TEXTILE MILL REPURPOSING

Benefits Model Technical Note

Historic England

Job No 210TAF00

LAND, DEVELOPMENT & PLANNING | LEEDS

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Report Disclaimer

1. Introduction

1.1 Cushman & Wakefield (C&W) has been instructed by Historic England to produce an economic model in order to assess the potential economic benefits of redeveloping the floor space within vacant and underutilised textile mill buildings across Yorkshire[1], Greater Manchester and Pennine Lancashire.

1.2 The approach applies industry standard methodologies to attribute the potential benefits arising from the theoretical repurposing of textile mills for commercial or residential uses. We have relied on data provided by Historic England on vacant mill floor space across the North of England, against which we have applied a range of assumptions to generate various metrics relating to quantities of floor space and unit completions, jobs, GVA and financial value uplift.

1.3 We would caveat that the assessment is high level and intended to provide an indicator of the potential benefits in the event of the vacant floor space being repurposed. It should not be interpreted as a full economic impact assessment or appraisal which would require a greater level of specification and understanding of each individual property. No individual site inspections have been carried out, with the assessment being des- based on a series of high level, area wide assumptions, and the actual feasibility of repurposing the floor space has not been determined. Therefore, the metrics are intended merely to provide a guide as to the potential benefits for policy and advocacy purposes at the strategic level.

1.4 This paper documents the approach, assumptions and headline outputs arising from the analysis.

1.5 The metrics used to model the benefits are as follows:

- Gross and net vacant floorspace
- Surplus Land (Yorkshire only due to limitations on data for Greater Manchester and Pennine Lancashire)
- New homes created
- Number of gross jobs created
- Net additional jobs
- Gross Value Added (GVA) from New jobs and new homes
- Gross Development Value (GDV) from residential and commercial development
- Construction investment required to deliver residential and commercial potential
- Construction jobs from both residential and commercial development.
- Business rates income generated per annum

[1] The study area relates mainly to the five local authority administrative areas of West Yorkshire (Bradford, Calderdale, Kirklees, Leeds and Wakefield), although also includes some textile mills in the District of Craven which is in North Yorkshire.

- Council tax income generated
- New homes bonus

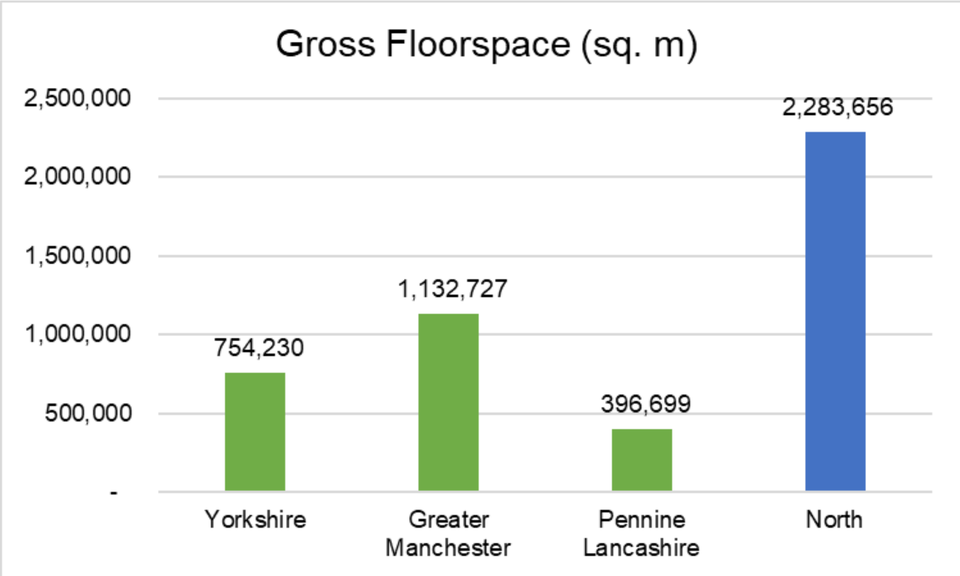
1.6 The following sections outline the methodology and sources of information for each of the above indicators.

2. Gross and Net Vacant Floor Areas

2.1 Gross areas are taken from the data provided at local authority area, expressed for each mill and totalled for each local authority area, as well as by each region and the North (all three regional areas).

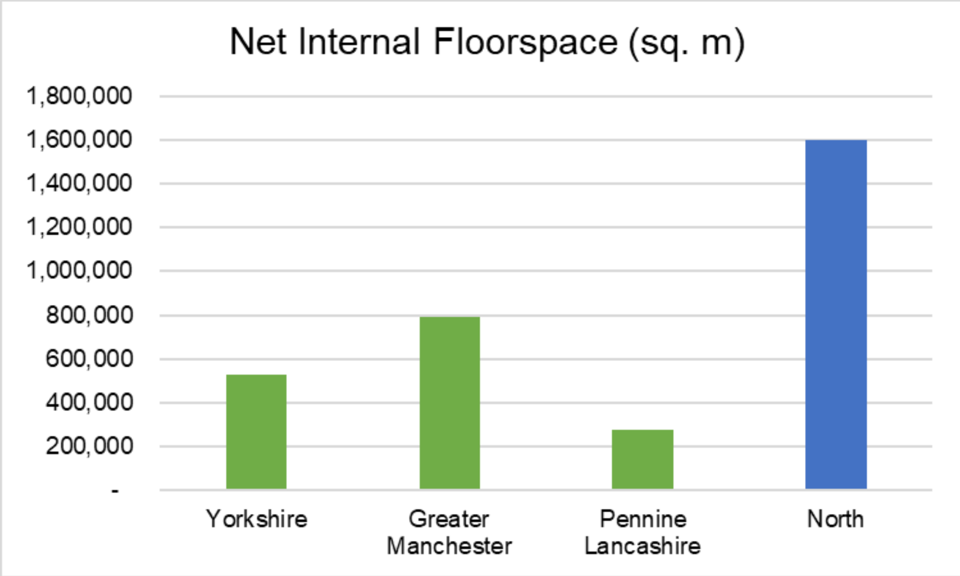
2.2 For net internal areas, a C&W assumption of 70% gross to net2 has been made. This is a relatively low net/gross ratio compared with typically 80-85% for an efficient new build property, which reflects our experience of the generally inefficient layouts of repurposed mill buildings. This assumption is made in the absence of the study/assessment of individual buildings and is acknowledged to be indicative.

