

An architectural rendering of the Old Oak Common development. The image shows a mix of modern architecture, including a tall brick-clad tower with balconies on the left, a multi-story building with a green roof in the center, and a curved brick building on the right. A canal flows through the scene, with a canal boat and people walking along the banks. The sky is blue with light clouds.

C|5
core five

Old Oak Common

Masterplan Feasibility Review

for Car Giant
27th June 2019

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Executive Summary

Executive Summary

Core Five have been requested to undertake a review of the viability appraisal as undertaken by BNP Paribas Real Estate. This is contained within the document called "Commentary on Car Giant Site Allocation Viability Appraisal and Indicative Phase 1A information" dated 31 May 2019:

Core Five were specifically asked to review the following elements in response to the BNP Paribas report;

The key findings in relation to each of the above are discussed below.

Key Elements of the Report

- High level building costs for building types proposed
- Provide benchmark information for residential buildings, based upon residential schemes targeting an average sales value of circa £750/sqft
- Provide benchmark information for commercial buildings, based upon London office schemes
- Advise on typical net to gross ratios for residential and commercial
- Incorporate our build rates into the Gleeds area schedule as an indicative guide for comparison of infrastructure costs
- Review the external works costs and test the percentage allowances included in the viability appraisal
- Advise on suitable contingency levels.
- Advise on likely impact of policies such as Policy EU3 (SUDS and attenuation), wheelchair accessible homes and EU9 (CO2 requirements).
- Advise on Tender Price Inflation (TPI) indices for the next 3 years.

Key Findings

High Level Building Costs for Building Types

Description of Use	Base Build Costs Core Five		WTP	
	m ²	ft ²	m ²	ft ²
Residential - Private	£3,089/m ²	£287/ft ²	£3,229/m ²	£300/ft ²
Residential - Affordable	£2,847/m ²	£265/ft ²	£3,014/m ²	£280/ft ²
Retail / Leisure	£2,418/m ²	£225/ft ²	£1,400/m ²	£130/ft ²
B1 Use	£3,563/m ²	£331/ft ²	£2,200/m ²	£204/ft ²

Further Detail

Section 1 - Residential Benchmarking
Section 2 - Commercial Benchmarking
Section 3 - External Works Benchmarking

Basis of Benchmarked Rates - Commercial

We have assumed the commercial areas are constructed to shell and core and then fitted out to a developers CAT A standard. FF&E or occupier fit out is excluded.

For comparative purposes we have excluded contingency and demolitions. Please refer below for our further commentary on contingency.

Basis of Benchmarked Rates - Residential

Benchmarked rates for the costs of the residential units have been applied and our recommended rates for the unit types (affordable and private). We have assumed that affordable elements or blocks would be tenure blind.

We would recommend a range of benchmark between £280/ft²-£300/ft².

These are based on an assumed target sales value of £750/ft² for private units however we would seek to validate these through the design development process and response to agency / market feedback so our costs align with the required specifications.

Key Findings

Review of Secondary Infrastructure Costs

Core Five have been asked by DS2 to review the overall masterplan costs relating to the development and associated materplan (excluding the Primary Infrastructure) to establish the cost of the off-plot secondary infrastructure works as a percentage of the on-plot building costs.

To provide an indicative comparison of the secondary infrastructure costs as a percentage the secondary infrastructure costs have been compared against our build costs applied to the previous Gleeds areas. This is to provide a basis for testing the off plot secondary infrastructure allowances. Core Five have not measured areas and are therefore relying upon the accuracy of areas by others. If the design is progressed we would recommend the areas are validated and updated as necessary.

The areas contained within this document should not be relied upon for any purpose other than the formulation of the cost model itself.

The phasing sequence could impact significantly on the cost of works. We have referenced phases as per the PLP schedules but details of phasing may impact on costs.

Details of our cost review can be found at Appendix A.

Review of External Works as a proportion of overall costs

We have found that the external work costs (as defined by the indicative quantities and scope) equate to 8.15% as a proportion of the overall scheme (excluding Primary Infrastructure).

We have also however benchmarked the infrastructure costs against similar schemes. Details can be found at Section 3. These indicate an average overall percentage based on a number of projects of 11.5%.

Key Basis and Assumptions

Our costs include for new residential / commercial accommodation to a typical residential / commerical developers finish excluding VAT, professional fees, third party costs and those items listed at Section 5 of this report.

The information upon which the costs are based is high level and therefore the costs are based on a series of assumptions which will need to be validated and tested as the design progressed or further information was received. Key assumptions have been listed in Section 4 of this estimate.

The cost assumes that the works will be procured on the basis of a single stage competitive tender and a design and build form of contract. It is anticipated the Primary Infrastructure works (not included here) works will be procured under a separate contract.

A list of information which was used as the basis of this estimate is included at Appendix C. Generally this includes the information included issued by DS2 for the purposes of this review.

Key Findings

Net to Gross Ratio

We have benchmarked typical net to gross ratios and compared them with the BNP Paribas assumptions. Further details and benchmarks can be found at Section 1 and Section 2 of this report.

	BNP Paribas	Average
Residential	75%	75%
Commercial	75%	70%

Additional Items

We were also asked to review the potential impact of the following;

Policy EU3 (SUDS and attenuation) - we would anticipate this would be deemed included in the £/ft² captured above, subject to confirmation of the specific requirements.

Policy EU9 (CO2 requirements) - again we would anticipate that this would be deemed included in the £/ft² captured above, subject to confirmation of the requirements.

Wheelchair Accessible Homes - this would be deemed included in the £/ft² captured above.

Contingency

Further investigation and design work is required to confirm the allowances and assumptions that we have made. We have allowed for a design development and construction contingency of 10%. Due to the high level of uncertainty in respect of the required scope, we would recommend further contingency provisions are made within the appraisal. This is as opposed to the advised 5%.

To date, we have not reviewed risks associated with the scheme however there may be a number of items and issues that could have an impact on the construction costs. We would recommend that once a team is appointed the potential risks are reviewed and appropriate mitigation strategy put in place. This would allow further definition of the contingency.

Demolitions

We understand WTP have advised a cost of £120/m² of existing floorspace to be allowed for demolitions. We would advise a cost of £220/m² to be allowed against existing floor plus a further allowance for removal of external hardstandings and slabs.

Tender Price Indices

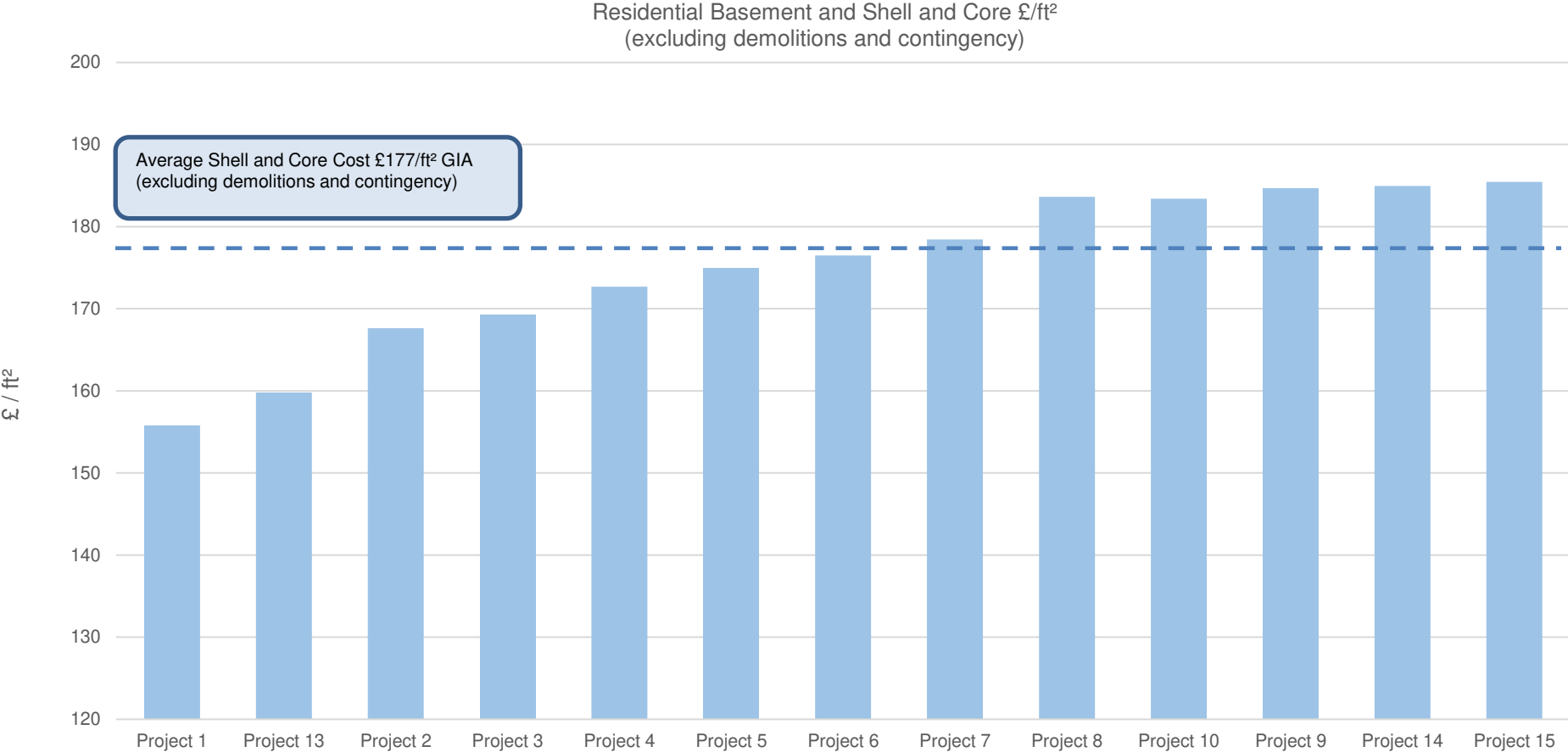
On the assumption that the scheme will be appraised at current values, the cost models have been prepared on the basis of current (June 2019) pricing levels with no allowance for tender price inflation thereafter. A copy of our Central London Update is included at Appendix D.

In summary we estimate that inflation over the next 3 years will be 8.21% cumulatively as opposed to the 9.07% average in the BNP Paribas report.

