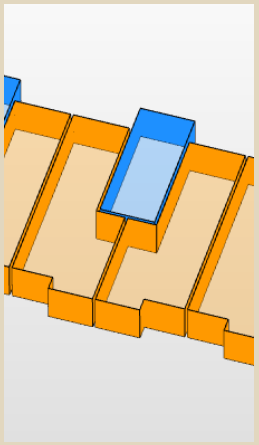
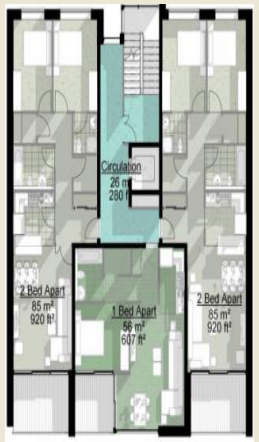
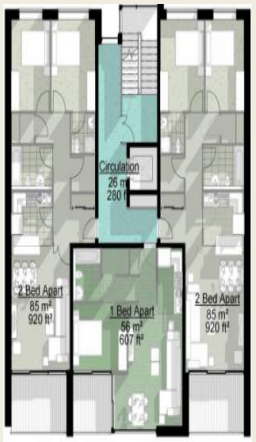
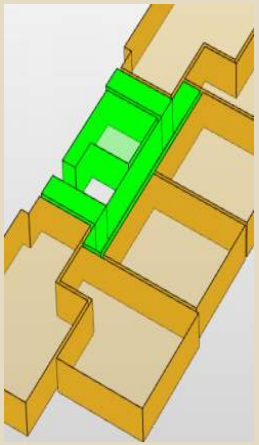
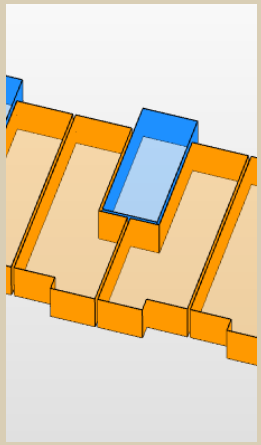


- DoE set minimum standards in Sep 2007
- Local Authorities encouraged to treat standards as the minimum and 'improve' where possible in their own areas
- Changes implemented:
  - Apartment sizes
  - Mix
  - Apartments / Core
  - Dual Aspect
  - Floor to ceiling heights
  - Balconies

MINIMUM APARTMENT SIZES



DUAL ASPECT

DoE	DCC	DLRCC	SDCC	FCC	CCC
Not Prescriptive	85% Dual Aspect / 2-6 Apts / Core	70% Dual Aspect	3 Apts / Core	Not Prescriptive	90% Dual Aspect 2-4 Apts / Core
					

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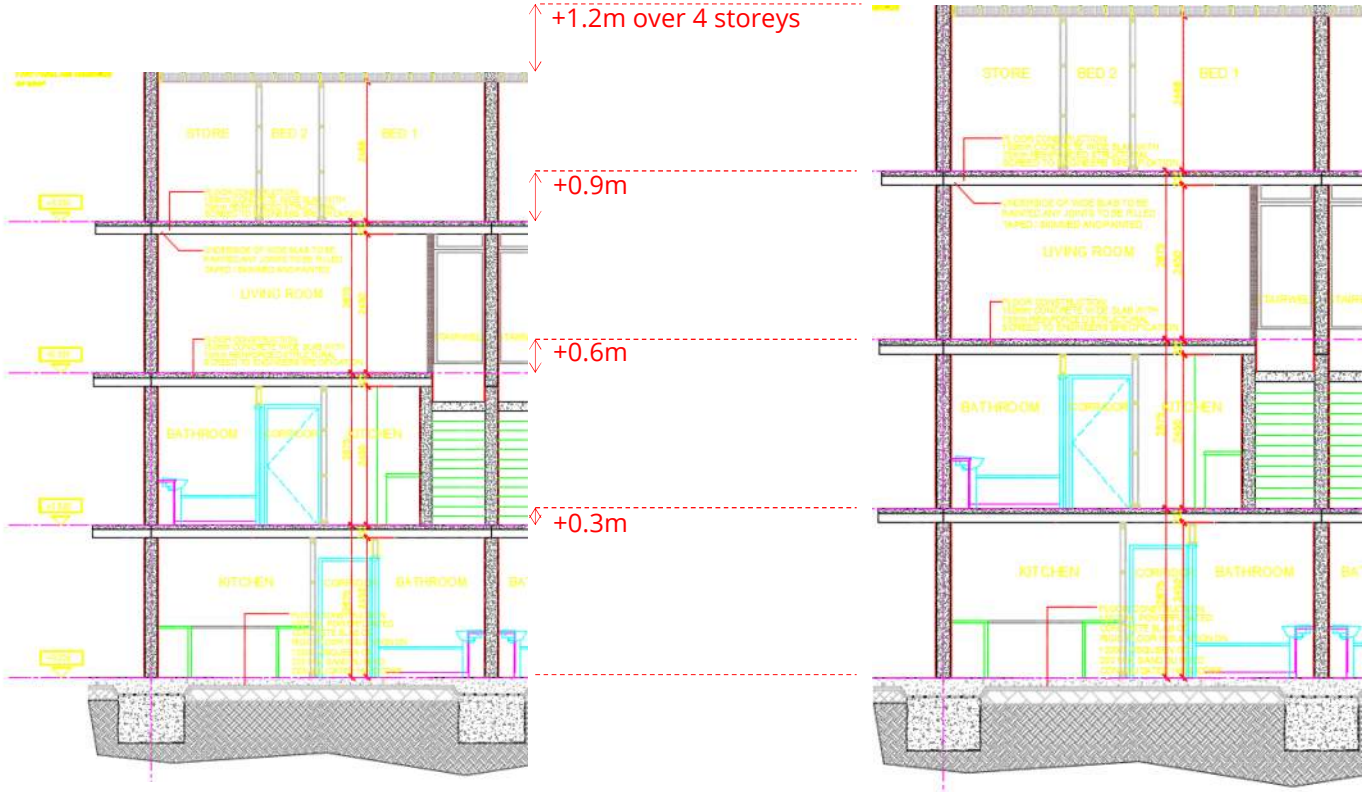
FLOOR TO CEILING HEIGHT

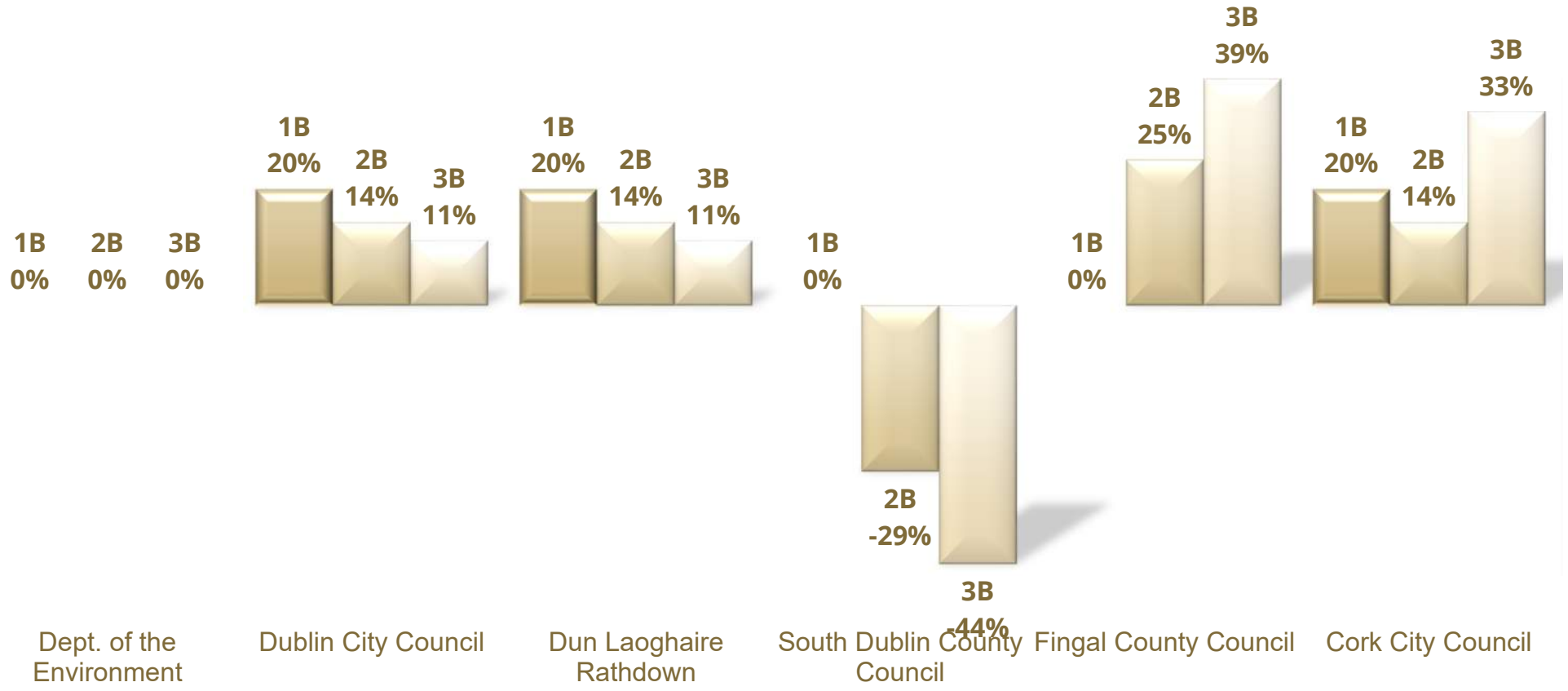


DoE 2.4m floor to ceiling

DCC/FCC/CCC 2.7m floor to ceiling

- Heights raised by 300mm from 2.4m to 2.7m;
- A second means of escape is required over 11m high