2.3 The chart demonstrates the outputs of this. In total there is 2,283,656 sq m gross vacant floor space across the North, 754,230 sq m in Yorkshire, 1,132,727 sq m in Greater Manchester and 369,699 sq m in Pennine Lancashire.



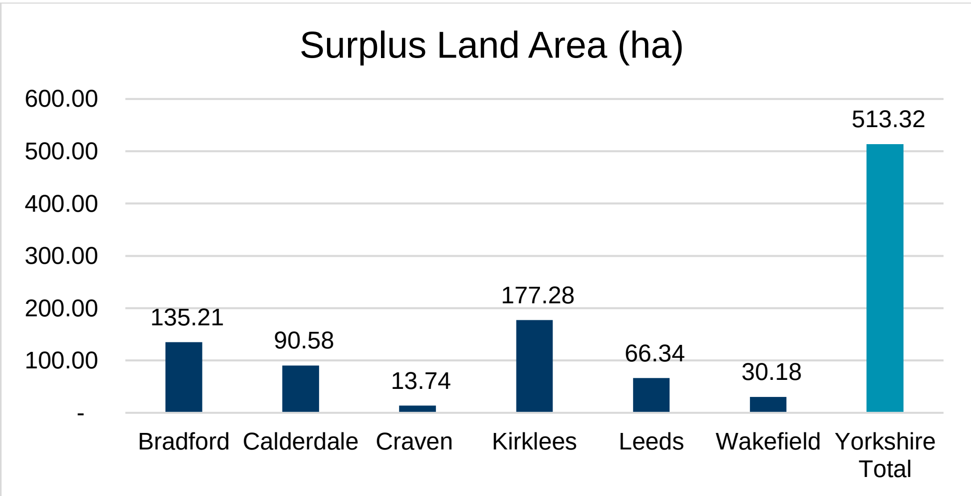
2.4 This translates to a total net vacant area of 1,598,559 sq m across the north, with 527,961 sq m, 792,909 sq m and 277,689 sq m across Yorkshire, Greater Manchester and Pennine Lancashire respectively.

[2] The RICS Code of Measuring Practice (Effective May 2015) define Gross Internal Area as “the area of a building measured to the internal face of the perimeter walls at each floor level. Net Internal Area is the “useable area within a building measured to the internal face of the perimeter walls at each floor level.”



3. Surplus Land

3.1 Surplus land area data has been provided only for the Yorkshire region due to limitations in availability of such data for the North geographies. This has been summarised by local authority area and totalled for the region as a whole. The following chart illustrates that there is currently 513.32 ha of surplus land within Yorkshire distributed across each of the local authority areas:



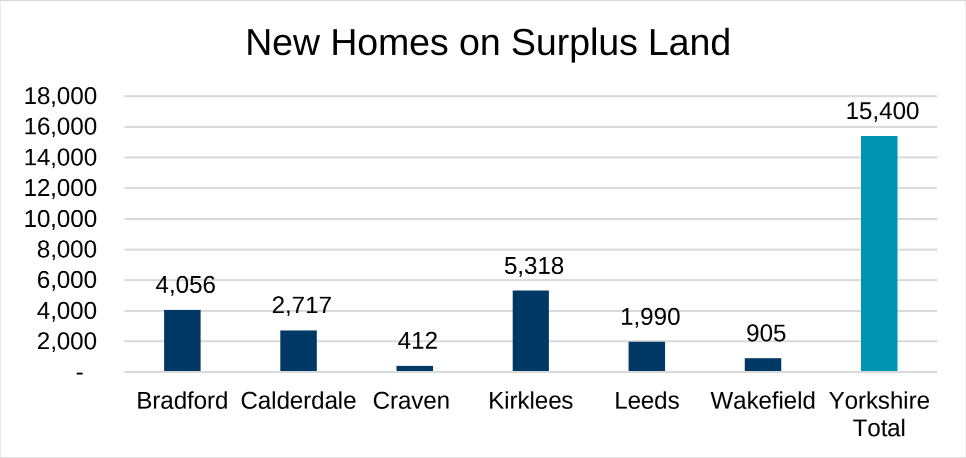
4. New Apartments and New Homes on Surplus Land

4.1 The volume of new apartments was derived from the amount of net vacant floorspace calculated previously. A C&W assumption of 60sqm average apartment unit size was applied to the net vacant floorspace in order to reach a total number of units. The volume of new homes (for Yorkshire only) was calculated from the total amount of surplus land.