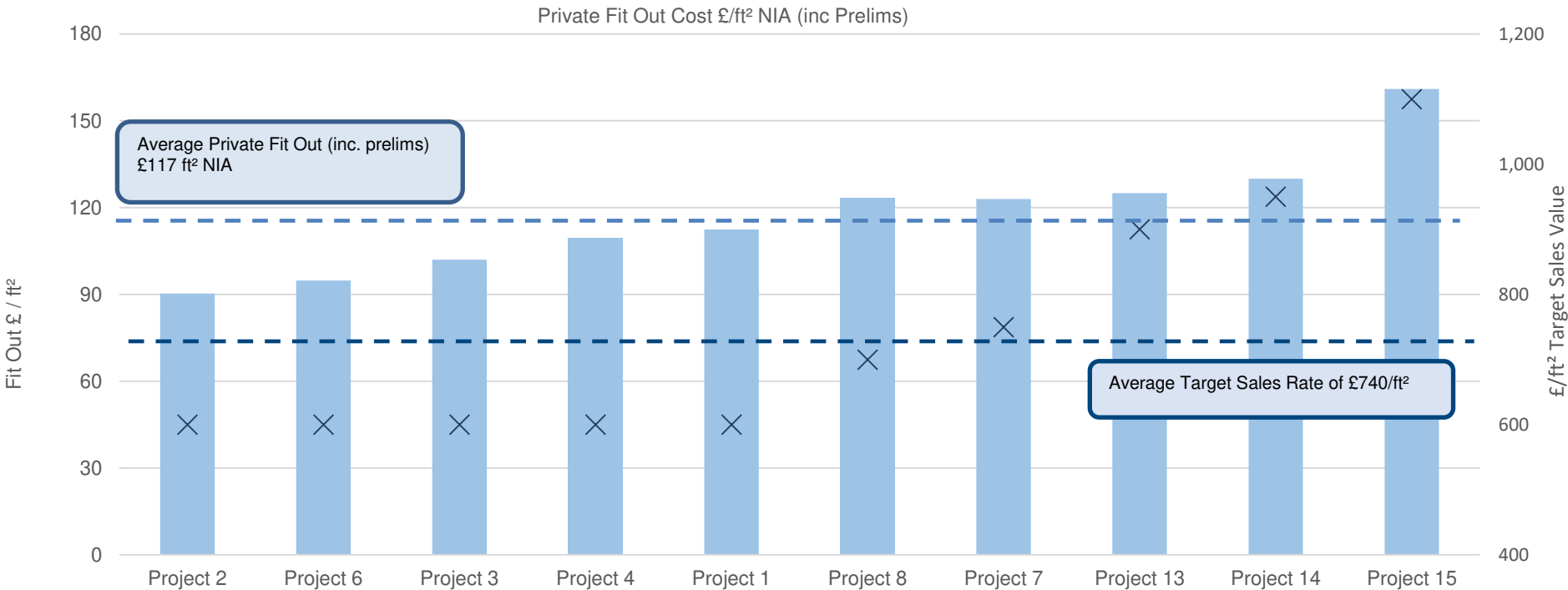
1

Residential Benchmarking

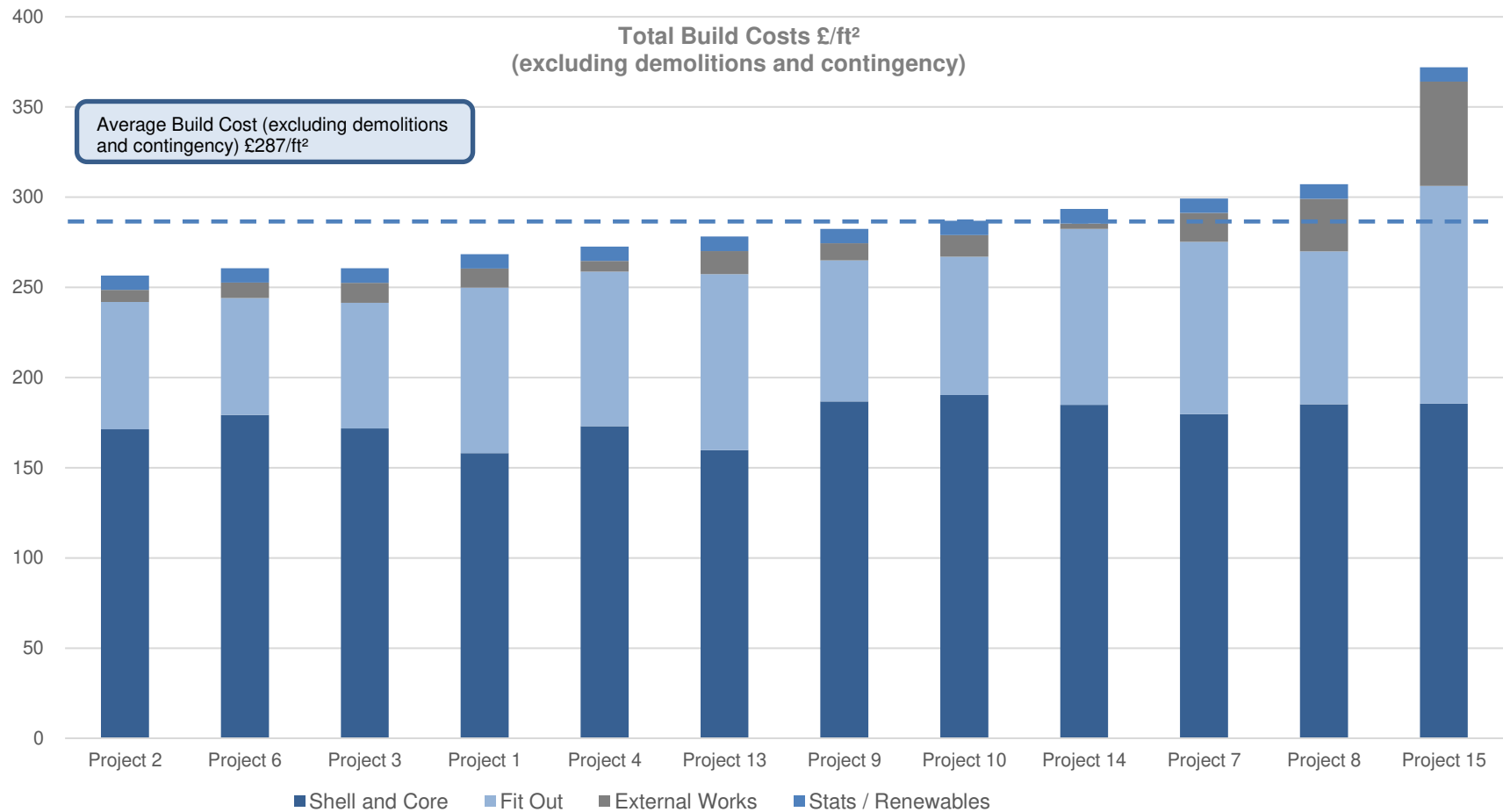
Residential Shell and Core £/ft² Benchmarking



Residential Private Fit Out £/ft² NIA Benchmarking



Residential Total Construction Cost £/ft² Benchmarking



Note: Allowances for stats and renewables have been added to benchmarks.

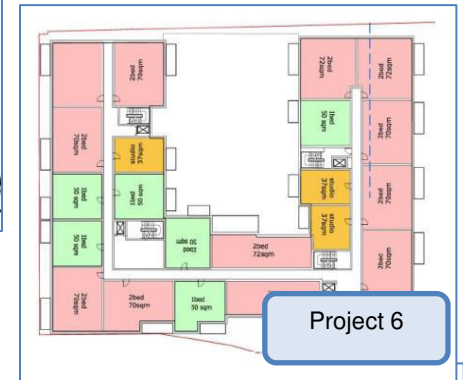
Residential Wall to Floor Ratio Benchmarking

Wall to Floor Ratio

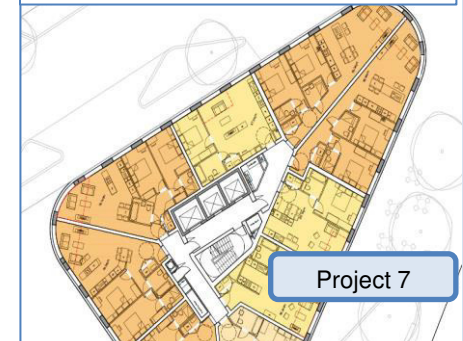
- The Old Oak Common typical wall to floor ratio is taken across the average of all the blocks within the D, J and R plots. This typical ratio is 0.58.
- The average from our benchmarking is 0.6
- Typically however we would expect wall to floor ratios to vary as the design develops and additional complexity is added in, for example reveals, facade articulation and inset balconies. This is indicated below by the hatched area.



