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Cambridge City Council

DEVELOPMENT PLAN SCRUTINY SUB-COMMITTEE

To: Councillors Gawthrope (Vice-Chair), Ashton, Baigent, Pippas, Sarris and C. Smart

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Date: Tuesday, 11 November 2014
Time: 4.30 pm
Venue: Committee Room 1 & 2 - Guildhall
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AGENDA

6 CAMBRIDGE NORTHERN FRINGE EAST AREA ACTION PLAN – ISSUES AND OPTIONS REPORT *(Pages 3 - 90)*

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Cambridge Northern Fringe East Area Action Plan

Employment Options Study

Final Report

31st October 2014

BBP Regeneration
Appraisal • Strategy • Delivery

SQW

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Approved by:	Chris Green Director	Date:	22nd October 2014

Executive Summary

1.

1. Introduction

Context for the Study

1.1 The Cambridge Northern Fringe East area is highly important for the long term growth of Cambridge. Lying within the A14 and outside the Green Belt, the area contains Cambridge Business Park, the most successful office based business park in Cambridge, and St John's Innovation Park, and abuts Cambridge Science Park, one of the most important employment locations in the city.

1.2 The area has been considered for regeneration / re-development for at least 10 years and has been the subject of various consultancy and master planning studies on behalf of the Councils during that period; the key findings from these reports are summarised in section 4.

1.3 Although the area is occupied by many businesses and has had piece-meal investments by occupiers, a major development (other than on the Business Park and St John's Innovation Park) has not occurred, due to a combination of factors:

- multiple and complex land ownership patterns
- the presence of key functional land users
    - Anglian Water's Water Recycling Centre serving the whole of Cambridge
    - Major rail sidings, which are strategically important for Network Rail, minerals and freight
    - Site constraints related to the uses – noise, odour, ground contamination; and
- viability issues, that were compounded by the start of the property recession in 2008.

1.4 Several factors identified in earlier reports as having a negative effect on the viability and deliverability of the development in the area have recently come together providing a unique opportunity to bring forward redevelopment. Firstly, there has been an upturn in the economy and, although the Cambridge property market was not as badly hit as other parts of the UK, there has been a rise in developer confidence. This has been prompted in part by the move of Astra Zeneca global research and HQ functions from Altringham, London and Luton to Cambridge

1.5 Crucially the new mainline Cambridge Science Park Railway Station has been designed and permission granted. A key step forward was the confirmation in September 2014 that the Department for Transport would provide funding for the station which is planned to open in 2016. This funding announcement prompted the signing of a development agreement between Network Rail and Brookgate Development to bring forward development around the station and reconfiguration of the railway sidings. The opening of the station, will be accompanied by the extension to the Cambridgeshire Guided Busway (CGB) to form an interchange at the station. In parallel, the A14 northern bypass to Cambridge, which forms the northern boundary to the area, is currently being upgraded from two to three lanes, including further improvements to the junction with Milton Road (which forms the western edge to the area). This new infrastructure means that the CNFE area will be very well connected into the strategic road network and by fast, reliable public transport – to the rest of Cambridge, to key growth locations to the north and west (notably Northstowe and Waterbeach) and to London.

1.6 Potentially, therefore, it could provide a real focus for both clustering and agglomeration processes, linked to the high tech – and wider – business community. This opportunity will become all the more important as investment in both CB1 and the Cambridge Biomedical Campus proceeds apace. Its potential is also significant in relation to the wider provisions, aspirations and commitments of the Cambridge City Deal.

1.7 However the CNFE area itself is not without complications. Despite junction improvements to the A14 / Milton Road interchange, there are capacity constraints on Milton Road and the junctions south of the A14 interchange. Existing mineral and waste management operations act as a constraint on the introduction of new land uses. The location of the Waste Water Treatment Works presents a particular challenge; Anglian Water is currently investing in the facility due to anticipated population growth, yet there are major local issues surrounding odour. This in turn limits the appropriate uses of adjacent land. In addition, the Network Rail Depot accounts for a significant proportion of the area, of which much is currently committed to mineral-related uses.

1.8 It is within this context – of major opportunity but substantial constraint – that in June 2014 Cambridge City Council and South Cambridgeshire District Council jointly commissioned SQW and BBP Regeneration to undertake an employment options study to inform the preparation of the Cambridge Northern Fringe East Area Action Plan, (CNFEAAP) proposed in the emerging Local Plans for each authority. Significant change and regeneration is envisioned in this area which lies across the administrative boundary between the authorities and is bounded to the north by the A14, to the east by Cambridge to Kings Lynn main line railway, to the south by the residential area of Chesterton Village and to the west by Milton Road.

Purpose and Scope of the Study

1.9 The purpose of the study and the focus of this report is to consider commercial aspects of the site and to inform the forthcoming Area Action Plan regarding the deliverability of employment-focused development.

1.10 The AAP will have a strong focus on delivery and implementation; all three partners (Cambridge City, South Cambs and the County Council) are keen to move forward quickly on the AAP

1.11 The draft Local Plans for Cambridge and South Cambridgeshire, which have been submitted to the Secretary of State for Examination, indicate that the CNFEAAP will address the amount and types of development, site capacity, viability timescales and phasing of development. This work is to inform the councils on the deliverability of employment focussed development in the CNFAAP area leading to the publication of an issues and options paper.

1.12 We have undertaken several strands of research to inform our work:

- a policy and literature review;
- an assessment of the supply of and demand for local employment land and new employment space;
- a consideration of the property market context of the area;
- an assessment of the viability and deliverability of several options; and
- case studies of similar / comparable development sites elsewhere.

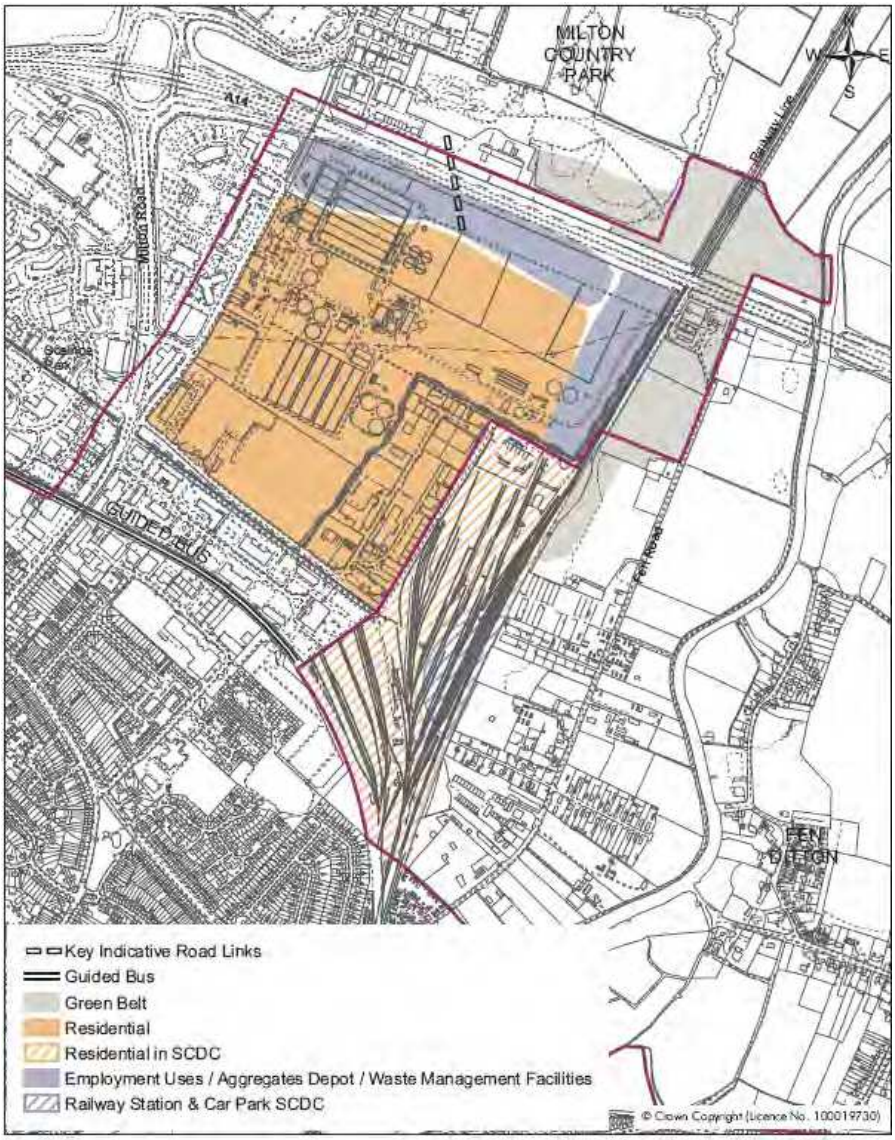
1.13 Separate reports have been prepared on each of these aspects and are attached as appendices; the main findings of each of these reports are included in section 5.

2. Planning Context

2.1 The majority of the area is currently identified for residential-led redevelopment, with the area to the north and the east of the railway line designated as Green Belt. A diagrammatic representation of the principal land uses in the Cambridge Local Plan 2006 shows employment uses providing a buffer between the residential areas and the A14 to the north and the railway line to the east.

2.2 However, the Submission Draft Local Plan 2014 states that *"the area is allocated for high quality mixed-use development, including employment uses such as B1, B2 and B8, as well as a range of supporting commercial, retail, leisure and residential uses (subject to acceptable environmental conditions)."* (page 55)

Figure 2-1: Extract from Cambridge Local Plan 2006



Diagrammatic representation of the principal land uses, access and transport arrangements and landscape requirements.

2.3 Chesterton Sidings is within South Cambridgeshire District and is reserved in their adopted local plan for a railway station and sidings. The Council have consulted in their emerging Draft Local Plan that the land in South Cambridge will form part of the regeneration of the wider area, a new railway station and rail/bus interchange, high density mixed, employment-led development with high quality / landmark buildings.

2.4 Cambridgeshire and Peterborough Minerals and Waste Development Plan, (Core Strategy, July 2011) allocates land for a new railhead north of the Lafarge depot, with the reconfiguration of the minerals sidings. This Plan envisages the retention of the Cambridge sewage works and the C&D waste transfer station as well as related service centres. It identifies the area as an "Area of Search" for other waste management facilities, such as construction and demolition waste recycling, household waste recycling and suitable new waste management technologies.

2.5 The planning policy context and adopted policies are set out in full in Annex A.

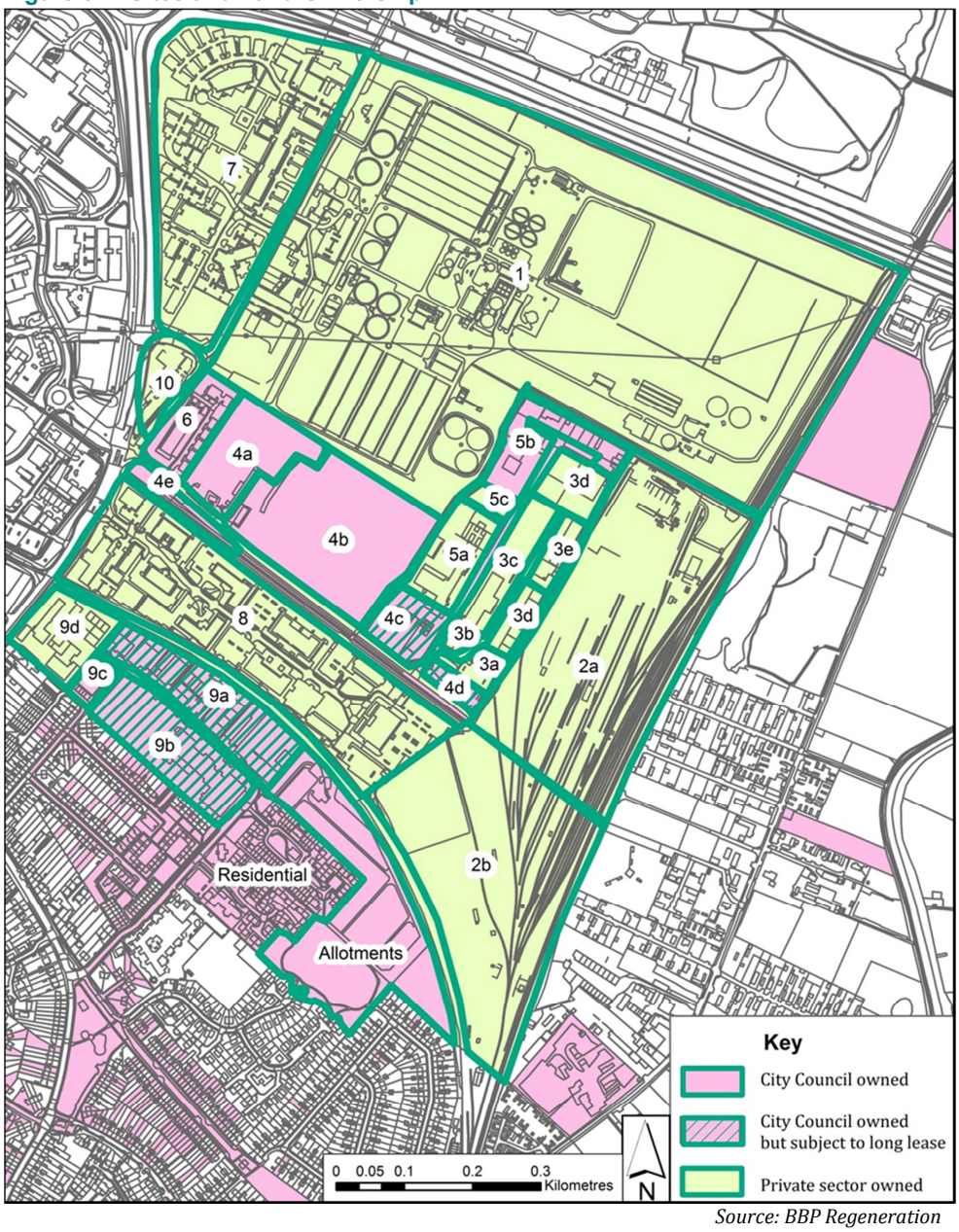
3. Existing Ownership and Sites in CNFE Area

Introduction

3.1 As part of our study we have undertaken a baseline review of existing employment sites in and around the CNFE area in order to inform the consideration of different development options to be taken forward through the AAP. The main focus has been on sites within the CNFE red line boundary but we have also considered the current status and outlook for other sites in the vicinity as well major sites elsewhere in the city.

3.2 In order to inform our analysis we have split the CNFE area into nine sub-areas based on patterns of ownership or physical commonalities, meaning the areas share certain issues and opportunities. These areas are illustrated on the plan below:

Figure 3-1: Sites and Land Ownership



Source: BBP Regeneration

Anglian Water Waste Water Recycling Centre (Site 1)

3.3 Covering around half of the CNFE area (23 hectares) Anglian Water's Water Recycling Centre (WWRC) are fundamental to the area's future development potential. With the works in situ as currently configured and/or as proposed under ongoing modernisation plans, the works directly take up a significant area of land and also limit the development potential of neighbouring sites due to "odour contours". If the works could be consolidated within the site, and measures, such as the modernisation of the plant as currently planned, are introduced to reduce emissions, the development potential of CNFE could be significantly enhanced. If it were possible to relocate the works entirely to a separate site, the development potential of CNFE would be transformed.

3.4 Part of the site is also occupied by Mick George Ltd. (a skip hire and building supplies merchant that recently secured an extension of planning consent until 2027), and there are five residential properties alongside Cowley Road.

Development potential

3.5 New development alongside the WWRC is limited to B2, B8 and complementary sui generis uses, as the distance from the works increases, or if odour control measures could be introduced, B1 uses and ultimately residential uses are possible. Any land released by Anglian Water offers the potential to accommodate displaced "bad neighbour" uses from elsewhere in the CNFE area thus facilitating wider development opportunities. If the works are moved offsite this would still be possible along the boundary with the A14 for example, but a larger scale, more mixed use development could be delivered across the CNFE area as a whole.

3.6 The County Council have aspirations for the temporary use of the eastern part of the site for stocking of mineral for the improvement works for the A14.

Constraints

3.7 The WWRC is the CNFE area's major constraint. Anglian Water have been reluctant to consider options for mitigating its impact or relocating until they are confident that a deliverable solution can be achieved. Any solution that sees a retained Anglian Water presence on-site is potentially difficult even if "odour contours" are reduced as AW is likely to resist development on neighbouring or their own surplus land that could in any way fetter their future operational flexibility.

3.8 Demonstrating a deliverable relocation proposal will requires an alternative site to be identified, and a viable option to be demonstrated. Importantly political support will need to be built for the proposed solution

Chesterton Rail Sidings (Site 2a/b/c)

3.9 The freehold of this extensive area is owned by Network Rail and much currently consists of derelict, unused sidings and basic shed-like structures. The main exception is an area to the north where LaFarge Tarmac has a coated roadstone plant which has a protected railhead leading to it; there is also an additional aggregates operation located in the southern part of the site also with rail head access. The new station will be located on the southern part of this area.

3.10 It is understood that DB Schenker, the country's largest freight operator, has a long leasehold interest across this part of the site and that LaFarge Tarmac is their tenant. Local developer Brookgate Land Ltd has been working with Network Rail, DB Schenker and LaFarge Tarmac to promote redevelopment of this area; a formal development agreement between the two parties was signed in September 2014.

3.11 Brookgate Land Ltd has submitted a planning application on behalf of Lafarge Tarmac Limited, Freightliner Group Ltd, DB Schenker Rail (UK) and Network Rail for the proposed reconfiguration and consolidation of the existing mineral processing and transfer operation. The associated realignment of the freight line to the east of the sidings area is not part of the planning application, and would be undertaken under permitted development rights. The reconfiguration offers the potential for more efficient rail and aggregate workings, freeing up LaFarge Tarmac's current site on Cowley Road and releasing much of the current unused sidings area for development. There are inevitable noise and dust issues associated with the aggregates works and freight train movements and in addition the coated roadstone plant works on occasion through the night, and is likely to do so once the upgrading of the A14 begins, meaning careful consideration must be given to adjoining uses.

Development potential

3.12 A large area of vacant land can be released for development and is largely unaffected by odour issues even with current Anglian Water operations. Close proximity to the station provides an opportunity for office and residential uses as well as ancillary retail and services. The Council has some land interests in the area that will need to be considered in terms of influencing development proposals.. The freight reconfiguration proposal offers the potential to release LaFarge Tarmac's current site for development.

Constraints:

3.13 At the time of writing, the detail and therefore implications of the development agreement between Brookgate and DB Schenker are not known. Ongoing (protected) freight and aggregates operations as well as the mainline railway will limit the development potential of some areas.

Cowley Road: Cambridge Commercial Park (Site 3)

3.14 The ownership pattern across this area is diverse with a range of private owners involved including some owner occupiers and some investors. The uses vary from industrial units to low quality offices to open storage with Stagecoach being a major owner and occupier.

Development potential

3.15 Ideally sites towards the entrance of the Commercial Park (1a and 1b) would be brought into the initial phases of a comprehensive redevelopment given their prominence and proximity to the new railway station. Some owners may bring sites to the market as part of their own strategies or to capitalise on activity in the area; the Council and its development partner(s) should seek opportunities to acquire such sites.

Constraints

3.16 The range of private ownerships makes a comprehensive approach challenging in the short-term. In addition Stagecoach, in particular, would require a relatively large relocation site within a limited "search" area. Much of the site is currently constrained by odour contours which as presently configured would preclude residential development and severely limit the amount of B1 use that could be accommodated. The expectation is that these odour contours will reduce to a certain extent, following implementation of Anglia Water's current operational investment plan.

Cowley Road: frontage (site 4)

3.17 Five sites, all in City Council ownership front Cowley Road. These include the now vacant former park and ride site and the golf driving range which is still operational, a small site occupied by the Driving Standards Agency and two sites let to Veolia and LaFarge Tarmac on long leaseholds.

LaFarge Tarmac are party to the recent planning application lodged by Brookgate that would see all of LaFarge Tarmac operations consolidated in the area around the northern boundary of the rail sidings. The current operation is a "bad neighbour" use, creating dust and noise as well as being visually unattractive, meaning careful consideration would be needed for any alternative location The Veolia site is protected by the current Waste and Minerals Plan.