BALCONY SIZE



Assumptions:

1. 100 apartments in both DoE and other LA schemes
2. Mix in accordance with LA Guidelines
3. DoE apartment sizes are set to minimum requirements
4. Average minimum size used where stipulated
5. 6 Storeys high with one level of basement
6. Net to Gross: 80%
7. Site coverage: 50%
8. DoE Model is 3.5 apts/core; Other LAs as per requirements
9. Larger units can be accommodated on same size site

COST IMPACT

Local Authority	DoE			DCC			DLRCC			SDCC			FCC			CCC		
Beds	**1B**	**2B**	**3B**	**1B**	**2B**	**3B**	**1B**	**2B**	**3B**	**1B**	**2B**	**3B**	**1B**	**2B**	**3B**	**1B**	**2B**	**3B**
Floor Area:	-	-	-	€8k	€13k	€10k	€7k	€13k	€7k	-	-	-	€4k	- €2k	- €4k	€7k	€9k	€7k
Dual Aspect:	-	-	-	€16k	€16k	€16k	€13k	€13k	€13k	€5k	€5k	€5k	-	-	-	€17k	€17k	€17k
Floor to Ceiling Height:	-	-	-	€4k	€6k	€7k	-	-	-	-	-	-	€4k	€6k	€7k	€4k	€6k	€7k
Balconies:	-	-	-	€4k	€3k	€1k	€4k	€3k	€1k	-	-*	-*	-	€4k	€5k	€4k	€3k	€4k
TOTAL (per unit):	-	-	-	€32k	€38k	€34k	€24k	€29k	€21k	€5k	€5k	€5k	€8k	€8k	€8k	€32k	€35k	€35k
TOTAL (for 100 Bed Scheme):	-			€3.62m			€2.54m			€0.50m			€0.80m			€3.45m		
				20%			14%			3%			4%			19%		

NOTE: Costs relate to construction costs only and do not include any indirect costs such as VAT, Fees, Development contributions, Finance, Site costs, Marketing, Accounting & Legal fees etc.

This exercise is based on a notional 100 Bed scheme in the Dublin area. Costs will vary naturally between different schemes depending on design.

CONSTRUCTION COST

2007 APARTMENT GUIDELINES TOO COSTLY…

So what happened?

- New Department of Housing standards (2015) introduced:
  - Sizes brought back to 2007 levels
  - Dual Aspect requirements relaxed
  - Apartment / Core restrictions relaxed
  - Floor to ceiling heights brought back to 2007 levels
- Additional new regulations issued in 2016 for Build to Rent

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APARTMENT DESIGN GUIDELINES / STANDARDS

2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

DoE
Guidelines
Sep ‘07

LA
Guidelines
Dec ’07
onwards

DoH
Standards
Dec ‘15

BTR
Standards
Oct ‘16

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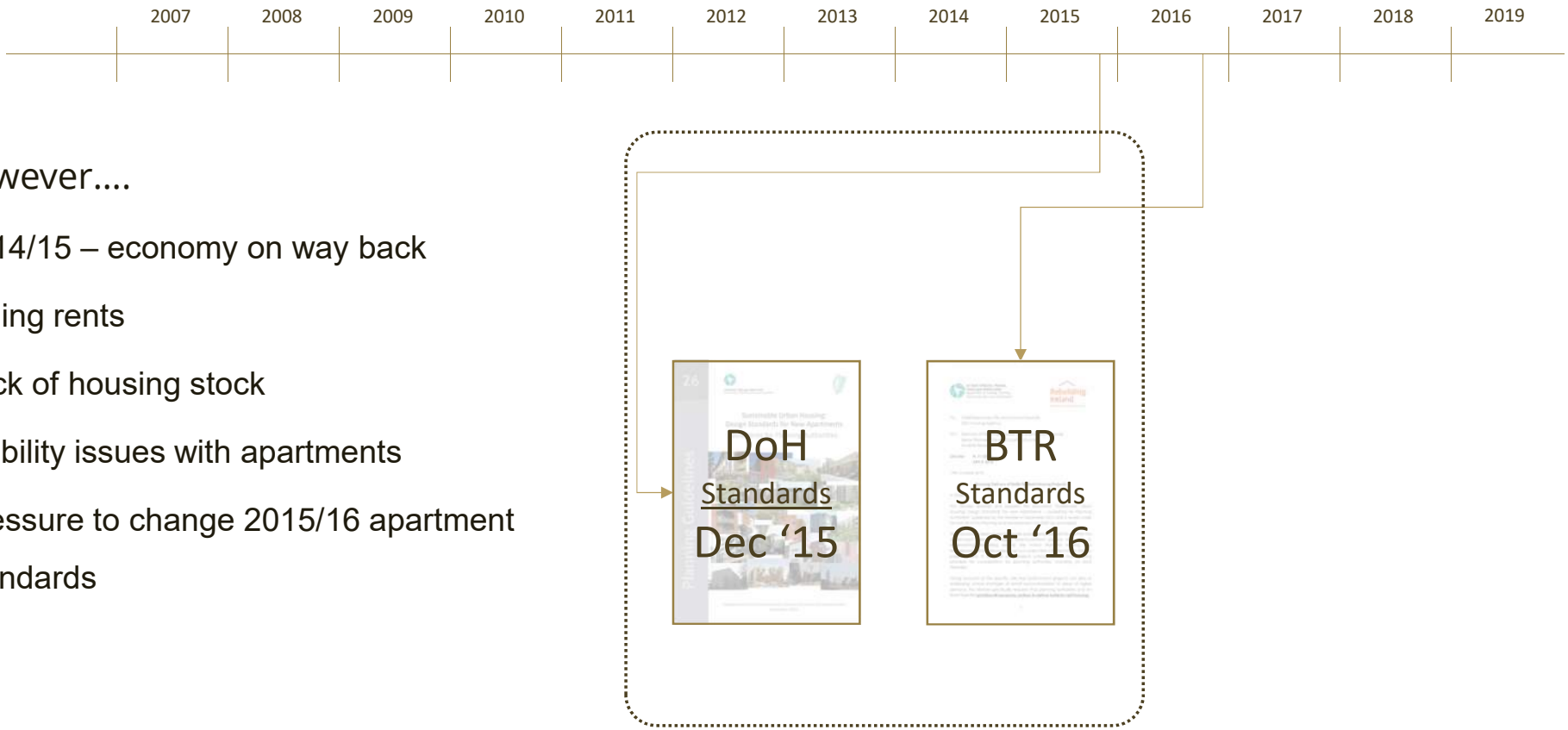
APARTMENT DESIGN GUIDELINES / STANDARDS



- However....
  - 2014/15 – economy on way back
  - Rising rents
  - Lack of housing stock
  - Viability issues with apartments
  - Pressure to change 2015/16 apartment standards

APARTMENT DESIGN GUIDELINES / STANDARDS

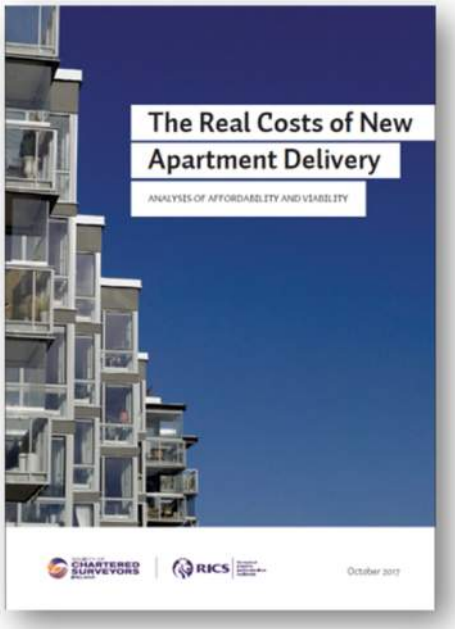
2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

- Department of Housing Study in conjunction with RIAI/CIF/SCSI/IEI on apartment affordability