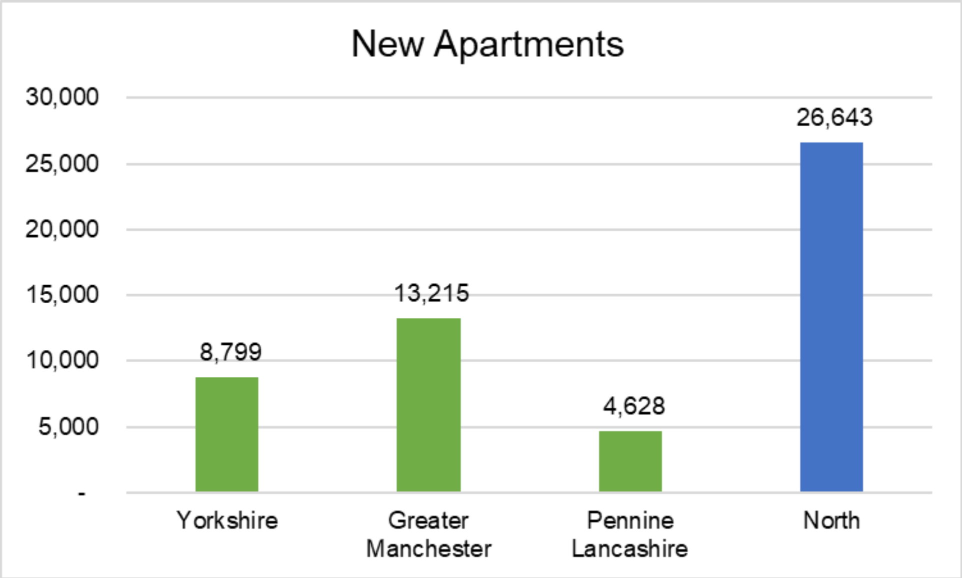
4.2 A C&W assumption of 30 dwellings per hectare was applied. This is a fairly typical density for a family housing scheme and whilst higher densities could be achieved in practice, due to unknowns regarding the precise developable area and potential impact of constraints which could reduce this, it is considered a reasonable if optimistic assumption.

4.3 The new homes were totalled up by local authority, by region, and the North.

4.4 The following chart demonstrates that from the surplus land within Yorkshire, there is development potential for 15,400 new homes.



4.5 The following chart illustrates that there is the potential for 26,643 new apartments across the North, including 8,799 in Yorkshire, 13,215 in Greater Manchester and 4,628 in Pennine Lancashire.

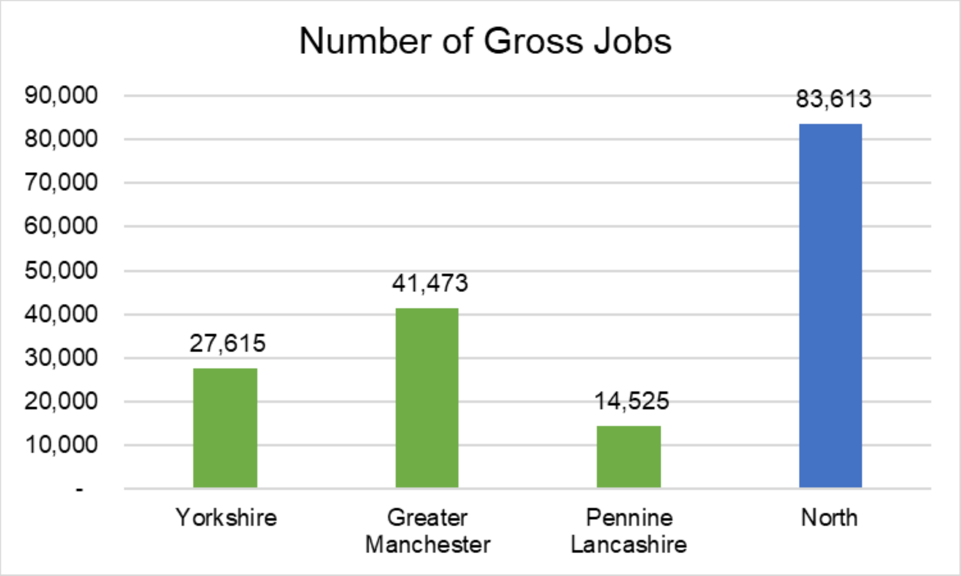


5. Number of gross jobs and net additional jobs

5.1 To calculate gross jobs, the amount of commercial floorspace was first calculated from the total net vacant floorspace (i.e. after allowing for deductions for communal areas such as stairways, lifts, and other common areas). This was applied to industrial and offices, with a 50/50 split applied between both use types. The 50/50 split between office and industrial use is an assumption that has been applied in the absence from any scientific data on the balance of office/industrial uses in mills; the balance could be altered in either direction with a greater percentage attributed to office use resulting in a higher job hosting capacity and conversely, an increased percentage share attributed to industrial resulting in a lower job hosting capacity. The 50/50 split provides a mid-range position which is considered to be appropriate for the purpose of this report, although we would again stress that no individual market or feasibility assessments have been carried out to determine the feasibility of such uses.

5.2 The number of gross jobs was calculated using the HCE Employment Density Guide 2015. The figures used to calculate the amount of gross jobs was 12 sq m per full time equivalent (FTE) for office use, and 47 sq m per FTE for industrial use.

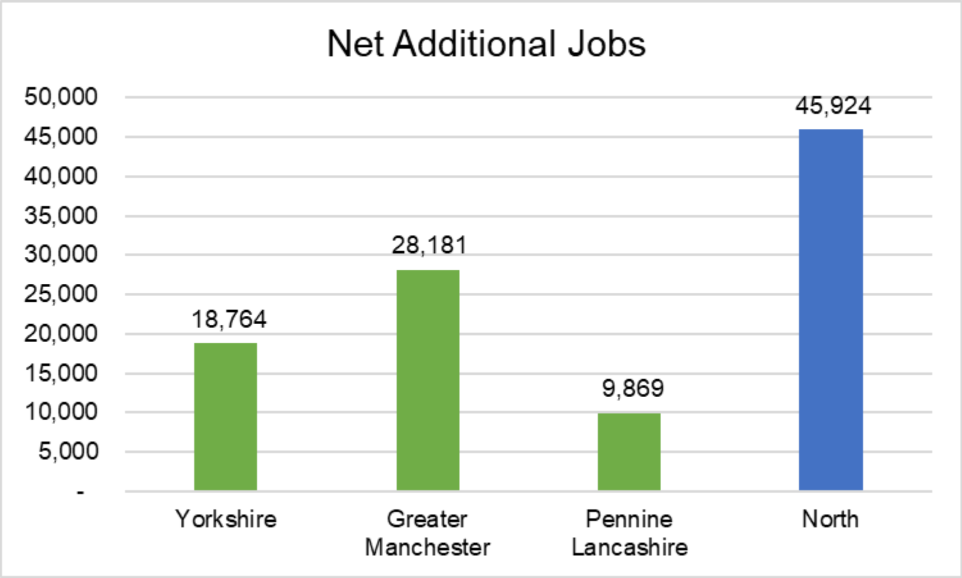
5.3 The following chart illustrates that the number of gross jobs from commercial redevelopment would equate to 83,613 across the north as a whole. Including 27,615 in Yorkshire, 41,473 in Greater Manchester and 14,525 in Pennine Lancashire.