Development potential

3.18 Overall there is a critical mass of land in council ownership that offers the potential for the Council to set the agenda for the strategic redevelopment of the area. The frontage to Cowley Road will be the main route to the new station and is therefore an opportunity for high quality, high profile development. The delivery of such a strategy would require the less attractive users such as Veolia and LaFarge Tarmac to be relocated elsewhere. The Council are exploring the potential to market the combined sites in order to secure a private sector partner to assist in taking forward a comprehensive development strategy that supports the aims and objectives of the AAP..

Constraints

3.19 Some sites are let on long-leases and occupied by "bad neighbour" uses that would require relocation to an appropriate location. Parts of the site are constrained by odour contours which would currently preclude residential development and limit the amount of B1 use that could be accommodated.

Cowley Road: remainder (site 5)

3.20 The main landowners in this area are local builder, Coulsons (5a) and the City Council (5b). Coulsons have owned and occupied their relatively large site since the late 1980s. As well as yard space and several small industrial units, the site includes their head office, "William James House" which was purpose built in 1988. William James House is now partly occupied by a range of small businesses on easy in/out licenses.

3.21 The City Council owns an area of contiguous land totalling around 1.14 ha and currently split into 12 plots. These plots are almost all occupied by a range of businesses on relatively short leases

including a car dealership, storage companies, builders yards, car garages and national retailer "Drain Center". There is an opportunity therefore to carefully manage the occupation of these sites and to look at options to relocate other users from elsewhere in the CNFE area in order to free up priority development sites. These land holdings will also form part of the forthcoming marketing exercise.

3.22 National hire firm Speedy Hire occupy and are understood to own site 5c next door to Coulsons.

Development potential

3.23 The sites in City Council ownership could fulfil a potentially crucial role in enabling the reconfiguration and relocation of other owners and occupiers in the CNFE area in order to facilitate development in priority areas. In the short-term, with Anglian Water in-situ, the development potential is limited. Coulsons ongoing operations are considered complementary to the AAP aspirations and there is some potential for additional development/redevelopment of surplus yard space on their site.

Constraints

3.24 The majority of the Council owned sites and some of the private sites are located within the current odour contours thus limiting their development potential beyond existing storage and B2 uses.

Orwell Furlong (site 6)

3.25 This site is dominated by a single building that was developed by Cambridge City Council in the 1980s in order to provide premises for small businesses as well as an income stream for the authority. The development consists of 19 office units (Orwell House) above 12 small industrial units (Orwell Furlong). The scheme is reasonably well occupied with tenants typically on 3 year leases however the building as a whole is in need of refurbishment and given that it occupies a gateway site to the CNFE area, it presents a rather dated image at present. The offices are provided on a serviced basis but there is no additional business support or activity by the Council e.g. to foster a hub of like-minded businesses etc.

Development potential

3.26 This area could be refurbished or redeveloped as part of a comprehensive approach to the area; it is unlikely to generate sufficient value for a standalone redevelopment. The site has a good location in close proximity to the Science Park and St John's Innovation Centre. It could provide a high profile, gateway site on the main approach to the new railway station.

Constraints

3.27 Current occupiers and demolition costs prohibit immediate redevelopment.

St John's Innovation Park (site 7)

3.28 The St John's Innovation Park includes buildings with a gross floor area of 25,770 sq m on an existing built footprint of 10,200 sq m (10.9% of the site). This includes the St John's Innovation

Centre, which provides 53,000 sq ft (4,900 m²), of space. The innovation centre accommodates around 80 companies employing over 300 people and also offers virtual tenancies. The centre provides serviced office space and also seeks to foster innovative clusters. Two of the buildings are owned by investment companies and are on long leases. The rest are in St John's ownership.

3.29 The site has been developed at a relatively low density and the College have an existing masterplan to increase density on the site, which proposes a total built footprint of 14,430 sq m (15.2% of the site area) and an additional gross floor area of 12,505 sq m (i.e. a 49% increase on the existing built floor area).

3.30 Planning permission was achieved in 2012 for an undeveloped area on the southern edge of their landholding known as the "toe site". This consent was for a 3.5 storey building of 3,390 sq m (included in the above figure for potential increased floorspace on the whole site). At the time, the building height was limited by the planning authorities, but if that constraint was lifted, the College would consider a five or six storey development. The planning consent has yet to be implemented whilst the College review their options for the most appropriate occupier given their specific objectives for the scheme as a whole in terms of target sectors etc.

Development potential

3.31 There is potential to increase density through additional development.

Constraints

3.32 Much of the site is severely impacted by odour contours which would appear to preclude any further office development; this position is being clarified however as it was not an issue for the "Toe site".

Cambridge Business Park (site 8)

3.33 Owned by the Crown Estate, the Business Park offers 29,728sqm (320,000 sq ft) of high of high quality office space across 12 buildings of between 2 and 3 storeys. The scheme was completed on a phased basis starting in the mid-late 1990s. It is now reported to be fully occupied for the first time and includes blue chip occupiers such as the BBC, Ernst and Young, Grant Thornton and Hewlett Packard, as well as successful local high tech companies such as Redgate Technologies.

Development potential

3.34 The scheme is successful and modern and as such there appears to be limited short-term development potential. The western end of the site abuts the site of the new railway station and there is therefore a significant opportunity to reconfigure this boundary to capitalise on this proximity. The scheme is relatively low density and there may be scope to develop additional buildings by rationalising open space and/or car parking (the latter facilitated by the improved transport links). There may also be opportunities to extend existing buildings in line with occupier requirements or lease end dates.

Constraints

3.35 The site is already largely developed.

Nuffield Road Industrial Estate (site 9)

3.36 The Nuffield Road area also has a diverse pattern of ownership with private owner occupiers, private investors and the City Council all owning key sites. The majority of users are industrial/manufacturing businesses or those undertaking open storage/car repair activities.

3.37 The City Council owns the freehold for much of Nuffield Road including the Nuffield Close industrial units but these are let on long leases to owner occupiers or third party investors. Site 9d, Trinity Hall Farm Industrial Estate is owned by regional property investment and development group Dencora.

3.38 Leading regional builder's merchants Ridgeons occupy the largest single site in the area (9b) under several long-leases granted by the City Council. The site is immediately adjacent to existing residential areas.

3.39 Robert Davies Court (site 9c) is owned and managed by the City Council; it comprises 15 purpose-built light industrial units and workshops let to a wide range of tenants on typically 3 year leases.

Development potential

3.40 Locationally this area would lend itself well to high quality commercial or residential development given its distance from bad neighbour uses and proximity to both the new station and guided bus way link. The industrial units along the northern side of Nuffield Road could form a natural extension to the Cambridge Business Park, whilst the Ridgeon's site could be linked in to the adjacent residential area. It may be possible to work with investors that own sites and who may be open to redevelopment in order to capitalise on the improved transport links offered by the new station.

Constraints

3.41 The pattern of ownership makes comprehensive redevelopment challenging to achieve without significant cost as a lot of long leasehold interests would need to be acquired. In order to avoid politically unacceptable job losses, businesses would need to be relocated within the local area.

3.42 Access is also relatively constrained, as there is only one road access via the residential areas to the south. Many local residents are looking for the future commercial access to be off the extension to the Cambridgeshire Guided Busway and have submitted a petition to Cambridgeshire County Council.

Merlin Place (site 10)

3.43 Owned by a Norwich based private investor, Merlin Place is an office building developed in the late 1980s. It occupies an island site on the edge of the CNFE area immediately to the south of St John's Innovation Centre. The building is wholly occupied by solicitors, Taylor Vinters, under a lease that is due to end in 2015.

Development potential

3.44 The existing use and any refurbishment thereof is likely to be complementary to future proposals for the CNFE area without any further intervention. Given the site's location however, there may

be potential to explore opportunities to incorporate it into an improved "gateway" for example through junction improvements that utilise some of the car park on the site. This would require further feasibility work as part of the City Council's plans for its wider land holding in the area (e.g. Orwell Furlong in particular).

Constraints

3.45 Any revised proposals for the site would require a commercial arrangement to be reached with the current owners.

Initial Conclusions

3.46 The future location and operations of Anglian Water are fundamental to the development potential of the area.

3.47 With Anglian Water in situ, and operating largely as at present, there is an opportunity to use the City Council's land ownership in the Cowley Road area to consolidate existing users – both Council tenants and third party freeholders – in order to create an uninterrupted development site along the Cowley Road frontage which could accommodate new high quality commercial development. This could be brought forward together with the proposed redevelopment around station that is proposed by Brookgate, development of the area to the south of the Guided Busway which is unaffected by the WWRC and the St John's Innovation Park which although within the odour contour has an extant planning permission and a masterplan for new development.

3.48 If Anglian Water can be relocated offsite there is a major opportunity to comprehensively redevelop the entire CNFE area with significant additional residential development, new high quality commercial development and the ability to re-accommodate "bad neighbour" uses from elsewhere in the CNFE. However in order to achieve the delivery of comprehensive development across the whole of the AAP area both Councils will need to work closely together across all their functions, within agreed strategic objectives which will inform the actions of all their departments.

3.49 With or without Anglian Water, there is also a need to understand Network Rail's objectives with regard to its extensive land holdings, as the sidings site offers significant development potential in its own right, even with Anglian Water in situ. There is a risk that the area around the station could be developed in isolation in such a way that prejudices the wider/future development of the CNFE area.

3.50 Due to the fragmented landownership across the area, achieving comprehensive redevelopment is likely to require land assembly. It may be possible to coordinate activity between major landowners, provided interests can be aligned around a common strategy; however, if agreement cannot be reached, a lead developer may need to bring key sites into common ownership.

3.51 In seeking a strategic development partner for their own land holdings, Cambridge City Council should consider the implications and timing of delivery of development on their own land and how it might use its CPO powers in order to achieve comprehensive redevelopment. It is common, for example, for development partners to underwrite the costs of compulsory purchase. Undertaking a CPO requires careful consideration and specialist advice in order to ensure that the appropriate planning and legal frameworks are in place to avoid lengthy and costly challenges.

4. Previous Reports and Appraisals

4.1 Several previous separate master planning and viability reports have been prepared to inform the development of CNFE. The timing and findings of these reports are highly relevant to understanding the context and thus scope of the current study and are summarised below

Llewelyn Davies Draft Development Framework (January 2004)

4.2 This master-planning study was prepared by Llewelyn Davis, working with ATIS Real, Wetheralls, Campbell Reith Hill, Michael Beaman Ltd and Steer Davis Gleave. The underlying consideration was how to deliver a new residential-led quarter.

4.3 Three separate scenarios were considered, and within each scenario there were several iterations. The common elements for each scenario were a proposed new tunnel road link into the area from the A14 / Milton Road interchange and separation of vehicular access from Milton Road for the various uses

Scenario A

4.4 Residential-led development that envisaged the retention of the Anglian Water WWRC and the rail freight / aggregates facility and the construction of the new rail station and a park and ride facility; the station was subsequently removed due to the negative impact on residential capacity.

Scenario B

4.5 Reduction of the Anglian Water WWRC and relocation within the site, combined with the relocation of the aggregates facility to the north of the site. The new station and guided bus facility were initially proposes to be located to the south, but later moved more centrally.

Scenario C

4.6 Relocation of the Anglian Water WWRC off-site, and redevelopment of that land for offices, retail and employment (due to proximity and noise from A14 and relocated aggregates facility at the north of the site. Remainder of the site developed for residential use, served by new station and guided bus facility located centrally.

4.7 This third scenario was preferred and subject to viability appraisal.

ATIS Real Wetheralls Appraisals (2004)

4.8 These were undertaken as part of the Llewelyn Davies study and focused on the deliverability of the Llewelyn Davies proposals for a comprehensive scheme covering the whole of the CNFE.

King Sturge Analysis (2005)

4.9 Subsequent analysis by King Sturge revisited viability in the context of rising house prices. Further sensitivity analysis was undertaken of generic value and cost variables, based on an

exploration of transactional evidence included in the report. The report did not treat the Llewelyn Davies proposals as the only starting point, but also considered the prospects of securing generic forms of development on the individual landholdings.

4.10 The report concluded that the mixed-use development of the site was unviable, primarily because of the estimated £138 million cost of relocating Anglian Water WWRC, which would require "substantial third party funding".

ATIS Appraisals (2006)

4.11 This analysis addressed what were considered to be methodological deficiencies in their earlier work and tested the sensitivity of the development of each major landholding to planning requirements and abnormal costs. It considered not only the Llewelyn Davies masterplan but carried out extensive viability testing on a wide range of generic development proposals around the key variables (proportion of affordable housing, S106 contributions and residential density) ; some of these scenarios attracted later criticism as being unrealistic.

4.12 Their overall conclusion was that development was only viable if the cost of the WWRC was excluded. If it was included, then substantial third party public funding would be required.

iCube – Chesterton Sidings – Review of Development Options (September 2007)

4.13 Network Rail commissioned a study to consider the development options around the new station, including the reconfiguration of the minerals and operation sidings and some car parking. A significant change had been the proposed relocation of the park and ride facility to a site north of the A14 (which has since been implemented), releasing land for development and reducing traffic and access issues along the A14.

Roger Tym and Partners - Viability of Planning Options (May 2008)

4.14 This report was commissioned by Cambridgeshire Horizons around the time that the proposal to relocate Anglian Waters WWRC to Honey Hill at Fen Ditton received significant local objection and was not supported by South Cambridgeshire District Council. At this stage the preferred option for the area continued to be residential- led mixed use development.

4.15 Cambridgeshire Horizons were concerned that the development of CNFE was no nearer being realised, largely because it is a complicated development opportunity and project viability had previously proved to be doubtful. The purpose of this study was to review the previous reports, identify the key issues, define potential development options which might be implementable and assess likely project feasibility.

4.16 The main findings of the study were that the relocation of the Anglian Water WWRC was considered to be unviable and undeliverable, based on the earlier cost estimate, plus inflation. Other competing priorities in the area were identified: waste materials facilities and improved transport facilities, including the new station, public transport interchange and park and ride facility.

4.17 At this stage South Cambridgeshire DC indicated that they were prepared to accept that an employment-led mixed use development might need to be considered as the only viable option to take forward.

4.18 The findings of the Roger Tym Report have set the current planning agenda and it is therefore worthwhile to consider these in full:

Roger Tym Report Conclusions on Viability

"3.27 In general terms, although the net worth of the land for residential development is severely reduced by planning requirements, it remains high enough to permit development on the sites that have low or no current use value, or which will not be subject to substantial abnormal development costs. In practical terms this means that:

- *Residential development on the railway land is commercially viable.*
- *The redevelopment of industrial units in reasonable condition would probably not be viable in isolation.*
- *The economics of redeveloping the aggregates plants and other facilities such as the park and ride would depend on whether or not it was intended to replace them. We have no cost estimate for this but would suspect that redevelopment would be viable.*
- *The cost of relocating the WwTW was estimated at some £130m+. To this would need to be added inflation since the estimate was prepared, finance costs and the developer's return. Our analysis assumes that the WwTW site comprises 39 ha. At a value per gross hectare of £2m this would be worth £78m. It follows that at current prices the development of the WwTW is not viable and we concur with the conclusions from the earlier studies.*

3.28 It is necessary to consider the potential impact of future movements in the market. The Barker Report illustrated the macro-economic forces which would drive house prices upwards at a faster rate than the normal rate of inflation in build costs over the long term. This should result in higher land values. But in the short and medium term the trend in house prices is at best flat and building costs will increase as the higher construction standards required by the Code for Sustainable Homes is implemented. It is thus difficult to predict the point at which rising land values might make the WwTW viable but preliminary analysis suggests that we could not expect this to occur for ten years or so. "

Roger Tym Report Conclusion of Review

"3.29 The previous development proposal was a visionary and aspirational concept to create a new residential quarter for Cambridge. There has been no progress towards realising this concept and on three occasions other consultants have concluded that comprehensive development in the manner envisaged is not viable due to the high costs of relocating the WwTW. Our own assessment of current market conditions confirms that the LD concept is not viable at present. It is unclear whether it would ever be viable but it is possible, based on historic evidence, that in about 10 years the value of housing land may have increased sufficiently to make the concept viable.

3.30 There have been three key changes to the planning context, however, which militate against a strategy of 'wait and see' until such a time as the development economics improve. In brief, these changes are as follows:

- *PPS3 places a far higher emphasis on practical delivery of housing than its predecessor Guidance and it would very difficult for the City Council and SCDC to demonstrate robustly that a comprehensive development concept could be implemented within the next five years. Even if it was practical to arrange the relocation of the WwTW within this period, redevelopment is patently not viable.*

- *The joint employment land study commissioned by the City Council and SCDC has identified a shortage of sites for B1(a), B1(c) and B2 development in and around Cambridge and part of the CNFE could satisfy requirements for industrial development.*

- *As a consequence of increased demand for rail use of the WAGN line the emerging Anglia Route Utilisation Strategy is seeking to expand rail use between London and Cambridge (see the next Section of this report). In addition, Network Rail wishes to ensure development of a gateway station at Chesterton together with the use of much of the sidings for train stabling and washing facilities.*

3.31 Consequently, and quite apart from the problem of non-viability, it is no longer possible to envisage a primarily housing-led comprehensive development concept being initiated within the next five years and probably not even in the longer term. Consequently, we see no prospect of the Development Framework Plan concept ever being realised in the manner envisaged by LD.

3.32 In our view, the changed planning context, the need to accommodate a different range of uses and current market conditions all suggest that it is necessary to consider a quite different set of development options. Before we consider what the various components of an achievable option(s) might be, we turn to address the transport issues raised by development at CNFE. These are of equal importance as the planning context in shaping the form of development which can be achieved."

Cambridge Northern Fringe East – Visioning Workshop April 2013

4.19 In the light of the findings of the Roger Tym Report and as part of their planning policy review and preparation their Draft Local Plans, the Councils reconsidered the appropriateness of the residential-led planning allocations for the area around Cowley Road, Chesterton Sidings and the new station in their adopted local plans.

4.20 In April 2013 the Council convened a facilitated workshop to inform their policy development. The workshop was attended by both local authorities, Cambridge County Council (as both transport and waste and minerals planning authority), Network Rail, Anglian Water and 5th Studio. The workshop started with a presentation by each of the participating organisations, setting out their key issues and was followed by ½ day plenary sessions / workshops on "Community", "Connectivity" "Climate" and "Character". The main conclusions of the workshops are contained in Annex B

4.21 As a result of these workshops the Councils have agreed project objectives for the CNFE AAP:

- Achieve the regeneration of CNFE through a high density and high quality employment-led mixed use development;

- Contribute to meeting the employment and housing needs of the sub region;
- Provide a high quality gateway to the city and an area which is an important and attractive destination in itself;
- Contribute to the wider growth agenda of the area, including the retention and enhancement of a strategic rail freight head;
- Enhance the transport, water, social and community infrastructure and environmental assets in the north-east of Cambridge.

5. Initial Findings

5.1 This report is accompanied by two separate reports prepared by SQW: one on the property market and property issues and one on the wider economic context. The work draws upon a series of meetings and discussions that have taken place between SQW and BBP and the main landowners and/or occupiers of sites within and adjacent to the CNFEAAP area and with the agents acting on their behalf or active in the Cambridge market and their property market research departments.

5.2 Detailed discussions have been held with Cambridge City Council (Property Department), the Crown Estate, Anglian Water, Network Rail and Stagecoach. In addition SQW have held discussions with a range of business organisations, including Cambridge Network, Cambridge Ahead, Cambridge Enterprise and the Greater Cambridge Greater Peterborough Local Enterprise Partnership. A full list of consultees is included in Annex C.

Main Findings of the Property Market Report

5.3 The property market report primarily drew on semi-structured interviews with key local commercial and residential property agents (Bidwells Carter Jonas, LSH (Lambert Smith Hampton), Savills), together with a review of relevant locational research reports published by them and other local agents (including Cheffins, JLL). This published data was backed by site specific data and property information provided by the agents.

5.4 The general message from agents is that for a city of this size and international significance within the R&D and technology sectors, the supply of quality space is at a critically low level, particularly within Zones 1 - 3. Several agents note that in particular laboratory space is at a critically low level. This reflects the fact that there has been a strong upsurge in take up of existing, and the limited amount of new, space since 2012, combined with a lack of development activity for several years during the prolonged economic downturn between 2008 and 2012.

5.5 The extent of the area that has development potential will depend on whether the sewage treatment works are moved or improved (to reduce the odour contour); the improvement of pedestrian and cycle links to the station from the surrounding area and the introduction of improved public transport links from the station to the Science Park. The significantly improved public transport could facilitate redevelopment intensification, by reducing car parking provision.

