

Understanding Land Market Frictions

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Executive Summary

The business case for investment in infrastructure, particularly transport, is often premised on the expectation that it will provide a stimulus for the development industry to follow with their own developments - new homes, employment sites and retail premises. Indeed, this relationship has become a rich source of academic interest and has spawned its own sub-field, 'transit-orientated development'.

However, sometimes anticipated developments do not materialise or they are subject to delay and cancellation.

A possible explanation for this state of affairs is the existence of 'land market frictions' - impediments to the real estate market working in a way that would have seen the development industry initiating new build activity following investment by the state in the expected manner.

However, the market for land and real estate is complex and characterised by many forms of frictions.

In this report Wirral Waters, the largest private sector planning application ever submitted in England which was granted consent in 2010, is used as a case study of a very large, mixed-use scheme that has experienced a number of land and development market frictions.

Following a thorough account of the history of the development the research concludes that there are four forms of land market frictions that can be seen in the Wirral Waters case study that may well be encountered by developments in comparable market conditions:

i. Partnership based development

The model of development being undertaken at Wirral Waters is premised on the assembly of public-private partnerships in which the state provides grant funding of various types to support and enhance the case for development. Development of this type is incumbent upon assembling partnerships and winning grant funding which, almost inevitably, results in delays.

ii. Supporting infrastructure: last mile connectivity

The absence of a public transport offer is held by the developer to be the single most significant obstacle (and therefore a land market friction) inhibiting development.

However, the report of research findings presented in section 3 shows that there are clearly some obstacles to realising the developer's vision including local anxieties regarding the quality of the proposed public transport and which agency will assume ongoing responsibility for its operation.

iii. Material changes to market conditions

Wirral Waters was granted planning consent in 2010 during the first years of the global financial crisis. Since that time there have been several further significant changes to the character of development viability in the area.

The effects of the Covid-19 pandemic have simultaneously seen residential values increase significantly over the period 2020-2022 whilst commercial values have declined equally significantly. These material changes in market conditions, allied to broader observations regarding securing funders and partners, has seen aspects of the development proposal change significantly.

Changes in local market conditions such as these are best thought of as land market frictions as they describe the rapidly changing developmental context which explains why the vision for Wirral Waters in 2010 is markedly different to how it has evolved in 2023.

iv. Strategic behaviour

As the entirety of Wirral Waters is in the ownership of one developer the speed and sequencing of development is entirely at the developer's discretion. This is not to diminish or denigrate the work the developer does: in acquiring the site they have taken on a huge challenge of establishing a community in an area where one has not previously existed. However, the evidence would suggest that this will take decades to achieve.

Given that the developer effectively faces no competition it follows that they would logically behave strategically on an ongoing basis. This is likely to entail phasing development into the future to ensure the number of dwellings that are completed does not exceed levels that might be expected to be absorbed by the local market.

It should be noted that the findings discussed above relate solely to this case study of brownfield regeneration in an area where the existing market is weak and may not apply to other settings where the development context is different.

Further research would be required to explore continuity and contrast between settings such as that described by Wirral Waters and those which are qualitatively different. This could include examples such as:

- Town centre development which has stalled (such as the Bradford Broadway, AKA 'the Bradford Hole in the Ground'),
- Greenfield development in areas of high demand versus more challenging markets,
- Cases from across greater London where potential contrasts exist between the South/East and North/West of the Capital.

1.0 Background and context

- 1.1 Why do some anticipated developments not come forward?
- 1.2 Why are some development schemes subject to delay and cancellation?
- 1.3 These questions are particularly important when the expected benefits of subsequent development have formed part of the business case for infrastructure investment in the present.
- 1.4 Recent work conducted on behalf of the Department for Transport (CEPA, 2022) highlights variability in the timeliness with which real estate development proposals are delivered. In some cases an expected stimulus to development has not resulted in the anticipated activity or it may have taken longer than expected to materialise. In some instances, a development that has been initiated has subsequently been cancelled. However, little is known about developers' decision making with regard to why a development may not have been initiated, stalled or been cancelled.
- 1.5 Answering questions of this type requires an engagement with the behavioural features of the development process.
- 1.6 This report seeks to address this gap in our understanding of why expected development sometimes does not materialise through a thorough review of the literature and a qualitative case study of a nationally-significant development that, having received planning consent in 2010, has experienced a number of market frictions that have resulted in the current development departing significantly from the original proposal and showing relatively modest progress, 13 years after the planning consent was achieved.
- 1.7 The report is structured in 5 sections. In section 2 a review of the literature on land market frictions is presented in order to provide context for section 3 which provides a case study of the Wirral Waters development. Sections 4 and 5 provide a discussion of research findings and conclusions respectively.

2.0 Literature Review

- 2.1 Land market transactions are often complex. To a large extent this observation reflects the inherently peculiar nature of land as an asset class. However, it should also be noted that we have only clues about some of the most fundamental questions pertaining to the operation of the market for land. For example, the question of what would be an acceptable value to a landowner in order to release their land for development remains largely unanswered. The most common way of thinking about this question is by establishing a Benchmark Land Value (BLV) for a site on the basis of its existing use value (EUV) plus a supplementary premium that reflects the value to the landowner of the change of use that any subsequent owner is likely to seek for the land. Establishing an EUV is most straightforward for ‘greenfield’ agricultural uses (see RICS, 2019; Savills, 2022); brownfield uses are more complex particularly where there may be some remediation costs associated with a site. However, the most complex issue is the second order question – the premium to EUV that might be required by the landowner. Local authority planning documentation frequently cites an expected premium of between “10 and 20 times agricultural value” (for example, South Lakeland District Council, 2017). This measure seems to have its origins in guidance published by the Homes and Communities Agency (the forerunner of Homes England) in 2010 (HCA, 2010). The scale of this variability is clearly too large to be considered precise and there is no clear, testable data source for this heuristic.
- 2.2 With uncertainty about some of the most basic features of the land market it makes sense to be as clear as possible about the specific circumstances that might have resulted in a proposed or hypothetical development experiencing disruption.
- 2.3 For clarity’s sake it is, therefore, important to make a distinction between three different forms of friction in the development process:
- i. forecast development that is not initiated
 - ii. forecast development which, having been initiated, is subsequently cancelled
 - iii. forecast development that is stalled or paused (‘mothballed’ in the common parlance of the development industry).
- 2.4 As these are three quite distinct and fundamentally different outcomes this section of the report is structured to consider each separately before points of continuity and contrast are discussed and summarised at the end of this section.
- i. Forecast development that is not initiated**
- 2.5 The UK government context within which forecasts are made about the broader developmental impacts of investment by central government is set by the *Green Book* (HM Treasury, 2022:1) which provides “guidance issued by HM Treasury on how to appraise policies, programmes and projects”. This guidance requires

holistic consideration of the broad impacts of government-funded projects across five thematic areas: policy, economic, commercial, financial and management.

- 2.6 The principles enshrined in the Green Book have given rise to a secondary academic literature (for example, Coyle and Sensier, 2019; Pollock, Price and Player, 2007) which, in turn, has a small but specialised sub-literature on the relationship between Green Book principles and the forecast impacts of investment in transport infrastructure (Mackie, 2010). Much of this work provides a critical analysis of the Green Book's role in potentially favouring investment in the higher value markets of London and the South East (for example, González-Pampillón and Overman, 2020; Stern, 2022; Overman, 2020).
- 2.7 The broader academic literature that deals with the predictions of investment in transport infrastructure (and which may be integrated with Green Book principles) are LUTI (Land-Use Transport Interaction) models (for example, Lopane et al., 2022). At its most sophisticated this approach has seen the development of large-scale spatial interaction models in which a wide range of 'what if?' style scenarios can be modelled. Batty and Milton's (2021) recent account of their QUANT prototype provides an insight into the direction of travel for LUTI as transport becomes one of a broader set of interacting urban phenomena to be modelled. However, the development forecast by modelling does not always materialise for two main reasons.
- 2.8 Firstly, as Batty and Milton (2021: 3090) point out the (increasingly) sophisticated nature of the modelling requires specialist skills in order to run and interpret scenarios:

“We estimate that the amount of resource required to enable these kinds of models to be more widely used in practice will require a tenfold increase, and most of this requires the resource to be used in educating a wide variety of researchers, planners and policy makers into the best ways of using such tools. However, to pursue all these directions, these kinds of model must be embraced by users who have enough skill and awareness to be able to use them in planning support, to generate plans and to test 'what if?' style predictions. This remains one of the greatest challenges in using big data and large-scale models in a way that links good theory to good practice.”

- 2.9 As noted in the quotation above there is little evidence that LUTI and spatial interaction models play a significant role in local planning decision making process. As a result, the predictions of such modelling are (currently) constrained by their inability to capture the behaviour of local planning practitioners (Acheampong and Silva, 2015).

- 2.10 The relevance of this observation is tied to the second obstacle that inhibits the predictive power of LUTI, Spatial Interaction and Green Book forecasts: the discretionary character of the process by which land-use decisions are made.