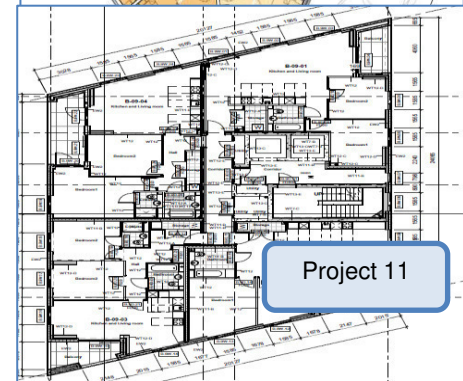
Old Oak Common Plots D, J and R



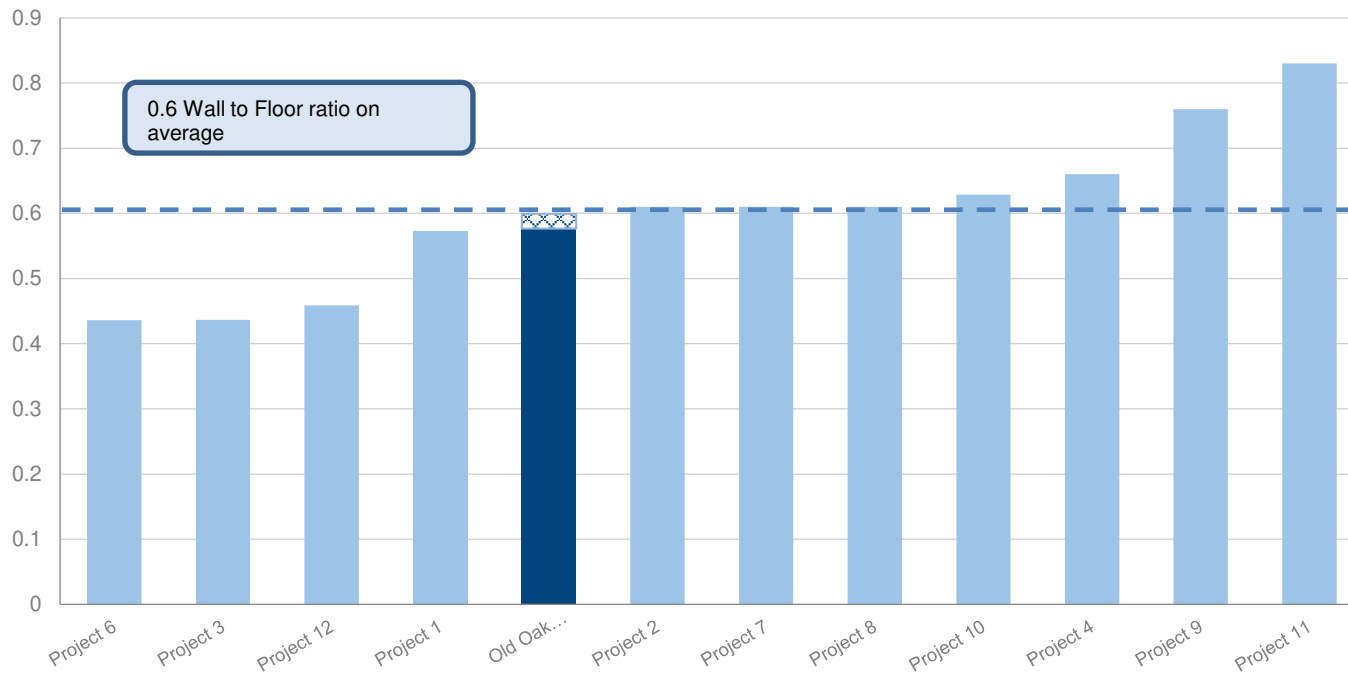
Project 6



Project 7



Project 11

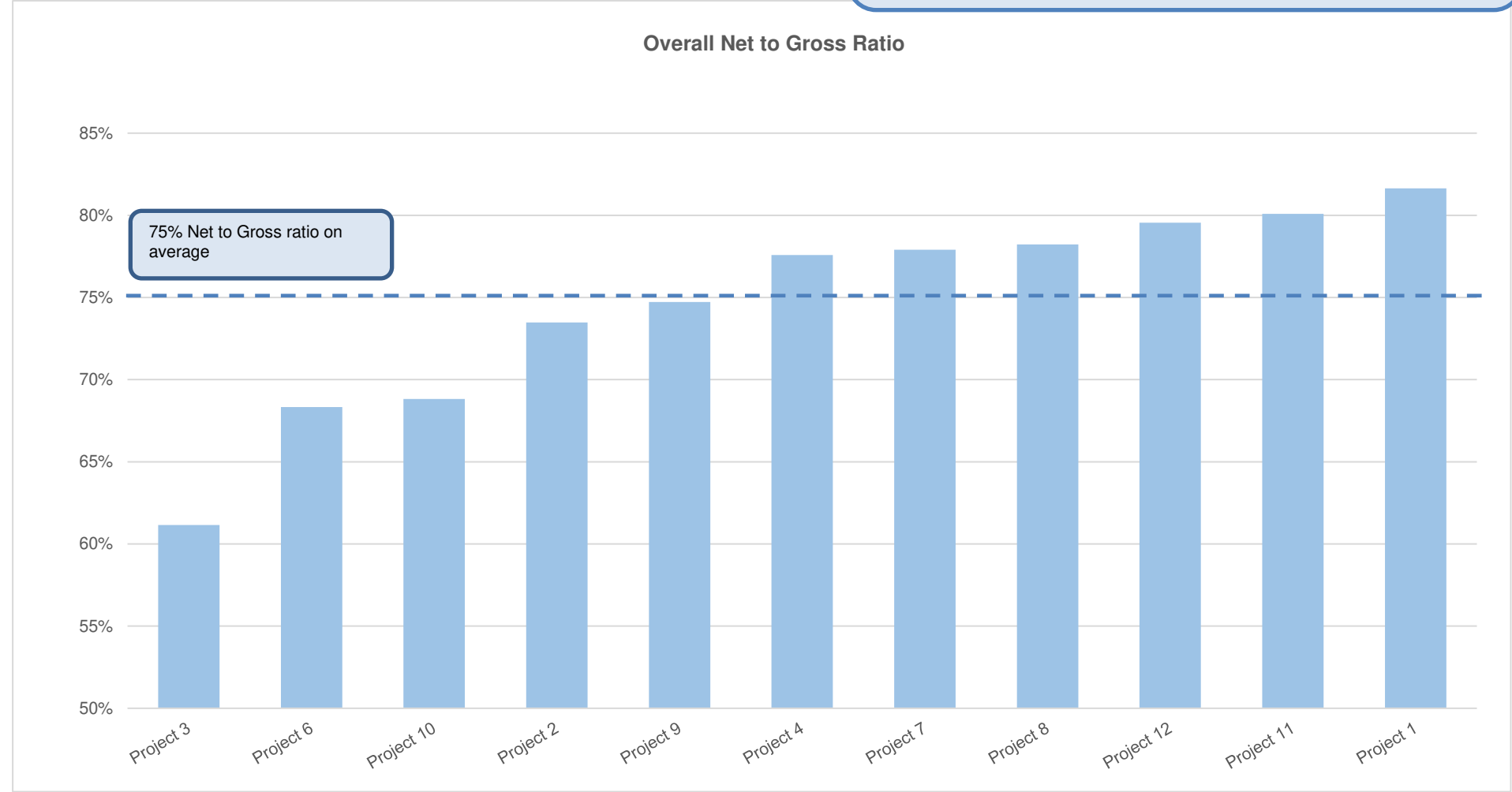


0.6 Wall to Floor ratio on average

Residential Overall Net to Gross Ratio Benchmarking

Net to Gross Ratio

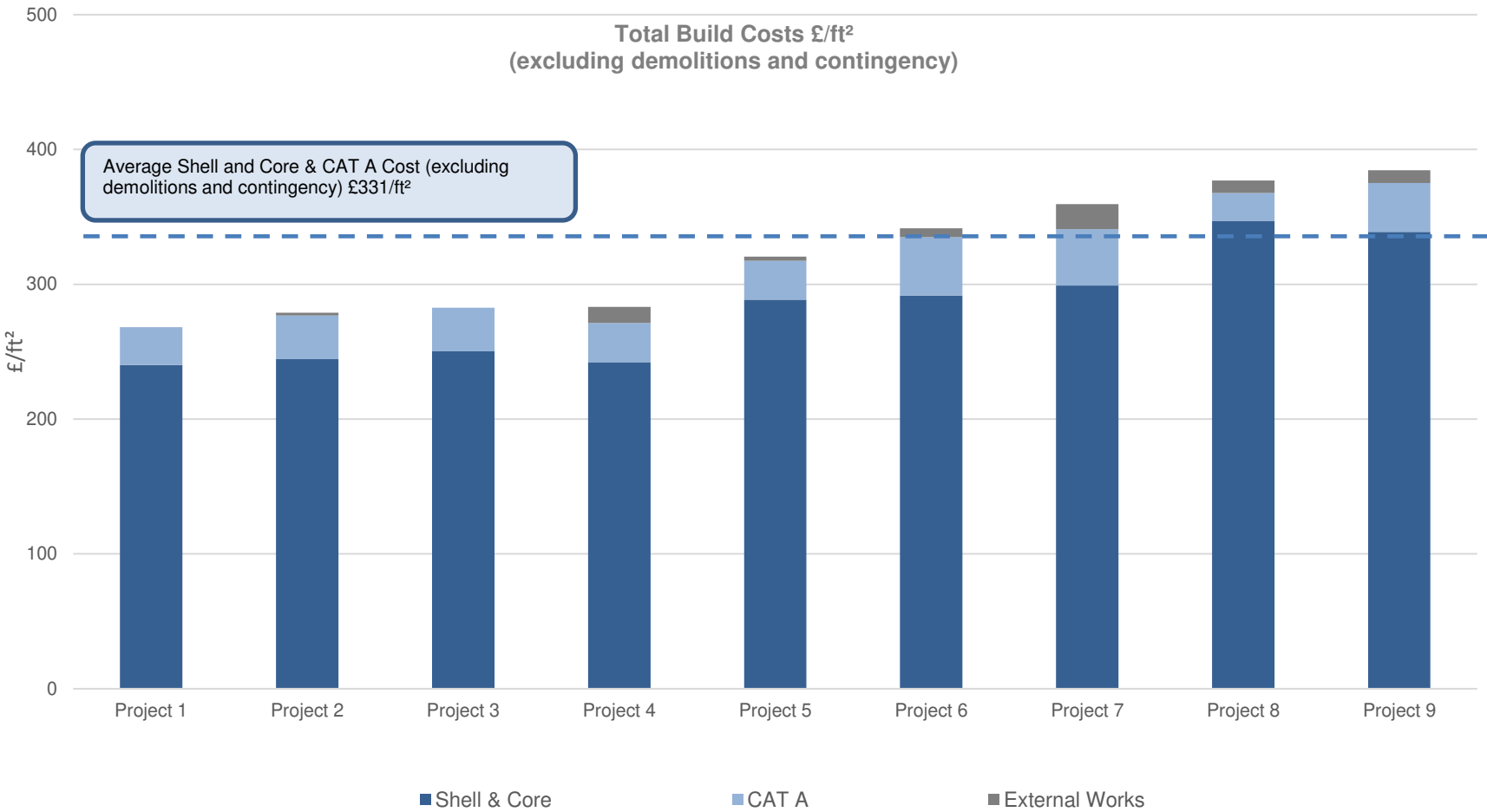
- Net to Gross has been assumed to be 75% by WTP in the BNP report. Our benchmarking indicates the average across residential projects of 75% which aligns with this assumption.



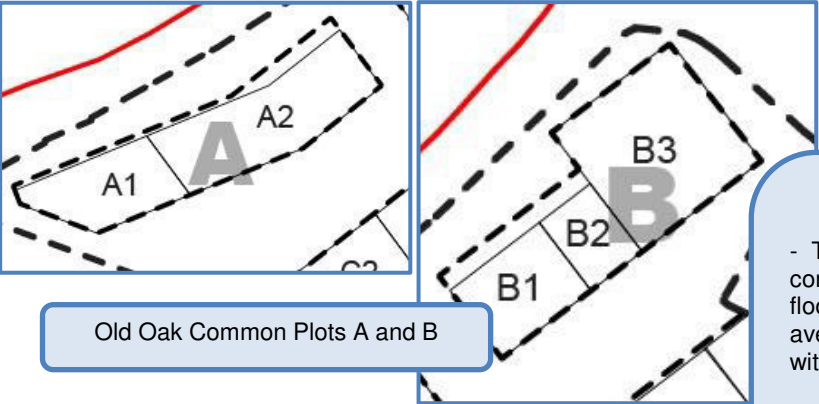
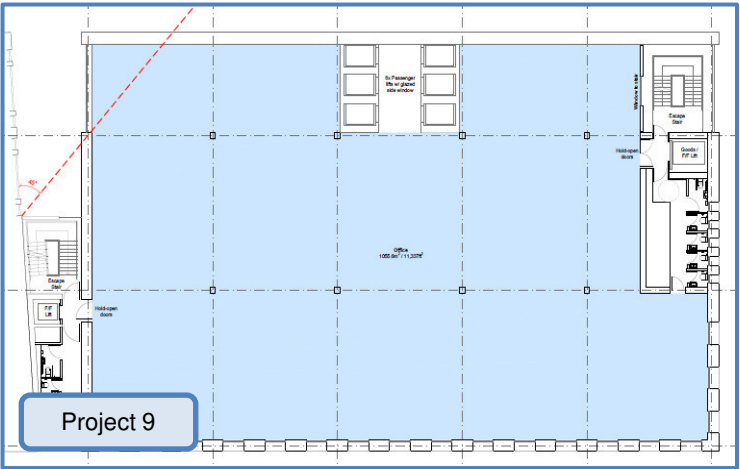
2

Commercial Benchmarking

Commercial Total Construction Cost £/ft² Benchmarking



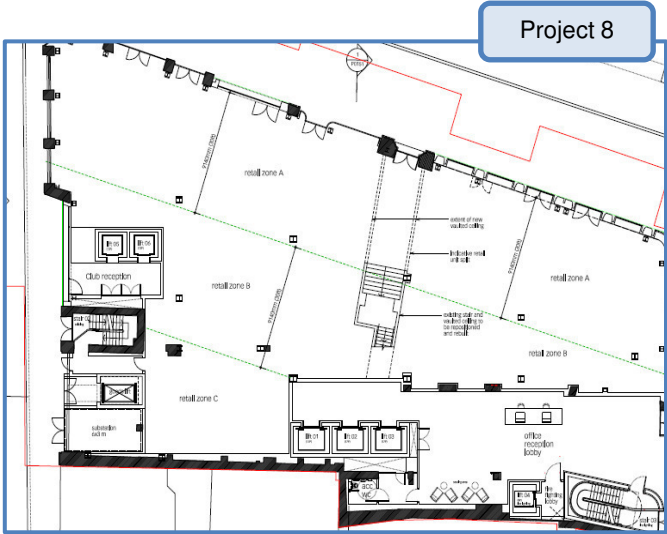
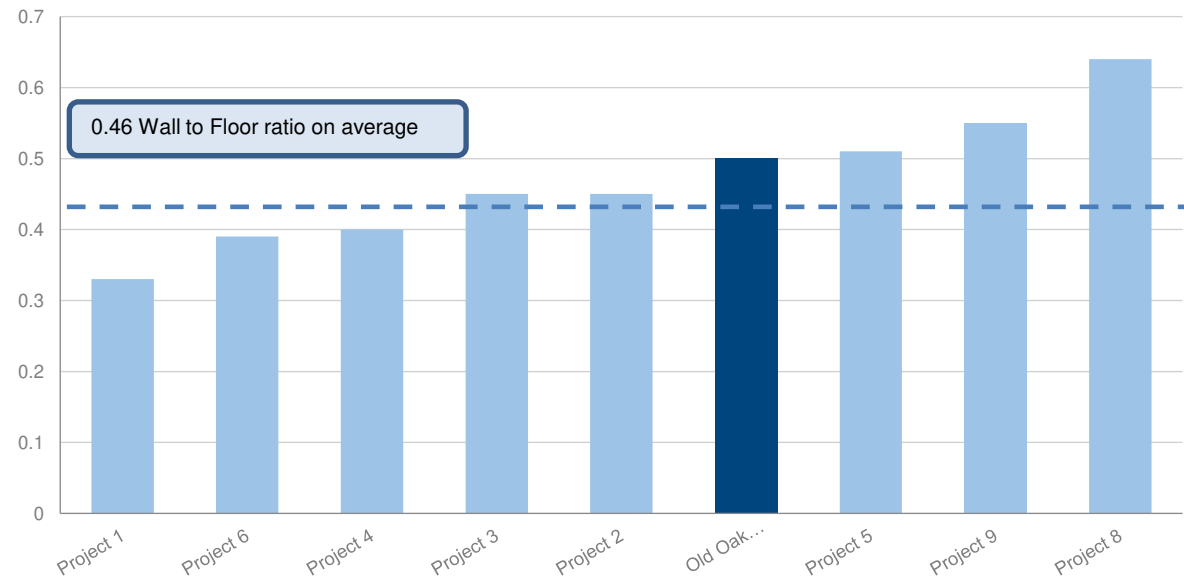
Commercial Wall to Floor Ratio Benchmarking



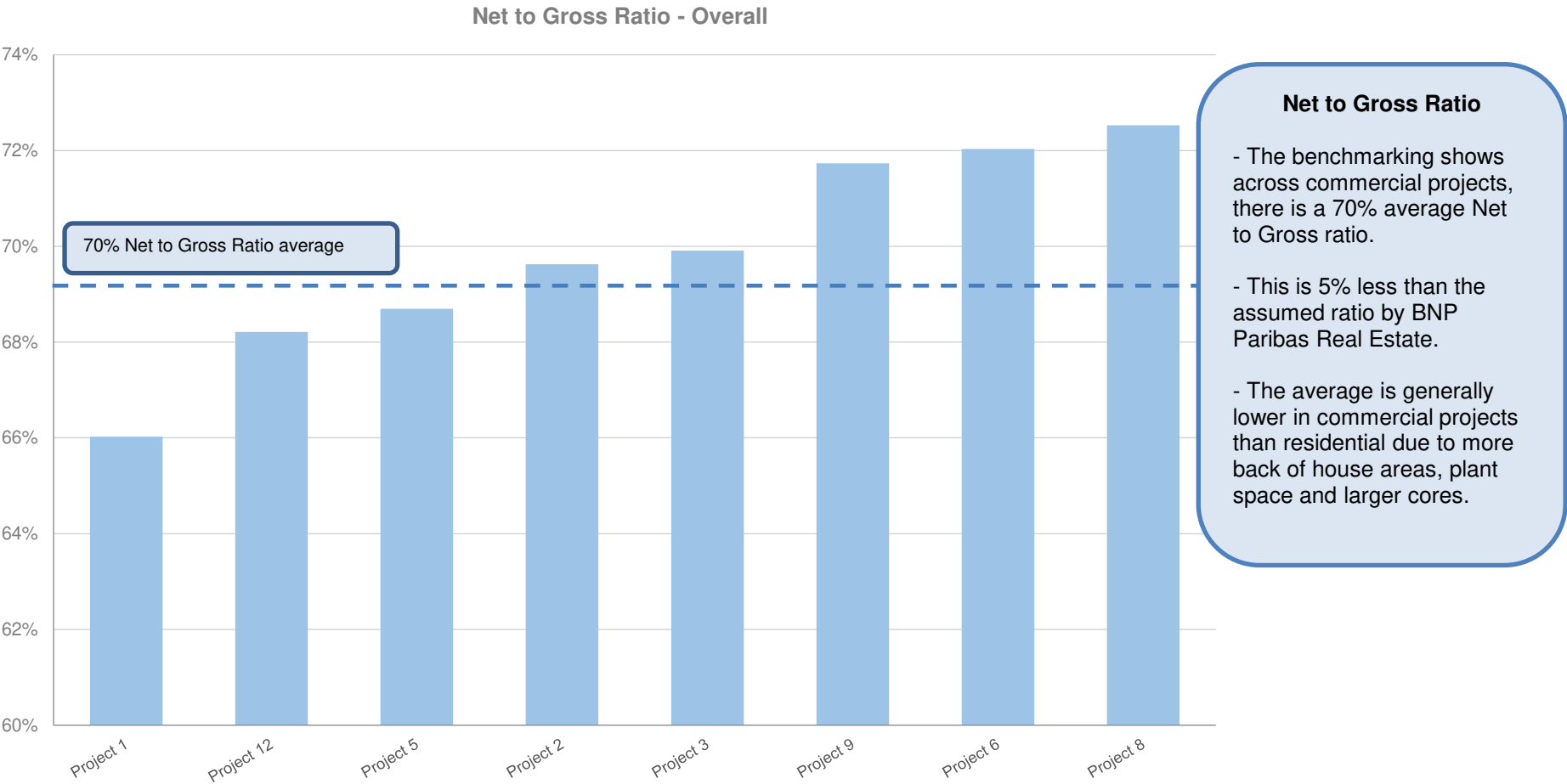
Wall to Floor Ratio

- The Old Oak Common commercial typical wall to floor ratio is taken across the average of all the blocks within the A and B plots.
- This typical ratio is 0.50, slightly above the benchmarked average of 0.45