- SCSI report on the affordability and viability of apartment development

DoH
Standards
Dec ‘15

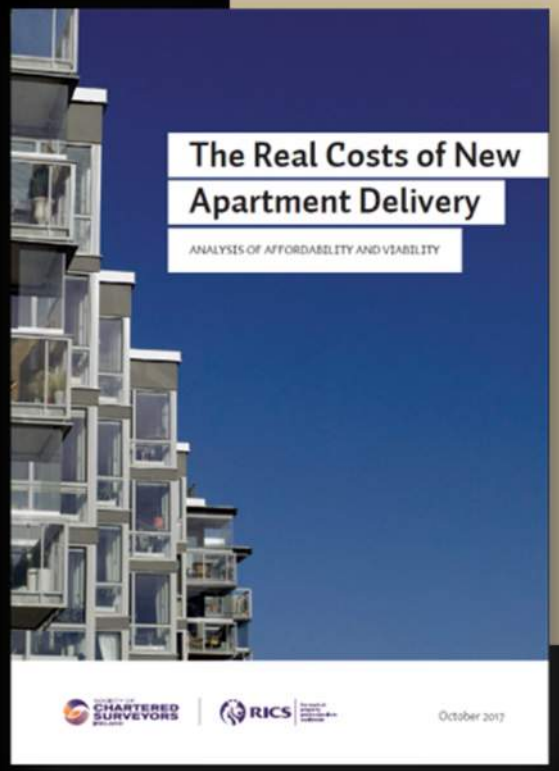
BTR
Standards
Oct ‘16



SCSI REAL COSTS OF NEW APRTMENT DELIVERY

Highlights..

- Evidence based study on c.2,000 apartments
- Examined Viability and Affordability
- Highlighted viability and affordability issues across 3 categories
- Stressed difference between Density and Height
- Building taller = more expensive
- Examined a number of ‘what-if’ scenarios, including;
    - Parking; Design standards; Contribution rebate; S.49; Finance; VAT rebate etc



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Category 1: Suburban (Low Rise)

- Typ. 3 Storeys
- Domestic construction (sim. to housing)
- Blockwork with plastered walls and some brick
- Steel balconies
- PVC windows
- Fixtures & fittings – lower end of scale
- Domestic mech. system e.g. gas boiler
- Surface car parking
- Tarmac & Grass externally

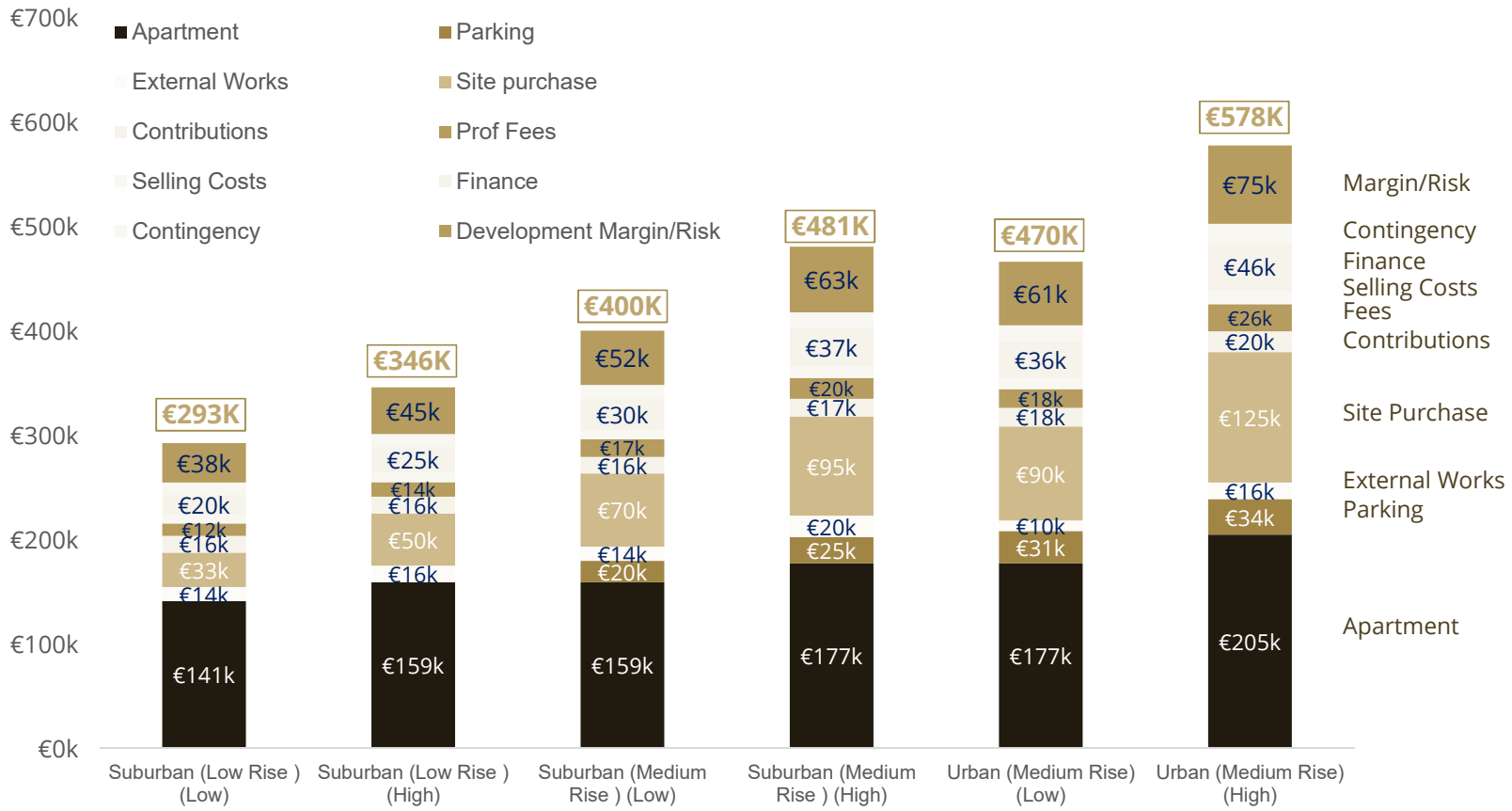
Category 2: Suburban (Medium Rise)

- 3-6 Storeys
- Concrete framed structure and cores
- More brick / precast panels to external facades
- Recessed balconies
- Aluclad windows or similar
- Fixtures & fittings – medium spec
- More complex mech. system
- Partial basement / undercroft parking
- Hard landscaping

Category 3: Urban (Medium Rise)

- 5-8 Storeys
- Concrete framed structure and cores
- Facades – more expensive precast/brick/stone
- Recessed balconies/Wintergardens
- Full façade glazing in places
- Fixtures & fittings – higher spec
- More complex mech. system
- Full basement for parking
- Hard landscaping

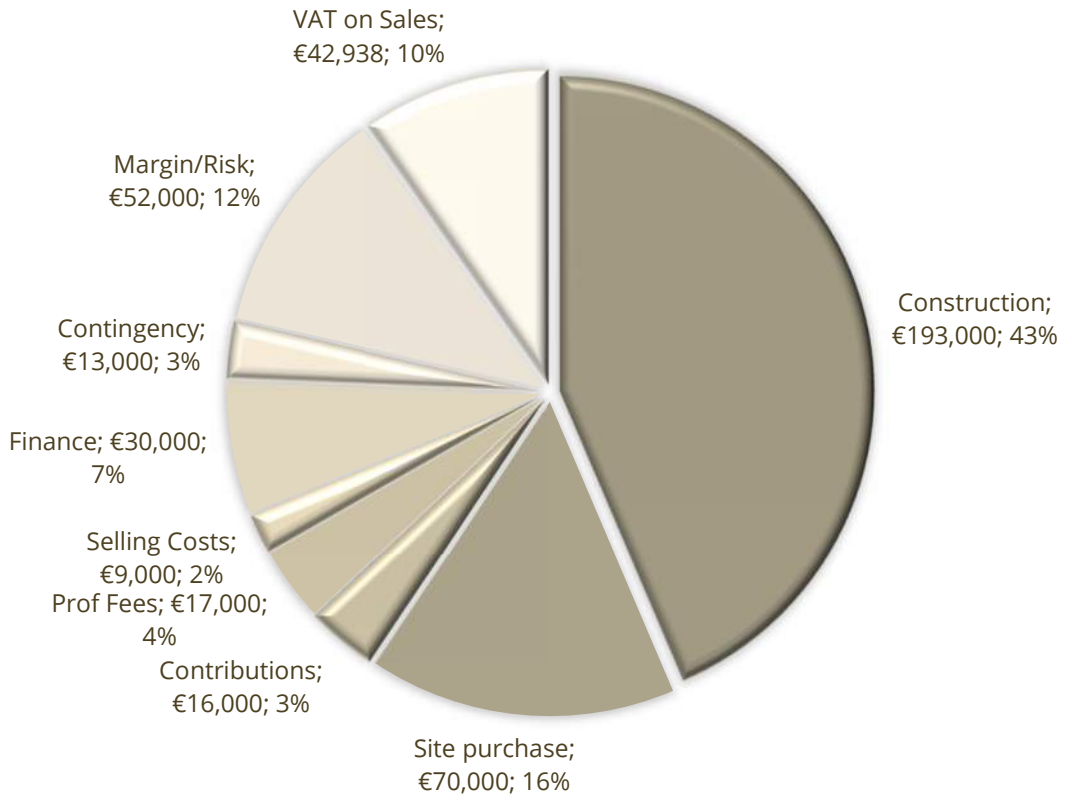
- Construction Costs applied to the GFA (91 sq.m) of a two-bed apartment
- Costs broken down elementally in each category (as shown below)
- Low to High range shown in each category