Discretionary Planning and the local character of land-use regulation

- 2.11 In order to make a forecast of development activity resulting from transport investment LUTI and Spatial Interaction models are typically attuned, to some extent, to a particular policy environment. However, in all constituent nations of the UK the planning system is discretionary - meaning that the decision over whether a development proposal should be permitted is vested with the Local Planning Authority. This approach to land-use planning is quite distinct from the planning systems implemented in other nation states; for example, the zoning system used in the USA means that areas are identified for particular land uses ('zoned') which creates an in-principle basis for the type and character of development that would be considered appropriate in that area.
- 2.12 The nature of the discretionary planning system raises two questions for LUTI modelling. Firstly, is the land use planning system sufficiently consistent to provide a policy environment that can be meaningfully reduced to reliable model inputs? Secondly, is the implementation of planning policy - the discretionary nature of planning practice - sufficiently predictable to forecast development outcomes?
- 2.13 In response to the first of these two questions, the land-use planning system is a very good example of a policy arena which has been in a 'constant process of piecemeal tinkering' (Lord and Tewdwr-Jones, 2014: 355). Bafarasat and Oliveira (2021) chronicle 30 years in which successive administrations have made changes - some subtle, some more fundamental - to both planning law and the accompanying guidance that is designed to influence planning practice. Some of these moments of reform have been subject to forensic scrutiny (for example, see, Nathan and Overman, 2011; Lord and Hincks, 2010).
- 2.14 A good prism through which to regard the repeated reforms made to the English planning system is the fundamental question of the geographic scale at which planning should be practiced. This question has received such radically different responses by different governments that, since 2000 alone, there has been a 'new regionalism' (Allmendinger and Tewdwr-Jones, 2000) which accurately described the institutional apparatus and planning policies initiated by the first two Blair administrations (1997-2001 and 2001-2005). However, the regional state apparatus (regional development agencies and regional assemblies) created in this period were subsequently dismantled by the Conservative-Liberal Democrat coalition government (2010-2015) and replaced with a 'new localism' (see, Haughton and Allmendinger, 2013) which saw the advent of neighbourhood planning powers devolved to self-organised community groups. This localism agenda was soon supplemented with the identification of an intermediate spatial scale at which some planning functions could be invested - the 'city-region' (for example, Coombes (2014)). These metropolitan scale geographies combine several local authority areas and are intended to reflect functional economic geography more accurately than the

antiquated English local authority boundary settlement (which, throughout, has remained the scale at which formal planning powers are legally invested). Six city-regions in England now have ‘metro mayors’ for city-regional geographies in Bristol, Liverpool, London, Manchester, North of Tyne and the West Midlands (all created in 2017; the Mayoralty of London was created in 2000). The establishment of city-region mayors meant that, in some English cities there were planning functions discharged at the scales of the neighbourhood, the local authority, the city region and, ultimately, through the powers invested in the secretary of state, the national government.

- 2.15 This congested institutional landscape creates the context for variability in how planning is practiced, the second of the two questions that might explain why LUTI, Spatial Interaction and Green Book models sometimes predict outcomes that do not materialise. In short, the discretionary nature of the land-use planning system in the UK means that a notionally common system can be enacted in a geographically variable manner.
- 2.16 An excellent example of this system/implementation distinction can be found in one of the areas that is most commonly identified as a brake on development: developer contributions.

Variability in local planning practice: Developer Contributions

- 2.17 The concept that private development should be subject to a charge or levy is a common feature of diverse contexts the world over (Gielen and van der Krabben, 2019; Monk and Crook, 2016). Although the terminology for the issue varies by context, in the England (the other nations of the UK sometimes use subtly different terminology) this is most commonly referred to as ‘developer contributions’: for new development to be acceptable the awarding local authority will often require developers to deliver attendant investment in affordable housing, infrastructure and supporting services.
- 2.18 In England, the value of developer contributions was found to be £7bn in aggregate for the financial year 2019/20 (Lord et al., 2020). The majority of this sum results from local authority’s right to negotiate obligatory contributions with developers under section 106 of the 1990 Town and Country Planning Act and is commonly referred to by the corresponding shorthand, S106 agreements. S106 agreements are negotiated on a case-by-case basis and as such are agreed through the planning application process, with agreements set out in a parallel document using contract law to bind both parties to the agreement.
- 2.19 The process of negotiating S106 agreements has often been held up by the development industry as a source of delay in delivering new housing. The counter view would be that this is an important aspect of the planning process which holds the development industry accountable for the provision of public goods that are essential to ensure that new housing developments become well-functioning, sustainable communities. On either view the time it takes for a S106 agreement to be negotiated can represent a delay to development which may appear as a pause or stalled site.
- 2.20 More importantly, how hard local authorities bargain in this process and the degree to which they are prepared to tolerate the appearance of development

being stalled whilst a S106 agreement is negotiated may vary between pro and anti-development authorities. In areas where development is politically unpopular the character of how planning is enacted may be different to areas where development activity is actively encouraged. In short, even between areas where the same institutional and regulatory framework exists the *implementation* of the land use planning system is inherently inscribed with the hallmarks of the local political context.

- 2.21 LUTI models are not typically well placed to pick up significant behavioural variation in how planning policy is enacted. For example, it is possible to imagine how an expected stimulus to development may indeed create the conditions for viable development but founder when market signals (either formal or informal) make it clear that development is incompatible with either local planning policy or political priorities in a particular local authority.

ii. Forecast development that is cancelled

- 2.22 The academic literature on development that, once initiated, is subsequently cancelled identifies two main causes for this phenomenon: a deterioration in market conditions or a significant change in the regulatory/policy environment.

i. Market Conditions

- 2.23 Whilst there is no widely-agreed upon methodology for the assessment of development viability many developers use variants on the 'residual valuation' method. This approach fundamentally turns upon the subtraction of budgeted development costs from an assessment of Gross Development Value (GDV) that uses either current or forecast real estate values. The remainder, 'the residual' represents the sum available for site acquisition. The implications of this simplified formula are clear: any deterioration in market values that represent the basis for GDV or inflation in costs can have a significant effect on the fundamental business case for development.
- 2.24 Inflation in the cost of building materials and disruption in supply chains (which can in turn be attributed to the ongoing effects of the COVID-19 pandemic and the conflict in Ukraine) represent a good example of how the case for development that existed in 2019 may be subject to revision in 2023.
- 2.25 Good examples of deteriorating values affecting development viability can be found in the wake of the 2007-onwards global financial crisis. In this case the values that had been consistent with the case for development viability throughout 2006 were radically altered by depreciating real estate prices from 2007 onwards. Box 1 provides an account of a development that was, first paused and then subsequently, cancelled under these circumstances.

Box 1: Forecast development cancelled: Lumiere development (Leeds)

In 2006 Leeds City Council granted approval for the construction of 'Lumiere', a mixed-use development comprising 650 apartments, over 2,000 m² of retail space, 1,000 m² of office space and food and beverage outlets. If completed according to the original proposals the tower would have become Western Europe's tallest residential building.

The £225m scheme was launched by the property developers K.W. Linfoot in 2006. Groundworks began in spring 2007 shortly before the first moments of the global financial crisis in autumn of the same year.

In July 2008 the developer suspended work on the site, although statements accompanying this moment suggested a temporary pause with the expectation that development would resume subsequently (see Business Desk, 2008). However, in February 2009 K.W.Linfoot went into administration and the scheme was formally cancelled. In accounting for the cancellation of the project Kevin Linfoot, the director of the development, said "the banks have effectively strangled the business and denied it an opportunity to trade through these difficult times" (quoted in Property Week, 2009).

This assessment of Lumiere's demise illustrates the fact that some developers employ business models that are heavily dependent upon debt-bearing capital and are consequently very vulnerable to volatility in the market for credit. In this particular case the most accurate assessment may be that the cancellation of Lumiere was the outcome of the credit crunch on a developer who was particularly vulnerable to its effects.

In 2012 fresh plans for the Lumiere site were submitted. Having been, literally, a hole in Leeds city centre for almost six years - described over this period by the local press as 'an eyesore' in the heart of the city (Yorkshire Post, 2012) the planning consultancy, Turley Associates, submitted a new proposal for the site on behalf of the liquidators. The submission of this new proposal made the case for a fundamental departure from the original Lumiere vision on the basis that the market conditions had changed sufficiently to mean the original proposal was not viable. The proposal for an eleven-storey development aimed at securing suppliers of pre-let office requirements was approved. Planning permission was secured in 2014 and 'Central Square' as it was renamed was completed in 2017.