5.4 In relation to net additional jobs, the following assumptions were used based on the HCA Additionality Guide 2014, as well as C&W assumptions from industry experience.

Leakage	**Office**	**Light Industrial**
Local Authority	20%	15%
Sub-region	10%	7.50%
Region	5%	3.25%
Displacement		
Local Authority	30%	30%
Sub-region	45%	45%
Region	60%	60%
Multiplier		
Local Authority	1.29	1.29
Sub-region	1.365	1.365
Region	1.44	1.44

5.5 The leakage, displacement and multiplier figures were applied to each gross jobs value by local authority, then by sub region, and by the north as a whole in order to establish total net additional jobs. The following chart demonstrates that the net additional jobs across the north would equate to 45,924 across the north as a whole. Within Yorkshire there is the potential for 18,764 additional jobs, in Greater Manchester, 28,181 and in Pennine Lancashire, there is potential for 9,869.



5.6 To demonstrate the impact of variation in the mix of office and industrial uses on jobs, variant scenarios have been modelled against the 50/50 office/industrial use split illustrated in the base position below. If the mill floor space was repurposed 75/25 in favour of industrial uses, the net jobs total would reduce to c.32,000. If the mill floor space was repurposed 75/25 in favour of office uses, the net jobs total would increase to c.59,000.

6 GVA from new jobs and new homes

6.1 To calculate the total GVA from new jobs from commercial floorspace, the total GVA by sector and local authority was taken from the Office for National Statistics (ONS) 2018 data. This was used along with the total number of employees by sector and local authority, taken from the Business Register and Employment Survey (BRES), to calculate a GVA per employee figure.

6.2 This figure was multiplied against the total number of net additional jobs to reach a Total GVA figure from new commercial jobs.

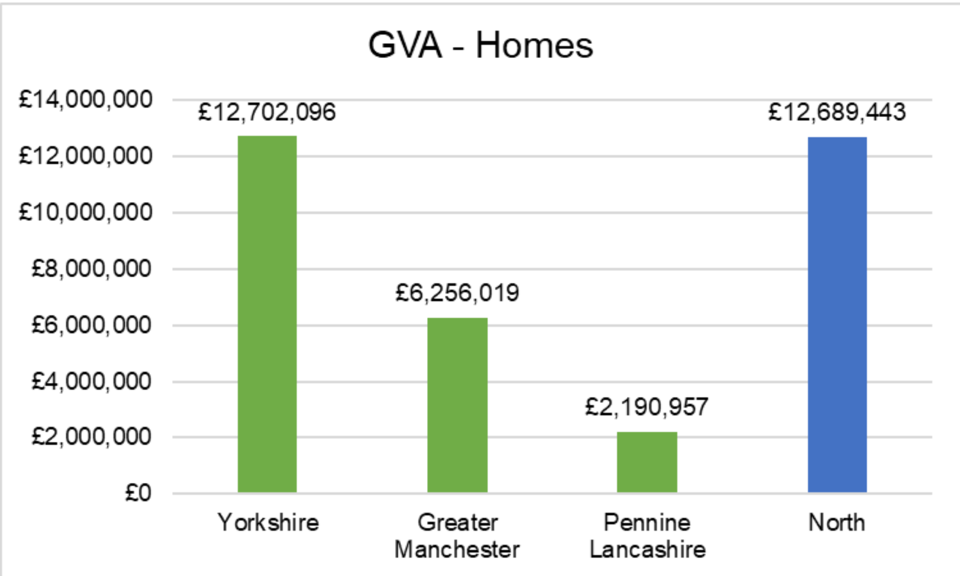
6.3 The following charts indicate that GVA from new jobs created from commercial development could be £2,978,640,660. Sub-regionally, there is the potential for £1,167,073,766 in Yorkshire, £1,755,685,663 in Greater Manchester, and £762,713,502 in Pennine Lancashire.

6.4 To demonstrate the impact of variation in the mix of office and industrial uses on GVA, variant scenarios have been modelled against the 50/50 office/industrial use split illustrated in the base position below. If the mill floor space was repurposed 75/25 in favour of industrial uses, the GVA would reduce to £2.1bn. If the mill floor space was repurposed 75/25 in favour of office uses, the overall GVA would increase to £3.8bn.

6.5 To calculate GVA from new homes, annual household expenditure figures on convenience and comparison goods within Yorkshire and the Humber and the North were taken from ONS Household expenditure data.

6.6 The total number of new homes were subject to a C&W assumption for displacement allowance to allow for residents currently residing within the local authority (30% displacement), sub-region (50%) and region (70%).

6.7 The annual spend was calculated by totalling the amount spent in each region by the amount of new additional households. This shows the potential for £12,689,443 of GVA across the North. Sub-regionally, this represents £12,702,096 of potential GVA in Yorkshire, £6,256,019 in Greater Manchester, and £2,190,957 in Pennine Lancashire.