5.6 There are currently few large sites for development in Cambridge. If Anglian Water's WWRC were to be relocated, the AAP area would contain one of the largest employment development sites in single ownership within Cambridge. Given its location in relation to the new station, some local agents consider that the AAP area and AW's WWRC site may have the potential for occupation by a single or two large occupiers with large space requirements.

5.7 The station itself and the links to the proposed guided bus route are of themselves not considered to be sufficient catalyst for the development of the current CNEFAAP area and also for wider areas in the Cambridge Science Park; a further prerequisite is the development of a new community core (shops / services / restaurants / cafes / public houses / other) around the station, possibly also linked to improved facilities in the Science Park.

5.8 The most significant impact of the new station will be to drive the intensification of development. Although the current maximum height of development in the area is found in Cambridge Business Park (4 storeys) there are no significant urban design constraints to increasing the height of buildings. Most agents suggest that there could be an increase in height across the CNFEAAP area to up to 6 storeys, with significantly higher buildings (up to 10-12 storeys) in the vicinity of the station.

5.9 In LSH's opinion the Science Park is not as good an employment location as others, especially those on the southern fringes, due to the age of the development. Despite some recent refurbishments and limited redevelopment their view is that many premises are now quite dated and the communal facilities are below current market requirements. However due to the status of the park there continues to be strong occupier demand.

5.10 This view is not held by others agents and appears to the misfounded for a number of reasons:

- First, the only development on the southern fringe is the Biomedical Campus, which is restricted to bioscience firms and research institutes. So this analysis does not compare like with like.
- Second, the older phases of the Science Park, although outdated, are being redeveloped. The more recent phases are very recent, with some developments currently still under construction. A number of the older buildings are among the best in Cambridge –e.g. the NAPP building.
- Third, some of the buildings may be dated but the landscaping is very mature and attractive, and the whole site is still very popular. Vacancy levels are generally very low.
- Fourth, there is planning permission for a new hotel and conference centre in the middle of the site, which will address some of the amenity problems.

Main Findings from the Economic Context Report

5.11 The key conclusions from the economic context review are as follows.

5.12 High tech, professional, financial and business services have grown strongly in the past and are expected to be responsible for most employment growth in the Cambridge area up to 2031. High tech and professional services in particular are expected to form a significantly greater proportion of total employment by 2031 than currently. All of these activities typically occupy mainly office and R&D/laboratory space, classified within Use Classes B1(a) and B1(b). There is currently strong demand for premises from firms in these sectors, and limited supply of space ready for occupation.

5.13 There is also likely to be demand for some industrial and storage space from firms undertaking specialist manufacturing (e.g. precision engineering and prototype manufacture) and providing local services such as builders' merchants, wholesalers, and transport operators. There are a variety of such uses currently located within the AAP area.

5.14 The Northern Fringe is regarded as an attractive business location, and this will be greatly enhanced by the new station. The area around the new station could become the next main

centre for city centre office uses, since there is limited scope for further growth in the central area once CB1 is completed. It is also likely to be a popular location for high tech activities.

5.15 The high tech cluster is diverse, with all high tech services expected to grow. The decision by Astra Zeneca to relocate its global HQ and main research centre to Cambridge represents a step change in the scale and nature of inward investment into the Cambridge area, and could precipitate further growth. However, the main geographical focus on bioscience/biomedical firms is to the south of the city, close to the main related research facilities and specialist property (including commercial laboratory space). The NE fringe does include some laboratory uses and could attract more, but it is likely to be most attractive to other high tech sectors, which will require a mix of offices and hybrid buildings capable of a mix of uses.

5.16 Lower value industrial and storage uses, and users such as creative and cleantech industries, which are important to the Cambridge economy, may be priced out of the AAP area, unless specific provision is made, for example in the areas adjoining the Anglia Water site. Alternatively, provision could be made elsewhere for these uses, in order to maximise the development potential of the AAP site, providing the alternative locations meet the needs of current occupiers.

5.17 The Cambridge Science Park is currently developed at low densities, and the early stages are 40 years old and ready for re-development. Higher densities could be achieved within the Science Park without destroying its essential character, and this would help ease the supply constraints for high tech firms in the Cambridge area. Policy E/1 of the Proposed Submission Local Plan for South Cambridge supports *"appropriate proposals for employment development and redevelopment on Cambridge Science Park".* In consultation for this study, Trinity College confirmed its intention to gradually redevelop the site at higher densities as existing buildings reach the end of their design life

5.18 Intensification of use on Cambridge Science Park and St John's Innovation Park, both of which are reserved for high tech uses, would enable most or all of the employment area close to the new station to be designated as open B1, providing for a market-led mix of professional, financial and business services and high tech uses. High densities around the station should be achievable to maximise the amount of employment space created.

5.19 Increased density will create concerns about parking provision on Cambridge Science Park and throughout the AAP area. Although the area is well served by public transport, existing firms operating on Cambridge Science Park, St John's Innovation Park and the Business Park have been used to generous parking provision, and may not respond well to much lower levels of provision such as those in CB1.

6. Development Options Scenarios

What has informed our view of the Options

6.1 The CNFE is a complex and varied area, and as such the consideration of future development options, whether in part or comprehensive, requires an understanding and analysis of a range of influencing factors. The following are therefore some of the key issues which have informed our indicative appraisal exercise below, and will need further detailed consideration / investigation, if robust decisions on a preferred option are going to be feasible in the next few months.

Market perspectives

6.2 Demand for commercial uses going forward is a critical issue and is at the heart of decisions around this location. There is not only a "local" perspective concerning the potential for creating demand in this part of North Cambridge, but also a much wider analysis of how Cambridge as a whole is likely to develop over the next 20 years and what physical assets will be required to deliver this growth.

Ownership issues

6.3 Ownership patterns and the tenure arrangements for a whole mix of occupiers on site will be a critical component of any development plan. To a large extent this is assisted by the levels of Cambridge City Council ownerships across the area, although some of these are subject to long leasehold interests which will significantly influence development complexity, risk and potential.

6.4 In particular, the Anglian Water site (and its future), is perhaps the biggest issue in a number of respects:

- If retained on site without significant improvements, there will be a continuing prospect of odour contours impacting upon the range of acceptable uses that will be permitted in the locality
- If the facility remains on site but is redeveloped, using the latest technology to significantly reduce the footprint that it occupies and the level of odours being emitted, then the development options are significantly enhanced
- If it is relocated to an alternative location away from the CNFE locality, then a whole range of additional development options may be possible.

6.5 Some of the other key users on site, the prospects of removal / relocation, and the impact that these could continue to have on any new development over a period of years are also key considerations, particularly such businesses as the Stagecoach bus depot, Veolia, Lafarge, and other industrial based users

Wider infrastructure issues

6.6 There are a number of wider infrastructure issues, which will influence the nature and scale of new development in the area. These include:

- The construction of the new station, which will be a "game changer" for the area, and open up a whole range of possibilities for not only land within the immediate vicinity, but also other sites / development in the area (including the Cambridge Science Park, etc.)
- The proposed, extended route of the Guided Bus, running to the south of the Cambridge Business Park and providing a connection to the station
- The current access arrangements to the Nuffield Road part of the site, through significant residential areas.
- The potential capacity constraints on Milton Road and road junctions

Specific site / infrastructure issues

6.7 More specifically there are some site related issues, which include:

- Likely ground / site conditions – including potential contamination
- The presence of the overhead electricity pylons.

Delivery issues

6.8 The mechanisms through which a comprehensive development of this complex and varied area could be brought forward – given the complexity of site assembly, infrastructure provision and investment, and the consistency of development management required over a considerable number of years, will be a challenge, it will be critical for the whole area to be master-minded and driven forward by a major player, with "deep pockets" and a long term vision.

6.9 The long timescale inevitably associated with any development on CNFE will also prove a challenge:

- This particularly applies to Anglian Water, given the likely timescales associated with any "new technology" redevelopment of the facility or a complete relocation exercise. It is therefore likely to be 10 years plus, before any of the site could be capable of being brought forward for any new development, assuming AW were to agree to this. However it will be a shorter time period before improvements may reduce the odour contour
- There are also a number of other considerations around timescale, for example how market demand in the area holds up through a number of economic cycles.

The Options – description and components

6.10 Following extensive discussion and consultation with the client group and others, it has been concluded that four main options should be considered for the future development / redevelopment of the CNFE area. These are mainly configured around the potential for development with - AW remaining on site and operational into the foreseeable future, AW reconfigured into a smaller footprint on site, and AW relocating to a new site, remote from CNFE.

6.11 The indicative layouts for each Option are attached as Annex 6 to this section of the report, which highlights the various uses and infrastructure items envisaged across the area, as well as the site areas which have been used in the indicative appraisal analysis below.

6.12 The broad assumptions associated with each of these options is set out in more detail here:

- **Low development option** (assuming new station but AW remains in situ):

  The Anglian Water Recycling Centre remains in situ, although proposed "upgrading" works will proceed over the next few years (including a pumping station and 8 new treatment tanks, to support the city's growth plans to 2031)

  This implies that the current "odour contours" will continue to apply into the foreseeable future

  Cambridge Science Park Station development proceeds (with adjoining surface car parking)

  A reconfiguration of the existing railway sidings, to an area to the north of its current location, to provide a strategic aggregates railhead

  New, high density B1 offices/R&D uses are developed around the Science Park Station

  New, lower density B1 offices/R&D uses are developed along the frontage to the length of Cowley Road (not seriously impacted by odour contours), which provides access to the Station

  An associated removal of Veolia waste transfer station and Lafarge concrete batching plant from their existing sites in this vicinity (to facilitate this new development) – to new facilities to the north of the site, around the reconfigured railway sidings

  New, lower density B2 uses are developed on land located behind the Cowley Road frontage land (referred to above), which will be more impacted by the AW facility odour contours

  The retention of existing industrial uses on Nuffield Road and the northern section of Cowley Rd, together with the B1 uses within the Cambridge Business Park and St John's and Taylor Vinters sites

  Enhanced public realm gateways, with a boulevard corridor along existing Cowley Road, and improvements to green corridors

  Relocation of the County Council Household Waste Recycling Centre, to a location within the AW site.

  The overhead power cables within the AW site are left in situ

- **Medium development option** (assuming new station but AW remains in situ):

  The Anglian Water Recycling Centre remains in situ, although proposed "upgrading" works will proceed over the next few years (including a pumping station and 8 new treatment tanks, to support the city's growth plans to 2031)

  This implies that the current "odour contours" will continue to apply for the foreseeable future

Cambridge Science Park Station is developed with an adjoining multi storey car park

A reconfiguration of the existing railway sidings, to an area to the north of its current location, to provide a strategic aggregates railhead

New, high density residential development and B1 offices / R&D uses are developed around the Science Park Station

Provision of a local centre near the rail station (proposed retail, leisure, cultural and community uses)

New, lower density B1 offices / R&D uses are developed along the frontage to the length of Cowley Rd (not seriously impacted by odour contours),,Road, which provides access to the station

An associated removal of Veolia' waste transfer station and Lafarge concrete batching plant from their existing sites in this vicinity (to facilitate this new development) – to new facilities to the north of the site, around the reconfigured railway sidings

New, lower density B2 uses are developed to land located behind the station access section of Cowley Road frontage land (referred to above), and to the northern section of Cowley Rd, such uses will be more impacted by the AW facility odour contours

The Nuffield Road sites are developed for new, low density B1 uses to the west and north, and new, medium density residential development to the south east

The B1 uses within the Cambridge Business Park and St John's Innovation Park and Taylor Vinters are retained (with the opportunity for intensification of use, as market condition and existing tenure arrangements permit)

Enhanced public realm gateways, with a boulevard corridor along the existing Cowley Road, and improvements to green corridors

Relocation of the County Council's Household Waste Recycling Centre, to a location within the AW site

Opportunities for junction improvements at Milton Road and provision of new heavy goods vehicle access road.

The overhead power cables within the AW site are left in situ

- **Higher development option** (assuming new station and Anglian Water reconfigured on site):

  The Anglian Water Recycling Centre remains in situ, although redeveloped using latest technology and reconfigured into a smaller footprint to the east of CNFE (within a fully enclosed facility), to support the city's growth plans to 2031

This implies that there is an opportunity to completely re-assess the "odour contours" which although likely to remain, will impact on a much reduced portion of the area

Cambridge Science Park Station is developed with an adjoining multi storey car park

A reconfiguration of the existing railway sidings, to an area further to the north of the site (compared to low and medium development options), to provide a strategic aggregates railhead. This area is also a safeguarded transport zone allocation in the County Council's Minerals and Waste Plan

New, high density residential development and B1 offices / R&D uses are developed around the new station

Provision of a local centre near the rail station (proposed retail, leisure, cultural and community uses)

New, lower density B1 offices / R&D uses are developed along the frontage to the length of Cowley Road, which provides access to the Station, and to the section of Cowley Road (to the west of the site) which fronts the St John's Innovation Centre

An associated removal of Veolia waste transfer station and Lafarge concrete batching plant from their existing sites in this vicinity (to facilitate this new development) – to new facilities to the north of the site, around the reconfigured railway sidings

The overhead power cables within the current AW site are "under-grounded"

New, lower density B2 uses are developed to land located to the immediate west of the repositioned AW facility and to the northern section of Cowley Rd, such uses will be more impacted by the AW facility odour contours

The Nuffield Road sites are developed for new, medium density residential development

The B1 uses within the Cambridge Business Park and St John's Innovation Park and Taylor Vinters are retained (with the opportunity for intensification of use, as market condition and existing tenure arrangements permit)

Enhanced public realm gateways, including a boulevard corridor along the existing Cowley Road, and improvements to green corridors

Relocation of the County Council's Household Waste Recycling Centre, to a location within the north of the site, adjacent to the A14

Opportunities for junction improvements at Milton Road and provision of new heavy goods vehicle access road

- **Maximum development option** (assuming new station and Anglia Water relocates off site):

  The Anglian Water Recycling Centre is relocated offsite, with no residual functions within CNFE

  Cambridge Science Park Station is developed with an adjoining multi storey car park

  A reconfiguration of the existing railway sidings, to an area to the extreme north of the site (compared to all other options), to provide a strategic aggregates railhead. This area is also a safeguarded transport zone allocation in the County Council's Minerals and Waste Plan

  New, high density residential development and B1 offices / R&D uses are developed around the new station

  Provision of a local centre near the rail station (proposed retail, leisure, cultural and community uses)

  New, lower density B1 offices / R&D uses are developed along the frontage to the length of Cowley Road, which provides access to the Station, and to the section of Cowley Road (to the west of the site) which fronts the St John's Innovation Centre

  An associated removal of Veolia waste transfer station and Lafarge concrete batching plant from their existing sites in this vicinity (to facilitate this new development) – to new facilities to the north of the site, around the reconfigured railway sidings

  The overhead power cables within the current AW site are "under-grounded"

  New, lower density B2 uses are developed to land located to the north and east of the site and to the northern section of Cowley Road

  The Nuffield Road sites are to be developed for new, medium density residential development

  The B1 uses within the Cambridge Business Park and St John's Innovation Park and Taylor Vinters are retained (with the opportunity for intensification of use, as market condition and existing tenure arrangements permit)

  Enhanced public realm gateways, including a boulevard corridor along the existing Cowley Road, and improvements to green corridors

  Relocation of the County Council's Household Waste Recycling Centre, to a location within the north of the site, adjacent to the A14

  Opportunities for junction improvements at Milton Road and provision of new heavy goods vehicle access road.

7. Main Findings and Conclusions

The Options – appraisal results

7.1 The four options have been appraised, using a consistent methodology and the results enable a broad comparison, on the basis of the detailed assumptions, set out in this section.

7.2 A summary of the main outputs from the appraisals are set out in the tables overleaf and provide a headline comparison between the options. It should be noted that the CNFE site has been broken down into a number of "sub areas" in turn sub divided to individual "plots", which have then been used in the indicative appraisal process, on a site by site basis.

7.3 These sub areas are broadly, the Nuffield Road area, Chesterton (existing railway sidings), Cowley Road and the Anglian Water site. The study area also includes the Cambridge Business Park, the Taylor Vinters (TV) site, St John's Innovation Park and finally the Cambridge Science Park. The timing of these latter redevelopment opportunities however is varied: the intensification of Cambridge Science Park is expected to proceed gradually over the next 15 years, starting now; St Johns are likely to move fairly quickly, and the Taylor Vintners site lease is up in 2015. The timing of development intensification, or some selective redevelopment projects, will come forward when existing tenure arrangements permit. The development potential which these sites offer however, is not considered in detail within our appraisal section.

7.4 The tables overleaf therefore provide the following analysis, based on our appraisal exercises, by sub area:

- Gross area under consideration
- The allowance for open space provision
- The resulting net developable area
- The total, realisable development value
- An estimate of the remediation, acquisition and relocation costs envisaged (including an allowance for the AW facility)
- Estimated on-site infrastructure costs
- An allowance for CIL, where necessary
- Net, overall residual value
- The total number of residential units and commercial floorspace to be generated under each option

7.5 In headline terms the table below provides an analysis of the main cost, value and output implications, flowing from each development scenario.

Table 7-1: Headline Results from Options Appraisals

	Net dev't areas	Total Value	Total Costs	Overall Balance	Resi units	B1 sq m	B2 sq m
Low development option	24 ha	£70,489,895	£14,504,283	£55,985,611	0	197,705	10,000
Medium development option	18 ha	£105,561,075	£42,932,605	£62,628,469	443	171,354	12,400
Higher development option	36 ha	£170,771,124	£230,693,488	-£59,922,364	635	321,342	51,600
Maximum development option	43 ha	£256,693,109	£234,704,176	£21,988,933	635	341,670	72,800

Source BBP Regeneration

7.6 It can be seen that there are several factors influencing some of the key performance indicators, across the options:

- The implications of significant open space allocations, once residential development is included in the mix, is clear, resulting in an initial reduction in net developable land, until the release of AW land in the higher and maximum development options counter-balances this
- The assumptions behind open space provision may need to be considered further in this context
- Overall values clearly rise as the more expansive options are explored, however so do costs and the implications of the AW reconfiguration / relocation estimate is a key factor in overall viability
- On the basis of current assumptions, the higher level development option shows a negative balance overall, and the surplus for the Maximum Development Option is also much lower than the other two options. However, this will need to be reviewed in the light of any further refinement of AW cost information
- The scale of the development and the complex range of issues which need to be tackled, will have significant implications on the way in which this initiative is funded and phased. We have not at this stage undertaken an overall development programme / profile for the wider project - on the basis that the development of CNFE is undertaken as a single, major project rather than a disparate mix of individual site developments
- However it is clear that the higher and maximum development options would be incapable of being delivered comprehensively, without an over-arching project approach
- The significant upfront investment which will be required is also another critical factor, and this will have a number of implications on both cash flow and the type of developer who could tackle this initiative. The funding and holding costs of such an approach would be significant and we have not modelled such a delivery model at this stage
- As a result of the above factors, there are a number of key actions/further work that will need to be explored further and commissioned, in order to set out a clear and viable way forward. These issues are considered in detail in Paragraph 7.45 below, and include

detailed options / costings for new (offsite) or enclosed (onsite) water recycling facility, detailed ground investigations, transport assessments and modelling, a wider utilities infrastructure delivery plan, master planning and an ownership / compulsory purchase strategy.