- 2.26 At the time of writing the widely held expectation of declining real estate values over 2023/24 may cause some developers to reappraise the case for development that underpinned proposals based upon values prevailing in 2021. This phenomenon is likely to be geographically variable. However, it is instructive to note that, even in the strongest markets, a material worsening of market conditions can result in development proposals being paused or cancelled. *Inside Housing* (2022) reported work undertaken by the Royal

Borough of Kensington and Chelsea that found deteriorating market conditions would likely result in some development in the Borough not coming forward in the expected manner: “However, given the scale of the challenge, we will at least have to consider more challenging options, for example in reprofiling/delaying some works, changing the scope of works, or pausing/cancelling some projects altogether”.

ii. Changes to regulation/policy and ‘Institutional Incongruence’

- 2.27 Another feature that may cause development to be cancelled is a change in the regulatory context.
- 2.28 Policies emanating from multiple government ministries/departments can pull in opposite directions. In the literature this is commonly referred to as ‘institutional incongruence’ and has been understood to be an important aspect of why some of the predictions of a LUTI model may not materialise. For example, commenting on the Dutch experience, van Geet et al., (2019: 84) point out that, “although LUTI creates opportunities for beneficial synergies and helps avoid unwanted consequences, such as project time and project cost overruns, examples of successful deployment remain scarce”. In accounting for this observation, the same authors argue that, “Implementing LUTI requires institutional alignment,” but also note that instances of “institutional incongruence can be found throughout the Dutch national planning process” (see also, Schoemakers and van der Hoorn, 2004).
- 2.29 Similar conclusions can be found in other studies. For example, Legacy, Curtis and Sturup (2012) argue that superficial institutional alignment alone is unlikely to be sufficient to see expected developments materialise fully. Instead, informal alignment is also required - meaning a behavioural accord between agencies and institutions - to ensure congruent implementation of plans and policies across networks of governance.
- 2.30 A possible example of domestic institutional incongruence can be found by contrasting planning policy on the objective assessment of housing need with environmental regulations on housing development.
- 2.31 The approach currently taken by the UK government to determine the level of under-supply of housing in each local authority is to employ a method using ONS household projections (e.g. ONS, 2018a, 2018b) and an affordability ratio (n.b. no environmental constraints are contained in the formula) to arrive at a target number of dwellings for each local authority in the country. These local authority-level targets are determined by a standardised methodology published by the Department for Levelling-up, Housing and Communities (formerly, the Ministry of Housing, Communities and Local Government). The outcome of the standard method is a target number of dwellings for each English local authority that, when aggregated, results in the aspirational national target of 300,000 new dwellings per annum.
- 2.32 This approach informs how the Planning Inspectorate evaluate the validity of local plans. In this respect National Planning Policy Guidance clearly specifies

that local authorities should adhere to the target number of dwellings resulting from the application of the standard method. Exceeding this target is permitted but a local authority's capacity to argue for a lower target is proscribed:

“Where a strategic policy-making authority can show that an alternative approach identifies a need higher than using the standard method, and that it adequately reflects current and future demographic trends and market signals, the approach can be considered sound as it will have exceeded the minimum starting point.

Where an alternative approach results in a lower housing need figure than that identified using the standard method, the strategic policy-making authority will need to demonstrate, using robust evidence, that the figure is based on realistic assumptions of demographic growth and that there are exceptional local circumstances that justify deviating from the standard method. This will be tested at examination”. (MHCLG, 2019; emphasis added).

- 2.33 The intended effect of this aspect of planning policy is to encourage local authorities to oversee an increase in the number of new dwellings for which consent is permitted each year in order to achieve levels of development that have not been attained for decades. However, other aspects of government policy may pull in the opposite direction.
- 2.34 For example, in April 2022 Natural England wrote to forty-two local authorities in England to advise them that all new development in these areas should be 'nutrient neutral'. This effectively means that the development of new homes would require investment in attendant mitigation measures to ensure that development does not pollute waterways designated as Special Areas of Conservation (SACs). This change in the regulatory environment was said by the Home Builders Federation, reported in *The Guardian* (2022), to potentially result in the cancellation of proposals for the development of 120,000 new homes in river catchment areas. Similar effects may result from the introduction of 'biodiversity net gain' regulations from November 2023 under the terms of the Environment Act 2021. This legislation requires that all developments granted planning permission should deliver a minimum 10% net gain in biodiversity relative to the circumstances that prevailed prior to development. Industry comment has speculated that the costs associated with this regulatory change will make development less viable, particularly in areas where the business case for development is marginal in the first place. In the worst-case scenarios some developers have forecast 'development paralysis' (*Planning Magazine*, 2022).

iii. Forecast development that is stalled

- 2.35 Of the three categories of land market friction discussed in this section the most complex, and the one on which there is least research, is the question of stalled sites.
- 2.36 There is no formal definition of how long a pause in activity is required for a development to be considered stalled. Moreover, there are a range of potential explanations that include all those outlined already as a development moves from being stalled to fully cancelled.
- 2.37 However, in addition to the points discussed to this point there is one important explanation for why a development may stall following planning consent that is identified in the literature.

Slow build out rates

- 2.38 Once planning consent has been formally granted the rate at which the developer chooses to build out the site is largely at their own determination. The ability to effectively exert significant control over the supply of new homes confers significant market power. This in turn has given rise to a secondary academic literature that seeks to explore how this market power is translated into behaviour - more specifically the choices developers make with regard to the sequencing of development (which types and tenures are produced first) and the pace at which new development is produced following the award of planning consent (Adams and Leishman, 2008). Indeed, there is some speculation in the literature that developers will take this into account when determining how rapidly a site is built out (see for example, Adams, Leishman and Moore, 2009): in short, it may be the case that developers sometimes choose to drip feed supply or introduce a 'strategic pause' in order to control the supply of new dwellings or weather a change in market circumstances.
- 2.39 This issue of build out rates in England has a significant policy literature. The speed (and sequencing) at which sites are built out features in the Barker Review (2004), the Calcutt Review of Housebuilding Delivery (2007), a report by the Office for Fair Trading (OFT, 2008) and most recently in Independent Review of Build Out led by Oliver Letwin (2018; commonly referred to as the 'Letwin Review'). Taken together these three publications highlight a variety of factors that influence the speed and pattern of how developers build out sites. However, the Calcutt Review (2007: 41) provides the clearest account that there may be circumstances where the manner in which new development is produced may be influenced by the market logic of what works best for the developer:

"It is almost an article of faith, universally held by house-builders, that there is a limit of 35–50 homes which can be sold from one outlet in a single year; to achieve more rapid build-out requires prices to be reduced... Building out at a faster rate does not yield sufficiently larger early returns to offset the cost of discounts plus other marketing and management costs."

- 2.40 The implication of a finding such as this is that the development industry may choose to produce new dwellings strategically at a rate which is compatible with maintaining local values.
- 2.41 This form of market power is usually understood as the outcome of a lack of competition. However, there is very little research on the degree of competition present in the UK development industry. A few studies suggest that the nature of the underlying asset, land, and the structure of the development industry, particularly the dominating presence of a small number of developers in 'regional strongholds', means that the pace and rhythm at which new development comes forward is largely governed by the developer in question (see, Calcultt, 2007; Leishman, Frey and McGreal, 2020; Payne, 2020; Payne et al., 2019).
- 2.42 This limited body of research in the UK is complemented by work from the Netherlands where Buitelaar and van der Krabben's (2023) work for the Dutch Government's Consumer and Markets Authority identifies limited competition as a structural aspect of the Dutch real estate market. Furthermore, they point to a number of market effects of this limited competition including the pace at which new development is produced.