€700k
€600k
€500k
€400k
€300k
€200k
€100k
€0k
Apartment
External Works
Contributions
Selling Costs
Contingency
Parking
Site purchase
Prof Fees
Finance
Development Margin/Risk
€293K
€38k
€20k
€12k
€16k
€33k
€14k
€141k
€346K
€45k
€25k
€14k
€16k
€50k
€16k
€159k
€400K
€52k
€30k
€17k
€16k
€70k
€14k
€20k
€159k
€481K
€63k
€37k
€20k
€17k
€95k
€20k
€25k
€177k
€470K
€61k
€36k
€18k
€18k
€90k
€10k
€31k
€177k
€578K
€75k
€46k
€26k
€20k
€125k
€16k
€34k
€205k
Margin/Risk
Contingency
Finance
Selling Costs
Fees
Contributions
Site Purchase
External Works
Parking
Apartment
Suburban (Low Rise) (Low)
Suburban (Low Rise) (High)
Suburban (Medium Rise) (Low)
Suburban (Medium Rise) (High)
Urban (Medium Rise) (Low)
Urban (Medium Rise) (High)

Category 2: Suburban (Medium Rise)

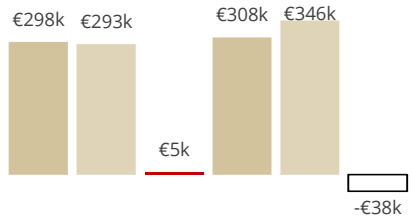
(Appraisal for Lower Range)

% Breakdown of Total Development Costs for Two Bed Apartment (incl. VAT on Sales)



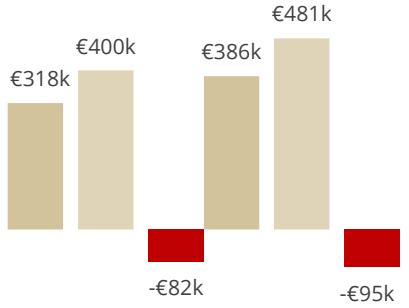
Category 1: Suburban (Low Rise)

	Range Lower	->	Higher
Sales Price (**exc** VAT)	€298k	-	€308k
Total Cost (exc VAT)	€293k	-	€346k
Viable / Viability Gap	€5k	-	-€38k
	2%	-	-11%



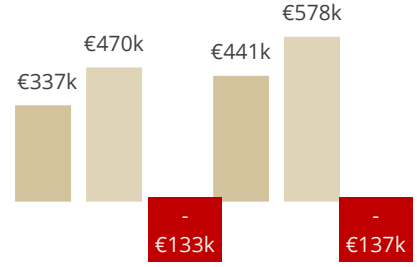
Category 2: Suburban (Medium Rise)

Sales Price (**exc** VAT)	€318k	-	€386k
Total Cost (exc VAT)	€400k	-	€481k
Viable / Viability Gap	-€82k	-	-€95k
	-20%	-	-20%



Category 3: Urban (Medium Rise)

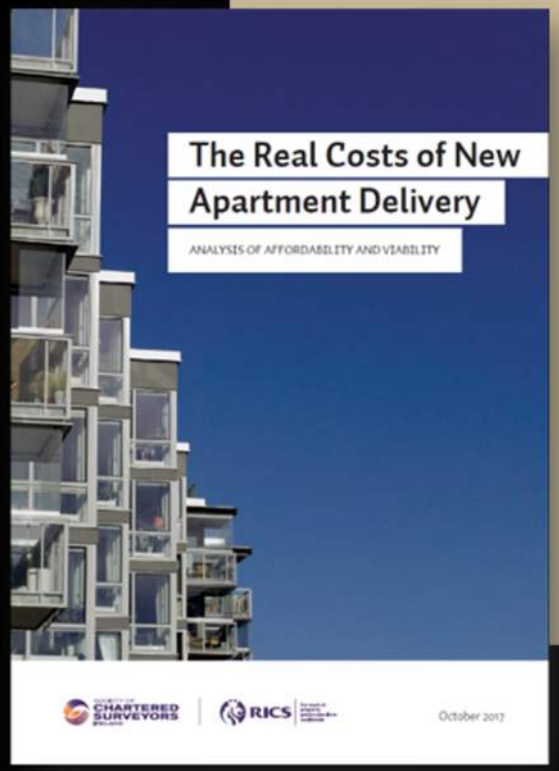
Sales Price (**exc** VAT)	€337k	-	€441k
Total Cost (exc VAT)	€470k	-	€578k
Viable / Viability Gap	-€133k	-	-€137k
	-28%	-	-24%



SCSI REAL COSTS OF NEW APRTMENT DELIVERY

Not Viable in most scenarios..

What about affordability?



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Affordability

- The sales price of the two-bed apartment reviewed ranges from €338k to €500k. (Category 1,2 & 3)
- A first-time buyer couple would require a 10% deposit of €34-€50k and a combined salary range of €87-€129k to afford these.
- A couple both working earning the average national salary (CSO 2016) earn €90,090 a year.
- The current Central Bank lending rules currently have a Loan to Value (LTV) restriction on mortgages to First-Time buyers of 90% and a Loan to Income (LTI) cap of 3.5 times the salary of the applicant(s).

First Time Buyers

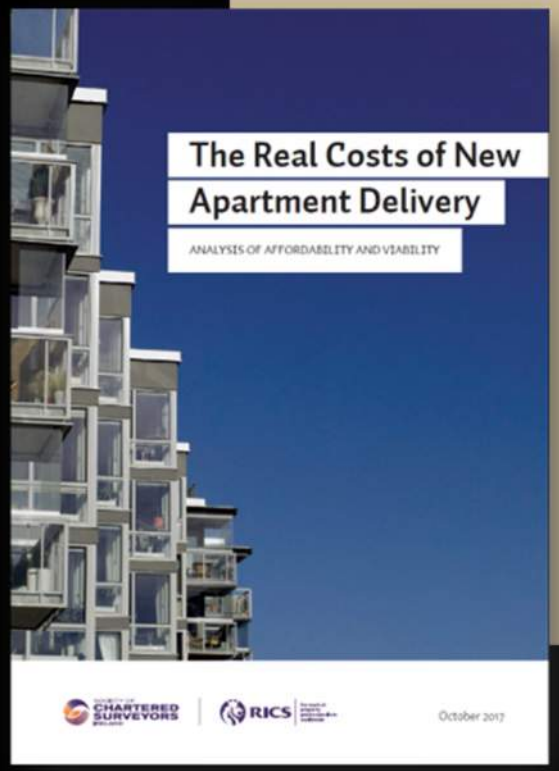
= **2 x €45k Salaries** = **€90k**

x 3.5 = **Available Mortgage** = **€315k**

EXAMPLE 1: Couple both earning Average Salary of €90,090.			
	Cat 1	**Cat 2**	**Cat 3**
Sales Price of 2 Bed Apartment (Lower Range)	€338,000	€361,000	€383,000
Deposit Required (10%) (First time buyer)	€33,800	€36,100	€38,300
Mortgage Required	€304,200	€324,900	€344,700
Mortgage available (based on LTI of 3.5)	€315,315	€315,315	€315,315
	€11,115 ✓	-€9,585 ✗	-€29,385 ✗