Table 7-2: Low development option - Appraisal Results

Low development option	Gross Area (ha)	Open Space (ha)	Net Area (ha)	Total Value	Remediation Cost	Acquisition Cost	Relocation Cost	Resi units	B1 floorspace	B2 floorspace
Nuffield Road	5.8	0	5.8	£0	£0	£0	£0	0	0	0
Chesterton	5.4	0	5.4	£37,442,306	£2,036,679	£3,174,600	£0	0	89,657	0
Cowley Road	12.6	0	12.6	£33,047,589	£1,611,438	£5,366,220	£1,787,346	0	108,048	10,000
Anglian Water	0	0	0	n/a	n/a	n/a	n/a	0	0	0
St Johns Innovation Park	7.9	0	7.9	n/a	n/a	n/a	n/a	0	0	0
Taylor Vinters	0.3	0	0.3	n/a	n/a	n/a	n/a	0	0	0
Cambridge Business Park	8	0	8	n/a	n/a	n/a	n/a	0	0	0
Cambridge Science Park	TBC	0	0	n/a	n/a	n/a	n/a	0	0	0
Total	**40**	**0**	**40**	**£70,489,895**	**£3,648,117**	**£8,540,820**	**£1,787,346**	**0**	**197,705**	**10,000**
Site infrastructure	£528,000									
CIL	£0		**COSTS**	**£14,504,283**						
Net Position	**£55,985,611**									

Table 7-3: Medium development option - Appraisal Results

Medium development option	Gross Area (ha)	Open Space (ha)	Net Area (ha)	Total Value	Remediation Cost	Acquisition cost	Relocation Cost	Resi units	B1 floorspace	B2 floorspace
Nuffield Road	4.8	0.3	4.5	£26,034,526	£5,049,173	£18,596,581	£0	139	42,220	0
Chesterton	6.9	0.7	6.2	£48,306,533	£3,407,894	£4,158,000	£0	304	48,475	0
Cowley Road	10.9	0	7.6	£31,220,015	£1,700,963	£5,353,020	£923,361	0	80,659	12,400
Anglian Water	0	0	0	n/a	n/a	n/a	n/a	0	0	0
St Johns Innovation Park	7.9	0	7.9	n/a	n/a	n/a	n/a	0	0	0
Taylor Vinters	0.3	0	0.3	n/a	n/a	n/a	n/a	0	0	0
Cambridge Business Park	6.4	0	6.4	n/a	n/a	n/a	n/a	0	0	0
Cambridge Science Park	TBC	0	0	n/a	n/a	n/a	n/a	0	0	0
Total	**37**	**1**	**33**	**£105,561,075**	**£10,158,029**	**£28,107,601**	**£923,361**	**443**	**171,354**	**12,400**
Site infrastructure	£779,000									
CIL	£2,964,614		**COSTS**	**£42,932,605**						
Net Position	**£62,628,469**									

Table 7-4: Higher development option - Appraisal Results

Higher development option	Gross Area (ha)	Open Space (ha)	Net Area (ha)	Total Value	Remediation Cost	Acquisition cost	Relocation Cost	Resi units	B1 floorspace	B2 floorspace
Nuffield Road	4.8	0.5	4.3	£26,196,260	£5,073,046	£18,596,581	£0	331	0	0
Chesterton	8.6	0.7	7.9	£58,246,453	£5,079,015	£6,622,000	£0	304	94,255	8,800
Cowley Road	11.3	0	11.3	£55,607,830	£2,529,063	£5,353,020	£0	0	144,211	13,200
Anglian Water	16	0	12.7	£30,720,580	£6,632,262	£0	£150,000,000	0	82,876	29,600
St Johns Innovation Park	7.9	0	7.9	n/a	n/a	£0	n/a	0	0	0
Taylor Vinters	0.3	0	0.3	n/a	n/a	£0	n/a	0	0	0
Cambridge Business Park	6.2	0	6.2	n/a	n/a	£0	n/a	0	0	0
Cambridge Science Park	TBC	0	0	n/a	n/a	£0	n/a	0	0	0
Total	**55**	**1**	**51**	**£170,771,124**	**£19,313,386**	**£30,571,601**	**£150,000,000**	**635**	**321,342**	**51,600**
Site infrastructure	£27,666,000									
CIL	£3,142,501		**COSTS**	**£230,693,488**						
Net Position	**-£59,922,364**									

Table 7-5: Maximum development option - Appraisal Results

Maximum development option	Gross Area (ha)	Open Space (ha)	Net Area (ha)	Total Value	Remediation Cost	Acquisition cost	Relocation Cost	Resi units	B1 floorspace	B2 floorspace
Nuffield Road	4.8	0.5	4.3	£29,003,757	£5,073,046	£18,596,581	£0	331	0	0
Chesterton	8.6	0.7	7.9	£79,376,764	£5,079,015	£6,622,000	£0	304	94,255	8,800
Cowley Road	11.3	0	11.3	£84,764,458	£2,529,063	£5,353,020	£0	0	144,211	13,200
Anglian Water	22.6	0	19.3	£63,548,130	£10,078,950	£0	£150,000,000	0	103,204	50,800
St Johns Innovation Park	7.9	0	7.9	n/a	n/a	n/a	n/a	0	0	0
Taylor Vinters	0.3	0	0.3	n/a	n/a	n/a	n/a	0	0	0
Cambridge Business Park	6.2	0	6.2	n/a	n/a	n/a	n/a	0	0	0
Cambridge Science Park	TBC	0	0	n/a	n/a	n/a	n/a	0	0	0
Total	**62**	**1**	**57**	**£256,693,109**	**£22,760,074**	**£30,571,601**	**£150,000,000**	**635**	**341,670**	**72,800**
Site infrastructure	£28,230,000									
CIL	£3,142,501		**COSTS**	**£234,704,176**						
Net Position	**£21,988,933**									

Assumptions and Caveats

7.7 Clearly a considerable number of assumptions have been made in undertaking the appraisals on this area. These are considered below, so that the basis of the analysis and the impact of the outputs can be considered within context.

Site development assumptions

7.8 Appropriate development densities have been assessed for the range of development uses, envisaged within the four options – comprising office (B1) / industrial (B2) / and residential. These have drawn upon similar development elsewhere within Cambridge and have been discussed with the Client Group during the course of the Study. The following criteria have been adopted in the appraisals above:

- Employment uses – B1 development

  High density B1 – average density of 22,989m2 per hectare.

  Low / Medium Density B1 – average density of 15,637m2 per hectare

- Employment uses – B2 development

  We have used a "market" density benchmark for all B2 developments across the area of some 40% to 50% i.e. 4,000 to 5,000 sq m per hectare

- Residential uses -

  High density housing – 190dph with an accommodation mix of broadly – 1 bed – 33%; 2 bed 62%; 3 bed 15%

  Low density housing - 77dph - with an accommodation mix of broadly – 1 bed – 8%; 2 bed 56%; 3 bed 28%; 4 bed – 8%

Car parking standards

Residential car parking

7.9 Based on comparable Cambridge City Council policy and comparable schemes currently going through the planning process, we have adopted the following ratios –

- High density housing – a parking ratio of 0.56
- Low / Medium Density housing – a parking ratio of 1.1 including an allowance for visitor spaces

Commercial car parking

7.10 Advice as part of this study has indicated that "*the* Councils will need to agree the car parking standards for commercial uses in due course, but adopted the City's maximum standards for the North West Cambridge Area Action Plan and therefore it is reasonable to take the same approach for this CNFE AAP".

7.11 On this basis current space standards within Cambridge City Council policy suggest –

- Within Controlled Parking Zones (assumed to apply to City Centre locations) - 1 space per 100 sq m office floorspace
- Non CPZ (City Centre) locations – 1 space per 40 sq m office floorspace

7.12 Some recent examples of office development within CB1 have gone for some very challenging ratios that vary between 1 space per 113 sq m of floorspace and 1 space per 280 sq m of floorspace.

7.13 However for the purposes of our appraisal and taking account of the CNFE location and current market views on this issue, we have adopted –

- Medium density commercial – 1 space per 50 sq m
- Higher density around the station – 1 space per 75 sq m

Landscaping

7.14 Within B1 commercial development plots, it has been assumed that some 20% of the site area will be committed to hard and soft landscaping. For the purposes of modelling, this same figure is used for B2 development areas. In residential development, landscaping areas have been assumed at 25%.

Allowances for open space

7.15 Following advice from the clients, it is proposed to use the Cambridge City Council's Open Space Standards because they were designed for an urban environment and South Cambridgeshire's standards reflect their district's more rural character.

7.16 The expectation is that the open space standards, as defined in the Cambridge Draft Plan would need to be **met in full** on this site. However, for higher density development options this is not going to be possible, due to the limited residential land areas available.

7.17 There are some critical issues for viability testing – emerging from the standards below, and as demonstrated in the previous section –

- loss of development land where provision needs to be made for certain open space facilities – in some case reducing remaining developable areas to a minimum
- the cost of providing these facilities
- CIL (or other) costs as a reflection of where facilities need to be provided off site

7.18 Following consultation with the Councils it was concluded that for the purposes of modelling the proposed residential provision for each development option is as follows:

- Lower Development Option: No residential development proposed so open space standards do not apply.
- Medium Development Option: 0.3 hectares at Nuffield Road and 0.7 hectares near new Station making a total of 1.0 hectares

- Higher and Maximum Development Options: 0.5 hectares at Nuffield Road and 0.7 hectares near new Station making a total of 1.2 hectares

7.19 The allowances for open space above have been deducted from the gross site areas, in order to produce a net development area, to which density and other standards are applied, in order to provide an assessment of the potential floorspace capable of being developed across the CNFE.

7.20 As informed by CCC, our appraisal assumptions also include that other open space requirements (in addition to the above) will be met offsite, in other locations (for example allotments and indoor sports facilities).

7.21 We have therefore included a CIL calculation for the residential components on site to reflect this.

Sites / space for other allocations

7.22 The proposals also include a 1.7 ha site for a new Household Recycling Centre and Inert Recycling Facility, which it is assumed in the low and medium development options will be accommodated within the Anglian Water facility site, but in the high and maximum development options, a site has been identified within the wider AAP area.

7.23 Assumptions have also been made with regard to the odour contours (arising from AW's presence on site) and the implications which this has on the development / uses on land in the immediate vicinity. In particular B2 uses are primarily provided for on sites immediately adjoining the existing AW complex, within the low and medium development options. This varies slightly in the high development option, where the AW facility is reconfigured to the extreme east of the site, which in turn reduces the areas impacted by the odour contours. In respect of maximum development option, AW is no longer on site, therefore there are no odour implications.

Cost allowances

7.24 **Build Costs** – we have used current BCIS data (as at September 2014) (including preliminary works) to assess the main build costs for both residential and commercial development (including car parking (surface, undercroft and basement, where necessary), and landscaping etc.). Currently we have adopted the mean cost profiles across the site, although these could be reviewed (as a sensitivity), if it was considered that building quality needs to be exceptional.

7.25 In addition we have made allowances for professional fees, planning and other statutory costs, financing costs (within each development) developer's profit and a contingency (5%).

Other "site-wide" development costs

7.26 There are a number of other costs, which will be involved in any overall development of the CNFE area, and these have been considered as separate to each individual site development project, and have been considered as an over-arching liability to be undertaken at a "site-wide" level.

Site / remediation cost allowances

7.27 We have not seen any detailed site investigation reports with regard to the whole of the area, but are aware that there may be some information on limited parts of the area, and there are probably going to be certain parts where remediation will be required. In respect of the higher and maximum development options there may well be significant remediation required across the Anglian Water area.

7.28 We have therefore referred to the current version of the Homes and Communities Agency's Best Practice Note on contamination and remediation, which categorises likely costs across a range of "former use" criteria (industrial, scrapyards, chemical works etc), and whether sites have a "High" or "Low" "Water Risk".

7.29 Given the limited knowledge on former uses and the lack of detailed ground information, we have used the "mean" figures included in the Best Practice Note, based on our understanding of former site uses, and assuming that this is a High Water Risk area. Clearly the issue of contamination and remediation will need to be considered in much more detail and with further ground investigation information, this allowance may well be reduced.

Site infrastructure cost allowances

7.30 We have considered on a broad-brush basis, what would be required in terms of main onsite infrastructure provision in order to "service" the selected options. This would entail the construction of new estate / service roads (to open up the main development plots), mains utility provision (electricity, gas, water, telecoms, foul and surface water drainage etc.). Clearly very little such infrastructure would be required for low development option, with increasing levels of investment required, through to the maximum development option.

7.31 We have adopted very broad-brush cost estimates (based on comparable infrastructure development elsewhere) to reflect the above, given that no detailed site / utility investigations and planning has been undertaken at this present time.

7.32 It should also be stressed, that we have not considered the wider, strategic transport and access requirements to this site, if major redevelopment takes place in accordance with the visions set out in the higher and maximum development options (and no cost allowances have been made). Similarly we have assumed that existing service provision to the sites will be sufficient for the proposed development and that there will be no need for offsite utilities or services upgrades This will clearly need detailed examination as the alternatives are considered, and would need to be taken into account in any overall viability assessment of the CNFE area as a whole.

7.33 We have also made an allowance for under-grounding the overhead electricity pylons and other cables, which currently cross the site, in the higher and maximum development options.. This is based on a figure that was quoted by an engineering consultant in an earlier piece of work on the site (£16m), and will need reviewing / updating, if this element of the infrastructure works is to be pursued.

Site acquisition costs

7.34 We have broadly adopted the following "site assembly" principles in respect of our appraisals across the whole area:

- All undeveloped / vacant land currently in the ownership of Cambridge City Council has been assumed as a zero cost
- All short term tenancy / lease arrangements will expire and not be renewed, allowing vacant possession to be achieved at zero cost
- All long term leasehold interests (50 years plus) will need to be "acquired" as part of any wholesale redevelopment proposition and acquisition costs of such sites and any buildings are allowed for on a broad-brush basis
- All existing sites which are in third party ownership and required as part of the wholesale development of the area, are treated as per long leasehold interests above
- Any areas where intensification of use may be possible over a period of time (Cambridge Business Park and St John's Innovation Park), are assumed to come forward as existing leasing arrangements allow (through managing lease end dates etc.) and therefore no costs are allowed for any acquisitions in respect of these areas
- Finally where it is going to be essential that a particular use is relocated (e.g. Veolia) then we have made an allowance for "relocation" costs

Relocation / reconfiguration costs for Anglia Water

7.35 An estimated relocation / reconfiguration figure of £150million has been included in the high and maximum development options. These reflect the costs of either reconfiguring the AW facility on site, (into a fully enclosed building, incorporating the latest technology) OR a full relocation, offsite. This figure is based on the costs identified in the Roger Tym and Partners Report, indexed using BCIS "All Costs Index". The same cost have been applied to both the relocation and the reconfiguration as during discussions with AW personnel, they have indicated that the same level of costs would be required for either scenario. However we recommend that this figure should be reconsidered and revised at an early stage, based on further work.

Development Values

7.36 In order to assess the range of values that could be generated as a result of "wholesale" development of the area, we have considered the likely receipts that could be generated from the mix of uses assumed within the sites to be brought forward for new development within the four Options (as set out in the previous section).

7.37 These comprise an assessment of:

- Sales values for all residential units to be developed across the site
- The investment value of all B1 office premises to be developed across the site
- The investment value of all B2 industrial / warehousing premises to be developed

7.38 We have taken a view on current market values to inform this analysis, reflecting high density residential and commercial use around the station, as well as lower density housing, offices and industrial accommodation on other parts of the area.

7.39 We have also assumed that these would be at slightly lower levels for all three options which involve a retention of the AW facility on site, however with higher value levels, where there is the opportunity to create a completely new community in the area

7.40 Broad values included within our "baseline" appraisals are:

- B1 offices - £253 per sq m (£23.50 per sq ft)
- B2 industrial - £99.55 per sq m (£9.25 per sq ft)
- Residential - £3,713 to £3,875 per sq m (£345 to £360 per sq ft) – private market sales

7.41 Broad values included within our maximum development option appraisals are:

- B1 offices - £270 per sq m (£25 per sq ft)
- B2 industrial - £108 per sq m (£10 per sq ft)
- Residential - £3874 to £4,037 per sq m (£360 to £375 per sq ft) – private market sales

7.42 Affordable housing – has in all cases been assessed at 40% of overall residential capacity, and sub-divided into 75% "affordable rent" and 25% "intermediate rent" – and values assessed accordingly.

7.43 Allowances have been made against all of the values referred to above, for sales and marketing costs, legal costs, purchasers costs (for commercial investments) etc.

7.44 Finally, we would reiterate that:

- The land areas and site boundaries have been based on the guidance / information provided by the Client, within "CNFE land use information v7" and from the latest option layout plans for each option, as included in the AAP "Issues and Options" report.
- There is no available, detailed master planning or use planning in connection with the site as a whole, and such data as detailed floor space calculations, service roads and other site infrastructure etc. will all need to be further developed and tested
- The appraisal exercise and the assumptions set out herewith, have been undertaken without any:

  ground or site investigation data,

  data on utilities or other services to the site

  transport infrastructure studies, both in terms of on-site provision, and the implications of any of the options on the wider road infrastructure.

Sensitivities

7.45 Following close consultation with the client group, we have run a number of sensitivities on the appraisals, in order to understand how sensitive overall performance and outcomes are to reasonably small changes in some of the key parameters. The aspects of the development which have been analysed in this way are set out below.

Increases in the Provision of Open Space

7.46 The assumptions set out above in respect of open space provision, noted that certain elements would need to be accommodated off site, and covered by CIL payments. As a sensitivity therefore we have modelled a scenario with more of the open space provision provided onsite.

7.47 In terms of the medium development option (with limited residential provision), the following open space provision is to be accommodated on site, and the areas set out in the table below have been adopted in the appraisals.

Table 7-6: Open space provision – medium development option

	Nuffield Rd Ha	Station area Ha
Outdoor Sports	0.45	1.21
Children & Teenagers	0.10	0.20
Informal	Already included in option layout	Already included in option layout
Allotments	0.15	0.40
Total	0.70	1.81

7.48 Similarly, the increased provisions to be adopted for the higher and maximum development options are shown in the table below.

Table 7-7: Open space development – higher and maximum development options

	Nuffield Rd Ha	Station area Ha
Outdoor Sports	1.02	1.21
Children & Teenagers	0.23	0.20
Informal	Already included in option layout	Already included in option layout
Allotments	0.34	0.40
Total	1.59	1.81

Variations in Value Assumptions

7.49 The assumptions above of market values, highlight the approach adopted in the current appraisal exercise to retain consistent values across the lower, medium and higher development options, and to use slightly higher values for the maximum development option, which gives the opportunity to develop an entirely new community, in the area. This baseline position has been retained in the sensitivity testing, with use of broad-brush value increases (+10%) and decreases (-10%) across all options.

7.50 The relevant percentages have been applied to residential sale prices, and to rental levels in terms of both B1 and B2 accommodation. For the sake of consistency, yields have been retained at the levels adopted in the baseline appraisals.

Reductions in the density of dwellings per hectare ("dph")

7.51 The assumptions adopted in the baseline appraisal work, allow for high density housing around 190 dwellings per hectare (based around a number of developments in CB1 which range from 163 to 219 dph). There are however lower comparables (e.g. Cromwell Road at 128.8 dph) and a lower density sensitivity has therefore been run at 130 dph.

7.52 Similarly the lower density, baseline assumptions have been modelled around schemes such as Great Kneighton, where development equates to some 77 dph. There are however lower density examples such as Accordia where density is around 54 dph, and therefore a lower density sensitivity has been run at 55 dph.

Change of use allocations – more residential development

7.53 A further consideration relates to the quantum of B1 accommodation included in the more expansive options (higher and maximum development options) and whether there is going to be a sufficient demand from the private marketplace, to absorb this scale of development in anything like a reasonable period (say 20 years).

7.54 This position could be exacerbated, if over such a period, significant expansion/new development took place on the existing business / science parks (i.e. St John's Innovation Park, Cambridge Business Park and Cambridge Science Park).

7.55 In the alternative scenario, some 5.4 ha of land, allocated for B1ofiice development in these two options, has been changed to residential development, with high density residential being assumed on the site nearest to the station, and low / medium density housing further west.

Variations in the storey height of development permitted on site

7.56 Finally, the baseline assumptions have taken a reasonably optimistic view of creating a new, urban fabric around the Science Park station, over the next 10 years, and therefore have adopted a range of building heights that range from 4 to 6 storeys for much of the higher density residential and commercial floorspace.

7.57 The analysis provided highlights some key issues which are worth recording –

- The increased levels of open space within the residential areas are quite significant and reduces the overall return by some £15 million (medium development option) to some £20 million (higher and maximum development options), in the latter case reducing it to a near "breakeven" position; and reduces the overall level of housing developed by between 240 units (medium development option) and some 300 units (higher and maximum development options)
- Reducing lower density commercial and residential floorspace from 4 storeys to 3 storeys, and higher density floorspace from 5 to 4 storeys on average (whilst

retaining 77 dph for lower density residential, but reducing higher density to 140 dph)

- Retaining lower density commercial and residential floorspace at 4 storeys, but increasing a proportion of higher density floorspace from 5 storeys to say 12 storeys. Two scenarios have been run– the first assumes that 10% of the high density floorspace is increased to 12 storeys, the second assumes a 30% increase.