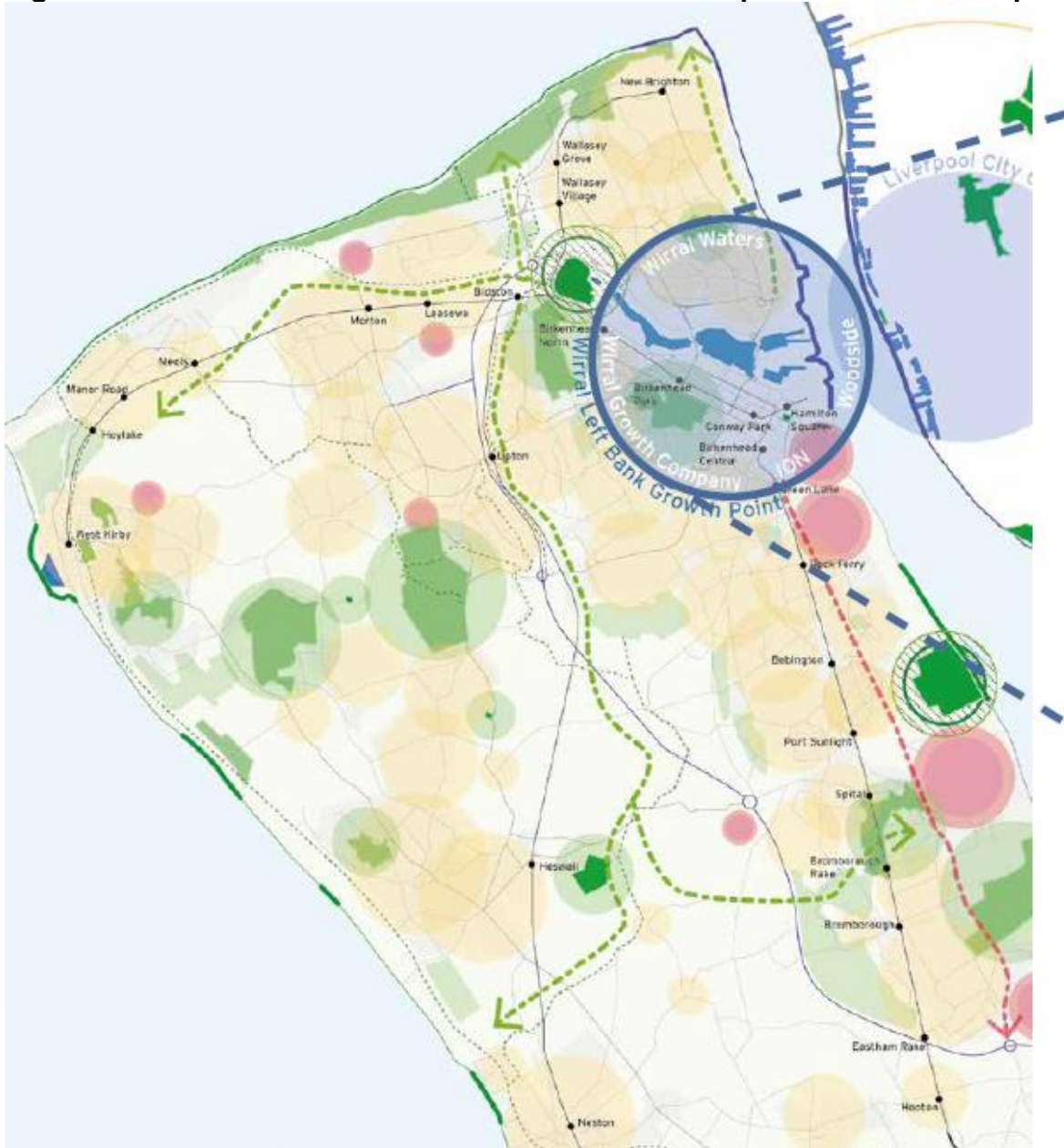
Summary

- 2.43 The literature provides some insights into the factors that, either in isolation or combination, may result in expected development failing to materialise or being stalled or cancelled.
- 2.44 In order to explore the manner in which these factors may combine in reality Section 3 provides a detailed case study of the Wirral Waters development - the largest private sector planning application ever submitted in England. However, having been granted planning consent in 2012 with the prospect of 465,000m² of new buildings including 15,000 apartments, at the time of writing only three new developments have been fully completed: the 2330m² Hythe office development, the 3530m² Wirral Metropolitan College building and 30 new modular homes at Northbank. What explains the relatively modest scale of development that has been achieved?

3.0 Wirral Waters: Background and Context

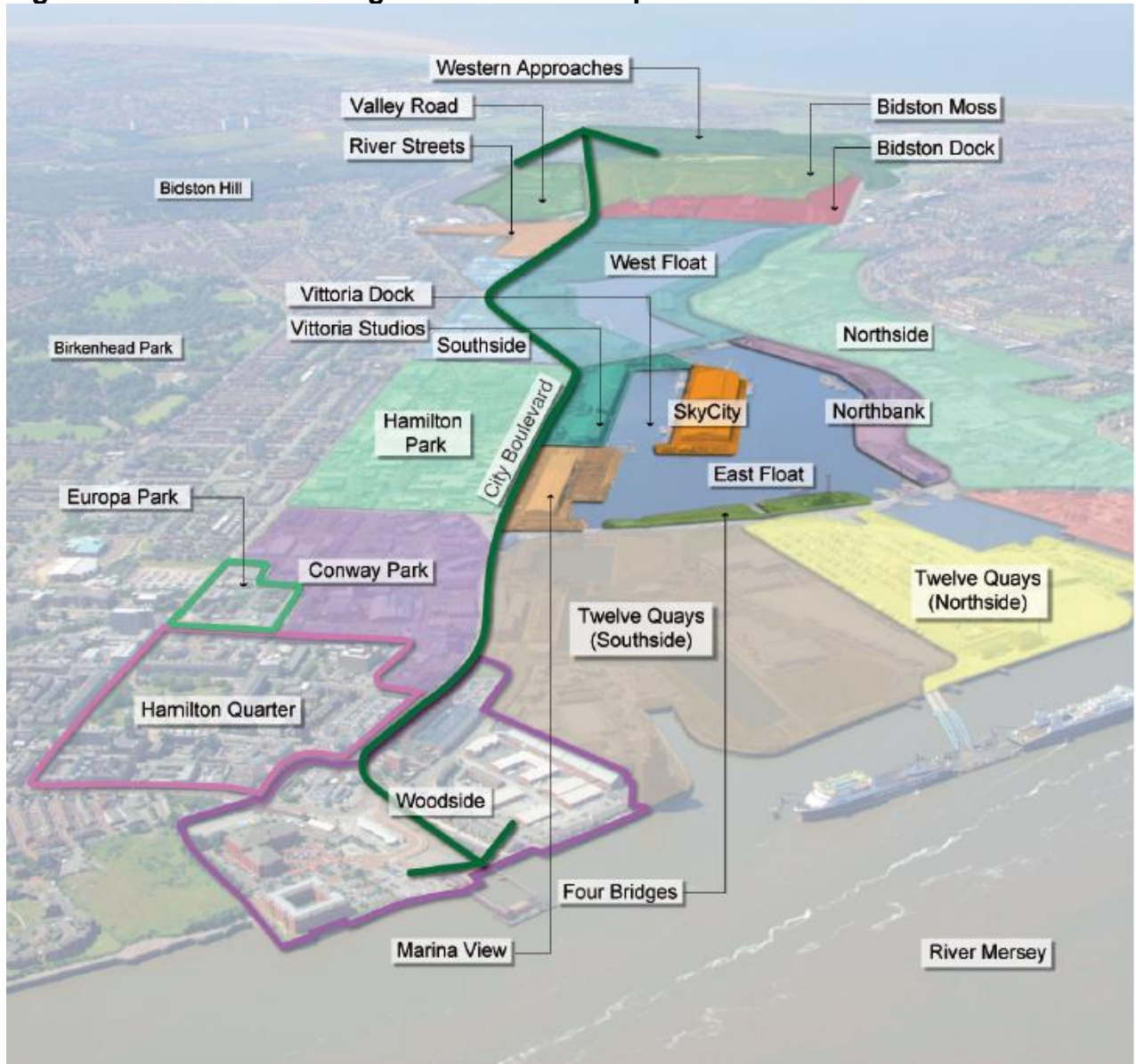
- 3.1 The Wirral Waters development was initiated in September 2006 following the Peel Group's acquisition of the entirety of the docklands on both sides of the river Mersey from the Mersey Docks and Harbour Company in 2005.
- 3.2 Peel Land and Property (a constituent of The Peel Group) put forward plans for wholesale redevelopment of the docklands both on the Liverpool side of the river ('Liverpool Waters') and the Wirral side ('Wirral Waters'). Planning applications for both were submitted in 2010 with consent for Wirral Waters granted later the same year; consent for Liverpool Waters was granted in 2012. At the outset no clear statement was made regarding how long the scale of anticipated development would take to achieve. In more recent times statements from the developer have suggested a 25-30 year time frame.
- 3.3 The Liverpool Waters development has been complicated by objections by English Heritage and UNESCO who argued that the development would conflict with the terms of Liverpool's status as a World Heritage site. Liverpool City Council's decision to grant planning consent in 2012 resulted in a prolonged period of dispute which ultimately resulted in UNESCO's decision to rescind Liverpool's status as a World Heritage Site in 2021 citing the Liverpool Waters development and the proposed new football stadium for Everton Football Club at Bramley Moore dock (within Peel's Liverpool Waters site). The high-profile nature of this case means that there is a well-documented period of contestation between the developer, Liverpool City Council and the heritage lobby that has resulted in a clearly explicable disruption to development. For this reason the focus of this case study is the Wirral Waters development which has not been subject to contestation of the kind that has delayed the Liverpool Waters development.
- 3.4 Wirral Waters is a complex 500-acre site which currently comprises ex-docklands and some light industrial uses. The development covers the areas formed by the natural tidal inlet, the Wallasey Pool, which was identified during the nineteenth century as the natural place to situate a network of docks to support the rapid industrialisation in North West England. The result was two large docks - the East and West Floats - built between 1844 and 1860 which effectively divided the originally separate towns of Birkenhead and Wallasey.
- 3.5 Figures 1 and 2 provide an illustration of the location, scale and character of the development site.

Figure 1: Wirral Waters location relative to the Wirral peninsula and Liverpool



Source: Wirral Waters Sustainability Action Plan, 2022: 8

Figure 2: Wirral Waters neighbourhood development area



Source: Wirral Waters, 2009

- 3.6 The original proposal put forward by Peel Land and Property in 2006 included the development of 465,000m² of new buildings including 15,000 apartments, a waterfront hotel, bars, restaurants and a landmark £175m International Trade Centre.
- 3.7 However, over the subsequent 17 years the scale and character of the proposed development has changed significantly. For example, plans for an International Trade Centre, originally at the heart of the development proposal, were submitted in 2011 only to be withdrawn in 2015 when the partnership, upon which the development was predicated, between Peel and China-based Sam Wa Minerals, was dissolved.

- 3.8 Events such as this have given rise to a local perception that the scale of development that has been achieved over the 13 years since planning consent was achieved has been less than might have been expected. This has been described in *Place North West* (2021) as a situation whereby “Birkenhead has been left behind” as a result of “pinning hopes on Wirral Waters, Peel L&P’s mighty but glacially slow-moving plans for 5 million square feet of offices and 15,000 apartments (in sky-scraping towers) on the East Float and Vittoria Docks”. The same piece goes on to describe the recent history of the development as one where:

“The clock began ticking on Wirral Waters with planning permission in 2010. The project has now missed a couple of economic cycles. Consent for 340 modular homes, as part of a joint venture between Peel and Urban Splash, was granted planning permission in 2020 and the first of the two- and three-storey row houses will be ready to view this spring. Richard Mawdsley, development director at Wirral Waters, says: “Construction on the first three residential projects; Legacy, Belong and the Peel/Urban Splash joint venture project will begin this year. All 1,100 waterside homes which will be built as part of these first three developments are on track for to be delivered by 2025.” It is a start, and very welcome, but at this pace of annual completions the full 15,000 units will take until 2065 or later to chalk off in full. Most of us will probably be dead by then. The council wants to move a bit quicker than that.”