Wall to Floor Ratio



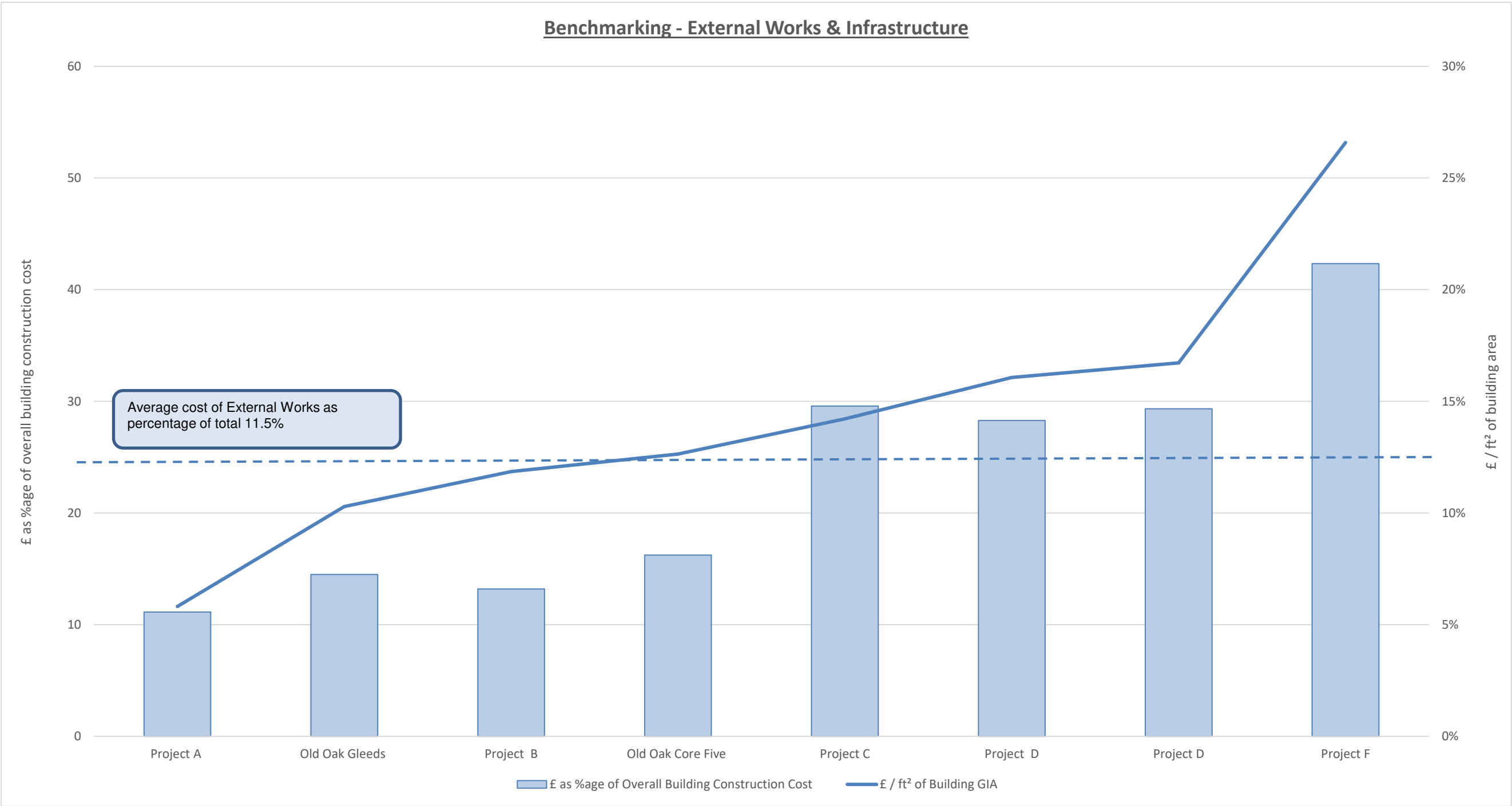
Commercial Net to Gross Ratio Benchmarking



3

Infrastructure Benchmarking

Infrastructure Benchmarking



Total Current Day Cost	Project A	Old Oak Gleeds	Project B	Old Oak Core Five	Project C	Project D	Project D	Project F
£ / ft² of Building GIA	11.6	20.6	23.7	25.3	28.4	32.1	33.4	53.2
£ as %age of Overall Building Construction Cost	5.6%	7.2%	6.6%	8.1%	14.8%	14.1%	14.7%	21.2%

Exclusions:
Future Inflation
Primary Infrastructure (bridges, transfer deck, tube station, embankment works etc)

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Inflation Review

Inflation

	2020	2021	2022	Cumulative to 2022
WT Partnership	3.00%	3.50%	3.30%	10.12%
Mace	2.00%	2.50%	3.30%	8.00%
Arcadis	3.00%	3.00%	3.00%	9.27%
Gardiner & Theobald	1.00%	1.50%	2.00%	4.57%
Gleeds	2.00%	4.00%	5.00%	11.38%
Turner & Townsend	3.20%	3.70%	3.80%	11.09%
Average	2.40%	3.00%	3.40%	9.07%
Core Five ¹	2.00%	3.00%	3.00%	8.21%

Residential Market

Whilst there has been a drop off in demand at the higher end of the property market we are still seeing historically high levels of demand in the house building sector. This will maintain prices.

Notes

1. For further details please refer to the Core Five Central London update contained at Appendix D

Major Projects

We have indicated the anticipated Core Five TPI inflation for Major Projects (Complex projects with a construction value of more than £100m). These projects are anticipating higher levels of inflation than mainstream projects. This is predominantly due to the availability of contractors to undertake these projects and also subcontractors to service them.

The Brexit Effect

Costs are being driven up by Brexit as a consequence of the uncertainty and exchange rates. Whilst some sectors are seeing a drop in demand, Tier 1 contractors do not appear to be reducing their margins to cover any portion of the increased costs themselves and consequently prices remain higher than the mainstream market comparatively.

5

Basis, Exclusions and Assumptions

Basis:

1. OPDC Response to Hearing Actions (Matter 3 - viability of development by BNP Paribas)
2. Information received from DS2 in transfer dated 14th June 2019 and further information in transfer dated 19th June 2019.
3. All building areas and infrastructure areas for the basis of the cost plan are from the Gleeds cost plan with plot areas from the PLP information. External off plot areas are calculated by the balance of plot areas and overall site areas.
4. Other information as listed in Appendix C.

Estimate includes:

1. Demolition of existing structures and hardstandings
2. Allowance for site wide landscaping (mixture of hard and soft landscape)
3. Benchmarked shell and core rates for residential and commercial developments.
4. Target residential fit out build rates based on net sales value of £750/ft²
5. Assumed 25% affordable housing (including shared ownership and intermediate) and 75% private sale

Assumptions:

1. Demolition of existing structures has been included; to be updated upon receipt of drawings of the existing buildings on site. We have currently assumed existing storey heights of 4m
2. Commercial space is fitted out to CAT A standard. At this stage we have assumed a traditional CAT fit out (ceilings and raised floor)
3. Retail uses fitted out to shell only with finishes by retailer.
4. Cinema fitted out to shell and core plus warm box (no terracing or cinema fit out provided)
5. Leisure to shell and core with allowance for fixed FF&E and a swimming pool
6. Community centre to shell and core only.
7. Phased construction for optimal programme and constructability
8. No allowance made for asbestos removal
9. Our costs assume standard construction in concrete or steel frame (whichever is most suitable for the building type and height).

Exclusions:

Items for which separate provision should be made:

1. Professional fees, Legal fees, Planning Application fees, Building Regulations prescribed fees, licenses etc
2. Value Added Tax
3. Site, building, asbestos, validation or other surveys
4. Ground investigations, testing existing materials (including contaminated ground conditions) and geo-technical surveys
5. Services investigations (telecoms and statutory services)
6. Site acquisition costs, Section 106 contributions, payments or compensation to third parties or the like.
7. Fitting out to offices beyond a typical Category 'A' Developers Specification or residential developer's typical finish
8. Fitting out to any retail / cinema / community / sports space
9. Compensation of relocation costs of existing site users.
10. Incentivisation payments or the like
11. Archaeological works (Consultants fees, investigation and resultant delays/disruption)
12. Costs in respect of rights exercised by Adjoining Owners (Rights of Light, Party Wall Awards, oversail rights, land swap, etc)
13. Additional costs associated with multi-tenant occupation/tenant sub-division or phasing costs.
14. Inflation beyond June 2019 prices
15. Clients contract insurances
16. Marketing costs including floor boxes within office areas, or marketing suites
17. Any works or contribution to enhancement of local electrical network.
18. Public art work, display / exhibition equipment or the like.
19. Excluded are potential extreme impacts of a "no deal" Brexit, these include but are not limited to:
 - a. Border/customs issues or significant delays affecting the import of materials from overseas
 - b. Civil unrest/Union activity
 - c. Supplier restrictions, trade tariffs or significant restrictions on the import of products from the EU which may limit competition of key products (e.g. cladding, timber façade etc.)
20. Main contractor PCSA fees
21. Contributions towards WIRED / WELL are excluded.
22. Removal of ground contamination or contaminated groundwater flows.
23. Removal of asbestos.
24. Alteration to or realignment of existing railway lines.
25. Implications of working in the rail environment; such as restricted working hours.
26. Phasing or finance costs.

Items thought not required at this stage, although may be required following further investigation, negotiations with Tenants and Third Parties, or other:

- 27. Any work beyond the boundary of the site
- 28. Compliance with, or developer's contribution towards, environmental improvement and artwork
- 29. Any bomb blast protection measures or fire rating of boundary glazing/structures
- 30. Audio visual systems, telephone, satellite and TV installations
- 31. Service or utilities diversions / temporary supplies. We would recommend the client holds a budget or allowance for potential requirements.
- 32. The survey for, or removal of asbestos.
- 33. Encountering major obstructions during groundworks or the removal of hazardous contaminated ground or contaminated ground water flows; except as noted.
- 34. Primary Infrastructure elements (as detailed in information issued by DS2 on 17th June 2019) are excluded including works to rail lines, bridges, viaduct and underpasses.

Appendix A

Area Schedules

Area Schedule - Built Areas from Gleeds Cost Plan

Plot	Commercial m²	Residential			Student Living m²	Co-Living m²	Basement Car Parking m²	Retail		Cinema m²	Sports m²	Community m²	Energy Centre m²	Total Built Area m²
		Private m²	Intermediate m²	Affordable m²				Non-food m²	Food Retail m²					
Basement							102,917							102,917
Phase 1	3,434	29,005	6,768	2,901					76					42,184
Phase 2	18,002	48,320	11,275	4,832	33,240	13,716		442	475		1,900	950		133,152
Phase 3	1,564	45,626	10,646	4,563				1,564				4,104		68,067
Phase 4		53,856	12,567	5,386		11,628		1,471	779	3,135		2,104		90,926
Phase 5	3,043	54,886	12,807	5,489				2,652	2,246		2,090			83,213
Phase 6	3,226	53,017	12,371	5,302				3,735	285					77,936
Phase 7	2,282	35,673	8,324	3,567				1,134	1,840					52,820
Phase 8	3,473	49,393	11,525	4,939					1,203			467		71,000
Phase 9		23,547	5,494	2,355					294					31,690
Phase 10	1,956	21,479	5,012	2,148				1,660	296					32,551
Phase 11	52,631	37,050	8,654	3,705				1,900						103,940
Phase 12														-
Energy Centre													6,486	6,486
														-
Total (m²)	89,611	451,852	105,443	45,187	33,240	25,344	102,917	14,558	7,494	3,135	3,990	7,625	6,486	896,882
Total (ft²)	964,573	4,863,735	1,134,988	486,393	357,795	272,803	1,107,799	156,702	80,665	33,745	42,948	82,076	69,815	9,654,038

TOTAL AREAS:

Area Schedule Notes

The build areas used within this elements are from the Gleeds cost plan dated 02nd September 2016

These are based on an assumed GEA:GIA ratio of 95%

The areas are intended for the production of the Cost Estimate only and should not be relied upon for any other purpose.

Area Schedule - Plot Areas from PLP information

Phase ³	Building Footprint ¹ from PLP	On Plot Courtyards from PLP	Total Phase Area from PLP	Off Plot - Public Open Space from PLP		External - Hard Landscape (off plot) residual
	m ²	m ²	m ²	Reference	m ²	m ²
Basement			-			
Phase 1	5,168	2,822	8,306	1 (Canal Walk)	10,842	
Phase 2	16,601	4,916	20,278	2 (RR Gardens)	6,080	
Phase 3a	4,698	2,532	7,237	3	569	
Phase 4	7,695	3,034	10,588	4	91	
Phase 5	8,003	3,152	10,961	5 (Old Oak Entrance)	248	
Phase 6	5,850	2,415	7,350	6 (Central Sq)	8,821	
Phase 7	2,923	756	4,385	7 (Grand Union Canal)	3,496	
Phase 8	3,863	1,630	5,492	8	953	
Phase 9	6,210	2,068	6,229	9	3,210	
Phase 10	3,817	-	4,237	10	1,833	
Phase 11	2,805	858	3,303	11	1,759	
Phase 12	4,063	1,015	5,490	12 (Old Oak Gardens)	4,958	
Energy Centre	Assume included		-	13 (NE Terrace)	2,120	
				14 Mitre Basin (Water)	1,317	
Adjustment (variance between schedules) ²	(3,038)		-			
Total (m²)	68,658	25,198	93,856		46,297	53,387
Total (ft²)	739,035	271,231	1,010,266		498,341	574,658

TOTAL AREAS:

Area Schedule Notes

1. The building footprint areas are derived from the PLP schedules dates 29/11/2016 with an adjust to reflect the updated information
 - 2 There appears to be a discrepancy between the breakdown of plot areas and the overall area; we have based this on the most recent information.
 - 3 As per PLP documentation November 2016 (DS2 revised phasing has not been incorporated)
- The areas in the Gleeds schedules have taken precedent for compilation of our comparative cost plans