7.58 The results of the above sensitivity testing are summarised in the table below.

Table 7-8: Sensitivity testing of options

Basis of Appraisal	Gross Area (ha)	Open Space (ha)	Net Area (ha)	Total Residual Land Value	All "abnormal" costs	Net Balance	Residential units	B1 floorspace	B2 floorspace
Baseline Appraisals									
Low development option	41.07	0.00	41.07	£70,489,895	£14,504,283	£55,985,611	0	197,705	10,000
Medium development option	38.27	1.00	33.97	£105,561,075	£42,932,605	£62,628,469	443	171,354	12,400
Higher development option	55.1	1.20	50.6	£170,771,124	£230,693,488	-£59,922,364	635	321,342	51,600
Maximum development option	61.70	1.20	57	£256,693,109	£234,704,176	£21,988,933	635	341,670	72,800
Increased Open Space									
Low development option	41.07	0.00	41.07	£70,489,895	£14,504,283	£55,985,611	0	197,705	10,000
Medium development option	38.27	2.51	32.5	£90,258,827	£43,096,286	£47,162,542	201	171,354	12,400
Higher development option	55.10	3.40	48.4	£151,265,290	£230,939,531	-£79,674,241	340	321,342	51,600
Maximum development option	61.70	3.40	55.0	£235,048,137	£234,950,218	£97,919	340	341,670	72,800
Values up 10%									
Low development option	41.07	0.00	41.07	£77,538,884	£14,504,283	£63,034,601	0	197,705	10,000
Medium development option	38.27	1.00	33.97	£116,117,182	£42,932,605	£73,184,577	443	171,354	12,400
Higher development option	55.10	1.20	50.60	£187,848,236	£230,693,488	-£42,845,252	635	321,342	51,600
Maximum development option	61.70	1.20	57.20	£385,934,067	£234,704,176	£151,229,891	635	341,670	72,800

Basis of Appraisal	Gross Area (ha)	Open Space (ha)	Net Area (ha)	Total Residual Land Value	All "abnormal" costs	Net Balance	Residential units	B1 floorspace	B2 floorspace
Values down 10%									
Low development option	41.07	0	41.07	£63,440,905	£14,504,283	£48,936,622	0	197,705	10,000
Medium development option	38.27	1	33.97	£95,004,967	£42,932,605	£52,072,362	443	171,354	12,400
Higher development option	55.1	1.2	50.6	£153,694,011	£230,693,488	-£76,999,477	635	321,342	51,600
Maximum development option	61.7	1.2	57.2	£127,452,151	£234,704,176	-£107,252,024	635	341,670	72,800
Reduced dph (50 dph & 130 dph)									
Low development option	41.07	0	41.07	£70,489,895	£14,504,283	£55,985,611	0	197,705	10,000
Medium development option	38.27	1	33.97	£95,549,786	£41,711,603	£53,838,184	298	171,354	12,400
Higher development option	55.1	1.2	50.6	£154,845,087	£228,727,477	-£73,882,390	423	321,342	51,600
Maximum development option	61.7	1.2	57.2	£239,132,852	£232,738,164	£6,394,688	423	341,670	72,800
Change in use (B1 to residential on Cowley Road)									
Low development option	41.07	0	41.07	£70,489,895	£14,504,283	£55,985,611	0	197,705	10,000
Medium development option	38.27	1	33.97	£105,561,075	£42,932,605	£62,628,469	443	171,354	12,400
Higher development option	55.1	1.2	50.6	£177,376,007	£230,693,488	-£53,317,481	1,345	217,787	51,600
Maximum development option	61.7	1.2	57.2	£248,424,391	£234,704,176	£13,720,216	1,345	238,115	72,800

Basis of Appraisal	Gross Area (ha)	Open Space (ha)	Net Area (ha)	Total Residual Land Value	All "abnormal" costs	Net Balance	Residential units	B1 floorspace	B2 floorspace
Reduce Storey Heights									
Low development option	41.07	0	41.07	£63,284,989	£14,504,283	£48,780,706	0	197,705	10,000
Medium development option	38.27	1	33.97	£92,034,689	£42,362,108	£49,672,581	363	171,354	12,400
Higher development option	55.1	1.2	50.6	£151,114,076	£230,122,991	-£79,008,915	555	321,342	51,600
Maximum development option	61.7	1.2	57.2	£235,316,652	£234,133,678	£1,182,974	555	341,670	72,800
Increase Storey Heights (10%)									
Low development option	41.07	0	41.07	£70,489,895	£14,504,283	£55,985,611	0	197,705	10,000
Medium development option	38.27	1	33.97	£105,561,075	£42,932,605	£62,628,469	443	171,354	12,400
Higher development option	55.1	1.2	50.6	£158,875,765	£230,693,488	-£71,817,723	640	326,474	51,600
Maximum development option	61.7	1.2	57.2	£239,945,208	£234,704,176	£5,241,032	640	346,802	72,800
Increase Storey Heights (30%)									
Low development option	41.07	0	41.07	£70,489,895	£14,504,283	£55,985,611	0	197,705	10,000
Medium development option	38.27	1	33.97	£105,561,075	£42,932,605	£62,628,469	443	171,354	12,400
Higher development option	55.1	1.2	50.6	£174,399,145	£230,693,488	-£56,294,343	650	336,737	51,600
Maximum development option	61.7	1.2	57.2	£249,202,319	£234,704,176	£14,498,144	650	357,066	72,800

The analysis provided highlights some key issues which are worth recording –

- The increased levels of open space within the residential areas are quite significant and reduces the overall return by some £15 million (medium development option) to some £20 million (higher and maximum development options), in the latter case reducing it to a near "breakeven" position; and reduces the overall level of housing developed by between 240 units (medium development option) and some 300 units (higher and maximum development options)

- Increases/deceases in value by +/-10% have minor impacts on the net financial outcome of the low and medium development options - £7 million to £10 million variations; however the higher development option is more sensitive (given more developable area and higher levels of B1 floorspace) with movements of +/- £17million; the maximum scenario is extremely sensitive, given its higher baseline values, together with more development land, and a change in use of some plots from low value to higher value uses. The impacts are therefore showing some significant movements at some +/- £85 million.

- Reducing housing density on site displays some reasonably small losses overall. The medium development option shows a reduced overall value of some £9 million with 145 fewer housing units constructed. The higher and maximum development options display reduced values of some £14 million to £15 million respectively, and lower housing numbers of some 210 units

- The change of use scenario (from B1 to housing) improves the overall value of the higher development option, in that the loss reduces. In the case of the maximum development option however the surplus reduces (reflecting the differential land values between the two scenarios with B1 being more valuable than residential in the maximum option but vice versa in the higher option); of course residential numbers increase in both scenarios by over 700, but B1 reduces by over 100,000 sq m

- Reduced storey height (including reduced dwellings per hectare for high density residential) produces a number of consequences – such as increased build costs (due to changes in car park configuration), and therefore lower overall values and lower housing numbers. The combined impact of these factors means reduced net values, ranging from some £7 million in the lower development option to some £20 million in the higher and maximum development options. Where residential use is included in the mix, there is a reduction of some 80 units

- An increase in storey height slightly reduces the performance of both the higher and maximum development options–due to increased build costs (including basement car parking). This reduction ranges from £11 million to £16 million in the higher development option, and up to £7 million in the maximum development option.

- There is a slight increase in accommodation across the development, but this is not significant as constraints such as accommodating sufficient car parking at reasonable cost have limited the additional floorspace possible. It has been assumed that constructing two floors of basement car parking would not be feasible and the

alternative of a separate multi-storey car park has not been considered at this stage. Increased housing numbers are marginal (14 in the 30% increase scenario), but B1 floorspace increases by some 5,000 sq m (higher development option) and some 15,000 sq m (maximum development option).

Annex A: Planning Policy Context

A.1 The development potential of the Cambridge Northern Fringe East (CNFE) has been widely debated in public policy. This section reviews the relevant planning policy documents in an attempt to extrapolate key themes which, in turn, will inform our own study going forward. It is divided into four sections:

a) National and strategic planning policy context

b) Relevant Historic Plans- Cambridgeshire and Peterborough Structure Plan (2003)

c) Adopted Statutory Development Plans - South Cambridge Local District Framework (Core Strategy, 2007), Cambridge Local Plan (2006), Cambridgeshire and Peterborough Minerals and Waste Local Development Framework (Core Strategy, 2011)

d) Emerging planning policy documents specifically relating to the Cambridge Northern Fringe East - Cambridge Local Plan (Submission draft, March 2014), South Cambridgeshire Local Plan (Proposed submission, July 2013)

e) Employment Land Studies and related reports

National and Strategic Planning Context

National Planning Policy Framework (NPPF)

A.2 The principle objective of the NPPF is to bring clarity to the planning system, enabling schemes which are in accordance with the development plan to be granted consent. Sustainable development (to assist economic growth) is to be encouraged, providing there are no adverse effects to the environment or society.

A.3 The NPPF sets out 'three pillars' to sustainable development which outline the need for the planning system to perform a number of roles:

- an ***economic role*** – contributing to building a strong, responsive and competitive economy;
- a ***social role*** – supporting strong, vibrant and healthy communities, by providing the supply of housing required to meet the needs of present and future generations; and by creating a high quality built environment; and
- an ***environmental role*** – contributing to protecting and enhancing our natural, built and historic environment.

A.4 The "building a strong, competitive economy" section of the NPPF underscores this point. It states that the Government is committed to securing economic growth in order to create jobs and prosperity, building on the country's inherent strengths, and to meeting the dual challenges of global competition and of a low carbon future[1]. Of particular relevance to this

[1] National Planning Policy Framework (2012)

development are the issues raised around the need to "*guard against the unnecessary loss of valued facilities and services, particularly where this would reduce the community's ability to meet its day-to-day needs, whilst also ensuring an integrated approach to considering the location of housing, economic uses and community facilities and services.*"[2]

National Planning Policy Guidance (NPPG)

A.5 In 2013 the government replaced the majority of Planning Policy Statements (PPSs) and Planning Policy Guidance (PPGs) with a streamlined internet based National Planning Policy Guidance. There is, inherently, a time-sensitivity risk for developers seeking approvals. The NPPG hopes to ensure that the planning rules or poorly managed planning processes do not unnecessarily prevent or delay development. The objective is to simplify planning approval processes and make policies and guidance simpler and easier to follow.[3]

NPPG - Water supply, wastewater and water quality – considerations in plan making

A.6 As identified in the NPPG, plan-making may need to consider:

- Identifying suitable sites for new or enhanced infrastructure. In identifying sites the importance to recognise that water and wastewater infrastructure sometimes has particular locational needs (and often consists of engineering works rather than new buildings) is outlined. **This means otherwise protected areas may exceptionally have to be considered where consistent with their designation.**
- Plan-making will also need to take into account existing and proposed development in the vicinity of a location under consideration for water and wastewater infrastructure. In two tier areas there will need to be close working between the district and county councils. **Considering whether new development is appropriate near to sites used (or proposed) for water and wastewater infrastructure (for example, odour may be a concern).**
- Phasing new development so that water and wastewater infrastructure will be in place when needed.

Relevant Historic Plans

A.7 The following sections consider, in sequence, the relevant plans of the area:

Cambridgeshire and Peterborough Structure Plan 2003

A.8 This covers the period up to 2016 and provided a planning context for the preparation of the Local Plans and emerging Local Development Documents. Under the 2004 Planning and Compulsory Purchase Act, only certain policies still remain in force, the most relevant of which are:

[2] National Planning Policy Framework (2012), paragraph 70
[3] Making the planning system work more efficiently and effectively, Department for Communities and Local Government (20120)

- **Policy P7/12 Location of Waste Materials Facilities –** requiring these to be located within or close to urban areas
- **Policy P8/7 Improvements to Rail Services -** proposes bringing forward enhancements and new infrastructure to increase rail use and the proportion of freight moved by rail
- **Policy P8/10 Transport Investment Priorities** - include park and ride sites for Cambridge and interchanges on the Cambridge to Huntingdon rapid transit system. There is a proposal to undertake improvements to the A14 between Cambridge and Huntingdon, and a new rail station and interchange to be integrated with the rapid transit system at Chesterton Sidings

Statutory Development Plan

A.9 The Cambridgeshire and Peterborough Waste Partnership (CPWP) was formed in 1998. This partnership, which comprises the waste disposal and waste collection authorities in the area (county, unitary, city and district councils) co-ordinates the minerals and waste policies in Cambridgeshire and Peterborough.

A.10 The MWDP comprise 2 documents:

- **Core Strategy:** a document setting out the strategic vision and objectives, and including a suite of development control policies to guide mineral and waste development
- **Site Specific Policies:** a document setting out site specific proposals for mineral and waste development and supporting site specific policies

Peterborough City Council & Cambridgeshire County Council: Cambridgeshire and Peterborough Minerals and Waste Core Strategy 2011

A.11 With regard to waste, around 3 million tonnes of waste per annum currently requires management in Cambridgeshire and Peterborough, including industrial and commercial, municipal and inert waste[4]. There are challenging Government targets requiring changes in the way in which waste is managed – i.e. substantially reducing the proportion of waste from all sources that currently go to landfill in the next 15 years. Cambridgeshire and Peterborough have been identified in the Government's Sustainable Communities growth agenda. It is known that significant growth will take place over the plan period and this may lead to in excess of 105,000 houses being built between 2001 and 2026, together with supporting infrastructure. Achieving the rate of high quality development and infrastructure required by 2026 will require a tightly managed programme of implementation. There will be a close interdependency between major infrastructure projects and housing development.[5]

[4] Peterborough City Council & Cambridgeshire County Council: Cambridgeshire and Peterborough Minerals and Waste Core Strategy 2011
[5] Jonathan King, the Examination into the Cambridgeshire and Peterborough Minerals and Waste Core Strategy Development Plan Document (2011)

A.12 The main challenges for minerals and waste planning, which wash through into Minerals and Waste Core Strategy, centre upon the need to ensure that the minerals required to support the planned level of growth are available at the right time, and that worked land can be restored to a beneficial 'after use'. With regard to waste, the central challenges are around securing new facilities to change the way in which waste is managed in the vicinity, including new development areas, through a network of sustainable waste management facilities.

Peterborough City Council & Cambridgeshire County Council: Cambridgeshire and Peterborough Minerals and Waste Site Specific Policies 2012

A.13 The existing aggregates railhead on the Chesterton Sidings is safeguarded, however the Councils anticipate that there may be opportunities to relocate and consolidate within the CNFE area. The Core Strategy Policies CS15 - CS21 make provision for a network of facilities to meet the sustainable waste management requirements of Cambridgeshire and Peterborough. Facility types range from the local - such as household recycling centres; to the specialised, such as facilities for dealing with hazardous wastes.[6]

A.14 The Core Strategy seeks to safeguard waste management facilities including:-

- a range of recycling / recovery / sorting facilities etc (CS15)
- household recycling centres (CS16)
- waste water treatment works (CS17)
- facilities for dealing with hazardous waste (CS19)
- inert landfill sites (CS20)
- non-hazardous landfill sites (CS21)

A.15 **Policy CS23** relates to Transport Protection Zones intended to safeguard transport infrastructure such as wharves, railheads and ancillary facilities, in line with MPS1 [R14]. In them there will be a presumption against development (other than minor development) that would prejudice their use for the transport of minerals or waste. Peterborough and Cambridge alter the terminology [S30], so that Transport Zones (TZ) are defined [S21] for the sites themselves, and these would be protected through the designation of Transport Safeguarding Areas (TSA), indicating that a TSA will extend 250 metres beyond the edge of the TZ [S100]. The distance has not been defined by reference to evidence, but no other has been suggested. It is a reasonable approach, consistent with that taken with respect to WCAs[7]. TZs and TSAs will be defined in the SSPDPD. In response, a TZ will be (has been) designated in the SSPDPD [S22, S30] on land to the north of Chesterton Sidings, Cambridge.[8]

A.16 An allocation for a new/replacement Sustainable Transport Facility (Minerals and Waste Railhead) is made on land currently used by the Cambridge WRC. The new railhead would supplement the existing railhead to the south, or in the event of the existing facility closing,

[6] Minerals and Waste Site Specific Proposals Development Plan Document 2012
[7] Jonathan King, the Examination into the Cambridgeshire and Peterborough Minerals and Waste Core Strategy Development Plan Document (2011)
[8] Jonathan King, the Examination into the Cambridgeshire and Peterborough Minerals and Waste Core Strategy Development Plan Document (2011)

replace it. It is considered vital to have railhead provision in the Cambridge area, particularly given the growth that is anticipated in the immediate area. Transport Protection Zones are allocated around the existing northern aggregate railheads operated by Lafarge Aggregates Ltd in Chesterton Sidings, and around the allocated potential new railhead on the WRC. The presence of the railway and railheads means that any new development in the area will have to consider issues such as noise, to be considered acceptable.[9]

Cambridge Local Plan 2006

A.17 The **Areas of Major Change, Policy 9/6** identifies the Northern Fringe as an opportunity to regenerate a significant area of poor quality, previously developed land totalling 75ha, 53ha of which falls in the City Council boundary, the remainder in South Cambridgeshire. The plan included an indicative block layout plan prepared by the City Council, together with proposed land uses and access arrangements (See Appendix 1). In summary the proposals are for:

- 35ha (approx.) of housing
- 6ha mixed use, including up to 2ha of B class employment uses
- 0.5ha of retail
- 5,4ha of community uses
- 4ha for the relocation of the aggregate works
- Formal open space
- 2ha for a major waste management facility
- 1ha for a household waste recycling centre.

A.18 The land uses were intended to dovetail for the proposals of SCDC for a new rail station and public transport interchange on Chesterton Sidings. The main access to the whole area would be from Milton Road.

A.19 The site is allocated in the Local Plan principally for residential uses, although the allocation does include the proposal for a new railway station allowing an interchange with the Cambridgeshire Guided Bus. This allocation was dependant on the relocation of the Water Recycling Centre (WRC) (Sewage Works), to allow for an acceptable living environment on the site.

South Cambridgeshire Local Development Framework – Core Strategy (2007)

A.20 The Core Strategy makes provision in **Policy ST/2 for** the provision of 20,000 new dwellings between 1999 and 2016 to be provided in South Cambridgeshire. A sequential approach to locating the dwellings is proposed in the following order:

- On the edge of Cambridge

[9] Jonathan King, the Examination into the Cambridgeshire and Peterborough Minerals and Waste Core Strategy Development Plan Document (2011)

- At Northstowe new town
- In rural centres and other villages.

A.21 **Policy ST/8 employment provision** seeks to ensure that there is an adequate supply of employment land and allocates 5.63 ha of employment land in Cambridge Northern Fringe

Local Development Framework (LDF) – Development Plan Documents (DPD)

A.22 In September 2004 the Government made changes to the town and country planning system, through the Planning and Compulsory Purchase Act 2004. This Act introduced Local Development Frameworks which is the term now used to describe the portfolio of local policy documents that set out the spatial planning policies for a local planning authority's area.

A.23 The Core Strategy and Site Allocations DPD for South Cambridgeshire have replaced the earlier Local Plan and will remain part of the Statutory Development Plan

South Cambridgeshire Local Development Framework - Site Specific Policies DPD (2010)

A.24 **Policy SP/16 Cambridgeshire Guided Busway** – This ensures that land is safeguarded for a proposed Cambridgeshire Guided Busway. Additional land is also safeguarded for associated infrastructure, including a new Park and Ride site in the vicinity of the new town of Northstowe and other infrastructure such as CGB stops and improved visibility splays at crossings.

A.25 **Policy TP3 The St Ives Transport Corridor** - The Council supports the creation of a Rapid Transit System (RTS) as a crucial element in planning for sustainable future growth in the Cambridge Sub-Region.

A.26 **Policy SP/17 – Rail Infrastructure –** Land at Chesterton Sidings is safeguarded for the development of a railway station and interchange facility. The Council will use its powers under Section 106 of the Town and Country Planning Act 1990 to secure financial contributions at an appropriate level towards the development of the railway station and interchange facility

Emerging Local Policy Context Framework

Cambridge Core Strategy Issues & Options Report 2007

A.27 This explored in principle whether the residential led form of development should be planned for, or if the WRC does not relocate, if a more employment led form of development should be planned for.

A.28 On 13th May 2008 at Development Plan Steering Group the Executive Member for Climate Change and Growth resolved to pursue an employment led form of development on this site. This followed the publication of the Cambridge Northern Fringe East – Viability of Planning Options report.