- 3.9 The best way of understanding the transformation in the plans for Wirral Waters is by setting out a timeline of the development’s history in Table 1.

Table 1: Wirral Waters Timeline

Date	Narrative
1709 - 1715	The world's first 'wet dock' is permitted to be built in Liverpool.
1750	Administration of the Dock passes from the original 'Old Dock Committee' to 'Liverpool Dock Trustees'
1858	The Mersey Docks and Harbour Board is created to manage the Docks on both sides of the Mersey
1972	Mersey Docks and Harbour Board becomes the Mersey Docks and Harbour Company in order to raise finance for the development of Seaforth Docks north of the original wet dock site.
1987	The Peel Group acquires the Manchester Ship Canal, originally built in 1894 in order for ships to bypass Liverpool docks and unload in (what is now) Salford Quays.
September 2005	The MDHC is acquired by Peel Ports, part of the wider Peel Group. This confers ownership of all the dock land in Liverpool and Wirral.
March 2005	In house design of the project that is to become Wirral Waters initiated at Peel.
September 2006	Scheme revealed for public consultation - "Wirral skyline to rival New York" (BBC, 2006). This original plan was 465,000m ² across a number of tall buildings, 3 of which were planned to be over 50 storeys. The mixed-use development proposed 15,000 apartments, a waterfront hotel, bars, restaurants and a landmark £175m International Trade Centre.
January 2007	Peel acquires Cammell Laird shipbuilding yard on the Wirral side of the Mersey
2008	Original planning submission date was intended to be around Christmas 2008. However, this was delayed when the developer suggested they would not pursue consent unless a parallel development - Liverpool Waters - was granted consent (Place North West, 2008)

August 2010	A revised £4.5 billion development proposal is submitted. A 25-year development period is anticipated. Wirral MBC grant planning consent in August 2010 but the size of the application results in it being 'called in' by the Secretary of State (Eric Pickles) and approved in November 2010 without a public inquiry. The new proposal is for the development of a 'new city neighbourhood' comprising 422,757m ² of office, research and development space, 60,000m ² retail space, 38,000m ² hotel and conference facility, 100,000m ² culture, education, leisure, community and amenity space.
January 2011	Wirral Waters is visited by then Prime Minister David Cameron and ex Secretary of State at the Department of Environment (also, colloquially in the 1980s, 'Minister for Merseyside'), Lord (Michael) Heseltine. Visit by Cameron & Heseltine.
September 2011	Wirral Waters granted 'Enterprise Zone' status.
September 2011	Plans submitted for an International Trade Centre to be part of the Wirral Waters development. The proposed £200 million development was anticipated to create 300 new jobs and result in a space for companies primarily from China, India and South Korea to create a European showroom. This proposal was a joint venture with China-based Sam Wa Minerals (BBC, 2011).
February 2013	Peel reveals plans for 'Streetcar' transport system (Wirral Waters, 2013)
April 2014	Plans submitted for a new campus for Wirral Metropolitan College.
May 2014	Plans submitted for a 5,600m ² office development at Tower Wharf.
June 2015	Peel pull out of International Trade Centre development when the proposed joint venture breaks down. Company chairman, John Whittaker, is quoted as reflecting, "it is time to get back to doing what we do."
August 2015	Tower Wharf office development opens.

September 2015	New campus for Wirral Metropolitan College, proposed in 2014, focusing on construction courses opens.
November 2016	Wirral Waters declared one of six Government Housing Zones. These zones are designed to encourage brownfield development by "£200 million of recoverable investment funding, access to cheaper Local Authority borrowing, support from ATLAS and Government to overcome barriers and priority access to the Local Development Order Capacity Fund" (DCLG, 2017)
March 2018	Planning application submitted for £6 million office development at No. 1 Tower Road - subsequently named the 'Hythe' building'. Expected to commence in August 2018 and complete in late 2019.
April 2018	Peel and Belong (a bespoke provider of residential care for those suffering from dementia) apply for planning consent for a residential dementia care facility at Northbank (East Float)
May 2018	Peel submits planning application for development of 500 build-to-rent dwellings as Wirral Waters One (subsequently renamed Miller's Quay).
June 2018	Architects Ellis Williams and Schmidt Hammer Lassen appointed by Peel to design a Maritime Knowledge Hub based on the refurbishment and extension of the hydraulic tower.
September 2018	Peel announce three new schemes at MPIM Global Property Expo in Cannes: Miller's Quay (originally named 'Legacy' and subsequently 'Wirral West One') to comprise 500 build-to-rent apartments; 347 modular homes at Redbridge Quay (formerly known as East Float and subsequently 'Northbank') and a dementia care village.
December 2018	Planning permission granted for 500 one- and two-bedroom apartments at Miller's Quay (the former site of Rank Hovis' old flour milling premises - closed in 1999). The development is wholly build-to-rent with 100 of the 500 dwellings provided on an affordable tenure (not more than 80% of market rent).
April 2019	Dementia care facility at Northbank granted approval by Wirral MBC.

July 2019	Wirral MBC grants approval for the Hythe office development at No. 1 Tower Road. Anticipated costs are now quoted as £7.5m.
July 2019	Peel submits planning application together with House by Urban Splash for the development of 30 modular homes at North Bank (subsequently Redbridge Quay). Consent approved January 2020. This is intended to be the first phase of a £55m, 347 dwelling development.
January 2021	Belong, the dementia care provider, buys the site for the consented care facility from Peel.
December 2021	Completion of £6m office development proposed in March 2018 - the Hythe Building - to 'BREEAM Excellent' standard. This development had been expected to complete in late 2019.
April 2022	Peel submits planning application for the first phase of a 'waterside logistics and manufacturing campus' - the first stage of the MEA (Maritime, Energy and Automotive) development on the site originally intended to be the International Trade Centre.
May 2022	Enabling works begun by Caddick Construction at Northbank for the Belong dementia care facility.
May 2022	House by Urban Splash', the modular house builder, that was partnered with Peel and had developed the first phase of 30 modular homes at East Float goes into administration and withdraws from the development. On the same day that House by Urban Splash goes into administration Peel submit a planning application for a further 55 modular dwellings at East Float.
June 2022	Peel submits planning application for £25m 'Maritime Knowledge Hub'
June 2022	Peel submits planning application for 1,815 apartments at East Float. Named 'Vittoria Studios' these apartments replace earlier plans to develop 400,000 ft ² of office space.
July 2022	Peel announce that they will take over the completion of the modular development at Redbridge Quay (formerly East Float)

July 2022	Ground breaking ceremony held at Miller's Quay (formerly 'Legacy' and 'Wirral Waters One').
Summer 2022	Work commences on Miller's Quay.
December 2022	30 modular homes by 'House by Urban Splash' at East Float are released to market.
January 2023	Liverpool City Region 'Freeport' is established with visit by Secretary of State for Levelling up, Housing and Communities, Michael Gove.
January 2023	Peel press release identifies plans for the year ahead including the development of 1,100 new homes, 100 to be affordable; work to begin on Maritime Knowledge Hub, work to begin on dementia village adjacent to Redbridge Quay; provision of improved public transport to include a light rail connection.

3.10 In summary Table 1 shows that, over the course of the last 13 years since the Wirral Waters development was granted planning consent, there have to date been three main developments: first, the Wirral Metropolitan College building followed by the Hythe office development and, finally, a first phase of 30 modular homes (from an anticipated total of 347). Some developments such as the originally proposed International Trade Centre have been removed from the plan and others have been modified. In total there are 6 aspects to the development over its first 13 years since the award of planning consent that have either been halted, replaced or developed:

i. Wirral College

3.11 The first building to be developed at Wirral Waters was educational premises for Wirral Metropolitan College. Plans were approved for a new building for the college in April 2014. The development opened in September 2015 focussing on courses in construction and the built environment.

3.12 Site preparation and remediation work was enabled by a £2.5m loan by the Homes and Communities Agency (the forerunner of Homes England). Director of development at Peel, Richard Mawdsley, was quoted at the time as saying, “We have been working closely with the HCA. There is a need to remediate many of the sites within Wirral Waters. Old dock sites tend to have their fair share of issues in the ground and the HCA’s support to this element of development has been essential” (Ocean Gateway, 2014). The Wirral Metropolitan College building can be seen in Figure 3 (Hythe is the development under construction at this time in the upper left of the image).

Figure 3: Wirral Met College development



Source: Wirral Waters, 2023

ii. Hythe

- 3.13 Peel submitted a planning application for No. 1 Tower Road, subsequently named, 'Hythe', in March 2018. Wirral MBC granted approval in July 2019.
- 3.14 A cocktail of funding was secured by Peel to support the development. Firstly, a loan of an unspecified sum was secured from Merseyside Pension Fund alongside a grant from the Liverpool City Region Single Investment Fund and funding from Wirral MBC. It is not wholly clear what the support of Wirral MBC comprised – Wirral Waters status as an Enterprise Zone, Housing Zone and part of the freeport means that the local authority can take advantage of the special status these zones confer to secure funding. For example, Wirral Waters Enterprise Zone status means that the local authority can retain 100% of business rates from tenants in this area. However, the proceeds of these retained business rates must be reinvested into the Enterprise Zone. In aggregate the total funding received from the Hythe development (together with a manufacturing and logistics project at the Marine, Energy and Automotive Park (MEA) (also in Wirral Waters) was reported to be £8.5m (Place North West, October 2020). An artist's impression of Hythe is presented below as Figure 4.