SCSI REAL COSTS OF NEW APRTMENT DELIVERY

So, only the cheaper suburban apartment blocks affordable



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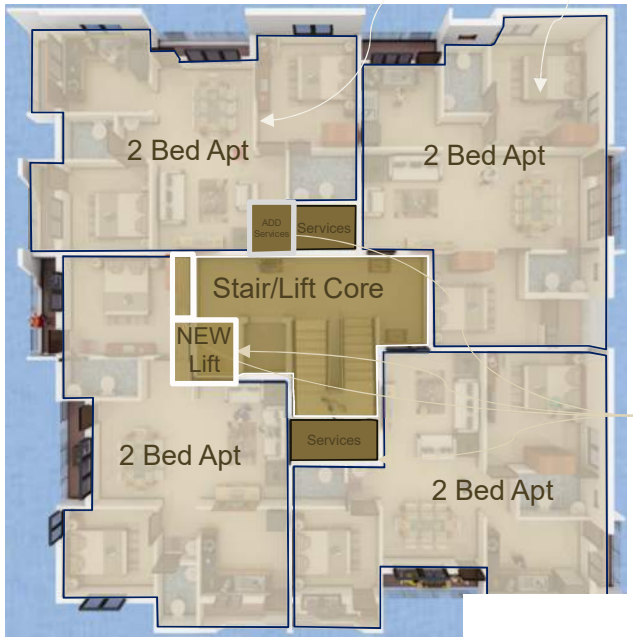
Couple's Budget
Apartment Sales Price (incl VAT)
Total Apartment Development Cost (incl. VAT)
Cat.3: Urban (Medium Rise)
Cat.2: Suburban (Medium Rise)
Cat.1: Suburban (Low Rise)
Total Cost
Couple's Budget
Sales Prices
Viability Issue
Affordability Issue
Affordable and Viable
€700,000
€650,000
€600,000
€550,000
€500,000
€450,000
€400,000
€350,000
€300,000
€250,000
€262,500
€291,667
€320,833
€333,203
€350,000
€338,000
€379,167
€387,630
€350,000
€442,938
€379,167
€361,000
€515,555
€408,333
€383,000
€533,097
€437,500
€438,000
€466,667
€495,833
€525,000
€500,000
€637,471
Scen.1: Sal = €68k
Scen.2: Sal = €75k
Scen.3: Sal = €83k
Scen.4: Sal = €90k
Scen.5: Sal = €98k
Scen.5: Sal = €98k
Scen.6: Sal = €105k
Scen.7: Sal = €113k
Scen.8: Sal = €120k
Scen.9: Sal = €128k
Scen.10: Sal = €135k

Is building tall cheaper?

- Buildings get **less** efficient the higher you go; net space gets eroded by stairs, lifts etc
- The buildings become **more complex** and **more expensive** to build
  - Stiffer **structures** to withstand wind loading
  - Slenderness ratio dictated by **planners**
  - Modular/Unitised **façade** installation
  - More & faster **lifts**
  - Construction **logistics** more expensive
  - 'Boosted' **mechanical services**
  - **Wintergardens**
  - Add **sprinklers** over 30m (c.10 storeys)
- These costs become much more pronounced after 15 storeys
- **Certain fixed costs get diluted**, or cheaper overall, with the more floors you build e.g. site decontamination, roof etc
- Each site is different e.g. a bigger footprint means more apts/core and more efficient shape

The Sales or Rental you get for your building is based on the Net Internal Area.



The stair/lift core gets bigger the higher you go – additional lifts, stair widths, service risers.

This is an illustrative example only.

The key to high rise construction is obtaining the right mix of building shape, net floor area and increased revenue per floor to compensate for less net internal area

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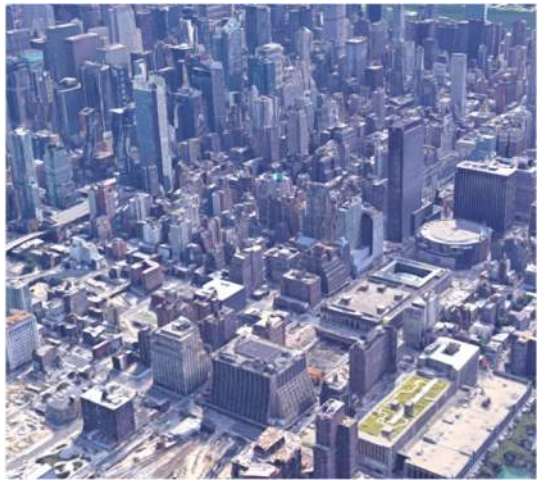
Does High Rise = High Density?[1]

Manhattan



27,000 people / sq.km.

Paris

26,000 people / sq.km.

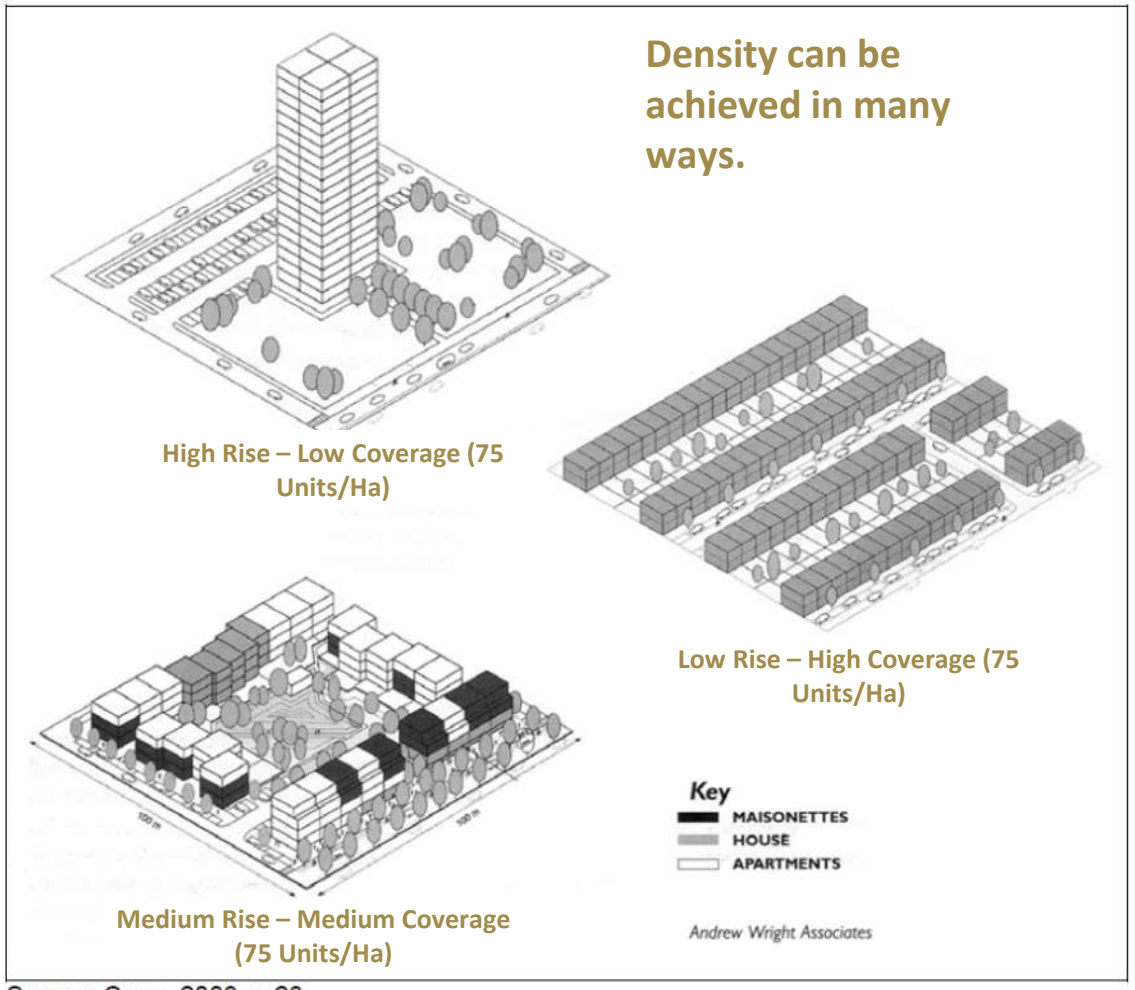
Barcelona

36,000 people / sq.km.

- Dublin City and Suburbs has a density of 3,677 people / sq. km. (Census 2016)