Appendix B.1

Feasibility Cost Model Summary

Cost Model Summary

Feasibility Cost Model		Gleeds		Core Five		Notes
	m ²	Elemental Total (£)	£/m ²	Elemental Total (£)	£/m ²	
Demolitions and Facilitation				-		Inc in infrastructure
Basement Car Park	102,917	118,146,428	£1,148/m ²	226,417,000	£2,200/m ²	
Residential Blocks:						
Private	451,852	1,512,357,219	£3,347/m ²	1,395,892,000	£3,089/m ²	
Intermediate	105,432	340,759,382	£3,232/m ²	300,173,000	£2,847/m ²	
Affordable	45,185	144,307,739	£3,194/m ²	128,645,000	£2,847/m ²	
Retail Units - Non Food	14,558	18,207,353	£1,251/m ²	29,774,000	£2,045/m ²	
Food Retail Store	7,494	8,149,728	£1,087/m ²	16,536,000	£2,207/m ²	
Cinema	3,135	8,144,918	£2,598/m ²	12,486,000	£3,983/m ²	
Sports Facilities	3,990	6,703,418	£1,680/m ²	11,767,000	£2,949/m ²	
Commercial Office	89,611	171,632,988	£1,915/m ²	319,273,000	£3,563/m ²	
Community	7,626	7,510,068	£985/m ²	15,594,000	£2,045/m ²	
Student Accommodation	33,240	86,760,012	£2,610/m ²	116,284,000	£3,498/m ²	
Co-Living Accommodation	25,344	69,979,977	£2,761/m ²	99,573,000	£3,929/m ²	
On Plot External Works	25,198			12,599,000	£500/m ²	
Energy Centre (Shell Only)	6,486	7,053,454	£1,087/m ²	8,378,000	£1,292/m ²	
Renewables and Connections Charges	896,868	28,190,500	£31/m ²	17,940,000	£20/m ²	
External Works, Utilities & Services						Inc in Infrastructure
Sub Total		2,527,903,184	£2,819/m²	2,711,400,000	£3,023/m²	
Project Risk		126,395,159	£141/m ²	-		
Design Reserve & Contingency		63,197,580	£70/m ²	271,140,000	£302/m ²	
Inflation		-		-		Excluded
Total Construction Cost		2,717,500,000	£3,030/m²	2,982,600,000	£3,326/m²	
Infrastructure		197,000,000		243,000,000		
		7.25%		8.15%		
Total Construction and Infrastructure		2,914,500,000 3Q 2016		3,225,600,000 2Q 2019		
Total Area (ft ²)	9,654,028					
Total Area (m ²)	896,881					

Appendix B.2

Infrastructure Cost Model

Infrastructure Summary

		GLEEDS Total Q1 2016 'A' (£)	CORE FIVE Total Q3 2019 'B' (£)	Variance 'C = B - A' (£)	Notes
1.0	Demolitions and Site Clearance	5,725,000	32,860,000	27,135,000	Scope assumed to be all buildings identified in Hythe Road study.
2.0	Ground improvement & Remediation	39,370,505	35,378,764	(3,991,740)	
3.0	Oversite Earthworks (Fill to Formations for road areas)	-	-	-	See Section 02
4.0	Utilities	28,408,558	50,000,000	21,591,442	
5.0	Footbridges	-	-	-	Excluded
6.0	On-Site Highway Works & Parking	15,453,679	13,971,040	(1,482,638)	
7.0	Open Space / Green Space / Landscaping	29,582,681	25,935,331	(3,647,350)	
8.0	Surface Water Strategy - Option 2	9,950,048	9,950,048	-	
9.0	Foul Water Strategy option 2	10,025,275	9,487,575	(537,700)	
10.0	Site Ecology Allowances	250,000	250,000	-	
11.0	S106 Contributions	-	-	-	Excluded
TOTAL PRIME BUILD COST		138,765,745	177,832,759	39,067,013	
	Main Contractor Preliminaries@ 18.5%	17.7% 24,557,038	18.0% 32,009,897	7,452,859	Gleeds stated at 18.5% but equates to 17.7%; C5 would suggest 18%
TOTAL INCLUDING PRELIMINARIES		163,322,783	209,842,655	46,519,872	
	Main Contractor Overheads and Profit @ 10%	9.6% 15,759,778	5.0% 10,492,133	(5,267,645)	Gleeds stated at 10% but equates to 9.6%; C5 would suggest 5%
	Fees - Master Plan Development Costs	Excluded	Excluded		
	Professional & Third Party Fees	Excluded	Excluded		
TOTAL EXCL. CONTINGENCIES & INFLATION		179,082,561	220,334,788	41,252,227	
	Project Contingency on Construction Costs 10.0%	10.0% 17,908,256	10.0% 22,033,479	4,125,223	10% appears reasonable for design and construction at this stage of design
TOTAL COST CURRENT DAY		196,990,817	242,368,267	45,377,450	
TOTAL COST CURRENT DAY (Rounded)		197,000,000	243,000,000	46,000,000	C5 assessment at June 2019 prices

Total GIA (ft²)		9,654,028	ft²	9,654,028	ft²	
Total GIA (m²)		896,881	ft²	896,881	ft²	
£/ft² GIA		£20.4/sqft		£25.2/sqft	£4.8/sqft	including contingency

Future Inflation
Primary Infrastructure (bridges, transfer deck, tube station, embankment works etc)

Excluded
Excluded

Excluded
Excluded

Infrastructure Cost Detail

Total Plot Areas				93,856 m²	Total Plot Areas				93,856 m²
Total Public Open Space				46,297 m²	Total Public Open Space				46,297 m²
Balancing quantity; assumed roads pavements etc				53,387 m²	Balancing quantity; assumed roads pavements etc				53,387 m²
Total Developable Land				193,540 m²	Total Developable Land				193,540 m²
Total Building GIA				896,868 m²	Total Building GIA				896,868 m²

	GLEEDS					CORE FIVE					NOTES
	Quantity	Unit	Rate (£)		Total (£)	Quantity	Unit	Rate (£)		Total (£)	
1.0 Demolitions and Site Clearance											
General site clearance	1	sum		See section 02							
Demolition / removal of perimeter boundary walls / fences	1	sum	250,000	250,000							
Demolition up to and including ground floor slabs and hard standing.	1	sum	4,725,000	4,725,000							
Allowance for Asbestos (provisional sum only - no reports or surveys)	1	sum	500,000	500,000							1) Breaking out and removal of external hardstandings (assume 500mm deep) 47,624 m³ x £100
Create access and haul roads etc.	1	sum	250,000	250,000					32,860,000		
Allowance grubbing up foundations for existing buildings				See section 02							2) Demolition of building structure (assume 4m storey heights) 432,269 m³ x £65
Allowance cut & removal beyond above and not included in ARUP report				Excluded							
Import clean fill to formation for underside of roadways				Section 3.0							
Demolitions and site clearance			£30/m²		5,725,000			£170/m²		32,860,000	
2.0 Ground improvement & Remediation											
Excavation											
Site Strip/Clearance				See Demolition					See Demolition		
General dig of Made Ground	224,100	m³	4	896,400		188,350	m³	4	753,400		Taken from drawing OOP-ARP-08-GL-SK-E-1001
Excavation of contaminated soil in hotspots defined by investigation	-	m³	-	-		-	m³	-	-		
Additional investigation to detect contamination in Principal Contamination areas	186,162	m²	4	744,648		188,350	m²	4	753,400		Taken from drawing OOP-ARP-08-GL-SK-E-1001
Provisional Allowance to break out obstructions	20,000	m³	28	560,000		20,000	m³	28	560,000		
Excavation of deep soil below general dig for basements		m³		Excluded - See Plot Costs			m³		Excluded - See Plot Costs		
Extra over for excavation clayey made ground				Excluded					Excluded		
Control of groundwater											
Temporary sheet pile cut off quantity assumed no info - (install and				Assume not required as ARUP review					Assume not required as ARUP review		
Pump Water from excavations		m³		See Item Below			m³		See Item Below		
Provisional Allowance for groundwater management	1	prov	650,000	650,000		1	prov	650,000	650,000		

	GLEEDS					CORE FIVE					NOTES
	Quantity	Unit	Rate (£)		Total (£)	Quantity	Unit	Rate (£)		Total (£)	
Assume 50% Clay; 50% Made Ground											
Screen material from general dig and separately stockpile physically unsuitable material	224,100	m³	4		896,400	188,350	m³	4		753,400	Taken from drawing OOP-ARP-08-GL-SK-E-1001 - % assumptions seems reasonable
Crush hard material from obstructions	20,000	m³	6		120,000	20,000	m³	6		120,000	
Treatment of Arisings (Assume 50% of cut (Made Ground) requires treatment as discussed with Arup & Watermans)											
Assume 30% will be washed (Hazardous to non hazardous assumption)	33,615	m³	8		268,920	28,253	m³	8		226,020	Taken from drawing OOP-ARP-08-GL-SK-E-1001 - % assumptions seems reasonable
Assume 60% will be bio remediated (Hazardous to non hazardous assumption)	67,230	m³	14		941,220	56,505	m³	14		791,070	Taken from drawing OOP-ARP-08-GL-SK-E-1001 - % assumptions seems reasonable
Arisings movement											
Assume 5% will be Hazardous and will need removing from site	11,205	m³	150		1,680,750	9,418	m³	150		1,412,625	Taken from drawing OOP-ARP-08-GL-SK-E-1001 - % assumptions seems reasonable
Assume 10% of the 30% washed made ground will still be Hazardous and will need removing from site	3,362	m³	151		507,587	2,825	m³	151		426,613	Taken from drawing OOP-ARP-08-GL-SK-E-1001 - % assumptions seems reasonable
Assume 45% will be Non Hazardous and removed from site	100,845	m³	75		7,563,375	84,758	m³	75		6,356,813	Taken from drawing OOP-ARP-08-GL-SK-E-1001 - % assumptions seems reasonable
Assume 5% will stored on site for re-use	11,205	m³	17		190,485	9,418	m³	17		160,098	Taken from drawing OOP-ARP-08-GL-SK-E-1001 - % assumptions seems reasonable
Assume 45% will be inert and removed from site	100,845	m³	50		5,042,250	84,758	m³	50		4,237,875	Taken from drawing OOP-ARP-08-GL-SK-E-1001 - % assumptions seems reasonable
Treatment and discharge of water via on site treatment works	50,000	m³	10		500,000	50,000	m³	10		500,000	
Special treatment of heavily contaminated water	12,000	m³	45		540,000	12,000	m³	45		540,000	
Total crusher run; obstruction allowed for	20,000	m³	8		160,000	20,000	m³	8		160,000	
Placement of material											
Place sub soil (material beneath capping)		m³	8		-		m³	8		-	
Reuse crushed obstructions in fill cap	20,000	m³	8		160,000	20,000	m³	8		160,000	
Reuse crushed from demo in fill cap	30,000	m³	8		240,000	30,000	m³	8		240,000	
Surplus crushed material after placement of cap (assumed used for		m³			-		m³			-	
Import and place 6F2 for clean layer in cap	33,200	m³	40		1,328,000	33,200	m³	30		996,000	Rate appears high - C5 adjusted
Import grey material (allowing for formation being 0.3m below FFL)		m³	18		-		m³	18		-	
Temporary Drainage and marker layer											
Temporary drainage system	186,162	m³	7		1,303,134	188,350	m³	7		1,318,450	
Geotextile for marker horizon	186,162	m³	10		1,861,620	188,350	m³	10		1,883,500	

	GLEEDS					CORE FIVE					NOTES
	Quantity	Unit	Rate (£)		Total (£)	Quantity	Unit	Rate (£)		Total (£)	
Retainment											
Provisional allowance for gabion walls >1m <3m		m³		Excluded			m³		Excluded		
Provisional allowance for sheet piled retainment >1m <3m	1,470	m³	500	735,000		1,470	m³	500	735,000		
Provisional allowance for secant retainment >3m <5m		m³		Excluded			m³		Excluded		
Provisional allowance for facing to retainment - not known				See Section 7.0					See Section 7.0		
Provisional allowance for reinforced brickwork cavity wall <1.5m				See Section 7.0					See Section 7.0		
Allowance for steps				See Section 7.0					See Section 7.0		
Special remediation Techniques											
Treatment to remove pooled DNAPL				Excluded					Excluded		
Delineate areas of significant residual DNAPL				Excluded					Excluded		
Treatment to remove residual DNAPL				Excluded					Excluded		
Pump and treat groundwater				Excluded					Excluded		
Construct clay breaks in existing service trenches				Excluded					Excluded		
Special remediation in proximity gas or other specialist				Excluded					Excluded		
Bentonite cut off wall along east and south east boundary				Excluded					Excluded		
Bentonite cut off wall around retained land				Excluded					Excluded		
Locate and grout wells				Excluded					Excluded		
Cut off trenches to intersect old drains around boundaries				Excluded					Excluded		
Temporary and enabling works											
Temporary Fencing	5,000	m	30	150,000		5,000	m	30	150,000		
Temporary access road	1,500	m	700	1,050,000		1,500	m	700	1,050,000		
Temporary Bridge	0	nr		-		0	nr		-		
Set up compound	28,604	m²	35	1,001,140		28,604	m²	35	1,001,140		
Maintain compound	120	months	3,500	420,000		120	months	3,500	420,000		
Set up water treatment plant	1	nr	150,000	150,000		1	nr	150,000	150,000		
Maintain groundwater treatment plant	120	months	2,500	300,000		120	months	2,500	300,000		
General											
Testing and Quality Control	1	sum	1,000,000	1,000,000		1	sum	1,000,000	1,000,000		
Monitoring post works				Excluded					Excluded		
Additional Site investigation				Excluded					Excluded		
Design fees				Excluded					Excluded		
Environmental controls/management	120	month	1,350	162,000		120	month	1,350	162,000		
General Preliminaries not above	15	%	31,122,929	4,668,439		15	%	27,967,403	4,195,110		
Specialist Contractor OHP	10	%	35,791,368	3,579,137		10	%	32,162,513	3,216,251		
2.0 Ground improvement & Remediation			£203/m²		39,370,505			£183/m²		35,378,764	