Figure 4: The Hythe Development



Source: Artist's impression from Wirral Waters, 2023

iii. Miller's Quay

- 3.15 Peel sought planning consent for 500 build-to-rent apartments at Miller's Quay (formerly known as Legacy and Wirral West One) in May 2018; permission was granted in December 2018.
- 3.16 In January 2022 the Pension Insurance Corporation (PIC) invested £130m in the development of Miller's Quay - a joint venture between Peel and Legacy, a registered provider of affordable housing, who would become responsible for the 100 dwellings that would be offered on an affordable tenure.
- 3.17 In February 2022 the contractor, Graham, was appointed and remediation work began in February 2022 and a ground-breaking ceremony in July 2022. The target completion date for the development is 2024. An artist's impression of Miller's Quay is presented below as Figure 5.

Figure 5: Miller's Quay Development



Source: Artist's impression, Peel Land and Property, 2023

iv. Redbridge Quay Modular Homes

- 3.18 The development of 347 modular homes at Redbridge Quay began with a first phase of 30 for which planning was sought in July 2019.
- 3.19 The development was a joint venture between Peel and 'House by Urban Splash', a subsidiary of the Urban Splash group, itself representing a partnership of Sekisui House, Japan's largest housebuilder, Homes England and Urban Splash.
- 3.20 House by Urban Splash went into administration in May 2022 with Peel taking responsibility for the development as a whole in July 2022.
- 3.21 The first phase of 30 modular homes was completed in December 2022. A photograph of the development is included as Figure 6, below.

Figure 6: Redbridge Quay modular development



Source: Wirral Waters, 2023

v. Maritime Knowledge Hub/Hydraulic Tower

- 3.22 At the heart of the Wirral Waters site is the Grade II listed hydraulic tower built in 1863, a direct (but scaled down) copy of the Palazzo Vecchio in Florence.
- 3.23 The original purpose of the tower was to power the locks and bridges in the docks during the 1800s. It suffered bomb damage in 1941 and, following repairs, remained in service in the post-war period. However, as the docks

declined the hydraulic tower fell into disrepair and has been derelict for decades.

- 3.24 In June 2018 Peel appointed architects Ellis Williams and Schmidt Hammer Lassen to design a Maritime Knowledge Hub based on the refurbishment and extension of the hydraulic tower (Ellis Williams, 2018); this was followed by the submission of a planning application for the Maritime Knowledge Hub in June 2022. An artist's impression of the development is included as Figure 7, below.

Figure 7: Maritime Knowledge Hub development



Source: Artist's impression Wirral Waters, 2023

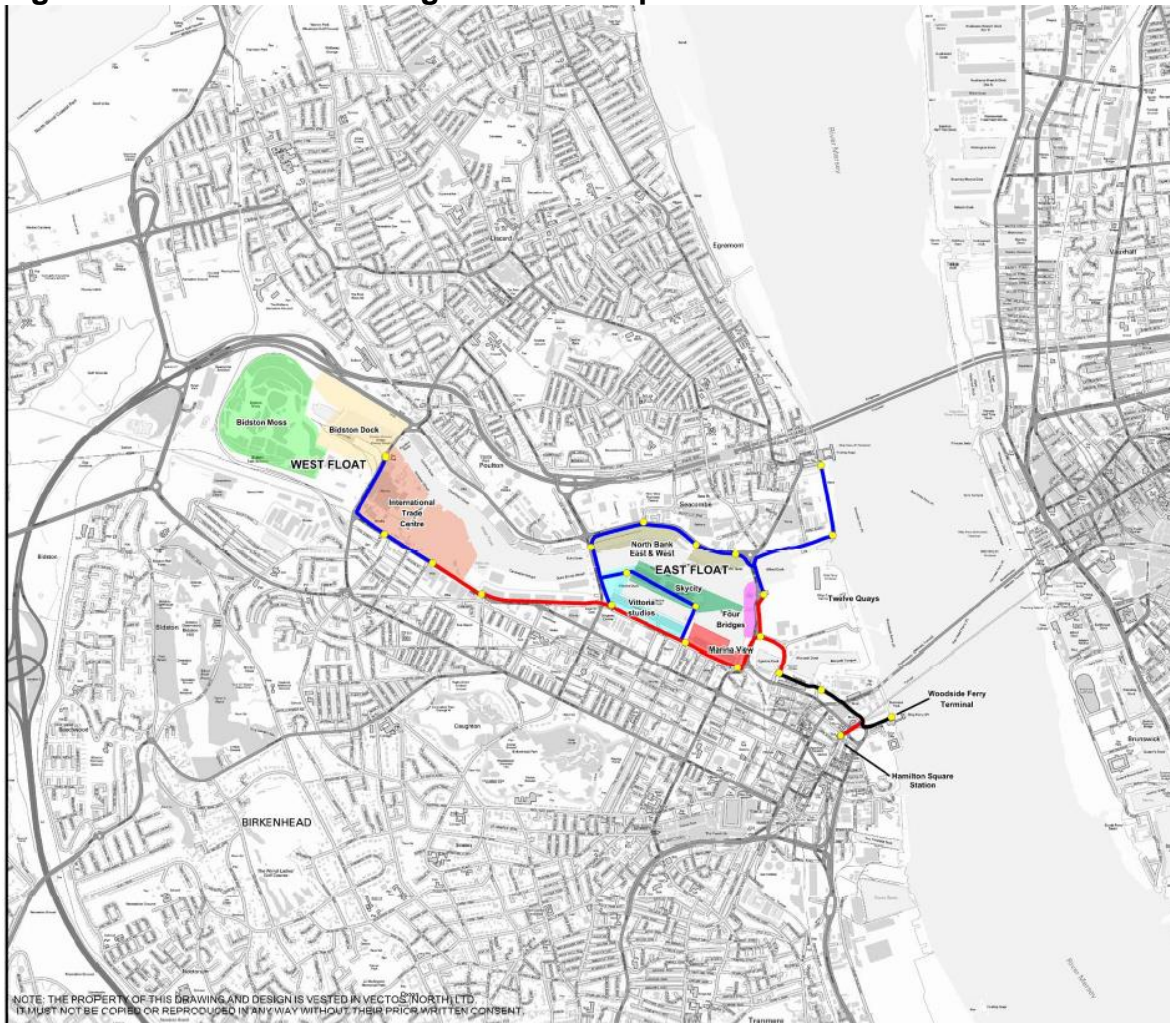
- 3.25 At the time of writing planning consent has not yet been determined for the Maritime Knowledge Hub proposal. Peel have scheduled progress on this development to be a priority for 2023 with an anticipated build time of 18 months (Construction Enquirer, 2022). However, they have also made it clear that progress will be dependent upon securing financial support for the development:

“[The] big thing that we need is a grant and we are working very closely with the Combined Authority. That will plug the viability gap. We have market failure in this area - issues with occupier confidence and investor confidence. All the projects need some support from Government. We are pretty close to securing that support” (Mawdsley quoted in Birkenhead News, 2022)

vi. International Trade Centre

3.26 The International Trade Centre was originally intended to be the centrepiece of the Wirral Waters development. In 2011 Wirral MBC granted consent for this development which was, at the time, forecast to result in £200m investment in the built environment creating 3,000 new jobs. Figure 8 illustrates the position of the ITC at the core of the original proposals.

Figure 8: Maritime Knowledge Hub development



Source: Wirral Waters, 2012

3.27 The ITC proposal depended upon a joint-venture between Peel and Sam Wa Minerals, a China-based developer, that was brokered in the early 2010s, the 'golden era' of UK-Chinese diplomatic and economic relations. The joint venture ultimately failed in June 2015 with Peel replacing the ITC with the MEA Park (Marine, Energy and Automotive) as can be seen in subsequent proposals. Peel submitted a planning application for the first phase of the MEA development in April 2022. The change in site designation from the ITC to MEA can be seen by comparing Figures 8 and 9.

Figure 9: Wirral Waters development site (MEA on original site of ITC)



Source: Wirral Waters, 2022

3.28 The best way to see the scale of development that has taken place so far and how this relates to the new developments proposed for the future is in Figure 10:

Figure 10: Completed and proposed developments for Wirral Waters



Source: Wirral Waters, 2022: 13

A complex site

- 3.29 It should be clear from the foregoing discussion that Wirral Waters is a very large and complex site. As former dockland any new development is first contingent upon site remediation. It should also be noted that the time period between the first statement of a proposal for the site in 2006 and the present has been marked by, first, the global financial crisis in 2007/08 and the Covid-19 pandemic between 2020-2021.
- 3.30 However, against this backdrop it should also be noted that the initial statement of the developer's intention for the site included the development of 15,000 new dwellings. At the time of writing only the 30 modular homes discussed in section iv. have been completed. The following section reports on a programme of semi-structured interviews and documentary review to account for this relatively modest rate of development on the largest private-sector submitted planning application in English history.