South Cambridgeshire Local Plan: Proposed Submission July 2013

A.29 This Local Plan is intended to update and replace the South Cambridgeshire Local Development Framework which was adopted between January 2007 and January 2010 and covered the period up to 2016. The Local Plan contains policies and proposals which will shape the future direction of change in South Cambridgeshire until 2031.

A.30 The Plan sets the goals for employment and housing development as well as providing guidance on environmental issues, climate change, local economics, community and transport infrastructure. The 'Objectives of the Local Plan' (**Policy S/2**) promote a theme of sustainability simultaneously to economic, environmental and social development. Within South Cambridgeshire several 'Strategic Sites' have been identified; Northstowe, North West Cambridge, Cambridge Southern Fringe and Cambridge East. The Cambridge Northern Fringe is also explicitly identified as a 'Strategic Site' for commercial, retail and residential purposes.

A.31 Although many aspects of the Local Plan are relevant for Cambridge Northern Fringe East Chapter 2, "Spatial Strategy", Chapter 5 "Delivering High Quality Places" and Chapter 8, "Building a Strong and Competitive Economy", are particularly important.

A.32 The policies relevant to the development of Cambridge NE Fringe are

- **Policy S/5: Provision of New Jobs and Homes -** Development will meet the requirements of 22,000 additional jobs to support the Cambridge Cluster and provide a diverse range of local jobs as well as 19,000 new homes
- **Policy SS/4: Cambridge Northern Fringe East and land surrounding the proposed Cambridge Science Park Station -** The area is allocated for high quality mixed-use development, primarily for employment within Use Classes B1, B2 and B8 as well as a range of supporting uses, commercial, retail and residential uses (subject to acceptable environmental conditions).
- **Policy CC/4: Sustainable Design and Construction -** All new residential developments must achieve as a minimum the equivalent of Code for Sustainable Homes Level 4 for water efficiency (105 litres per person per day). Proposals for non-residential development must be accompanied by a water conservation strategy.
- **Policy CC/6: Construction Methods** – Outlines the need to carefully managed the transport of waste and materials on and off the construction site. Where practicable, construction traffic will be required to be routed to avoid roads passing through villages.
- **Policy H/7: Housing Density -** Housing developments will achieve an average net density of 40 dwellings per hectare in urban extensions to Cambridge and in new settlements. Housing developments also have to be affordable (see Policy H/9)
- **Policy E/9: Promotion of Clusters** - Development proposals in suitable locations will be permitted which support the development of employment clusters, drawing on the specialisms of the Cambridge area.

- **Policy E/10: Shared Social Spaces in Employment Areas** - Small-scale leisure, eating and social hub facilities will be permitted in business parks and employment areas

- Policy E/16: Expansion of Existing Businesses in the Countryside - Subject to Green Belt policy, and outside the areas listed in Policy E/15 ('Established Employment Areas'), the expansion of established existing firms which are outside development frameworks will be permitted where the proposal is justified by a specific business case. The plans need to demonstrate that the business is viable and has been operating successfully for a minimum of 2 years.

- Policy SC/9: Protection of Existing Recreation Areas, Allotments and Community Orchards – There are special conditions for proposals resulting in the loss of land or buildings providing for recreational use or for the loss of allotments or community orchards.

Submission Draft Cambridge Local Plan 2014

A.33 This plan is intended to guide development within Cambridge City to 2031.

A.34 The vision for Cambridge is of a compact, dynamic city, located within the high quality landscape setting of the Cambridge Green Belt. The city will draw inspiration from its iconic historic core, heritage assets and structural green corridors, achieving a sense of place in all its parts, with generous, accessible and bio diverse open spaces and well-designed architecture, building on the city's reputation for design excellence,

A.35 Cambridge's new development will be innovative and will promote the use of sustainable modes of transport, helping to support the transition to a more environmentally sustainable and successful low carbon economy.

A.36 The city will continue to develop as a centre of excellence and world leader in the fields of higher education and research, and will foster the dynamism, prosperity and further expansion of the knowledge-based economy, while retaining the high quality of life and place that underpins that economic success. It will also grow in importance as a sub-regional centre for a wide range of services. Housing provision in the city will be of a high quality and will support the development and enhancement of balanced and mixed communities through provision of housing of a mix of sizes and types, including a high proportion of affordable housing.

A.37 The Cambridge Local Plan 2014 seeks to guide and facilitate growth and the infrastructure required to support development, so that the city grows in a sensitive and sustainable manner. This will ensure that the high environmental quality of the city is protected and enhanced and that future developments offer a full range of opportunities to all.

A.38 The key relevant planning objective is Objective 10: "promote and support economic growth in environmentally sustainable and accessible locations, facilitating innovation and supporting Cambridge's role as a world leader in higher education, research, and knowledge-based industries, while maintaining the quality of life and place that contribute to economic success."

A.39 The policies relevant to the development of Cambridge NE Fringe are

- **Policy 40: Development and expansion of business space** - new offices, research and development and research facilities are encouraged to come forward around Cambridge Park Station The development of larger employment sites, with multiple occupiers, are required to consider whether they want to provide shared social spaces within the site, to enhance the vitality and attractiveness of the site.

- **Policy 55: Responding to context** - supports development where it is demonstrated that it responds positively to its context and has drawn inspiration from the key characteristics of its surroundings to help create distinctive and high quality places. Development proposals must a) identify and respond positively to existing features of natural, historic or local importance on and close to the proposed development site; b) be well connected to, and integrated with, the immediate locality and wider city; and c) use appropriate local characteristics to help inform the use, siting, massing, scale, form, materials and landscape design of new development.

- **Policy 56: Creating successful places** –supports development that is designed to be attractive, high quality, accessible, inclusive and safe, and sets out the detailed criteria on which these characteristics will be judged.

- **Policy 60: Tall buildings and the skyline in Cambridge –** sets out the criteria against which any proposals that are considered tall, that is significantly taller than the buildings that surround them and/or exceed 13m outside the city core: location will be assessed: setting and context; historical impact; scale, massing and architectural quality; amenity and microclimate and public realm

- **Policy 80: Supporting sustainable access to development** - where it demonstrates that prioritisation of access is by walking, cycling and public transport, and is accessible for all.

- **Policy 81: Mitigating the transport impact of development –** developments will only be permitted where they do not have an unacceptable transport impact, requiring submission of a transport assessments and travel plan to accompany all major development proposals; and reasonable and proportionate financial contributions/mitigation measures where necessary to make the transport impact of the development acceptable

Strategic Economic Policies and Studies

Cambridge and South Cambridgeshire Employment Land Review (ELR) July 2008

A.40 There is a substantial supply of employment land either with permission or allocated in South Cambridgeshire and a far smaller amount available within the City following substantial losses of employment land to residential uses over the past 10 years. Some land within both Districts faces constraints to development of one sort or another such that the job forecasts, examined within the Review suggest cannot be met without new sites. Some additional sites are suggested in the ELR. A generous supply of land exists for high technology research and development uses outside the City. Within the City, losses of

employment land continue to occur. Other needs, which should also be addressed within the portfolio include providing more new land and protecting existing land for light industrial and traditional office uses.

Cambridgeshire Local Economic Assessment 2010

A.41 Key issues relevant identified are:

- A long term decline in office floor space may lead to problems for the high-tech industry over a 5-10 year timescale;
- High levels of public sector employment with expectations of significant numbers of redundancies in this sector over the next few years; and
- Very low housing affordability and pockets of income deprivation in the north of the City.

Employment Land Review update 2012

A.42 This review was designed to reconsider and update the findings from the Employment Land Review, 2008. Changes in forecasts and assumptions about employment density meant that less employment land was required when compared to the 2008 ELR. There is currently sufficient supply, however there is likely to be a shortage of B1a space, focused on the city centre and the northern fringe. Increasing provision elsewhere will not solve the problem, new land should be where firms want to locate. A review of the policy of Selective Management of the Economy highlighted a number of questions about the need for it to continue, and consequently the Councils have proposed to remove this policy from their plans.

Employment Land Review update 2013

A.43 This study updated the forecasts for Cambridge by using a different set of employment projections. The original study relied on a baseline projections prepared by Cambridge Econometrics using its Local Economy Forecasting Model (LEFM); the re-run was based on a set of baseline projections developed by Oxford Economics using the East of England Forecasting Model (EEFM). Although different updates, both sets of projections were prepared at roughly the same time making them, arguably, comparable.

Greater Cambridgeshire Greater Peterborough LEP: Strategic Economic Plan (SEP) 2013

A.44 As identified in the Greater Cambridgeshire Greater Peterborough LEP SEP, significant investment is planned in proximity to the proposed development. Key schemes like the A14 Ellington to Milton improvement are being progressed (with support from GCGP and local partners £100m local contribution) alongside a new station at Cambridge Science Park Station. Both of these schemes are expected to be implemented, subject to approvals, by 2015/2016. A further six priority major schemes valued at £70m are planned for delivery by local authority partners with £14.1m LTB funding. Investment in infrastructure is key to economic progression and should facilitate job creation. Investment is needed to enable more reliable and efficient access to the Ports, Airports and national and international Markets via the strategic road and rail network. Key priorities include improvements to the

A14 (as mentioned).[10]

[10] Greater Cambridge Great Peterborough LEP, Strategic Economic Plan (2014)

Annex B: Cambridge Northern Fringe East Visioning Workshop - Barry Shaw's notes on the conclusions

Introduction

B.1 The aim of the day was to seek agreement on a series of high level principles including: key threads; common principles; Transport Hub as catalyst; some residential at core; Boundary of area at the centre of change; Fen Road and greenbelt land east of the railway. What follows sets out key highlights and issues from the concluding presentation. Attendees were encouraged to send any further thoughts to the organisers. The conclusions from the workshop were typed up on the day and will be edited and circulated.

Context

B.2 Cambridge is at the heart of one of the fastest growing areas in Europe being driven by the knowledge and service economy. It is facing the challenge of expanding its historic core and growing a regional conurbation around it. The plan needs to:

- Develop a structure that contributes and responds to the conurbation as a whole, and
- Acknowledge the potential for an increase land value in making suitably ambitious proposals.

The nature of the site

B.3 The site is large and equates to a city quarter by size but measured by land ownership and land use it is not a typical urban area. It is more typical of an urban fringe site but its location at the edge of one of the fastest growing areas in Europe creates special opportunities. In addition the area might be considered to have a brand – as a centre for innovation in a city that is growing because of the strength of its research and intelligence.

B.4 The area is dominated by four sites, each with distinctive issues that will need to be addressed if a successful integrated urban area is to be created.

B.5 The four key sites are:

- Network Rail Depot;
- Unex Industrial Estate;
- Anglian Water Sewage works and
- Fen Road

Two key Issues

B.6 *Waste Water Treatment Works:* It was concluded that the Waste Water Treatment Works was critical to determining the future character of the area. The implications, costs and impact of change went beyond current Anglian Water thinking.) A number of suggestions were made as to how the impact of the sewage works could be reduced while maintaining the facility on site, such as the work carried out in Brighton. These now need to be explored with a view to reducing its impact in the medium/long term.

B.7 It was noted that the business planning process being undertaken by Anglian Water was on a short time scale and different time horizon to other planning work. It was also limited in its ambition. There was consensus in the need for something to happen that would reduce the negative impact of the works. This might be addressed by a joint consultancy study. A paper should be prepared that sets out the issues and prepares the ground for a high level meeting with Anglian Water. (Leader to Chairman level)

B.8 *Network Rail Depot:* The railway lands presented the clearest opportunity to establish the new character of the area. A very powerful vision was presented at the beginning of the workshop by Tom Holbrook's 5th Studio which produced a cogent analysis of the opportunity and presented an achievable high quality urban plan. Delegates recognised that coordination between the railway management of the station and the development of the site was critical. It was concluded that the aggregate business could be reduced in area while remaining on the site for the short/medium term. Plans for this site need to be developed by a partnership between the public and private sectors.

Timescales

B.9 The workshop adopted a phased approach to making suggestions and recommendations by reviewing the potential redevelopment of the area against three time scales of short, medium and long term. These were not precisely defined but short was assumed to be the next 5 years, medium 5 – 10 years and long term 10 -15 years and beyond.

B.10 It became clear that all the bodies involved were working to their own timescales. It was recommended that a paper should be produced that set out all the plan making activity being undertaken by the public and private sectors in the area with a view to co-ordinating the different approaches. It was recommended that the three main private landowners should be part of the process. It was recommended that the paper setting out the issues should go forward to the local chief executives committee for high level agreement as to the process.

Boundaries

B.11 The focus of the site was fine but the boundaries might be reviewed in terms of delivery and delivery partnerships. In particular the green belt/Fen road issues were commented on by a very local group. Are there other groups with an interest in the green belt and its future shape that it would be helpful to involve besides the local community? How is the overall Cambridge green belt managed? Is there a need to review traveller policies in partnership? Does the existing Joint Planning Committee need to be reviewed in the light of this site's

importance to Cambridge as a whole? (Reference was made to the London Legacy Development Corporation that is taking forward the redevelopment of the Olympic site.)

Type of Plan

B.12 The workshop agreed that they wanted to see the detailed observations incorporated in future thinking. The specific nature of the site means that Local Plan policies are not likely to be sufficiently detailed to give certainty to the outcome. Alternative and additional plans should be considered including a local area action plan or non-statutory plan such as a masterplan or opportunity plan.

Private/public partnership

B.13 The private sector land owners should be invited to work with the LA's to produce an overall document or provide funds for it to be jointly commissioned.

Conclusion

B.14 Good places need a successful long term vision. This comes from leadership, citizen engagement and technical input. Sense of place is not just physical it is social and economic. Place making is an evolutionary process – the professional role is about enabling the vision and about co-production. The opportunity is to take the Innovation Areas on to the next stage, to build on brand, the success and the energy that exists here and to maintain the reputation for innovative thinking and one of the most attractive places to work in Europe. In the words of one of the delegates, "We must find a suitably creative way to respond to the poetry of the Cambridge phenomenon."

Annex C: Consultees as at September 2014

1. Cambridge City Council – Dave Prinsep (Head of Property), Julian Brace (planning policy)
2. Stagecoach East – Andy Campbell (Managing Director)
3. Coulsons Building Group – Philip James (Director)
4. Ridgeons Builders Merchants - Alistair Brace (Operations Manager)
5. Anglian Water – John Cormie (Property Director)
6. Grosvenor – Ed Skeates (Projects Director)
7. Dencora – Ed King (Managing Director) and Chris Bradley Watson (Chairman)
8. St Johns Innovation Centre – Chris Ewbank, Senior Bursar, and Carol Ingram (Estate Manager)
9. Network Rail - Steven Mills (Senior Town Planner), Jo Lewington (Project Manager), Jon Tym (Station Project Manager)
10. Cambridgeshire County Council – Ann Barnes (Principal Planning Officer)
11. Trinity College - Rory Landsman, (Senior Bursar), John Tweddle, (Bidwells)
12. Carter Jonas – William Mooney, Stephen Hardy (Commercial Development Directors) and Stuart Phillips (Residential Development Director)
13. Savills – Stephen Lang, Director of Commercial Research, Rob Sadler and Philip Ridout, Development Directors, Cambridge
14. Bidwells – Mike Derbyshire and Rob Hopwood, Planning Directors
15. Lambeth Smith Hampton – Duncan Quig (Partner, Science and Technology Parks)
16. Cambridge Network -
17. Cambridge Ahead -
18. Cambridge Enterprise and the Greater Cambridge Greater Peterborough Local Enterprise Partnership -

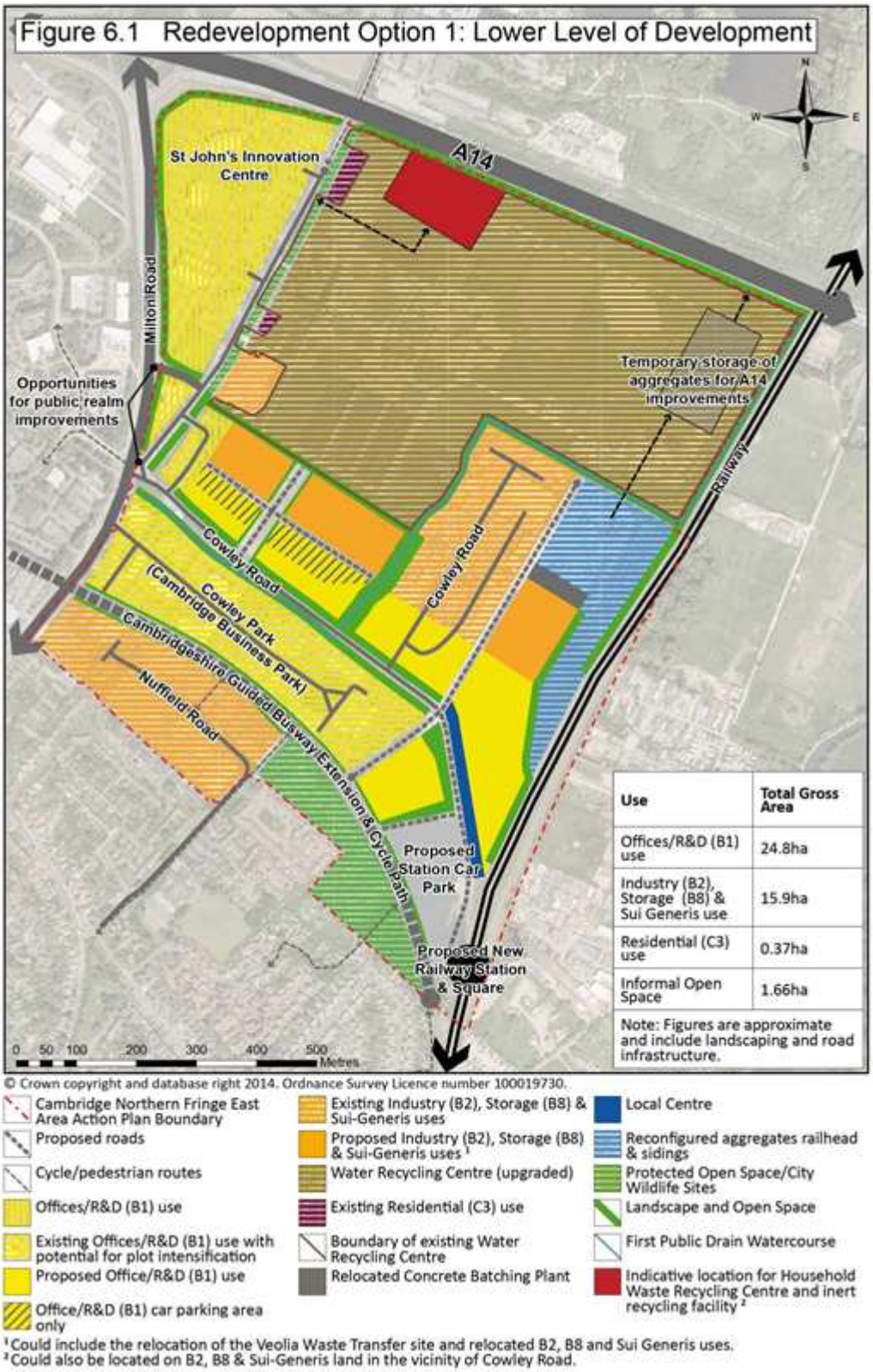
Not consulted

19. Brookgate – not responded to approaches
20. Rathbone Wealth Management – enquiry lodged and forwarded to pension fund beneficiary; no response
21. Barrttech – not willing to engage
22. LaFarge Tarmac – Not responded to approaches