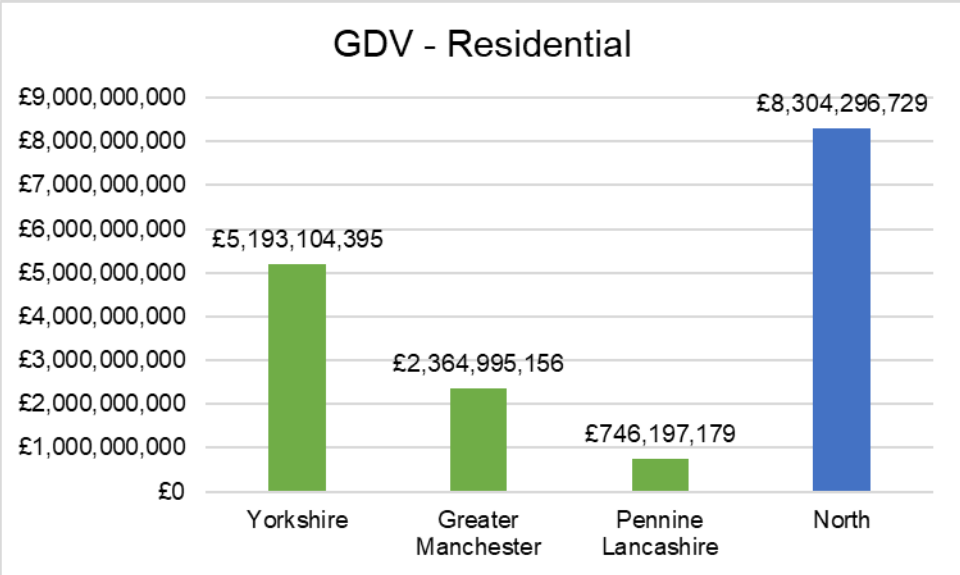


7 GDV

7.1 As in indicator of the maximum capital values of repurposed mills, the total new homes were multiplied against the average apartment/house sale price within each local authority to reach a total GDV for residential development. In practice, the inclusion of affordable homes in accordance with local policies will result in a discount to the maximum figures presented.

7.2 Average prices were sourced from HM Land Registry data with average prices for apartments and homes applied respectively to the homes generated by the repurposed floor space (apartments) and surplus land (houses).

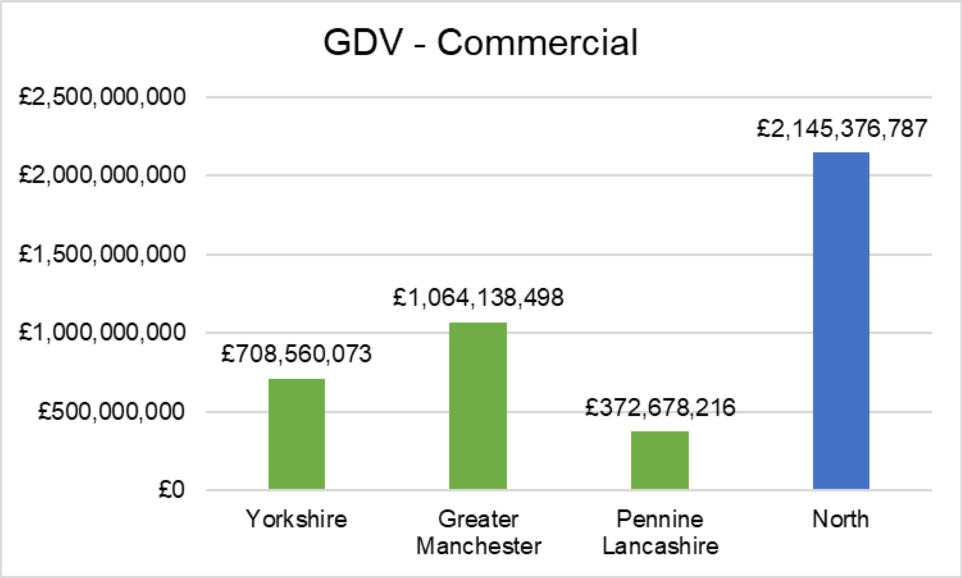
7.3 The following chart demonstrates that across the north as a whole, there is potential for £8.3billion of GDV for residential development. This includes £5.2billion in Yorkshire, £2.3billion in Greater Manchester, and £746million in Pennine Lancashire. The reason that Yorkshire presents the highest aggregate capital values is due to the fact that unlike for the other regions, the value of houses built on surplus land is also included.



7.4 The total commercial floorspace, 50/50 for office and commercial, was established from the total net vacant floorspace.

7.5 The total floorspace was applied to the following C&W assumptions to reach a GDV figure for each local authority. £161psm and £54psm has been applied for office and light industrial uses respectively (rental prices per annum). A 7.5% yield along with purchasers' costs of 6.8% has also been assumed as the basis for capitalisation of this rental income. These values are broad brush and considered broadly representative of the levels of rent and capitalisation that could be achieved however should not be interpreted as a real assessment of the what each individual mill could achieve.

7.6 The following chart demonstrates that there is the potential for £2.1billion of GDV from commercial development distributed across the regions.



7.7 To demonstrate the impact of variation in the mix of office and industrial uses on GDV, variant scenarios have been modelled against the 50/50 office/industrial use split illustrated in the base position below. If the mill floor space was repurposed 75/25 in favour of industrial uses, the GDV would reduce to £1.6bn. If the mill floor space was repurposed 75/25 in favour of office uses, the overall GVA would increase to £2.7bn.