Last mile connectivity

- 3.31 The Wirral Waters development is located outside the area that is directly served by Merseytravel, the city-region's public transport executive. The current public transport infrastructure in the area includes three rail stations on the Merseyrail network (from east to West, Hamilton Square, Birkenhead Park and Birkenhead North); to the east there are two Merseyferry terminals offering crossings to Liverpool (Seacombe to the North and Woodside to the south). The position of Wirral Waters relative to the existing public transport infrastructure is most clearly seen in Figure 9, above.
- 3.32 In addition to the public transport offer that is currently in operation there are around 800m of disused tram tracks within the Wirral Waters site which are a legacy from the nineteenth century when the docks were still in operation. In 2009 Merseytravel commissioned the planning and civil engineering consultancy, Mott MacDonald, to conduct a Wirral Tram Reinvigoration Study, which explored the possibility of developing a limited light tram network that would allow for better connectivity between the anticipated large-scale new housing, commercial and industrial developments at Wirral Waters and the existing Merseytravel infrastructure.
- 3.33 In a subsequent report by Mott MacDonald (2015) the context within which the light tram proposal, by this point named 'Streetcar', was understood in 2009 was summarised as:

“At the time of the 2009 study Merseytravel recognised that the Wirral Waters development presented a challenge to - and an opportunity for - public transport in the Merseyside area. The challenge being that Wirral Waters will provide 15,000 new homes, 27,000 new direct full-time jobs and over 750,000m² of retail and commercial development. This will result in demand for movement;

- INWARD with workers commuting in to the site and visitors to retail and leisure venues.
- OUTWARD with residents commuting to work and to access educational and leisure facilities elsewhere in the wider city region.
- INTERNALLY with residents and workers needing to move around the development”

3.34 The Streetcar proposal itself was originally for a BRT (Bus Rapid Transit) style system comparable to Belfast’s ‘Glider’. It was a system of this nature that was subject to a financial appraisal by Deloitte in November 2013 (Appendix A in Mott MacDonald, 2015) which provided a positive account of the proposal, finding it to be a relatively low-cost and financially viable solution to the perceived public transport deficit in the area. However, it is important to place three caveats on this conclusion.

3.35 Firstly, the financial appraisal of the original Streetcar proposal was undertaken over a decade ago with crucial parameters such as build costs and interest rates that may have been appropriate for that time but which would now require reconsideration. Secondly, the analysis includes a large number of assumptions regarding build-out rates and projected Streetcar usage that, in the case of the former, have not so far materialised and, in the case of the latter, may be affected by post-pandemic shifts in office working and public transport ridership. Thirdly, it is explicitly assumed throughout the secondary documentation that operational responsibility for Streetcar would rest with Merseytravel: “In Mott MacDonald studies to date, it has been assumed Merseytravel would operate the system but this is to be confirmed. It is understood options are still under consideration” (Mott MacDonald, 2015: 7). As the quotation implies, the operational costs of responsibility for the system appear to be an unresolved issue. This was borne out quite clearly by one research participant:

“The Department for Transport started to devolve funds for large local schemes. This goes back to 2012. Wirral put forward their Streetcar scheme as part of a long list of projects. The scheme did not get prioritised by the executive body and didn’t go forward because we all had concerns about the viability. There were big concerns about the cost assumptions. There were some very bold assumptions that Merseytravel would just pick up the revenue tab. You can’t base a business case on the back of somebody else picking up the revenue tab”. (Interviewee K)

3.36 As of 2023 there exists a classic development stalemate: the developer’s proposal to build out the site in the form of a considerable number of new homes and employment premises has become incumbent upon the initial requirement for public transport infrastructure. This case is clearly made by one of the research participants:

“We’ve got to the point where, after ten years of discussing what is the best public transport option to support Wirral Waters and, having had that conclude back in 2013 and nothing happening either from the local authority or the transport executive – here we are, building homes, building offices and building factories and the public transport is rubbish. So, as a result we have to provide more car parking because people can’t get around. We haven’t addressed that last mile connectivity. As a result, people say, ‘public transport is rubbish, instead of those 5 car parking spaces we want 25 otherwise we aren’t coming’. We have to provide sites for car parking. Therefore, we can’t build homes on there, we can’t build more employment on there. It has a very direct causal link” (Interviewee A).

- 3.37 From the public sector side it is clear that there is agreement regarding the case for an extension of the public transport infrastructure:

“A mass transit system is going to be essential to the development of Wirral Waters. However, it depends on what the transit system actually is. It is unlikely to be steel wheel based as that is too expensive. There is also the issue that what is proposed as Streetcar actually looks a lot like buses and I think that is where a lot of the push back is coming from”. (Interviewee C)

- 3.38 This view of the Streetcar proposal - as it was originally articulated with the comparator of the Belfast Glider system - as not a genuine modal shift from road-based buses is reflected in a recorded meeting of the Economy, Regeneration and Development Committee meeting from 29th September 2021 where the Street Car proposal was reviewed and critiqued by several councillors:

“No. You haven’t convinced me. I’m awfully sorry. I want to be convinced but I have to be honest. I know that you don’t know a lot of the answers but I’m not convinced that it’s not just a bus...I’m not convinced that this sounds like it is a viable proposal...I’m not convinced that the costs will be brought back in and you are not convincing me that this is not just a bus with very low body. I have travelled on them and they are very nice but they are just a bus” (Cllr D. Burgess-Joyce, quoted from Wirral MBC, 2021).

“I do agree with David that they do seem like buses to me...More to the point we are the regeneration committee and we have to think about it in regeneration terms not just transport...and it is the case globally that trams create regeneration. They are the vehicle that creates regeneration and I’m a little bit disappointed

that when we had the presentation...I'm not really seeing the energy on this committee that we are actually aiming for a tram system. I hear words, 'we might get one one day', 'who knows what we might get one day'. I want a tram system. Wirral needs a tram system and we need to be ambitious and state that we are going to get a tram system." (Cllr A. Gardner, quoted from Wirral MBC, 2021).

- 3.39 In light of this negative assessment of the original street car proposal reported above the developer has subsequently revised the character of streetcar to be closer to the Very Light Rail tram-style system that is currently being developed in Coventry. However, the obstacles presented by the scrutiny of the local authority, such as this example from the Economy, Regeneration and Development Committee, underpin the developer's perspective that:

"The local blockers are the council and Merseytravel".
(Interviewee A).

"The challenge for us is the mindset of people in the council and the combined authority. We aren't even involved in the meetings with the combined authority officers, they are a kind of closed cabal with the officers feeding back to us, "Computer says no"
(Interviewee B).

- 3.40 Expanding on this point, Interviewee A characterised the issue as a first mover problem where the transport infrastructure is required prior to the delivery of the development for which consent has been granted:

"It's capability. It's understanding how infrastructure is planned for, designed and delivered. I think there is a massive lack of knowledge around that especially at local authority level. You know when we first started talking about this we used to get, 'Oh Peel, you're always going on about your infrastructure, could you just build some stuff and then we might overlay some infrastructure further downstream'. So, there is this fundamental lack of understanding of how to design and deliver infrastructure". (Interviewee A).

- 3.41 But who should bear the responsibility and financial burden of delivering and operating the proposed system? On this question contrasting views exist which speak directly to the debate about whether development is dependent upon infrastructure or whether infrastructure could follow, or be delivered in parallel, to new development. For another research participant this question could be distilled to the issue of to whom the uplift in land values resulting from planning consent and infrastructure should accrue:

“You know it comes back to who is going to pay for this and I don’t personally see why it should be anyone other than Peel. They will make millions out of this.” (Interviewee D).

- 3.42 Why should the developer not be the principal contributor to their own Streetcar proposal, possibly through a Section 106 planning obligation, as Interviewee D might like? Interviewees A and B were quick to dispel this idea:

“You can’t create a model which puts more ask on developers in an area which is already not viable. It is just going to go nowhere. The thing for us is to go and ask central government for public infrastructure money which is there to be won rather than going down a section 106 model” (Interviewee B)

“This is true hardcore regeneration so that is about public and private sectors working in partnership...When it comes to finance for public transport we have enterprise zone status, we have housing zone status, we now have freeport status, we have a tax increment funding approach to rates which can be reinvested back into the project...the costs aren’t significant...these are drops in the ocean really.” (Interviewee A).

- 3.43 The result is a standoff that has been ongoing since the developer first initiated the idea that Wirral Waters should be served with an enhanced public transport offer in 2013. The most likely immediate term outcome may be the continuation of the existing business model that can be seen in all other examples of development at Wirral Waters to date: the developer will seek to assemble a partnership with public sector agencies in order to secure the investment necessary to proceed with Streetcar (or a successor proposal):

“I don’t think money is the problem. There is plenty of money out there. If you look at Coventry a week or two ago they got £28m award from DfT as a first tranche to move forward on VLR. If you put forward a compelling case, if you make the case that it can be used as a pilot and that knowledge transfers across to different parts of the UK, if you can show that there are jobs and growth in it, if you can show it is part of decarbonisation, if you can show real benefit as public transit-orientated led regeneration then we think there is money out there.” (Interviewee B).

4.0 Discussion: Explaining the delay to development

4.1 Wirral Waters is a large and complex site comprising multiple proposed developments covering residential, commercial and industrial uses. The complex character of the site is reflected in the fact that the developer, Peel Land and Property, has set out a long-term vision for how Wirral Waters will ultimately become a new urban neighbourhood with a stable resident population and several sites of employment. In commenting on the speed of development that should be anticipated in a context such as this one research participant represented the developer's view that the relevant time frame should be measured in decades:

“This is just the first part of a 20- to 30-year project. Reimagining places like this takes time”. (Interviewee A)

4.2 However, 17 years after the Wirral Waters proposal was first publicly revealed, and 13 years after planning consent was granted, the scale of development that has materialised, as described in this report, has been described as modest. In accounting for why this state of affairs has come to prevail there are three possible explanations.