23. Veolia – Not responded to approaches

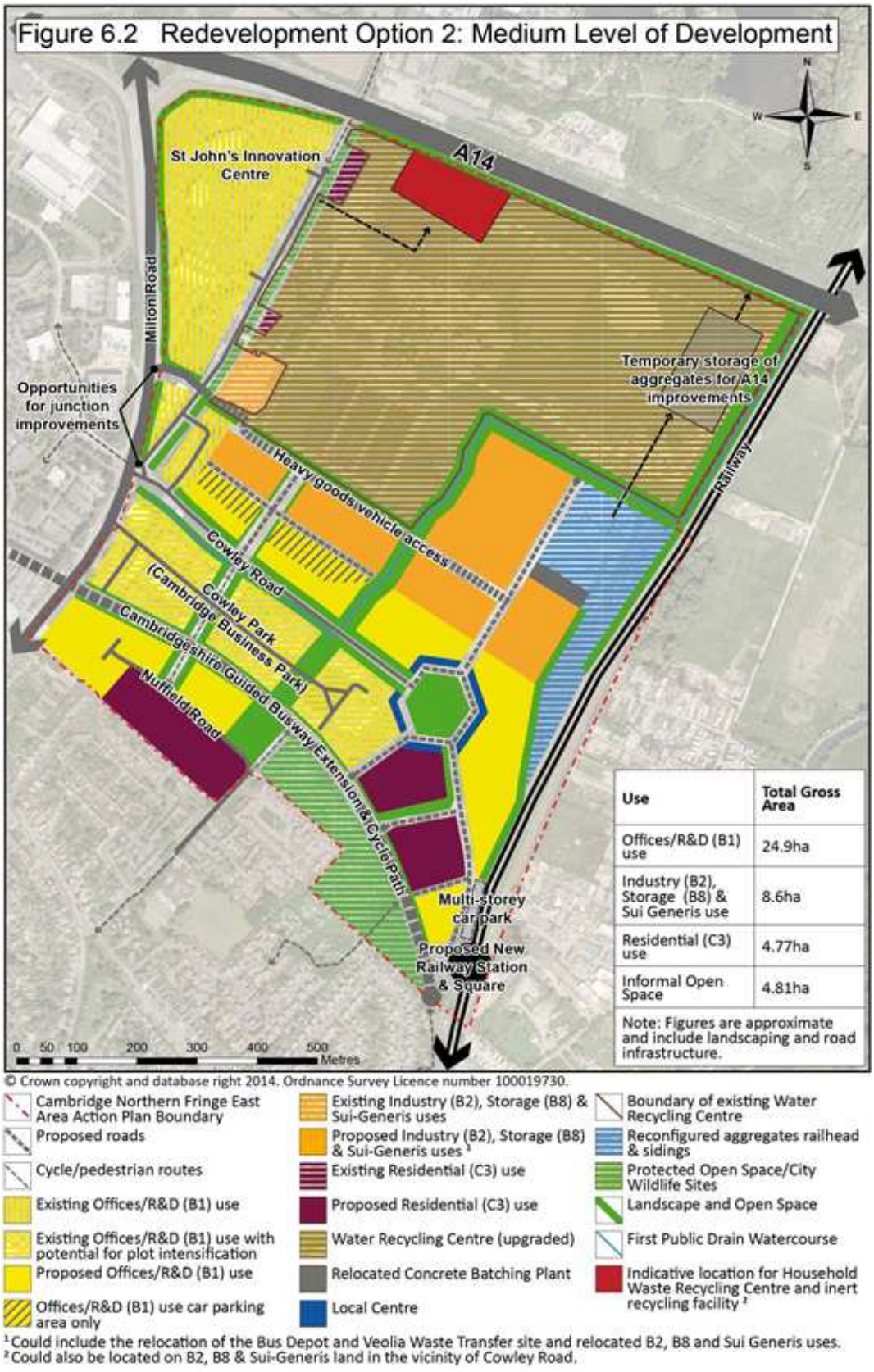
Annex D: Options Maps

Low Density Development Option



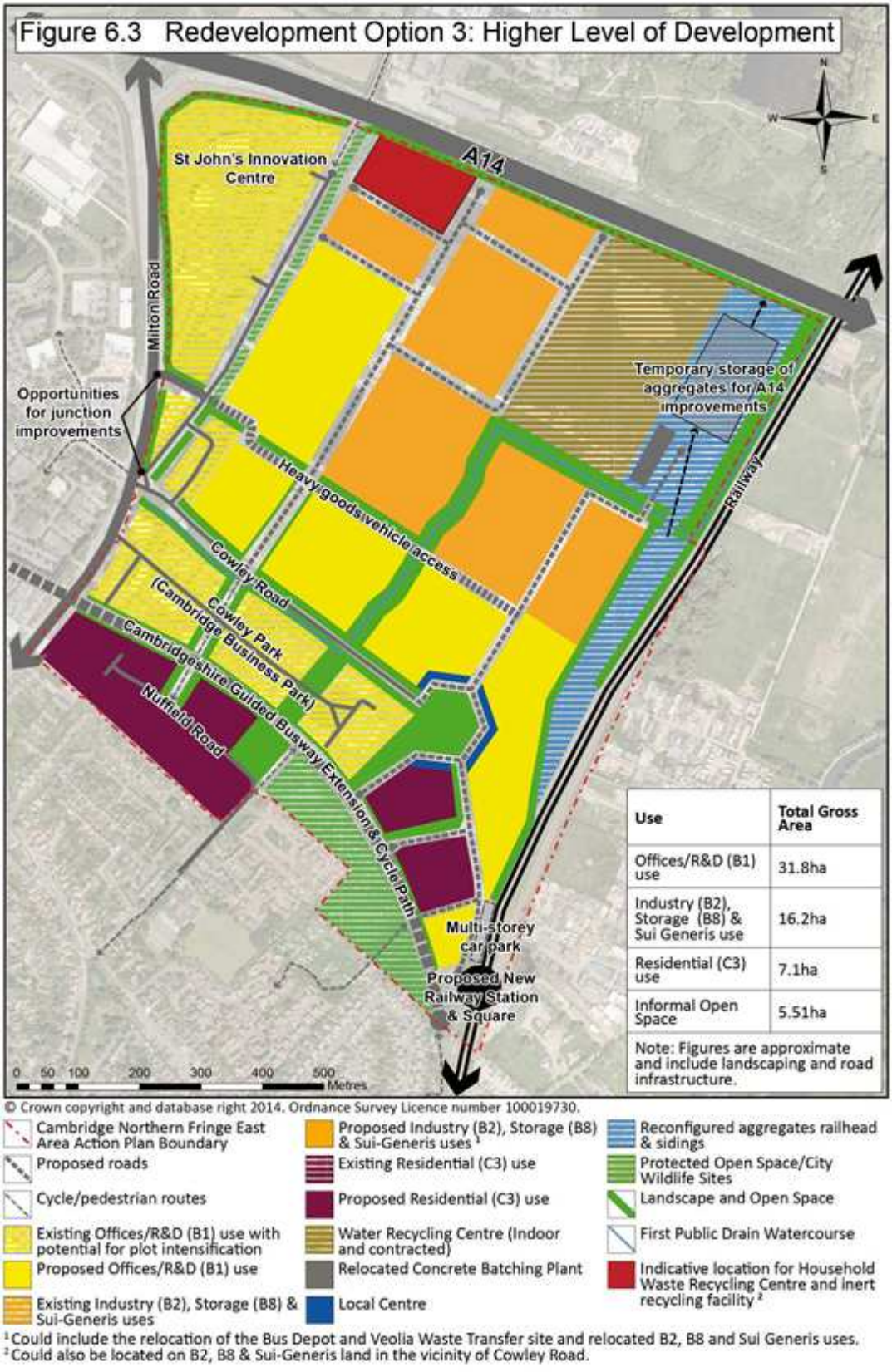
Source: Cambridge City Council

Medium Density Development Option



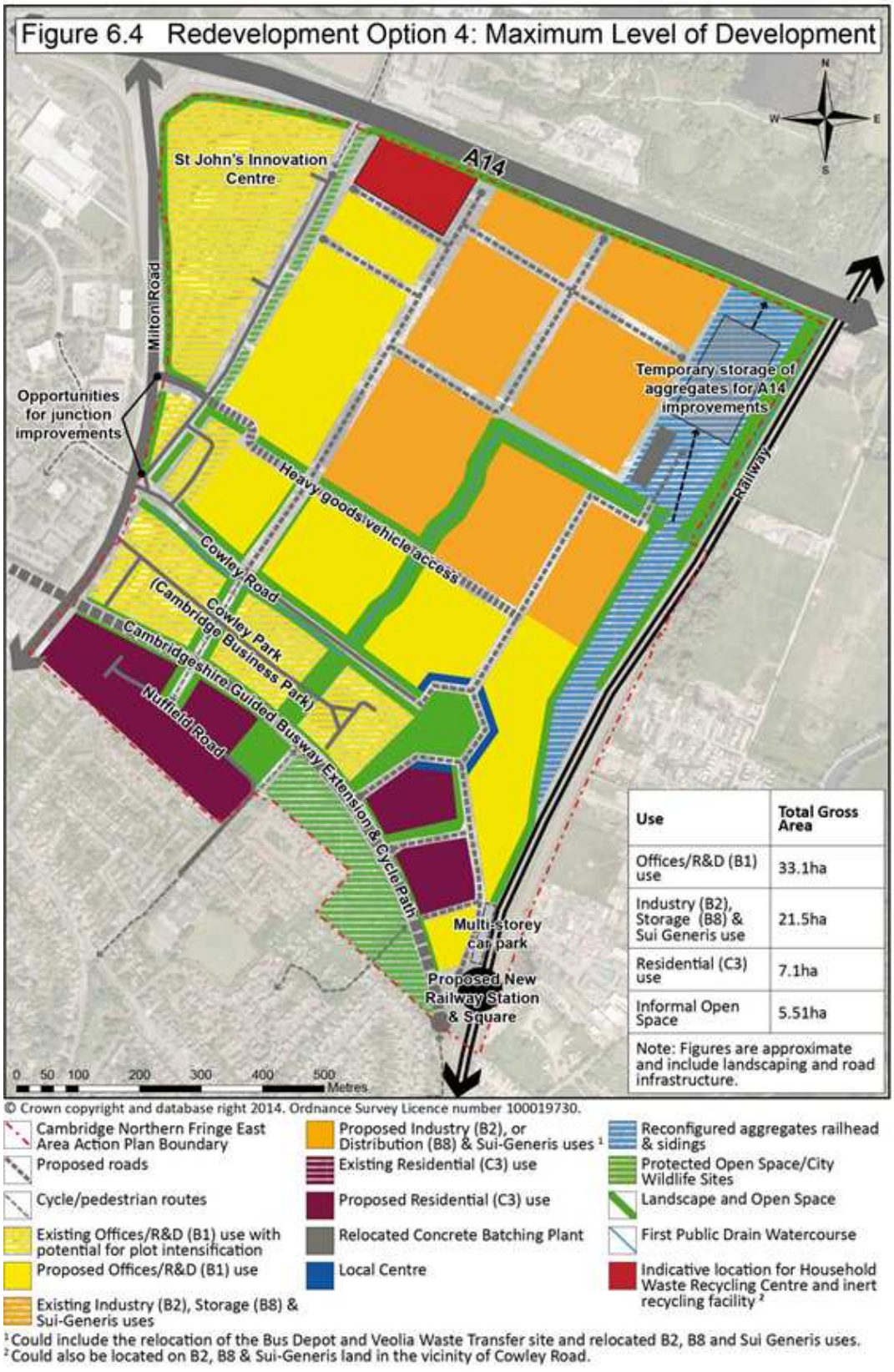
Source: Cambridge City Council

Higher Density Development Option



Source: Cambridge City Council

Maximum Density Development Option



Source: Cambridge City Council

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Cambridge Northern Fringe East

- Employment guidance for the Area Action Plan – sector profile

October 2014

SQW

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Approved by:	Chris Green Director	Date:	06 October 2014

Introduction

1.1 This report provides an overview of sector strengths and likely sources of demand for employment space in the Cambridge Northern Fringe East AAP area.

Context for growth

1.2 The Cambridge economy – defined to include Cambridge City and South Cambridgeshire District - is highly competitive and productive, and it contains institutions and firms of national, and in some cases global, significance. The area has a resident population of around 265,000 people, 180,000 employee jobs and over 10,000 businesses. Based on the draft Local Plans for Cambridge City and South Cambridgeshire, by 2031 there are likely to be another 65,000 people living locally, in 33,000 more homes, and 44,000 more jobs.

1.3 On the basis of constant prices data (£2009), output (GVA) is approaching £7.5bn (over 7% of the regional total) while GVA per job is well above regional and national averages. According to the 2013 UK Competitiveness Index, Cambridge is the most competitive city in the UK.

1.4 The primary cause of Cambridge's strong position is the high tech business cluster, combined with the scale, strength and diversity of the research and education base. Supporting the high tech cluster, and Cambridge's role as a regional service centre, is a range of business, financial and professional services, which are also growing in number and scale. In addition, Cambridge is significantly influenced by a strong – and growing – relationship with London (with implications, in particular, for the nature and strength of its labour market).

The Cambridge high tech cluster

Scale

1.5 Over the last 50 years, the Cambridge high tech cluster has achieved global significance and recognition. The past growth of the cluster is demonstrated in Table 1-1. In 2008, the core high tech sectors accounted for 16% of employment in Cambridge/South Cambridgeshire and 23% of GVA, indicating that they had much higher levels of productivity than for the economy as a whole[1]. Significantly, it appears that the high tech community continued to grow and to innovate during the prolonged period of economic recession and stagnation between 2008 and 2012 (this observation is supported by interviews with the property industry, which indicated that Cambridge office space was hardly affected by the recession, except for demand for small units).

[1] Cambridge Cluster at 50. The Cambridge Economy, Retrospect and Prospect, paragraph 2.35. SQW on behalf of EEDA, 2010

Table 1-1: Growth of firms and jobs in the high tech business cluster around Cambridge

Date	Firms	Jobs	Source
1984	300	14,000	The Cambridge Phenomenon, SQW, 1985
1998	1,250	32,500	The Cambridge Phenomenon Revisited, SQW, 2000
2008	1,400	48,000	Cambridgeshire County Council Research Group
2012	1,500	53,000	SVC2UK - Silicon Valley Comes to Cambridge

Note: figures relate to varying geographies and high tech definitions differ, so are not directly comparable, though they do give a broad indication of scale and trends

Diversity

1.6 One of the reasons for the long term growth of the high tech cluster is its diversity. Specialisms within the cluster include:

- Bioscience and healthcare – major firms include Cambridge Antibody Technology, Horizon Drug Discovery and, now, Astra Zeneca
- IT/telecoms – including major firms such as ARM, Autonomy, CSR and Microsoft
- Printing technologies – for example, Domino, Xaar
- Advanced engineering – examples include Marshalls, AVEVA
- Cleantech, including energy – growing strengths reflected by companies such as GenDrive and The Solar Cloth Company
- Nanotechnology and advanced materials – examples include Owlstone and Azuro
- R&D consultancy – the Cambridge high tech is relatively research intensive compared with many areas (e.g. Thames Valley), but Cambridge also has a particular specialism in R&D consultancy which is unique in Europe (examples include Cambridge Consultants, TTP (the Technology Partnership), Sagentia (formerly Scientific Generics) and PA Technology).

1.7 Before 2000, the Cambridge Phenomenon was regarded as a 'small firms' phenomenon', characterised by its high rate of start-ups but not by the number of large firms. But this is changing. Evans and Garnsey[2], writing in 2008, suggested that the cluster had grown four firms of scale, at a rate of one per decade: Domino, ARM, Autonomy and Cambridge Silicon Radio (CSR). In contrast, the 2012 SVC2UK work[3] claims that Cambridge has two companies with market capitalisation of over $10bn, ARM and Autonomy, and a further ten with market capitalisation of over $1bn – Abcam, AVEVA, CAT, Chiroscience, CSR, Domino, Ionica, Marshall, Solexa, and Virata. It also states that, although only half the number of companies scale-up in the UK compared to the US, "*Cambridge has led the way in creating and scaling high-tech companies*".

1.8 In addition, *inward investment* into Cambridge is increasing. The 2000 Cambridge Phenomenon Revisited report states that "*movement [by firms] into Cambridge has been*

[2] Evans and Garnsey (2008), The Cambridge Cluster on the eve of the financial crisis, IfM
[3] SVC2UK is shorthand for 'Silicon Valley comes to Cambridge'. In 2012 they published the Cambridge Cluster map.

happening for many years….[but the survey] figures suggest that the importance of in-movers may have been gathering pace, both in terms of the number of firms and their potential for growth" (Part 1, page 42). In 1997 Microsoft Research's decision to locate their European centre in Cambridge, initially alongside the new University Computer Laboratory on the West Cambridge Campus, was regarded as a major boost for the high tech cluster: although they employed only a handful of staff initially, and around 100 today, it was a significant vote of confidence in the quality of the specialist labour market in Cambridge.

1.9 Most recently, Astra Zeneca's decision to relocate its global corporate HQ and research centre to Cambridge, bringing around 1,500 new staff to the city[4], represents another step change in inward investment, both in respect of its scale and the fact that Astra Zeneca are moving their HQ functions to the city, not just their R&D. This is the first time a major multinational has considered Cambridge a suitable location for HQ functions, other than those which originated in the city such as ARM. If successful, it could stimulate other major high tech firms to establish research and HQ functions at scale in the Cambridge area.

1.10 *Ownerships* are also increasingly diverse, as inward investment through acquisition has increased, and founders and early stage investors have sought to realise the value of their shares through sale of all or part of their companies.

1.11 This diversity is important because it creates a more resilient platform for growth, with greater potential for innovation, and better access to funding and expertise. It is more resilient because firms are engaged in a wide variety of markets, many of them global in scope. Crossover opportunities at the interface between technology areas are particularly rich in the Cambridge area and a major source of innovation and business growth. For example, the printing industry in Cambridge is expected to develop commercially viable 3D printing technologies, which could potentially transform some aspects of biomedical research and production (e.g. by dramatically increasing the speed and accuracy of the production of anything from artificial organs to pharmaceutical products).

Networks

1.12 The hard and soft infrastructure to support technology-based businesses is generally well developed, with Cambridge being renowned for its strong, diverse and continually evolving networks, including:

- the Cambridge Network, which has over 1,000 corporate members, representing the majority of the technology businesses in the Cambridge area
- One Nucleus, representing the bioscience community in Cambridge and London, and comprising 470 members
- Cambridge Cleantech, with 282 members in the areas of renewables, environment and low carbon
- Cambridge Wireless, with 400 members in the IT and telecommunications areas

[4] The public announcement states that Astra Zeneca will have around 2,000 staff on its new site on the Cambridge Biomedical Campus. However, around 500 of these already work for Medimmune at Granta Park. Medimmune is an AZ subsidiary company which will move to the Biomedical Campus to co-locate with AZ.

- Cambridge Ahead, which is a business and academic member group dedicated to the successful growth of Cambridge and its region in the long-term.

Business, financial and professional services

1.13 Cambridge has become a regional centre for business financial and professional services for various reasons, including:

- The growth of the high tech cluster, which has generated demand for specialist supporting services such as legal advice, funding, marketing, recruitment, etc
- The rapid growth of the Cambridge sub region's population, giving rise to demand for property, legal, financial and other services
- The emergence of Cambridge as one of the main centres of public and private sector organisations providing services across most or all of the East of England
- The increasing importance of business links between Cambridge and London (with direct connections to both Liverpool Street and Kings Cross). For example, Mills & Reeve's new Cambridge office, near Cambridge station, serves the London as well as regional market
- The continuing demand for professional services from long term major customers such as the two universities, the colleges, the hospitals, as well as a wide range of new ones.

1.14 As a consequence, employment growth in business, financial and professional services appears to have matched or exceeded growth in the high tech cluster over the period 2001-2011. For example, Cambridge and South Cambridgeshire combined experienced an increase of nearly 1,000 jobs in financial, insurance and business services over this period, and a similar scale of decline in computing services. Professional services – which include a mix of high tech (R&D, technical consultancy) and other services (e.g. legal, accountancy) – grew by nearly 6,000 jobs 2001-11.

1.15 The growth of professional services is particularly evident in CB1 and Cambridge Business Park, both of which have unrestricted planning permissions for office use (unlike many sites around Cambridge, including Cambridge Science Park and St John's Innovation Park, which are restricted to high tech uses). In CB1 the two most conspicuous occupiers of new office buildings are Microsoft Research and Mills & Reeve. Both have chosen the location because of proximity to the station, both to help their staff who live outside Cambridge to commute into work, and to facilitate links with London.

Economic forecasts

1.16 Between 1991 and 2011, employment in Cambridge and South Cambridgeshire grew by 42,400 (31%). This includes periods of recession (most recently 2008-11), during which employment fluctuated, but the overall growth trajectory is clear and strong.

1.17 Looking ahead, the most up to date forecasts are those produced by the East of England Forecasting Model (EEFM). The EEFM was developed by Oxford Economics to project

economic, demographic and housing trends in a consistent fashion. This paper considers two versions of the EEFM forecasts: baseline, and high migration (which uses ONS migration forecasts). These can be compared with the Cambridge Econometrics (CE) forecasts produced in 2012 and used as inputs to the Cambridge and South Cambridgeshire Employment Land Review Update (2012). The CE figures include both baseline and policy based forecasts, the latter reflecting the housing growth trajectories for 2011-31, as modelled by Cambridgeshire County Council. The EEFM and CE forecasts are broadly comparable, although there are differences in the sector breakdown and in the time periods for which the forecasts are available.