[1] Building Magazine (Feb 2015) *Ike Ijeh*

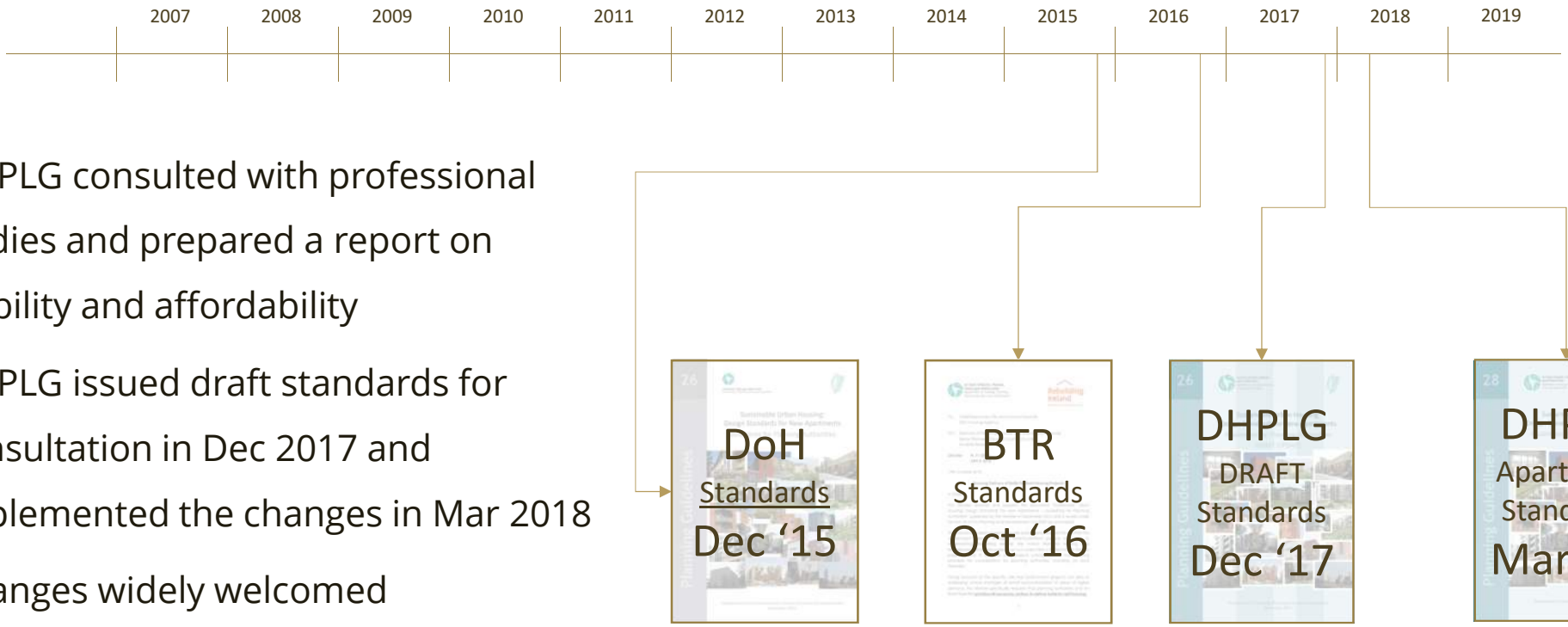
- Relationship between Density and Coverage important
- The key to unit delivery is density at a lower cost per unit
- Ideally, Developers need to know what the density is before they purchase the site
- If the unit cost for delivery is higher, under any changed planning environment, and there isn't a corresponding increase in revenue the scheme won't be viable and development will stall



Source: Cope, 2003, p.23

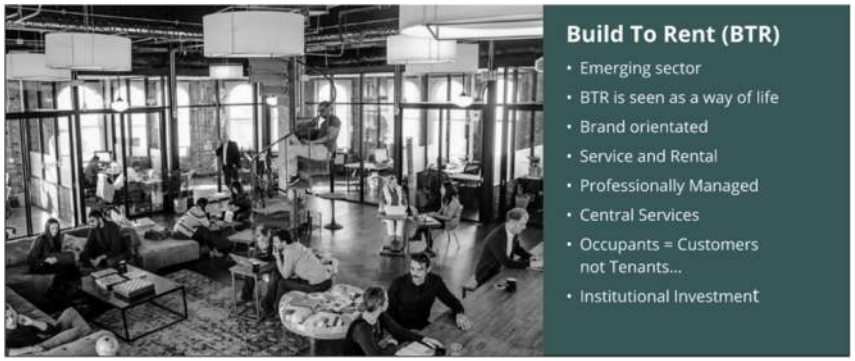
APARTMENT DESIGN GUIDELINES / STANDARDS

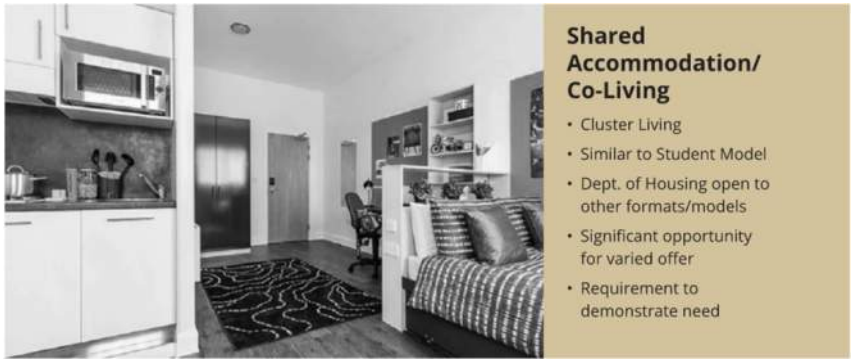
- DHPLG consulted with professional bodies and prepared a report on viability and affordability
- DHPLG issued draft standards for consultation in Dec 2017 and implemented the changes in Mar 2018
- Changes widely welcomed



NEW APARTMENT STANDARDS (MAR' 2018)

- Changes to traditional Build to Sell apartments
- New and enhanced Build to Rent Apartments
- New category for 'Shared Accommodation / Co-Living'





NEW APARTMENT STANDARDS (MAR' 2018)

- Changes welcomed
- More flexibility
- Positive impact on viability
- New models to address urban demand
- Responding to changing demographic
- New Tenure models catered for

APARTMENTS DESIGN STANDARDS INFOCARD
JANUARY 2020

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Professionalism, integrity and innovation

	BUILD TO SELL	BUILD TO RENT (BTR)	SHARED ACCOMMODATION
Dual Aspect	> 33% Urban > 50% Suburban	> 33% Urban > 50% Suburban	> 33% Urban > 50% Suburban
Apartments Core	≤12	No Restriction	No Restriction
Car Parking	**Urban:** Minimal **Suburban** 1 Car/Unit + 1 Space/3-4 Units (Visitor)	Minimal	Minimal
Cycle Parking	1 per Bed + 1 per 2 Units (Visitor)	1 per Bed + 1 per 2 Units (Visitor)	1 per Bed + 1 per 2 Units (Visitor)
Floor To Ceiling	>2.70m (Ground) / >2.40m (Upper)	>2.70m (Ground) / >2.40m (Upper)	>2.70m (Ground) / >2.40m (Upper)

	Studio	1 Bed	2 Bed (3P)	2 Bed (4P)	3 Bed	Studio	1 Bed	2 Bed (3P)	2 Bed (4P)	3 Bed	
Storage	3m²	3m²	5m²	6m²	9m²	3m²	3m²	5m²	6m²	9m²	Flexible
Communal Amenity	4m²	5m²	6m²	7m²	9m²	4m²	5m²	6m²	7m²	9m²	Flexible

	BUILD TO SELL	BUILD TO RENT (BTR)	SHARED ACCOMMODATION
Minimum Apartment Sizes *Majority of units need to be 10% larger than minimum* *(Only applies to Build to Sell)*	3B 90m² 2B(4P) 73m² 2B(3P) 63m² 1B 45m² Studio 37m²	3B 90m² 2B(4P) 73m² 2B(3P) 63m² 1B 45m² Studio 37m²	12m² (1P); 12m²; 12m²; Beds 1-3 8m²/person 18m² (2P); 12m²; 12m²; Beds 4-6 4m²/person
Mix	≤25% Studio ≤50% Studio/1B <10% 2B(3p) Flexible 2B/3B	No Restriction	2-6 ≤ 8

	Studio	1 Bed	2 Bed (3P)	2 Bed (4P)	3 Bed	Studio	1 Bed	2 Bed (3P)	2 Bed (4P)	3 Bed	
Width of living/ dining room**	4m	3.3m	3.6m	3.6m	3.8m	4m	3.3 m	3.6m	3.6m	3.8m	Flexible
Aggregate floor area of living/ dining/kitchen area**	30m²	23m²	28m²	30m²	34m²	30m²	23m²	28m²	30m²	34m²	Flexible

	Studio	Single	Double	Twin	Studio	Single	Double	Twin	
Bedroom Min Width**	4m	2.1m	2.8m	2.8m	4m	2.1m	2.8m	2.8m	Flexible
Bedroom Min Floor Area**	30m²	7.1m²	11.4m²	13m²	30m²	7.1m²	11.4m²	13m²	Flexible

***Variation of up to 5% can be applied to room areas and widths subject to overall compliance with required minimum overall apartment floor areas*

BUILD TO RENT

Why do Build to Rent schemes seem to work where Build to Sell doesn't?