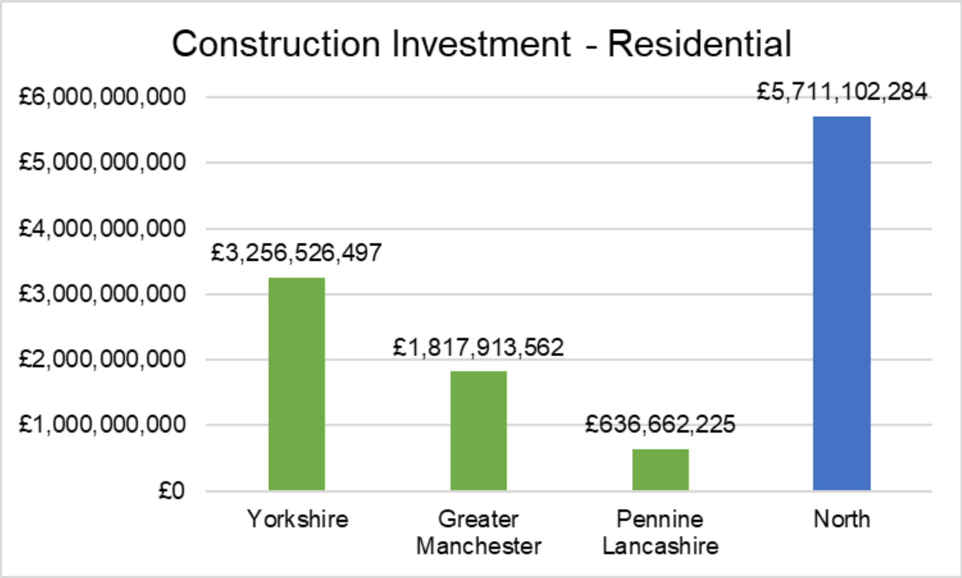
8 Construction Investment

8.1 Construction Investment has been calculated as the amount it would cost to fully develop the vacant floorspace available.

8.2 The build rate per sq m has been taken using Building Cost Information Service (BCIS), with values being rebased for the North and Yorkshire and the Humber regions (these being the regional definitions available from BCIS).

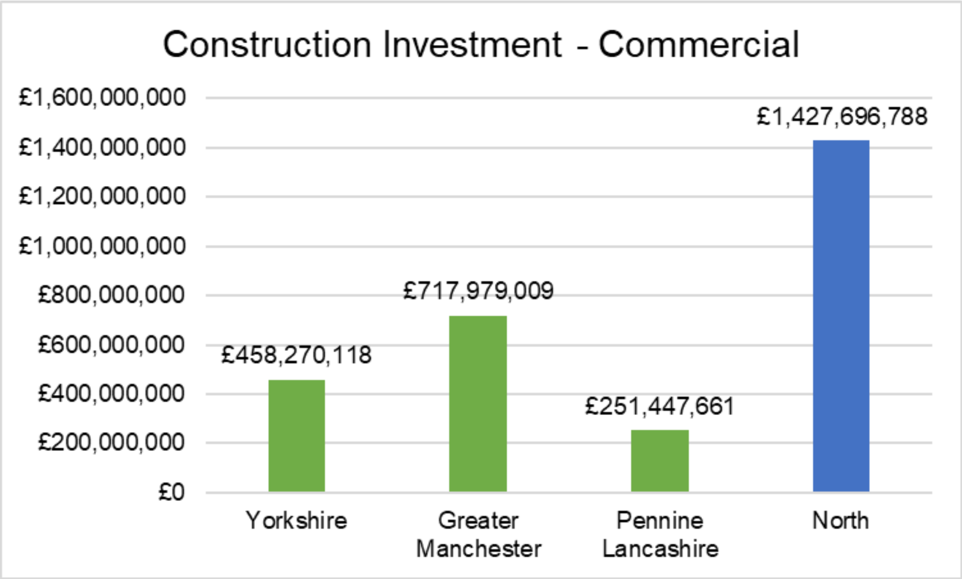
8.3 Construction costs of £1,294.70 per sq m has been applied for new homes on surplus land (Yorkshire Only), £1,604.90 per sq m and £1,674.20 per sq m has been applied to the construction of new apartments for the North and Yorkshire and the Humber respectively.

8.4 The following chart demonstrates that construction of residential units could potentially require investment of £5,711,102,284 across the north. This includes £3,256,526,497 in Yorkshire, £1,817,913,562 in Greater Manchester, and £636,662,225 in Pennine Lancashire.



8.5 Construction costs for industrial development of £635 psm and £662 psm have been applied to Yorkshire and the Humber and the North respectively. For office repurposing, construction costs of £1,101psm and £1,149 psm have been applied in Yorkshire and Manchester/North respectively.

8.6 The following chart demonstrates that commercial development could potentially require £1,427,696,788 of investment across the north as a whole. This includes £458,270,118 in Yorkshire, £717,979,009 in Greater Manchester, and £251,447,661 in Pennine Lancashire.