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	GLEEDS					CORE FIVE					NOTES
	Quantity	Unit	Rate (£)		Total (£)	Quantity	Unit	Rate (£)		Total (£)	
4.2 Comms											
<u>Open Reach</u>											
New Route allowances ducts only	2,500	m	84	210,000							
New Route allowances chambers & boxes	30	nr	5,500	165,000							
Diversion	1	prov sum	84	Excluded					Excluded		
<u>Virgin media x 1 other TBC</u>											
New Route allowances ducts only	5,000	m	90	450,000					Included		
New Route allowances chambers & boxes	60	nr	5,500	330,000					Included		
Diversion* - no info provided	1	prov sum		Excluded					Excluded		
Developer contribution	7,000	nr		Excluded					Excluded		
<u>Sky</u>				Excluded					Excluded		
<u>Canal Towpath</u>											
Services along canal towpath - no info				Excluded					Excluded		
<u>Installacom</u>											
Not known				Excluded					Excluded		
<u>Mobile masts</u>											
Not known				Excluded					Excluded		
<u>Vodafone/O2/Three/EE</u>											
Not known				Excluded					Excluded		
SSE Telecom				Excluded					Excluded		
Other Potential Diversions											
Services in area ??- no info				Excluded					Excluded		
<u>Network Rail</u>											
Not known				Excluded					Excluded		
<u>Nat. Grid</u>											
Not known				Excluded					Excluded		
<u>TfL</u>											
Not known				Excluded					Excluded		
<u>Electric</u>											
Removal of oil filled electric cables				Excluded					Excluded		

	GLEEDS					CORE FIVE					NOTES
	Quantity	Unit	Rate (£)		Total (£)	Quantity	Unit	Rate (£)		Total (£)	
4.3 Water Services											
Reinforcement (off site)											
Off site reinforcement	1	prov sum	2,500,000		2,500,000						
Onsite											
New network mains assume 600 dia	3,800	m	500		1,900,000						
Possible future connection via genesis bridge	85	m	500		42,500						
Possible future connection on genesis bridge	17	m	2,000		34,000						
Possible connection to water mains No's 4 & 5, 30in dia	240	m	500		120,000						
New connections resi			Assume Plot Cost								
New connections - commercial	1	sum	75,000		75,000						
New connections - energy centre	1	sum	3,500		3,500						
150mm branch connections	60	nr	550		33,000						
Isolating valve chambers / wash outs / air valves	150	nr	2,000		300,000						
Sluice valves and pumps	1	prov sum	50,000		50,000				Included		
Fire mains			See main network								
Fire hydrant points	50	nr	1,850		92,500						
4.4 District Heating & Cooling											
LDH											
450mm dia. Distribution, steel welded joints; insulated pipe in pipe pipework with leak monitoring cables (flow and return)	4,640	m	450		2,088,000						
Branches or trench	80	nr	2,500		200,000						
Isolating valve chambers	60	nr	8,500		510,000						
Connections into Buildings / Blocks	44	nr	2,500		110,000						
Allowance for excavating and back filled trench	2,320	m	22		51,040						
LDC											
450mm dia. distribution pipework (flow and return)	1,034	m	450		465,300						
Branches	10	nr	2,500		25,000						
Isolating valve chambers	14	nr	8,500		119,000						
Connections into Buildings / Blocks	10	nr	2,500		25,000						
Allowance for excavating and back filled trench	519	m	22		11,418						
Energy Centre	1	sum	4,950,000		4,950,000						
Back up boilers to each Plot zone			Excluded - Assume Plot costs						Excluded - Assume Plot costs		

	GLEEDS					CORE FIVE					NOTES
	Quantity	Unit	Rate (£)		Total (£)	Quantity	Unit	Rate (£)		Total (£)	
4.5 Gas Pipework											
Off site allow distribution of 1km to governor	1,000	m	400	400,000					Included		
Allowance for gas governor	1	item	250,000	250,000					Included		
Med Pressure gas main distribution	690	m	300	207,000					Included		
Low Pressure gas main distribution	2,788	m	225	627,300					Included		
Connections to energy centre	1	sum	150,000	150,000					Included		
Connections to Hotel				Excluded					Excluded		
Connections to Retail Store				Excluded					Excluded		
Connections to Food & Banqueting	22	nr	5,000	110,000					Included		
Connections to School	1	sum	15,000	15,000					Included		
Connections to other uses	25	nr	5,000	125,000					Included		
Testing & Commissioning				Deemed included					Deemed included		
4.0 Utilities			£147/m²		28,408,558			£258/m²		50,000,000	
5.0 Footbridges											
Steel foot bridge across canal				Excluded					Excluded		
Add Preliminaries @ 12%											
Add Profit @ 5%											
5.0 Footbridges			£0/m²		-			£0/m²		-	

	GLEEDS					CORE FIVE					NOTES
	Quantity	Unit	Rate (£)		Total (£)	Quantity	Unit	Rate (£)		Total (£)	
6.0 On-Site Highway Works & Parking											
<u>Primary Roads Allowance</u>											
Section assumed											
Various as marked up drawing	4,000	m	2,664	10,654,896		3,497	m	2,664	9,315,043		As per drawing OOP-ARP-00-XX-SK-C-P001 & Old Oak Park ' A New Piece of London' document, Primary Routes drawing. No allowance has been made for roads outside of the site boundary on C5's measure
E.O for raised table and block paving	200	m²	70	14,000		200	m²	70	14,000		
<u>Secondary Roads</u>											
Section assumed											
Various as marked up drawing	2,180	m	1,112	2,422,745		2,180	m	1,112	2,422,745		
E.O for raised table and block paving	109	m²	70	7,629		109	m²	70	7,629		
<u>Tertiary Roads</u>											
Section assumed											
As marked up drawing	1,077	m	787	847,759		894	m	787	847,759		Total Pedestrian Route check is 6571m measured from Place Review Panel Report - Page 64
E.O for raised table and block paving	54	m²	70	3,770		54	m²	70	3,770		
<u>Shared Drives / Grade Parking</u>											
Section assumed											
As marked up drawing			See Hard landscaping					See Hard landscaping			
E.O for raised table and block paving											
<u>Podium Parking</u>											
Section C											
As marked up drawing				Excluded					Excluded		
E.O for raised table and block paving											
<u>Footways</u>											
As marked up drawing			See Hard landscaping					See Hard landscaping			
<u>Cycleways / Footways</u>											
As marked up drawing			See Hard landscaping					See Hard landscaping			
<u>Service Corridor</u>				See Utilities					See Utilities		
<u>Other</u>											
Gateway feature - PROVISIONAL SUM				Excluded					Excluded		
Bus stops -assumed	6	nr	8,000	48,000		5	nr	8,000	40,000		Measured from Place Review Panel Report - Page 67
Bus Gateway / Bollard Works	1	prov sum		50,000		1	prov sum		50,000		
Add - Adoption / Maintenance Costs Allowance	10	%	14,048,799	1,404,880		10	%	12,700,946	1,270,095		

	GLEEDS					CORE FIVE					NOTES
	Quantity	Unit	Rate (£)		Total (£)	Quantity	Unit	Rate (£)		Total (£)	
6.0 On-Site Highway Works & Parking			£80/m²		15,453,679			£72/m²		13,971,040	
7.0 Open Space / Green Space / Landscaping											
<u>Inside Boundary</u>											
Higher Spec	11,009	m²	105	1,155,947		11,009	m²	105	1,155,947		Combined landscape measure of 34,312 m2 measured from Arup drawing 'OOP-ARP-00-XX-SK-C-P001'
Lower Spec	30,573	m²	80	2,445,815		23,303	m²	80	1,864,215		
<u>Outside Boundary</u>											
Higher Spec	3,033	m²	105	318,479		3,033	m²	105	318,479		It is not clear to on the extent of landscaping required outside of the site boundary - Therefore C5 measure is the same as Gleeds
Lower Spec	10,264	m²	80	821,129		10,264	m²	80	821,129		
EO Allowance for:											
Small Trees	231	nr	500	115,500		226	nr	500	113,000		C5 measure 423 trees
Semi Mature Trees	198	nr	1,500	297,000		198	nr	1,500	297,000		
Tree pits & Grilles	429	nr	3,750	1,608,750		424	nr	3,750	1,590,000		
Feature Park	1	Prov Sum	75,000	75,000		1	Prov Sum	75,000	75,000		
Market Square EO allowance	1	Prov Sum	25,000	25,000		1	Prov Sum	25,000	25,000		
Feature Water Islands				Excluded					Excluded		
Hard Landscaping											
<u>Old Oak Walk and Grand Union Canal</u>											
Primary ambition, high quality finish, natural stone	20,204	m²	400	8,081,536		20,204	m²	300	6,061,136		Rate appears high - C5 adjusted
<u>Fit for purpose finish for Hythe Station Square</u>											
Primary ambition, high quality finish, natural stone	11,841	m²	400	4,736,200		11,841	m²	300	3,552,100		Rate appears high - C5 adjusted
<u>Standard Finish</u>											
Concrete slab pedestrians pavement	11,841	m²	150	1,776,075		11,841	m²	150	1,776,075		
Retainment											
Provisional allowance for gabion walls >1m <3m				See Section 2.0					See Section 2.0		
Provisional allowance for sheet piled retainment >1m <3m				See Section 2.0					See Section 2.0		
Provisional allowance for secant retainment >3m <5m				See Section 2.0					See Section 2.0		
Provisional allowance for facing to retainment - not known				Excluded					Excluded		
Provisional allowance for reinforced brickwork cavity wall	1,000	m²	375	375,000		1,000	m²	375	375,000		
Allowance for steps	1	prov sum	200,000	200,000		1	prov sum	200,000	200,000		
Fencing & Railings	1	prov sum	1,500,000	1,500,000		1	prov sum	1,500,000	1,500,000		

	GLEEDS					CORE FIVE					NOTES
	Quantity	Unit	Rate (£)		Total (£)	Quantity	Unit	Rate (£)		Total (£)	
Other											
Works to rail line - PROVISIONAL SUM				Excluded					Excluded		Measured from Arup drawing 'OOP-ARP-00-XX-SK-C-P001'
New canal basin	1,250	m²	625	781,250		1,506	m²	625	941,250		
New canal link	50	m	3,000	150,000		50	m	3,000	150,000		
EO for jetty	1	Prov Sum	125,000	125,000		1	Prov Sum	125,000	125,000		
New canal bridge (not covered by others)	1	Prov Sum	850,000	850,000		1	Prov Sum	850,000	850,000		
Works to canal edge - PROVISIONAL SUM (one side only)	1,100	m	2,350	2,585,000		1,100	m	2,350	2,585,000		
EO Gateway feature - PROVISIONAL SUM	1	nr	150,000	150,000		1	nr	150,000	150,000		
<u>Water feature - PROVISIONAL SUM</u>	1	nr	250,000	250,000		1	nr	250,000	250,000		
Sculpture feature - PROVISIONAL SUM	1	nr	150,000	150,000		1	nr	150,000	150,000		
Public Art feature - PROVISIONAL SUM	1	nr	150,000	150,000		1	nr	150,000	150,000		
columns	1	nr	650,000	650,000		1	nr	650,000	650,000		
Allowance for Play Equipment (three age groups)				-					-		
MUGA	1	Prov Sum	100,000	100,000		1	Prov Sum	100,000	100,000		
LEAP	2	Prov Sum	40,000	80,000		2	Prov Sum	40,000	80,000		
LAPS	2	Prov Sum	15,000	30,000		2	Prov Sum	15,000	30,000		
All off site works	1	Prov Sum		By others		1	Prov Sum		By others		
Adoption Costs				Excluded					Excluded		
7.0 Open Space / Green Space / Landscaping			£153/m²		29,582,681			£134/m²		25,935,331	

	GLEEDS					CORE FIVE					NOTES
	Quantity	Unit	Rate (£)		Total (£)	Quantity	Unit	Rate (£)		Total (£)	
8.0 Surface Water Strategy - Option 2											
<u>Water storage capacity in cellular storage and ponds</u>											
Cellular SW Storage	2,275	m³	275	625,625		2,275	m³	275	625,625		
Suds balancing ponds	11,201	m³	50	560,025		11,201	m³	50	560,025		
<u>Primary route Foul drainage</u>											
Proposed land drainage 225Ø	1	prov sum	500,000	500,000		1	prov sum	500,000	500,000		
Proposed land drainage 450Ø				Excluded					Excluded		
Proposed surface water drainage 225Ø	84	m	225	18,992		84	m	225	18,992		
Proposed surface water drainage 300Ø	144	m	260	37,385		144	m	260	37,385		
Proposed surface water drainage 450Ø	150	m	875	131,075		150	m	875	131,075		
Proposed surface water drainage 525Ø	295	m	925	272,422		295	m	925	272,422		
Proposed surface water drainage 600Ø	947	m	950	899,783		947	m	950	899,783		
Proposed surface water drainage 750Ø	668	m	1,190	795,146		668	m	1,190	795,146		
Proposed surface water drainage 825Ø	195	m	1,270	247,244		195	m	1,270	247,244		
Proposed surface water drainage 900Ø	502	m	1,350	678,146		502	m	1,350	678,146		
Proposed surface water drainage 1050Ø	68	m	1,650	111,705		68	m	1,650	111,705		
Proposed surface water drainage 1200Ø	350	m	2,500	874,500		350	m	2,500	874,500		
Works to Existing surface water sewer - connections	3	nr	35,000	105,000		3	nr	35,000	105,000		
Works to Existing surface water sewer - over pumping	1	item	150,000	150,000		1	item	150,000	150,000		
New combined sewer as part of diversion works 1200Ø	800	m	2,750	2,200,000		800	m	2,750	2,200,000		
New combined sewer as part of diversion works 450Ø	400	m	875	350,000		400	m	875	350,000		
Oil inceptor	13	nr	30,000	390,000		13	nr	30,000	390,000		
Proposed hydro-brake / Orifice chamber	10	nr	30,000	300,000		10	nr	30,000	300,000		
Primary Manholes	78	nr	4,500	351,000		78	nr	4,500	351,000		
Secondary Manholes	76	nr	2,500	190,000		76	nr	2,500	190,000		
Building Manholes (including demarcation chambers)	81	nr	2,000	162,000		81	nr	2,000	162,000		
Box Culverts				Excluded					Excluded		
8.0 Surface Water Strategy - Option 2			£51/m²		9,950,048			£51/m²		9,950,048	Rate is in line with C5 benchmark rates