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BUILD TO RENT VS. BUILD TO SELL

- Build to Rent (BTR) costs largely the same as Build to Sell (BTS) except for Amenity and FF&E
- Different standards if a BTR application (15 yr. cov.)
- Revenue for BTS is based on what you can **sell** an apartment for in that area
- Revenue for BTR is based on what you can **rent** an apartment for in that area and the investment yield
- Someone may not be able to raise a mortgage to pay the required purchase price but can pay the required rent

Rent p.m.	€1,975
Annual Rent (x12)	€23,700
Occupancy (95%)	€22,515
OPEX (17%)	(€3,828)
	€18,687
Gross Value (4% yield))	€467,186
Deduct VAT (purchase)	(€55,568)
	€411,618
Deduct Purchasers costs	(€17,574)
Capitalised net amount	€394,044

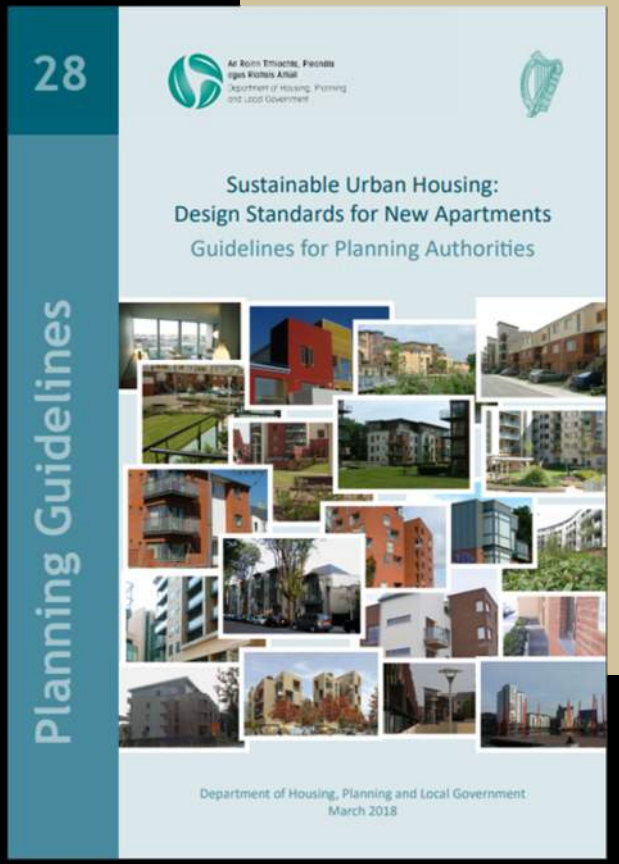
2 bed apartment

	Build to Sell	Build to Rent	Comments
Site	€70,000		
Construction	€193,000		
Amenity / FF&E	excl.		
Contributions	€16,000		
Professional Fees	€17,000		
Selling Costs	€9,000		
Finance	€30,000		
Contingency	€13,000		
Total Cost (exc VAT)	€348,000		
Sales Value	€360,000		
less VAT	(€42,819)	€317,181	
Profit/Loss	(€30,819) (9%)		

Notional figures only

NEW APARTMENT STANDARDS

What impact have they had so far on planning / viability?



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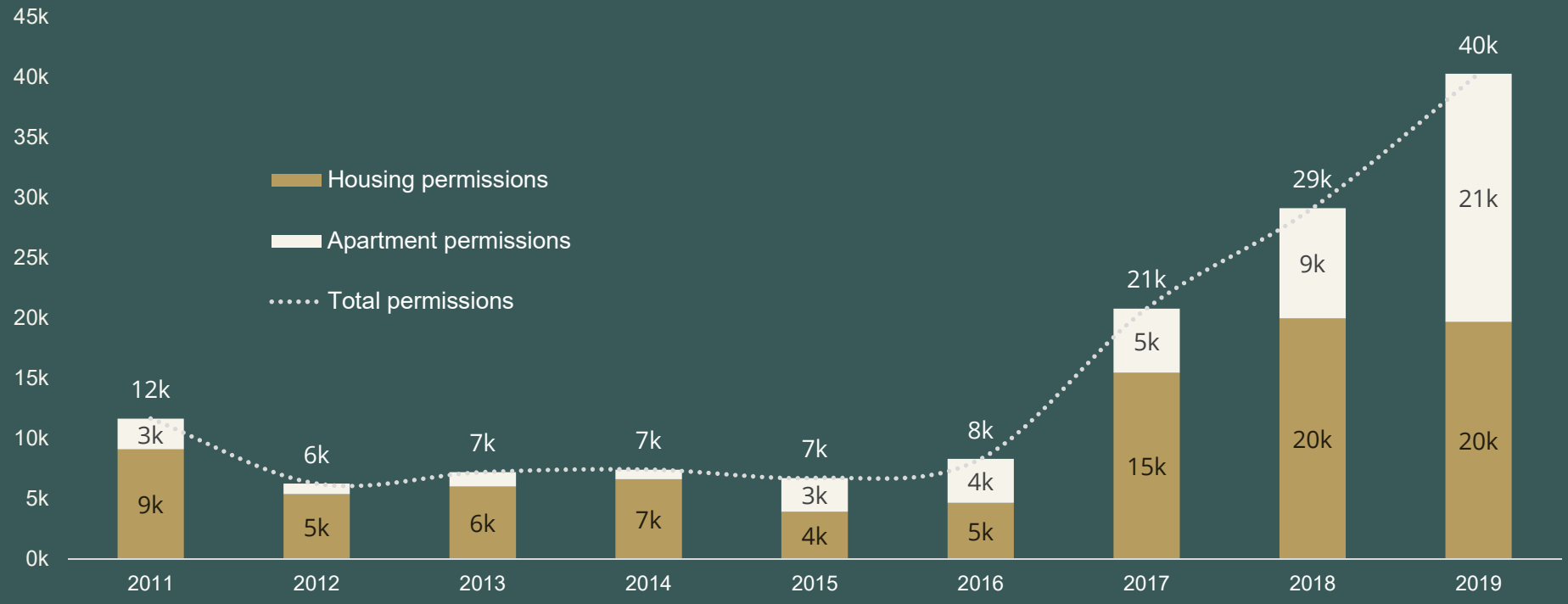
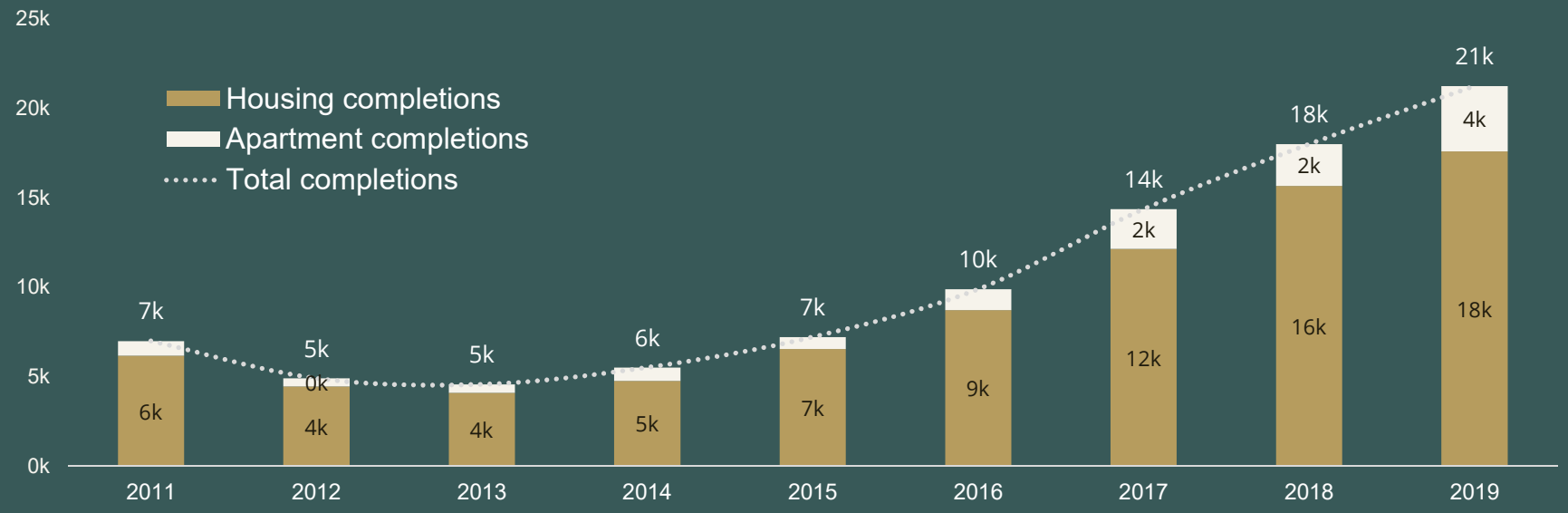
Permissions for apartments increased by 130% in 2019