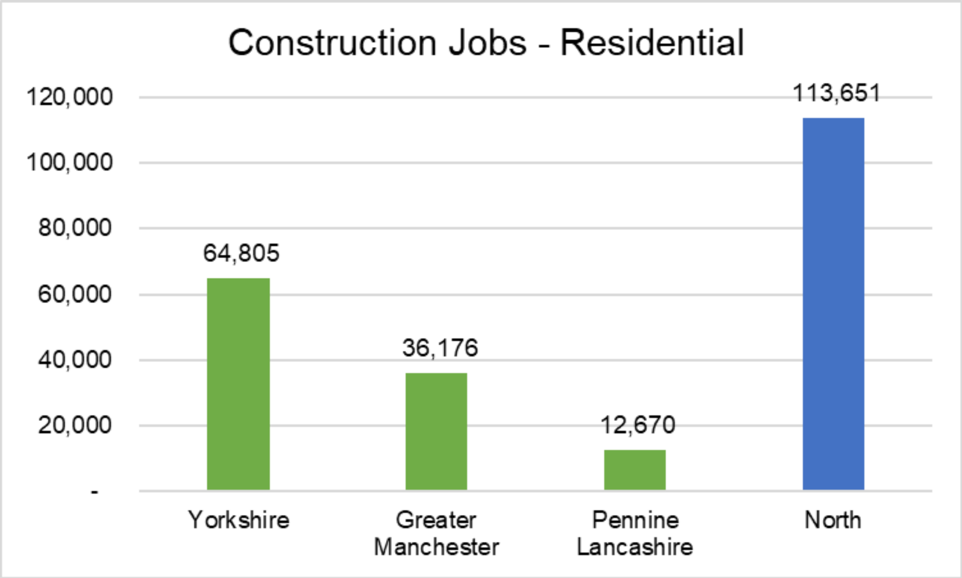


9 Construction Jobs

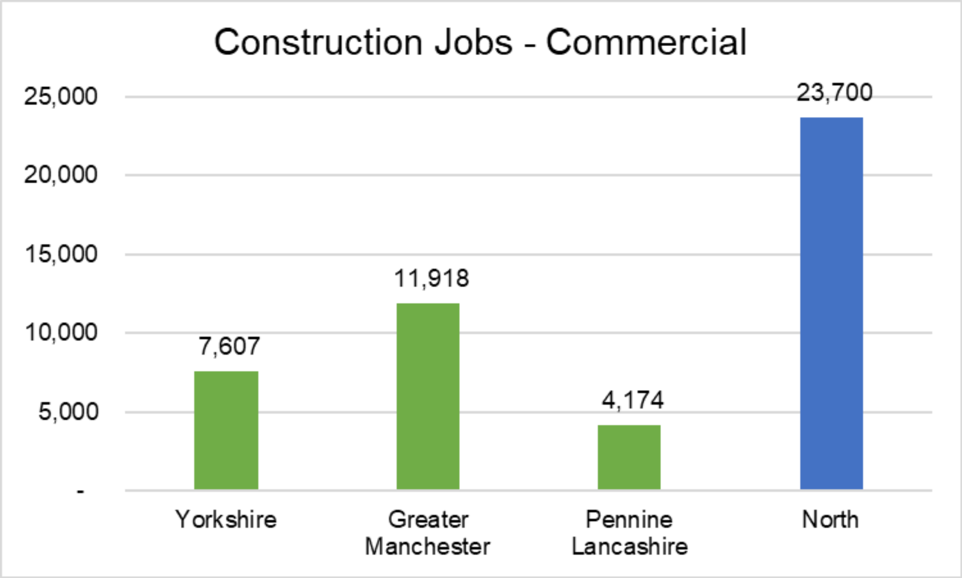
9.1 To calculate construction jobs, an assumption of 19.9 and 16.6 FTE equivalents per £1m of construction cost was applied to estimate residential construction and commercial construction job years respectively.

9.2 This assumption was taken from the HCA CPJ BPN Best Practice Note 2015.

9.3 The following chart illustrates that construction of residential development could potentially lead to the creation of 113,651 FTEs in the north. This includes 64,805 in Yorkshire, 36,176 in Greater Manchester, and 12,670 in Pennine Lancashire.



9.4 In terms of FTEs created from commercial development, there is the potential for 23,700 FTEs across the north, including 7,607 in Yorkshire, 11,918 in Greater Manchester, and 4,174 in Pennine Lancashire.



9.5 To demonstrate the impact of variation in the mix of office and industrial uses on Construction FTEs, variant scenarios have been modelled against the 50/50 office/industrial use split illustrated in the base position below. If the mill floor space was repurposed 75/25 in favour of industrial uses, the Construction FTEs would reduce to 20,515. If the mill floor space was repurposed 75/25 in favour of office uses, the overall Construction FTEs would increase to 26,885.

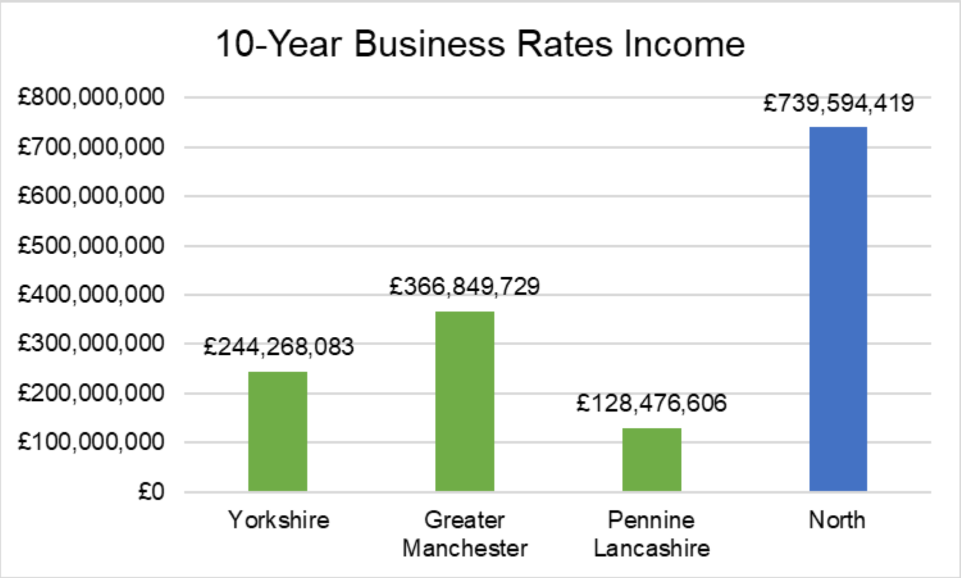
10 Business Rates Income

10.1 A blended rateable value has been established from the rental values (£161psm + £54psm) and then applying a multiplier of 0.5 to derive a rates payable.

10.2 The resultant rates payable sum of £53.75psm has been applied to the total commercial floorspace.

10.3 A 10-year business rates income has been calculated, discounted to the present day at net present value of 3.5% per annum.

10.4 The following chart demonstrates that across a 10-year period, there is potential for an NPV of £740million of business rates income from commercial development. This includes NPVs of £244million in Yorkshire, £367million in Greater Manchester, and £128million in Pennine Lancashire.