	GLEEDS					CORE FIVE					NOTES
	Quantity	Unit	Rate (£)		Total (£)	Quantity	Unit	Rate (£)		Total (£)	
9.0 Foul Water Strategy option 2											
All assumed											
Proposed foul water sewer 100Ø	0	m	150	-		0	m	150	-		Drawings not provided - C5 are unable to verify the measure
Proposed foul water sewer 150Ø	0	m	200	-		0	m	200	-		
Proposed foul water sewer 225Ø	1,405	m	400	562,000		1,405	m	400	562,000		
Proposed foul water sewer 300Ø	1,405	m	475	667,375		1,405	m	475	667,375		
Proposed foul water sewer 450Ø	2,805	m	550	1,542,750		2,805	m	550	1,542,750		
Proposed foul water sewer 600Ø	1,405	m	750	1,053,750		1,405	m	750	1,053,750		
Abandoning existing foul water; breakout and backfill											
450Ø sewer	800	m	22	17,600		774	m	22	17,028		Measure taken from Arup drawing 'OOP-ARP-00-XX-DR-CD-40003 Measure taken from Arup drawing 'OOP-ARP-00-XX-DR-CD-40003 Measure taken from Arup drawing 'OOP-ARP-00-XX-DR-CD-40003 Rate appears high - C5 adjusted - As per drawing markup OOP-ARP-00-XX-DR-CD-4003
1200Ø sewer	180	m	90	16,200		430	m	90	38,700		
813x1219 sewer	600	m	76	45,600		697	m	76	52,972		
Manhole	160	nr	4,500	720,000		51	nr	3,000	153,000		
Connections to existing sewer	7	nr	50,000	350,000		7	nr	50,000	350,000		
Pumping station vessel and pump from 9m to out fall	1	item	500,000	500,000		1	item	500,000	500,000		
Onsite plot foul drainage to building - provisional no info	1	prov sum	4,550,000	4,550,000		1	prov sum	4,550,000	4,550,000		
Repair roadway post new drainage installation				Excluded					Excluded		
9.0 Foul Water Strategy option 2			£52/m²		10,025,275			£49/m²		9,487,575	

	GLEEDS					CORE FIVE					NOTES
	Quantity	Unit	Rate (£)		Total (£)	Quantity	Unit	Rate (£)		Total (£)	
10.0 Site Ecology Allowances											
Existing habitat study	0	m	150	See fees		0	m	150	See fees		
Method statement agreement	0	m	200	See fees		0	m	200	See fees		
	1	item	25,000	25,000		1	item	25,000	25,000		
General Allowance for light touch ecology measures	1	item	75,000	75,000		1	item	75,000	75,000		
Site Wide Archaeology Allowance	1	item	150,000	150,000		1	item	150,000	150,000		
10.0 Site Ecology Allowances			£1/m²		250,000			£1/m²		250,000	
11.0 S106 Contributions											
Specific Contributions Figures exclude indexation				Excluded					Excluded		
Landscape and Open space				Excluded					Excluded		
Education				Excluded					Excluded		
Waste				Excluded					Excluded		
Transport				Excluded					Excluded		
Social Infrastructure				Excluded					Excluded		
Other Contributions				Excluded					Excluded		
11.0 S106 Contributions			£0/m²		-			£0/m²		-	
Sub-total				138,765,745	138,765,745				177,832,759	177,832,759	

Basis:

	GLEEDS	CORE FIVE
<u>ARUP Documents:</u>		
1. OOP-ARP-00-XX-RP-C-00001	✓	✓
2. OOP-ARP-00-XX-SK-C-P001	✓	✓
3. OOP-ARP-00-XX-SK-C-P002	✓	✓
4. OOP-ARP-00-XX-SK-C-P003	✓	✓
5. OOP-ARP-08-GL-SK-E-10003_Existing	✓	✓
6. OOP-ARP-08-GL-SK-E-10002_Proposed	✓	✓
7. OOP-ARP-08-GL-SK-E-10001-CutFill	✓	✓
8. CX_XREF_SURVEY	✓	✓
9. ACAD-Cut Fill Levels-Model-Gleeds.dwg	✓	✓
10. ACAD-Existing 3D Model-Gleeds.dwg	✓	✓
11. ACAD-Proposed 3D Model-Gleeds.dwg	✓	✓
12. OOP-ARP-00-XX-DR-CD-40001 - P01	✓	✓
13. OOP-ARP-00-XX-DR-CD-40003 - P01	✓	✓
<u>PLP Documents:</u>		
14. PLP Landscape Section - Draft DAS (1 page)	✓	✗
15. PLP Drawing 1333-M-A-SK-19	✓	✓
16. 160209 - Place Review (Final)	✓	✓
17. 160212 - Phasing Option B	✓	✓
<u>Waterman Documents:</u>		
18. As per our meeting on 4th July 2016 with Arup & Watermans to discuss the assumptions on contamination	✓	✗

Assumptions:

- | | | |
|--|---|---|
| 1. The cut fill quantities we have provided are between existing levels and proposed finish levels. Within the building plots levels have been extrapolated through from the adjacent public realm areas. So in reality where we are showing fill within a building plot it would not actually be placed as in all probability excavation will be required to form a basement. The excavation total does not account for any building basements. Additional excavation to formation levels below "Finished Levels" will be required – at this stage it would be sensible to assume 600mm additional excavation. In areas where we fill the formation level could most likely be reduced to 450mm assuming engineering fill with a CBR in excess of 15%. (see section 2.0). | | |
| 2. <u>Further assumptions as noted post Meeting review with ARUP Team 15-06-16 & Arup/Waterman meeting 4th July 2016</u>
Please refer below for a list of assumptions to be used for costing: | ✓ | ✗ |

3. Milestones & Temporary Works & Staging:

Construction Start/End: We envisage bulk earthworks will be phased to reflect the overall phasing, hence site clearance will not be undertaken all at once and neither will bulk earthworks

4. Traffic Management:

Site access requirements – Powerday & EMR access will need to be maintained throughout as will access to the site via either the existing site entrance or the new site access before the existing site access is modified

5. Site Clearance:

Typically we estimate that an average of 150mm of concrete (either floor slabs, external hardstanding or tarmac) will need to be broken out. This material can be processed (crushed and graded) and re-used as engineering fill/piling mat material.

-Generally We think made ground will not be suitable for use as engineering fill and thus an allowance will need to be made for the removal and disposal of the cut material. A small percentage of material may be able to be used as landscape subsoil outside buildings and road corridor areas.

-allowance for contaminated material – Waterman's advised on this aspect at a meeting with Arup on 4th July 2016. A key plan identifying high, medium and low risk areas has been requested

-allowance for 50:50 Made Ground and London Clay excavations; London Clay assumed to be inert; 90% of made ground assumed to be non hazardous after remediation and 10% Hazardous

- Demolition of existing buildings- assumed all light industrial steel & brick/block - usual assumptions to apply e.g. asbestos, plaster etc

6. Additional Comments:

- A canal basin area is to be constructed in the western section of the site with basin dimensions: 25m x 50m x 3m plus the link to the canal.

- Canal wall – Assume 6m long sheet piles (retaining 2m) with an RC capping beam – required to the sides of the new canal basin and along the 1.1km frontage of the canal. Along the canal the construction would ideally be immediately in front of the existing wall this would attract some additional payment from CRT assuming they accept this approach. If we are required to construct a replacement wall behind the existing walls this is likely to increase construction costs so an increased rate should be applied.

- No assumptions have been made on how the bulk materials will be removed / brought to site i.e. road, rail, railhead and canal all remain possible options.

Exclusions:

Items for which separate provision should be made:

	GLEEDS	CORE FIVE
1. Professional fees, Legal fees, Planning Application fees, Building Regulations prescribed fees, licenses etc	x	x
2. Value Added Tax	x	x
3. Site, building, asbestos, validation or other surveys	x	x
4. Ground investigations, testing existing materials (including contaminated ground conditions) and geo-technical surveys	x	x
5. Services investigations (telecoms and statutory services)	x	x
6. Site acquisition costs, Section 106 contributions, payments or compensation to third parties or the like.	x	x
7. Fitting out to offices beyond a typical Category 'A' Developers Specification or residential developer's typical finish	x	x
8. Fitting out to any retail or the tube station area.	x	x
9. Compensation of relocation costs of existing site users.	x	x
10. Incentivisation payments or the like	x	x
11. Archaeological works (Consultants fees, investigation and resultant delays/disruption)	x	x
12. Costs in respect of rights exercised by Adjoining Owners (Rights of Light, Party Wall Awards, oversail rights, land swap, etc)	x	x
13. Additional costs associated with multi-tenant occupation/tenant sub-division or phasing costs.	x	x
14. Inflation beyond April 2019 prices	x	x
15. Clients contract insurances	x	x
16. Marketing costs including floor boxes within office areas, or marketing suites	x	x
17. Any works or contribution to enhancement of local electrical network.	x	x
18. Public art work, display / exhibition equipment or the like.	x	x
19. Excluded are potential extreme impacts of a "no deal" Brexit, these include but are not limited to:	x	x
a. Border/customs issues or significant delays affecting the import of materials from overseas	x	x
b. Civil unrest/Union activity	x	x
c. Supplier restrictions, trade tariffs or significant restrictions on the import of products from the EU which may limit competition of key products (e.g. cladding, timber façade etc.)	x	x
20. Main contractor PCSA fees (for monitoring during enabling works)	x	x
21. Contributions towards WIRED / WELL are excluded unless contribution otherwise noted.	x	x
22. Removal of ground contamination or contaminated groundwater flows.	x	x
23. Removal of asbestos.	x	x
24. Alteration to or realignment of existing railway lines.	x	x
25. Implications of working in the rail environment; such as restricted working hours.	x	x
26. Phasing or finance costs.	x	x

Items thought not required at this stage, although may be required following further investigation, negotiations with Tenants and Third Parties, or other:

22. Any work beyond the boundary of the site	x	x
23. Compliance with, or developer's contribution towards, environmental improvement and artwork	x	x
24. Any bomb blast protection measures or fire rating of boundary glazing/structures	x	x
25. Audio visual systems, telephone, satellite and TV installations	x	x
26. Service or utilities diversions / temporary supplies. We would recommend the client holds a budget or allowance for potential requirements.	x	x
27. The survey for, or removal of asbestos.	x	x
28. Encountering major obstructions during groundworks or the removal of hazardous contaminated ground or contaminated ground water flows.	x	x

1.0 Demolitions and Site Clearance

Allowance cut & removal beyond above and not included in ARUP report	x	x
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2.0 Ground improvement & Remediation

Excavation of deep soil below general dig for basements	x	x
Extra over for excavation clayey made ground	x	x
Retainment	x	x
Provisional allowance for gabion walls >1m <3m	x	x
Special remediation Techniques	x	x
Treatment to remove pooled DNAPL	x	x
Delineate areas of significant residual DNAPL	x	x
Treatment to remove residual DNAPL	x	x
Pump and treat groundwater	x	x
Construct clay breaks in existing service trenches	x	x
Special remediation in proximity gas or other specialist	x	x
Bentonite cut off wall along east and south east boundary	x	x
Bentonite cut off wall around retained land	x	x
Locate and grout wells	x	x
Cut off trenches to intersect old drains around boundaries	x	x
General	x	x
Monitoring post works	x	x
Additional Site investigation	x	x

Design fees	x	x
4.0 Utilities		
HV & LV Mains Electrical		
Asset rebate	x	x
Comms	x	x
Diversion* - no info provided	x	x
Developer contribution	x	x
<u>Sky</u>	x	x
<u>Canal Towpath</u>	x	x
Services along canal towpath - no info	x	x
<u>Installacom</u>	x	x
Not known	x	x
<u>Mobile masts</u>	x	x
Not known	x	x
<u>Vodafone/O2/Three/EE</u>	x	x
Not known	x	x
SSE Telecom	x	x
Other Potential Diversions	x	x
Services in area ??- no info	x	x
<u>Network Rail</u>	x	x
Not known	x	x
<u>Nat. Grid</u>	x	x
Not known	x	x
<u>TfL</u>	x	x
Not known	x	x
<u>Electric</u>	x	x
Removal of oil filled electric cables	x	x
District Heating & Cooling	x	x
Back up boilers to each Plot zone	x	x
Gas Pipework	x	x
Connections to Hotel	x	x
Connections to Retail Store	x	x

5.0 Footbridges

Steel foot bridge across canal	x	x
6.0 On-Site Highway Works & Parking		
Podium Parking	x	x
Gateway feature - PROVISIONAL SUM	x	x
7.0 Open Space / Green Space / Landscaping		
Feature Water Islands	x	x
Provisional allowance for facing to retainment - not known	x	x
Works to rail line - PROVISIONAL SUM	x	x
Adoption Costs	x	x
8.0 Surface Water Strategy - Option 2		
Proposed land drainage 450Ø	x	x
Box Culverts	x	x
9.0 Foul Water Strategy option 2		
Repair roadway post new drainage installation	x	x
11.0 S106 Contributions		
Specific Contributions Figures exclude indexation	x	x
Landscape and Open space	x	x
Education	x	x
Waste	x	x
Transport	x	x
Social Infrastructure	x	x
Other Contributions	x	x

Appendix C

Drawing List

Drawing Register

<u>Document Reference</u>	<u>Originator</u>	<u>Drawing Description</u>	<u>Revision</u>	<u>Date</u>
1 1333-M-A-SK-26C	PLP/Architecture	Phasing Plan Overlaid with Existing Plan & Utilities	C	14/06/2019
2 OOP OPDC review_LR	Old Oak Park	A New Piece of London		13/07/2016
3 161129 Area Schedule	PLP/Architecture	Land Use Area Calculations		29/11/2016
3 161129 Area Schedule	PLP/Architecture	Land Uses By Phase		29/11/2016
4 161212 Plot Areas	PLP/Architecture	Land Uses		12/12/2016
4 161212 Plot Areas	DS2	Phasing and Plots - DS2 Calculations		12/12/2016
5 161216 Open Space	PLP/Architecture	Open Space Calculations		16/12/2016
6 170216 OOP Indicative Phasing	PLP/Architecture	Indicative Phasing Diagram		16/02/2017
7 Appendix 01-Schedule of Areas	PLP/Architecture	Proposed Scheme Floor Areas		29/11/2016
8 Car Giant Site (Color) V5		Ownership and Site Plan		
9 Hythe Road - Areas		Hythe Road - Areas		
10 Hythe Road - Existing Building schedule		Hythe Road - Existing Building schedule		
11 Office Locations.pdf	JLL	Masterplan		
12 OOP-ARP-GL-FN-C-0000X	Arup	Utility Strategy Summary Note		01/08/2016

Refer to infrastructure estimate details for drawings used in the compilation of that.