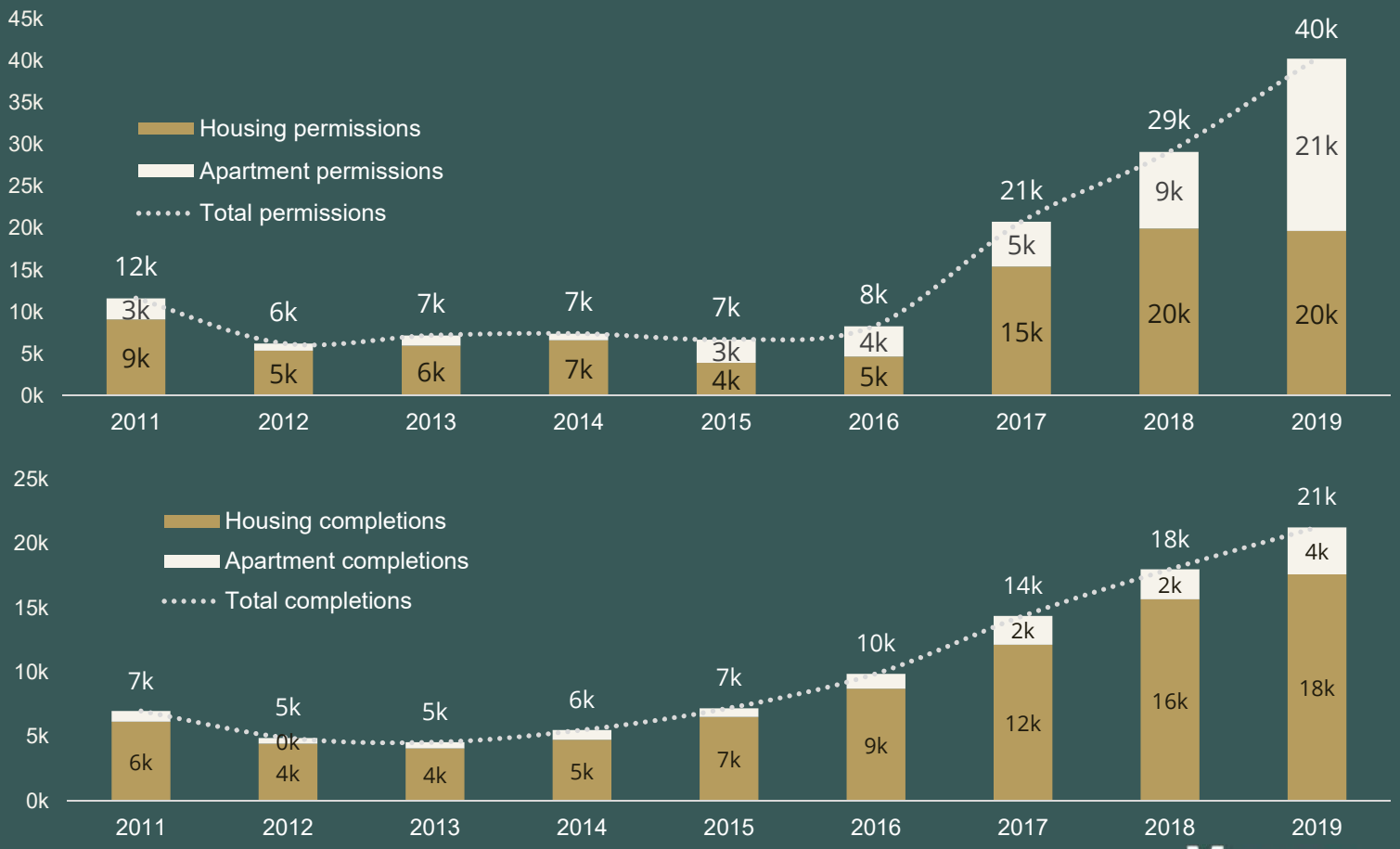
More permissions but still a shortfall – why?

- Development period – takes anywhere from 12-36 months
- Build to Sell still facing viability issues in areas with lower sales values
- Macro Prudential Rules (x 3.5 salary) puts a ceiling on what people can afford to pay
- Build to Rent providers having a very positive effect on the provision of units



Planning considerations

- Caution around any future changes
- Consideration given to viability in lower Sales areas
- Any future changes should have external viability checks carried out before anything is implemented
- Developers buy land based on the likely planning to be achieved. If the rules change (e.g. 3B semi-D's to Duplexes) it can affect viability and stall development
- Build to Rent is fuelling current apartment development
- Certainty around planning is key. Carefully thought out Masterplans, LAP's, SDZ's etc work really well and give rise to more units



1.	**Sales Values** (avg. €355k ea.)		**€19.07m**
2.	**Development Costs**		
	a. Site Cost	€3.10m	
	b. Statutory Fees and Contributions	€1.81m	
	c. Construction Costs	€12.29m (-€1.77m)	
	d. Design Team Fees	€0.48m	
	e. Legals and Accounting	€0.20m	
	f. Sales & Letting Costs	€0.49m	
	g. Funding Costs	€0.25m	
	Sub-total		**€18.62m**
3.	**Profit (2.4%)**		**€0.45m**
4.	**Enough?**		

12 Houses
49 Apartments

MITCHELL MCDERMOTT


SUMMARY

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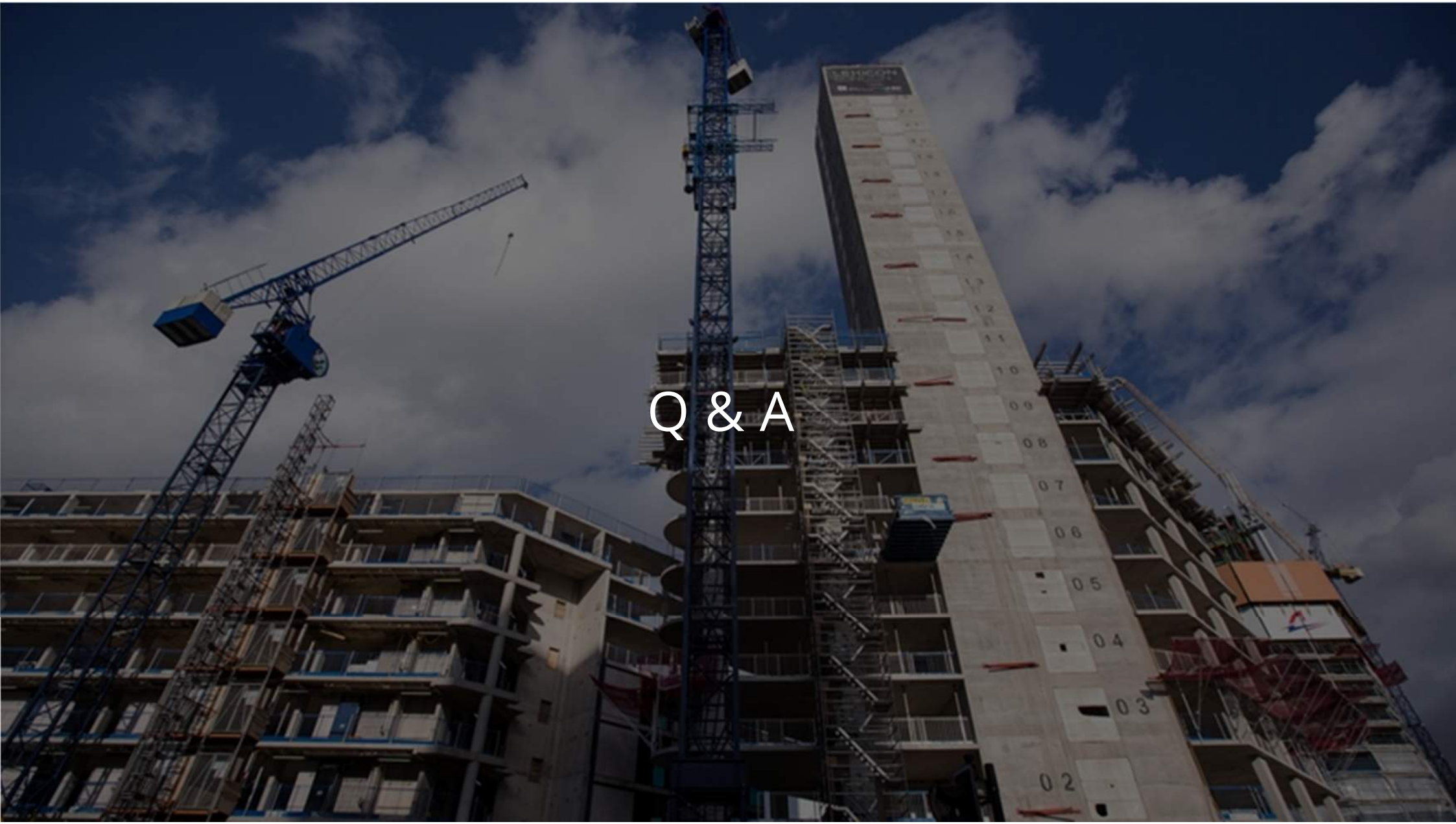
- Appraisals:
  - **Development Appraisals** take the Total Cost from the Total Revenue to show the **gross profit** on a scheme
  - **Residual Appraisals** take the Total cost (excl Land) from the Total Revenue to show how much the **site** is worth
  - Appraisals are very **sensitive** to changes in input costs, especially construction
  - Construction costs are based on the **likely planning permission** that can be achieved
  - If the planning rules or guidelines change and result in lesser units or higher costs, there is a **chance development can stall**
  - **Building tall** is more **expensive**
  - A key part of any appraisal is when the **Land** was bought and what the planning framework was at that time
  - The **supply/demand side of Land** is key to Viability and Affordability

- Regulations/Standards:
  - Apartment standard changes can have a **sudden impact** on development, either positive or negative
  - The **2007** Apartment Guidelines **negatively** affected development (happened at same time as crash though too..)
  - The **2018** Apartment Standards have had a **positive effect** on development
  - Schemes at design stage tend to '**stop and wait**' when regulation changes are mooted, which can **negatively impact supply**
  - **Planners play a critical role**, outside their normal planning role, in the delivery of homes
  - Viability is critical but **Affordability** is critical too


Q & A