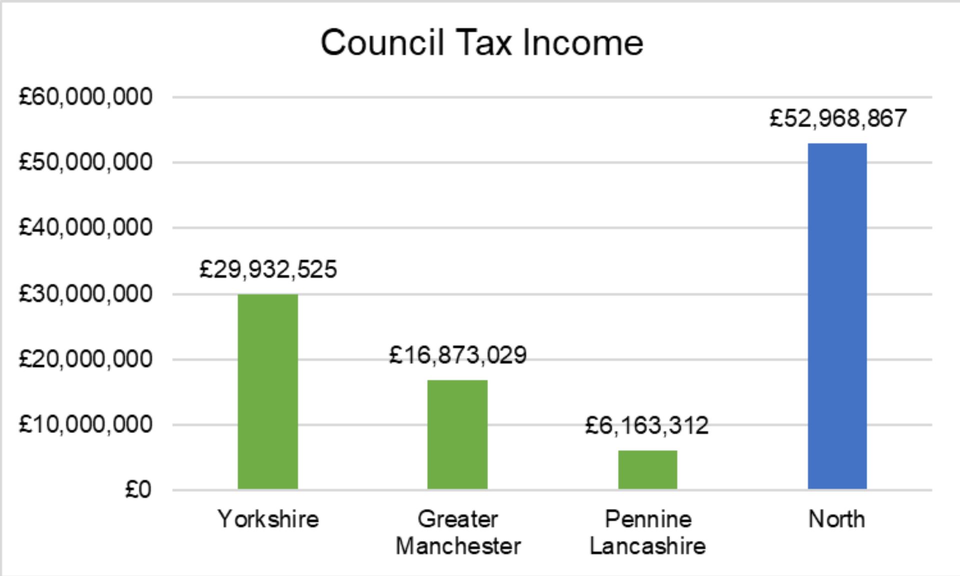


11 Council Tax Income

11.1 Each of the local authority council tax band A figure was taken from the respective local authority websites.

11.2 These figures were then applied to the total of new homes within each local authority to come to a total council tax income from new homes.

11.3 The following chart demonstrates that, from residential development, there is the potential for £53million of council tax income to be generated across the north, including £30million in Yorkshire, £16.8million in Greater Manchester, and £6.2million in Pennine Lancashire.

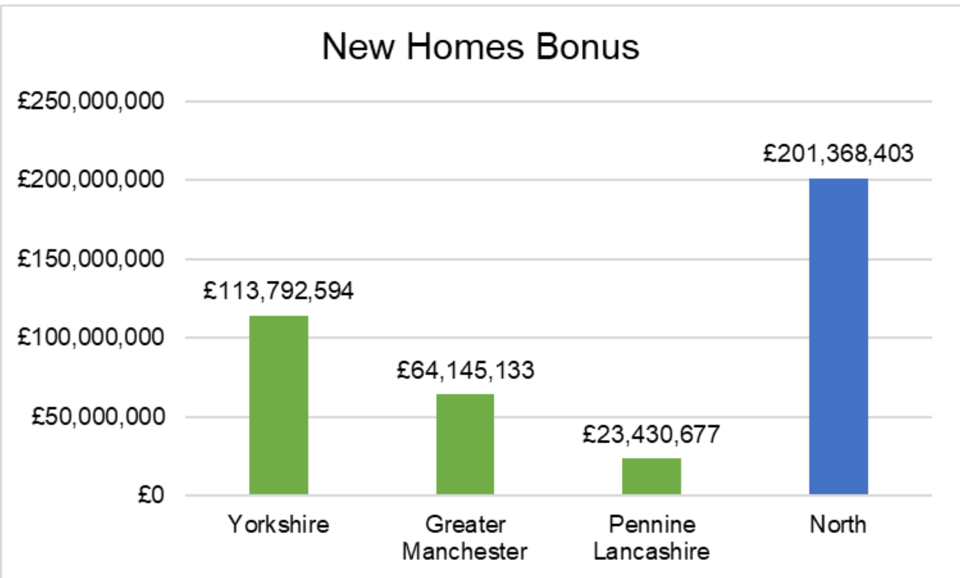


12 New Homes Bonus

12.1 New Homes Bonus (NHB) offers a bonus payment to local authorities for each net additional home delivered equivalent to the average Band D property, for a period of four years. The future of New Homes Bonus is uncertain pending the outcome of Government consultation and thus the projection of NHB payments is theoretical.

12.2 To calculate the NHB, the council tax rate for a band A property has been applied, reflecting our assumption as applied for the Council tax projections above that most properties will be at the smaller end of the value spectrum. This has been projected for four years and discounted by 3.5% and then applied to each new home created from redevelopment.

12.3 The following chart demonstrates that from the new homes constructed, there would be potential for £201million of new homes bonus' across a four-year period within the North. This includes £114millionm in Yorkshire, £64million in Greater Manchester, and £23million in Pennine Lancashire.



13 Alternative Employment Use Mix Scenario

13.1 Two additional scenarios have been produced, showing the effect on GVA, GDV and jobs of varying the commercial use mix from 50/50 office industrial to 75%/25% office/industrial and 25%/75% office/Industrial. The results of the two scenarios can be seen below:

		GDV	GVA	Net Additional Jobs	Construction FTEs
Yorkshire	**Office 50/50 Industrial**	£708,560,073	£1,167,073,766	18,764	7,607
	Office 75/25 Industrial	£884,876,184	£1,480,270,879	24,246	8,628
	Office 25/75 Industrial	£532,243,962	£853,876,653	13,283	6,586
Greater Manchester	**Office 50/50 Industrial**	£1,064,138,498	£1,755,685,663	28,181	11,918
	Office 75/25 Industrial	£1,328,935,752	£2,239,260,537	36,413	13,521
	Office 25/75 Industrial	£799,341,244	£1,272,110,789	19,948	10,316
Pennine Lancashire	**Office 50/50 Industrial**	£372,678,216	£762,713,502	9,869	4,174
	Office 75/25 Industrial	£465,414,424	£986,102,572	12,752	4,735
	Office 25/75 Industrial	£279,942,009	£539,324,431	6,986	3,613
North Total	**Office 50/50 Industrial**	£2,145,376,787	£2,978,640,660	45,924	23,700
	Office 75/25 Industrial	£2,679,226,359	£3,807,857,385	59,409	26,885
	Office 25/75 Industrial	£1,611,527,214	£2,149,423,936	32,439	20,515

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