Appendix D

Core Five Market Update



Central London Update: Frozen investment

May 2019

Frozen investment

As expected, the extension of Article 50 has prolonged uncertainty through at least Q2 2019. This uncertainty is translating to frozen investment across the industry and wider economy: business investment fell in every quarter of 2018. Whilst construction activity growth continues on sluggishly, surveys show increasing pessimism due to stalled investment, and forecasts for national construction activity are now estimating a slight contraction in output over 2019 (-0.4%).

Exchange rate pressures have largely eased as the pound appreciated against the euro over the last year. However, stockpiling has had an impact on construction costs in Q1, pushing up prices for some materials. This effect is likely to be unwound with the later Brexit date allowing stocks to be released, but further stockpiling could hit margins.

Construction output is now contracting on a yearly basis in London, falling 3.3% y-o-y to Q4 2018. New orders also tell a cautionary tale for the coming years' pipeline, falling by 16.1% on the year in London, though a definite recovery from the lows of 2017 for housing and commercial new orders. These challenging figures hide wide variations in fortune across sector and region, with London suffering the most due to its relative exposure to the struggling prime residential, office and retail construction segments. Regions active in ports and warehouse development or infrastructure segments have fared better.

Looking ahead, national construction output is forecast to shrink in 2019 due to a contraction in 3 major segments of construction. Private residential starts are forecast to decline by 2% over the year, recovering to slow growth thereafter. Offices are still anticipated to see the biggest fall

in construction volumes (-11%), given slowing speculative investment, and lower demand from large corporates. Retail real estate has faced heavy losses this year; construction is expected to fall by 10% in 2019. Infrastructure continues to be the saving grace of the industry, forecast to provide 9.3% growth in 2019.

The combination of slowing output growth across the country, especially in London, and falling investment impacting pipelines for next year is driving hunger for work in the mainstream market, with the possibility of some margin cutting to maintain low price growth in the face of ongoing cost pressures. As such we have maintained our central forecast of 1% tender inflation in the mainstream market this year.

However, capacity remains tight in the major projects market, with the right skills for the job still more important than a lower price point, and consequently less client power to drive prices down. With material and labour inflation looking to be at least 3-4% for the year, we anticipate 2% tender price inflation in this market as these firms are more able to cover growing costs without reducing margins.

Our central TPI scenario assumes an agreement with some form of transition, and therefore continued status quo until at least the end of 2020. However, with the extension to Article 50 to October 31st uncertainty has been prolonged, potentially through to Q3 2019, or beyond. We explore the alternative scenarios stemming from this new Brexit day overleaf.

At a glance summary



Q4 2018 saw a marked reduction in GDP growth, shrinking to 0.2%, from 0.6% in Q3. This left the year closing at only 1.4% growth, the weakest result since 2012. Frozen investment is driving the even lower 1.3% growth forecast for 2019.



New orders fell 17% (housing) and 2% (commercial) on the quarter in Q4 2018. But Q4 2017 performance was so poor, this still represents a strong yearly recovery (26% and 9% respectively). Surveys would indicate this recovery reversed in Q1 2019.



Oil prices have headed north again in the new year, but are unlikely to reach last year's dizzy heights unless OPEC are significantly more successful in output cutting than they have been. Steel prices are set to remain moderate as Chinese production slows gradually.



Employment growth in the construction industry picked up strongly after falling in Q3, to 3.2% growth. This reflects an even bigger acceleration than at the national level, where employment only grew 1.4%.



Sterling remained around \$1.30, with significant volatility around the time of Brexit turbulence. With a period of calm to come, Sterling is likely to see some recovery, possibly to \$1.32. Y-o-y it has depreciated 7% against a strong dollar, but appreciated 1.5% to the Euro due to Eurozone relative weakness.

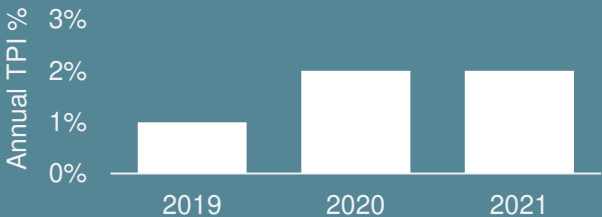


The major projects market continues to see decent demand and constrained capacity, leading to a forecast of 2% tender price inflation. In the mainstream market, we are holding inflation forecasts at 1% for the year, reflecting slowed activity and investment, but growing costs.

The central outlook for tender price inflation in Central London

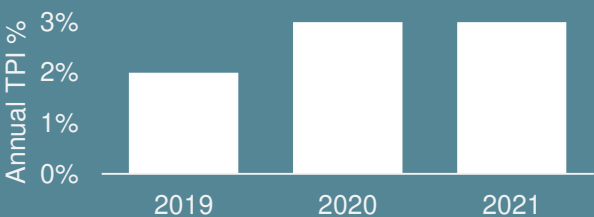
Mainstream market

(Straightforward projects with a construction value of less than £100m)

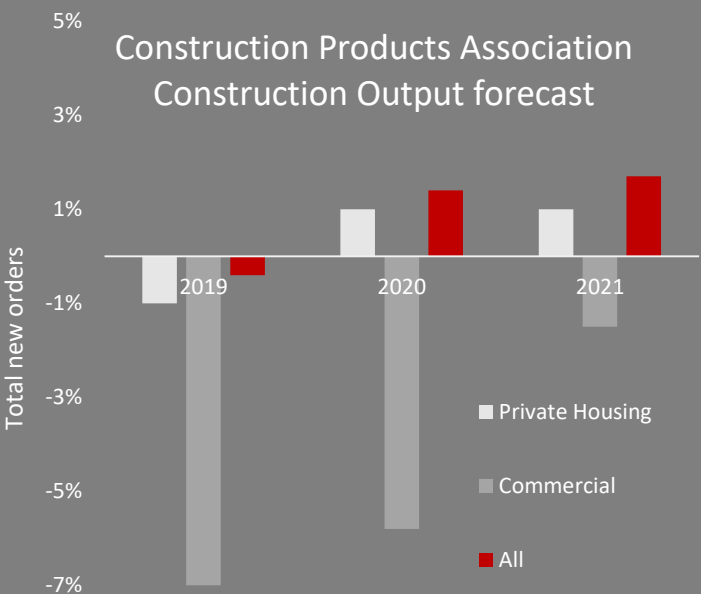
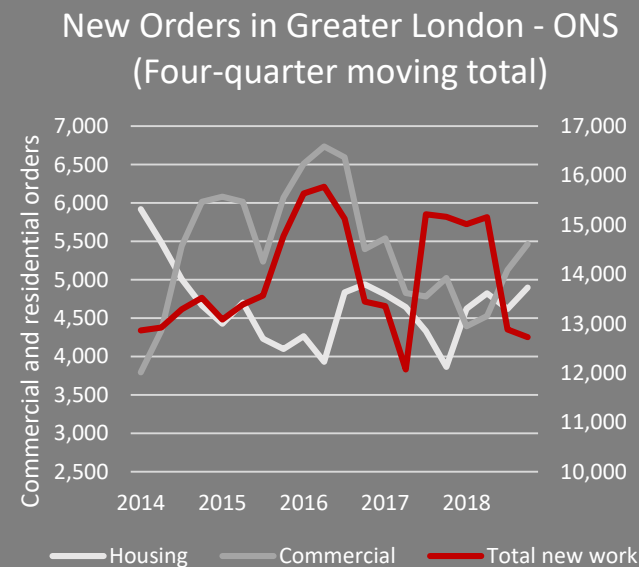


Major projects

(Complex projects with a construction value of more than £100m)



Industry overview



Pricing scenarios

Forecasting scenarios is challenging after significant upheaval in the Brexit process. As we forecast, Article 50 was extended, prolonging uncertainty through at least Q2. Our scenarios reflect the most likely outcomes of the next 6 months of Parliamentary negotiation, with probability currently leaning towards the central and upper options.

The central scenario assumes a fudged Brexit agreement is reached by the October 31st deadline, allowing the UK to leave the EU and enter the transition period for further negotiation on the future relationship. This would entail ongoing uncertainty keeping investment frozen.

Our pessimistic scenario of No Deal has become less likely, with 2 extensions to Article 50 proving a lack of appetite from both the UK Parliament and the EU to allow an accidental No Deal exit, and very low support for No Deal in Parliament. However, deadlock could still lead to another cliff edge situation in October, with the ensuing chaos.

The optimistic scenario has gained significant traction as Parliament has wrested control from Government, increasing the likelihood of a significantly softer Brexit (single market, customs union), or no Brexit through a second referendum. In this scenario we envisage a dividend of projects returning to market as investment defrosts.



Residential indicators



Sales volumes continue to fall year on year, with the rate of decline increasing, from -5% y-o-y in May 2018, to -9% by November. All indications are that this trend will continue through Q2 2019.



House prices fell at a rate of 1.6% y-o-y in January 2019, reflecting falling demand as sales volumes also stall. This is a noticeable drop from the end of 2018, which saw -0.7% y-o-y.



Housing starts continued to fall at the end of last year, by 2.8%. However this is a noticeable deceleration in the rate of reduction, down from -7.5%.

Commercial indicators



Yields in the West End grew a further 0.25% to 3.75%. Prime City yield has crept up by 0.25% to 4.25%, though both are still historically low.



Investment volumes in the City are down, with 28% fewer deals in the year to March compared to the 5 year average. The West End saw the lowest Q1 investment volumes since 2009, down 44% on the 5 year average.



Occupier take up in the West End was the strongest Q1 in 6 years, up 30% on the 5 year average, driven by the tech and media sector. However, take-up is now falling, not just slowing, in the City y-o-y, down 20%, and down 12% on the 5 year average.

Risks



Skills shortage – not just about EU migration

After Brexit, the skills shortage remains the highest risk in our view. Whilst it is being exacerbated by the huge fall in EU migration (down 70% since the referendum), the underlying factors driving the skills shortage have not faded either. The construction workforce is ageing, and not enough young talent is being brought in to replace those leaving the industry. The CITB has identified a gap of 31,600 people needing to be recruited every year to 2022. With a recent survey finding that only 7% of teenagers want to join the industry, there is a long way to go to solving this issue. Investment in tech and diversity will be essential to boosting youth interest in the industry. However, a first step must be making the apprenticeship scheme work - an ongoing challenge.



Cost of stockpiling vs the risk of unwinding

Extensive stockpiling was undertaken in the run up to March 29th. Defensive manoeuvres to ensure availability of materials, even in the case of No Deal chaos, resulted in spikes to cost inflation (to 5% for 2019 for Taylor Wimpey, for example). Companies now face a further dilemma: whether to release their stocks in the belief there is no risk of No Deal in October, thereby lowering costs in Q2/Q3, or hold them, knowing this would impact costs and ultimately bottom lines. An additional spanner in the works is the timing of the latest Brexit Deadline: warehouses are usually all booked out for the run-up to Christmas simply to service required stock levels. As such finding space to stockpile could be expensive even if companies decide to maintain their stocks, and warehouses will continue to be an area of opportunity for construction due to high demand.



The Brexit freeze to business investment continues

Whilst the cliff edge of No Deal was avoided, the extension of Article 50 to October 31st without a clear indication of direction of travel has only prolonged the pain of uncertainty. Investment fell in every quarter of 2018, with the rate of fall accelerating over the last year as Brexit chaos intensified and it became clear there was no consensus on the way forward. With the Withdrawal Agreement unlikely to pass before May 22nd, we will likely be participating in European Parliamentary elections. The ensuing political battles will do little to reassure investors: further falls in business investment are therefore expected. Those sectors dependent on foreign investment have suffered the biggest falls in activity, notably prime residential, commercial and retail property in London as well as the South East.



A global slowdown rather than recession

It is likely that we have reached the turning point in the global economic cycle, with the biggest economies seeing notable slowdown in the last year. Ongoing trade disputes between the US and the rest of the world are impacting trade volumes and global demand. China has revised down its growth target for 2019 from 6.5% to 6% in response to decelerating manufacturing activity. The Eurozone and Japan have made significant downward revisions to economic forecasts, and even the USA, long the engine of global growth, appears to be slowing. With lower demand from our main trading partners for UK products and services, the UK has less cushion to protect against its own looming economic threats. However, the risk of an actual recession seems to have receded into merely a slowdown, a much lower risk to the UK.



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