- Last-mile connectivity

4.3 The developer's case for why a more rapid and wholesale transformation has not been realised is the absence of a public transport network to provide last mile connectivity to the site. In turn, they highlight the local authority and the local public transport executive, Merseytravel, as obstacles to realising this vision of an extended public transport network to cover Wirral Waters.

4.4 The report of research findings provided in section 3 would support the view that that there is general consensus amongst all the main relevant agencies involved in the development that Wirral Waters would be enhanced by greater public transport connectivity. However, there is far less agreement regarding which agency should bear the capital costs of delivering the infrastructure and the ongoing revenue costs of its operation. Moreover, it is also clear that there are anxieties amongst political decision makers that the Streetcar that has been considered, whilst comparatively inexpensive relative to steel wheel-based trams, is of a suitable quality.

4.5 Whilst the developer characterises this as the local authority and Merseytravel 'blocking' the development of Streetcar it could equally be interpreted as democratic decision making in action: where there are doubts about the viability, suitability, quality and deliverability of a proposal elected councillors and officials are obliged to subject that proposal to scrutiny and, where appropriate, seek to encourage a different outcome.

- A weak market

4.6 The fundamental challenge faced by Wirral Waters is to establish a community in an area where there has not historically been one. Furthermore, as ex-

dockland the site clearly requires remediation before development can take place. It is from this perspective that the developer has sought to pursue a business model based upon partnerships with other agencies, acquiring grant funding to build the site out one development at a time.

- 4.7 From the developer's perspective the absence of a strong market that would readily support the case for development viability presents a clear case for this approach based upon grant funding and partnership arrangements. It is also the first line of defence in the argument for why the developer should not be required to contribute financially to the requirement for transport infrastructure through a Section 106 planning obligation. The logic of this argument is that the state should invest *first* in order to make development viable so that the developer can (subsequently) develop the site in the way set out in the planning consent.
- 4.8 This argument is redolent of the familiar 'viability charade' well-documented in the academic literature (Lord et al., 2019), where the (alleged) limited scope for profitable development is used to support the developer's case that no additional contribution can be made to deliver infrastructure essential to the establishment or growth of a community. Whilst some have expressed scepticism regarding the veracity of these types of claim, the case of Wirral Waters is clearly one where there is no functioning market - there is no existing resident community. Correspondingly, there may be a case for a partnership of public and private sector to deliver the transport infrastructure that would be required if Wirral Waters is to become a sustainable new community.
- Phasing
- 4.9 Finally, in accounting for delays in the delivery of new development it must be noted that the approach taken by the developer turns on phasing development in stages with the explicit intention for this to take up to (maybe greater than) 30 years.
- 4.10 One of the best examples of phasing can be seen in the proposed development of 347 modular homes at Northbank. The first phase of 30 homes was completed in December 2022 with consent sought for a second phase of 55.
- 4.11 This process of phasing is common to most large developments where the scale and speed of development is paced to reflect what the developer believes the market can absorb. As an aspect of developer behaviour it is well described in the UK context by the Calcutt Review's (2007: 41) account of the "article of faith, universally held by house-builders, that there is a limit of 35–50 homes which can be sold from one outlet in a single year". More generally this finding chimes with international experience from contexts such as the Netherlands where, under conditions of limited competition, build out rates have been shown to be determined in accord with the developer's preferences (Buitelaar and van der Krabben, 2023). Correspondingly, it should probably be assumed that the full scale of new dwellings anticipated for Wirral Waters will occur in a phased

pattern – and will probably take the full anticipated development period of 30+ years to achieve.

5.0 Conclusions and further research questions

- 5.1 The account of the Wirral Waters development set out above provides a great case study of a developer pursuing urban brownfield regeneration on a very large scale.
- 5.2 The findings of this report point to four hallmarks of this type of development that can be understood as land market frictions:

Partnership based development

- 5.3 The model of development being undertaken at Wirral Waters is premised on the assembly of public-private partnerships in which the state provides grant funding of various types to support and enhance the case for development. The portrait of the developments that have been undertaken so far at Wirral Waters set out in section 3 clearly shows that in every case, some form of public funding has been secured in order for the development to proceed.
- 5.4 Development of this type is incumbent upon partnerships and grant funding, often from multiple sources. Institutional economics provides a rich body of literature to account for this particular type of land market friction: where development is dependent upon the coordination of multiple parties and the acquisition of grant funding delay is almost an inevitability (Buitelaar, 2004; Shahab, 2022). Whilst some free marketeers have argued that planning primarily represents a brake on development the Wirral Waters case serves to illustrate the over-simplification of this view. Far from being an obstacle to development, planning will be essential to the delivery of Wirral Waters over the next thirty years: investment, expertise and the convening power of agencies such as Homes England, central and local government and Merseytravel will be instrumental in 'making the market' (Lord and O'Brien 2017) for the developer.

Supporting infrastructure: last mile connectivity

- 5.5 The absence of a public transport offer is held by the developer to be the single most significant obstacle (and therefore a land market friction) inhibiting development.
- 5.6 The developer's Streetcar proposal is conceived as transit-orientated development where the transit occurs first underwritten by local (or central) government and the local public transport executive with the promise of development to follow subsequently. However, this will require the State assuming the financial risk of delivering transport infrastructure to an area where there is currently no resident community on the expectation that development will follow - precisely the dilemma that this research project was designed to investigate.
- 5.7 From the report of research findings presented in section 3 there are clearly some further institutional land market frictions to overcome if this vision is to be realised. Firstly, there is uncertainty regarding which agency would be

responsible for the ongoing operation of any additional public transport and, secondly, a revised Streetcar proposal would need to be found that was acceptable to local politicians and officials.

- 5.8 Stated alternatively, if the development that was anticipated at the time of planning consent in 2010 is now understood to be dependent upon servicing the area with public transport it is likely that the delivery of this infrastructure will be dependent upon the frictions identified above: partnership assembly and grant acquisition.

Material changes to market conditions

- 5.9 Wirral Waters was granted planning consent in the first years of the global financial crisis. Since that time there have been several further significant changes to the character of development viability in the area.
- 5.10 The Covid-19 pandemic saw residential values experience significant and sustained inflation. Wirral in general was one of the areas of England that saw the most significant increase in the value of its residential housing stock over the period 2020-2022. Enhanced viability over this period created the conditions under which 30 higher value modular homes were built at Wirral Waters. Of these 30 dwellings, at the time of writing, it is reported that 12 have been sold. This aspect of the Wirral Waters development has subsequently stalled as a result of the modular developer, House by Urban Splash, going into administration. It is debatable whether the short/medium term property market outlook is sufficiently strong to support even a modest volume of higher value development in 2023/24.
- 5.11 With respect to non-residential development it should also be noted that much of the original Wirral Waters proposal was premised on commercial office space, including an abortive joint venture with a Chinese investor for the landmark International Trade Centre. Securing financial backers and tenants for office developments has become increasingly difficult since the effects of the Covid-19 pandemic have suppressed demand for commercial office space.
- 5.12 Changes in local market conditions such as these describe the context within which land market frictions exist. The real estate market is volatile and provides a shifting backdrop to the deal-making that development of the kind described in this report requires. The International Trade Centre is an excellent example of a development conceived at the high point of the 'golden age' of Anglo-Chinese relations. As the geopolitical climate has changed and the Covid-19 pandemic has reduced demand for office developments the developer has responded by repurposing this part of the site to be a Marine, Energy and Automotive Park - a significant departure from the original proposal prompted by a material change in market conditions.

Strategic behaviour

- 5.13 The third land market friction identified in this report is the nature of competition in land and property markets.
- 5.14 As the entirety of Wirral Waters is in the ownership of one developer the speed and sequencing of development is entirely at their discretion: they can choose to build the site out in a manner and to a timescale that suits their interests. This is not to diminish or denigrate the work the developer does: in acquiring the site they have taken on a huge challenge of establishing a community in an area where one has not previously existed. However, the evidence would suggest that they expect to take decades to achieve this goal and, to date, have chosen to proceed one development at a time, securing grant funding for each on a case-by-case basis.
- 5.15 Given that the developer effectively faces no competition it follows that they would logically behave strategically on an ongoing basis. This is likely to entail phasing development into the future to ensure the number of dwellings that are completed does not exceed levels that might be expected to be absorbed by the local market.
- 5.16 It should be noted that the findings discussed above relate solely to this case study of brownfield regeneration in an area where the existing market is weak and, may not apply to other settings where the development context is different.
- 5.17 Further research would be required to explore continuity and contrast between settings such as that described by Wirral Waters and those which are qualitatively different. This could include examples such as town centre development which has stalled (such as the Bradford Broadway, AKA 'the Bradford Hole in the Ground'), greenfield development in areas of high demand versus more challenging markets and cases from within greater London where potential contrasts exist between the South/East and North/West of the Capital. Further research across varying contexts would be valuable in identifying the type of land market frictions that might pertain more generally to comparable developments from across England.

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