1.18 Table 1-1 provides relevant figures from the different forecasts. Total employment is expected to increase by between 36,400 (EEFM baseline forecast) and 42,700 (CE policy based forecast) between 2011 and 2031. This is an increase of between 20% and 23%. This suggests a slower rate of growth than that achieved between 1991 and 2011 - which probably reflects primarily expectations about growth of the national economy and its implications for local areas - but it is nevertheless a substantial increase.

Table Error! No text of specified style in document.**-1: forecast employment change 2011-31 – comparison of EEFM and CE forecasts**

Sector Change in 000s	EEFM baseline	EEFM high migration	CE baseline	CE policy based
Chemicals	-0.6	-0.6	-	-
Pharmaceuticals	0.1	0	-	-
Electronics	-1.0	-0.9	-	-
All manufacturing	-4.0	-4.8	-0.8	-0.8
Computer related	+4.5	+4.9	+5.5	+5.5
R&D	+5.9	+6.3	-	-
Professional services	+9.0	+9.4	-	-
Prof servs incl R&D	+14.9	+15.7	+11.6	+12.0
Business services	+3.4	+3.6	+4.6	+4.7
Total employment	+36.4	+40.3	+37.1	+42.7

Source: http://www.cambridgeshireinsight.org.uk/EEFM and Employment Land Review and Update, Annex A, April 2012

1.19 Over the period to 2031, the greatest growth is expected in Computer related services, R&D and professional and business services. The EEFM forecasts suggest more growth in professional services and R&D than the CE forecasts, but lower growth in computer related and business services. Overall, the forecasts for 2011-31 for these four service sectors suggest growth in jobs of between 21,700 (CE baseline) and 24,200 jobs (EEFM high migration). The EEFM forecasts for these sectors are between 1,000 and 2,000 higher than the CE forecasts.

1.20 In contrast, both EEFM and CE forecasts suggest that employment in manufacturing will decline 2011-31, although the EEFM forecasts suggest a considerably greater decline (between 4,000 and 4,800 for the manufacturing sector as a whole) than CE (800 for both the baseline and policy based forecasts). Only EEFM provide a breakdown for manufacturing sub sectors: they suggest that employment in high tech manufacturing sectors – including

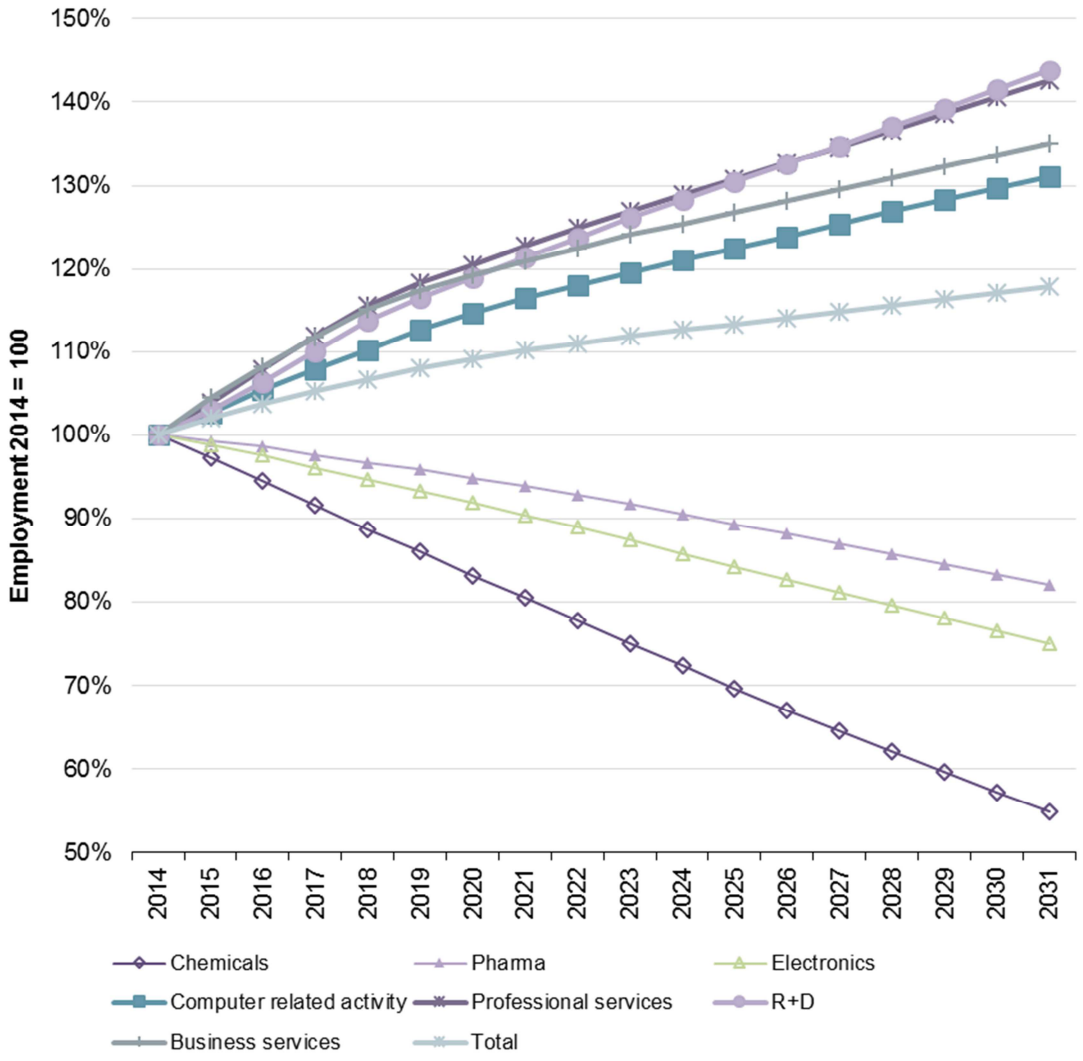
electronics, chemicals and pharmaceuticals – is likely to decline by between 1,500 and 1,700 between 2011 and 2031. Figure 1-1 illustrates the contrast in forecasts for relative change the high tech manufacturing and service sectors to 2031. The expectation for declines in high tech manufacturing is based on past relative trends in these sectors, but may take insufficient account of local circumstances such as the huge investment by Astra Zeneca and the continued strength of companies such as Domino, Xaar and Marshalls (although this depends on how employment in these companies is classified).

1.21 Employment in population related sectors is expected to grow. This includes education and health, where local growth expectations are in contrast to national trends, but are lower than actual growth between 1991 and 2011. In addition, employment in construction, wholesale and land transport – all of which may be expected to generate land requirements in the B2/B8 categories – is expected to grow steadily.

1.22 Neither sets of forecasts provide a sufficiently detailed sector breakdown to derive a figure for high tech growth to 2031. The EEFM forecasts suggest that employment in computer related activities and R&D will increase by between 10,400 and 11,200 between 2011 and 2031. If professional services are included, the figures increase to between 19,400 and 20,600. CE's forecasts for the same combination of sectors are for growth in jobs of between 17,100 and 17,500 over the same period. If the high tech manufacturing sectors are included (which is only possible for the EEFM forecasts) then net growth in high tech employment (including all professional services) is forecast to be between 17,700 and 19,100.

1.23 These forecasts suggest that employment in the high tech and professional services cluster will grow at a faster rate than total employment, and will therefore form a higher proportion of total employment in the Cambridge area by 2031 than it does now (based on total employment growth to 2031 of 36,400, and assuming that the ratio of high tech business to total employment stays much the same as in 2010, then high tech firms would be responsible for growth of around 6,000 jobs to 2031).

Figure 1-1: Percentage change in employment 2014 to 2031 in the Cambridge area based on EEFM forecasts



Source: ONS/EEFM

The future location of high tech sectors in and around Cambridge

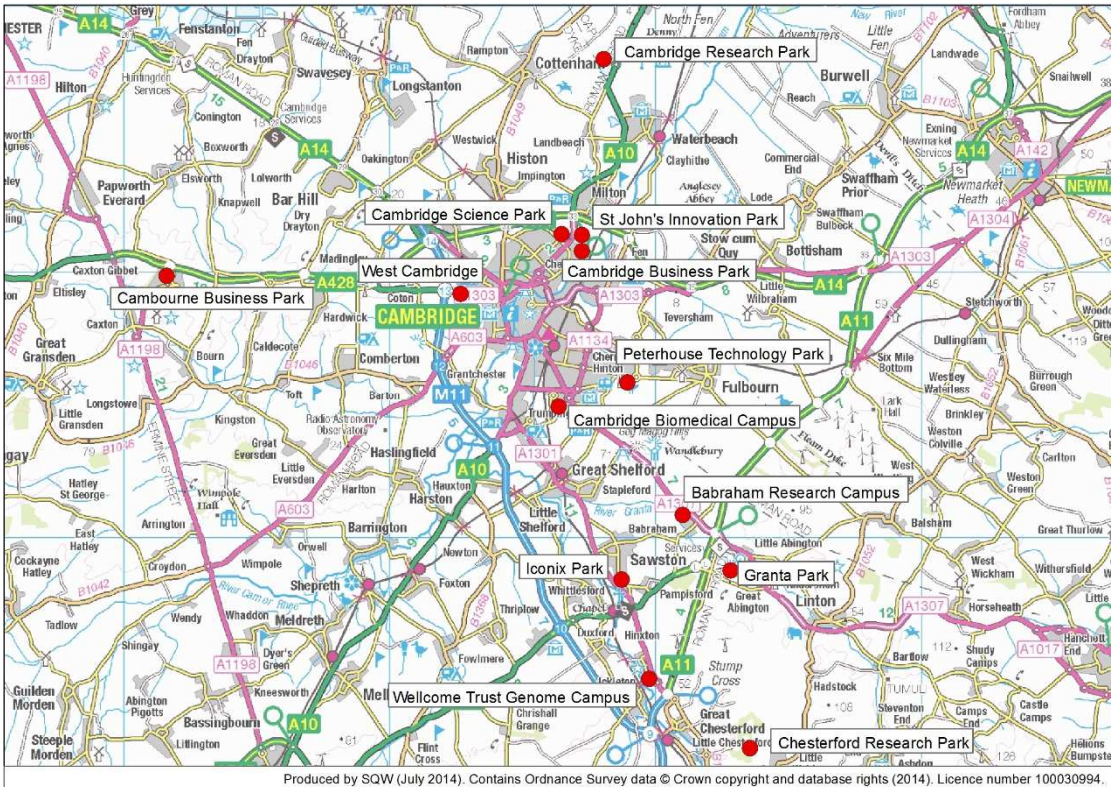
1.24 There has always been some differences in the location of the main high tech sectors in and around Cambridge, reflecting factors such as the distribution of research institutes, specialist property (figure 1-3) and major firms. This differentiation is probably most marked in relation to bioscience, which appears increasingly focused to the south of Cambridge, for various reasons:

- most of the major bioscience research facilities are in or to the south of the city – on the Addenbrookes campus (MRC, Cancer UK, etc), the Genome Campus, Babraham, etc)
- specialist incubators and science parks with laboratory space and related facilities for bioscience firms have been developed to the south of Cambridge, including Cambridge Biomedical Campus at Addenbrooke's, Babraham Research Campus, Granta Park and Chesterford Research Park, Collectively, these facilities have

planning permission or agreement to development for 175,500 sqm of additional specialist business space (i.e over and above existing commitments, as at September 2014)[5]

- Astra Zeneca is moving to the Cambridge Biomedical Campus, which will inevitably attract other bioscience firms to locate nearby. It will also expand the specialist bioscience labour market, again mainly to the south of the city since cross Cambridge commuting is avoided where possible due to congestion.

Figure 1-3: Major business and science parks in and around Cambridge



1.25 The major property schemes exclusively for high tech firms are otherwise located mainly on to the north, east and west of Cambridge, both on the edge of the city (e.g Cambridge Science Park, SJIC, Peterhouse Science Park, West Cambridge) and further afield (e.g. Cambridge Research Park, Melbourn Science Park). These schemes accommodate some bioscience firms (e.g NAPP on CSP, and Horizon Discovery, which is expanding on Cambridge Research Park), but mainly other high tech sectors.

1.26 The location of the main high tech incubator facilities such as the Hauser Centre (West Cambridge), SJIC, the new Clean Tech incubator (immediately to the west of CSP) and the proposed innovation centre on Cambridge Biomedical Campus tends to accentuate the differentiation of sectors around the city.

[5] There are consents for 81,000 sq m of development at Granta and Chesterford. At Addenbrookes, 93.000 sqm for phase 2 of the Biomedical Campus has been taken out of the Green Belt but planning consent has not yet been agreed. Babraham has funding for a further 1,500 sqm of incubator space. The figures exclude land with planning permission which is already committed to specific end users – this applies primarily to the Biomedical Campus, where the whole of Phase 1 is effectively committed (as of September 2014).

1.27 The major office developments catering for professional, financial and business services are located mainly within the city (around the city centre, and particularly CB1) and on the northern edge (Cambridge Business Park) and on business parks further out (e.g. at Cambourne, St Ives).

1.28 Within the city centre there are severe limitations on new development, due to the historic significance of the central area and land ownerships. The development of CB1, around Cambridge station, has been a major benefit to the city but this will be completed soon. The potential for further new development in the city centre beyond that is limited, although there is scope for some redevelopment and intensification on existing employment sites.

1.29 Sites on the edge of the city have potential to add to and complement existing office and high tech provision, including:

- Intensification of development on existing schemes, including the Cambridge Science Park, the early phases of which were built 40 years ago at very low densities, St John's Innovation Park and the West Cambridge development. Estimates provided by Trinity and St John's suggest there is scope for an additional 60,000 sqm on the Science Park[6], and at least 12,500 sqm on St John's Innovation Park[7], without affected the quality of the environment provided by both schemes. The West Cambridge development is not yet complete, but the University is considering the scope for changes to the original masterplan to intensify development
- The NE Cambridge AAP area, which already includes two important office/high tech schemes – St John's Innovation Park and Cambridge Business Park - and which has scope for significant new development of offices, R&D and mid tech business space
- Other edge of city sites, including NW Cambridge and Peterhouse Technology Park at Fulbourn, both of which include provision for commercial R&D space which falls within both the City and South Cambridgeshire Districts.

The type of business space to be provided in the AAP

1.30 Four important and distinctive characteristics of the Cambridge property market are:

- Strong demand over an extended period of time, but apparently particularly intense currently, both from the high tech sector and from professional and business services
- A large and growing stock of property and land specifically for high tech occupiers (i.e. with a B1b or similarly restrictive planning permission)

[6] This estimate is for the potential net increase in floorspace over the next 15 to 20 years and includes approximately 20,000 sqm in Phase 1, 9,000 sqm in each of phases 2, 3 and 6, and 14,000 sqm in phase 4. It excludes the proposed hotel in phase 1 as this is not a B Use Class. Only 30,000 sqm of this potential for intensification is under the control of Trinity, as the remainder is on sites which are held on long leaseholds by other organisations.

[7] This is the additional space provided for in the masterplan produced two years ago, and represents a 50% increase on existing space. However, the Bursar indicated that they would consider higher density development if the local planning authority were more flexible about height restrictions

- Despite the large stock of R&D space, a tendency for some high tech firms to occupy standard office space in attractive locations (e.g. Microsoft in CB1, Redgate Technologies on Cambridge Business Park)

- Over the last 10 years, there has been a net loss of industrial space in the Cambridge area, and particularly in the city, despite policy protection. Much of this loss has been to redevelopment for housing.

1.31 In addition, consultations with organisations involved in economic development and the growth of the high tech cluster in the Cambridge area (including Cambridge Enterprise, Cambridge Network, Cambridge Cleantech, St John's Innovation Centre, and Greater Cambridge Greater Peterborough LEP) revealed two main concerns:

- a lack of grow on space for firms in the area. There is reasonably good provision of specialist incubator space, but few options for firms moving beyond the incubation phase. As a consequence, firms stay longer than they need in the incubator facilities and 'bed block' space which new incubates could take up. This is partly an issue of the terms on which small office and workshop units are available (ie firms want more flexibility than most landlords are willing to offer), but it is also a concern about the overall supply of small units

- at the other end of the scale, a limited capacity to accommodate major high tech inward investments. The issue was expressed as "if another Astra Zeneca wanted to move to the area, where would they be accommodated?"

1.32 Given the forecasts that employment growth to 2031 is expected to be dominated by high tech, professional, financial and business services, and the attractions of the northern edge of Cambridge to all these users, it would seem most appropriate for new employment property provision in the AAP is primarily targeted at office users, both high and mid tech and others. Since high tech firms can occupy space with open B1 permissions, but standard office users cannot occupy space with B1b restrictions, there appears to be a case for offices in the AAP area to be granted open B1a permissions rather than restricting some to B1b. This is particularly so if parts of the Cambridge Science Park are redeveloped at higher densities for high and mid tech users over a similar time period.

1.33 The AAP area currently provides a substantial amount of industrial space (under current use classes this would be described as a mix of B1(c) B2 and B8 uses) along Cowley Road and Nuffield Road. This accommodates a range of functions which are important to the Cambridge economy, and if all of these uses are displaced from the AAP area (through redevelopment for higher value uses) then there are few if any alternative locations near to the city due to the steady loss of industrial space over the last 10 or more years (a trend which appears to be continuing, for example with the redevelopment of the Ridgeons site at Cromwell Road for housing). There is provision further out from the city, but current occupiers may not find this acceptable for their operational requirements.

Conclusions

1.34 Key conclusions from this sector review are as follows:

- High tech, professional, financial and business services have grown strongly in the past and are expected to be responsible for most employment growth in the Cambridge area up to 2031. High tech and professional services in particular are expected to form a significantly greater proportion of total employment by 2031 than currently. All of these activities typically occupy mainly office and R&D/laboratory space, classified within Use Classes B1(a) and B1(b). There is currently strong demand for premises from firms in these sectors, and limited supply of space ready for occupation

- There is also likely to be demand for some industrial and storage space from firms undertaking specialist manufacturing (e.g. precision engineering and prototype manufacture) and providing local services such as builders' merchants, wholesalers, and transport operators. There are a variety of such uses currently located within the AAP area

- The Northern Fringe is regarded as an attractive business location, and this will be greatly enhanced by the new station. The area around the new station could become the next main centre for city centre office uses, since there is limited scope for further growth in the central area once CB1 is completed. It is also likely to be a popular location for high tech activities

- The high tech cluster is diverse, with all high tech services expected to grow. The decision by Astra Zeneca to relocate its global HQ and main research centre to Cambridge represents a step change in the scale and nature of inward investment into the Cambridge area, and could precipitate further growth. However, the main geographical focus on bioscience/biomedical firms is to the south of the city, close to the main related research facilities and specialist property (including commercial laboratory space). The NE fringe is most likely to attract other high tech sectors, which will require a mix of offices and hybrid buildings capable of a mix of uses

- Lower value industrial and storage uses, and users such as creative and cleantech industries, which are important to the Cambridge economy, may be priced out of the AAP area unless specific provision is made, for example in the areas adjoining the Anglia Water site. Alternatively, provision could be made elsewhere for these uses, in order to maximise the development potential of the AAP site, providing the alternative locations meet the needs of current occupiers

- The Cambridge Science Park is currently developed at low densities, and the early stages are 40 years old and ready for re-development. Higher densities could be achieved on that site without destroying its essential character, and this would help ease the supply constraints for high tech firms in the Cambridge area. Policy E/1 of the Proposed Submission Local Plan for South Cambridgeshire supports "appropriate proposals for employment development and redevelopment on Cambridge Science Park". In consultation for this study, Trinity College confirmed its intention to gradually redevelop the site at higher densities as existing buildings reach the end of their design life

- Intensification of use on Cambridge Science park and St John's Innovation Park, both of which are reserved for high tech uses, would enable the employment area closer

to the new station to be designated as open B1, providing for a market led mix of professional, financial and business services and high tech uses. High densities around the station should be achievable to maximise the amount of employment space created

- Increased density will create concerns about parking provision on CSP and throughout the AAP area. Although the area is well served by public transport, existing firms operating on CSP, SJIC and the Business Park have been used to generous parking provision, and may not respond well to much lower levels of provision such as those in CB1.