NetworkRail

Consideration of Green Belt Issues

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The Network Rail (Cambridge South Infrastructure Enhancements) Order Consideration of Green Belt Issues



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CONTENTS

1	INTRODUCTION	1
2	GREEN BELT POLICY & PREVIOUS STUDIES	4
3	METHODOLOGY	6
4	STAGE 1: IDENTIFICATION OF SECTORS AND SUB-AREAS	7
5	STAGE 2: BASELINE STUDIES & ANALYSIS	8
6	STAGE 3: QUALITIES RELEVANT TO OPENNESS & GREEN BELT PURPOSES	12
7	STAGE 4: ASSESSMENT	13
8	CONCLUSIONS	38
9	REFERENCES	41

APPENDICES

1 Figures

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1 Introduction

1.1 Appointment

- 1.1.1 The Department for Transport (DfT) published a Strategic Outline Business Case in November 2017 for a new railway station upon the London-Cambridge railway to serve the Cambridge Biomedical Campus (CBC) and Southern Fringe development areas of Cambridge, and a range of related track enhancement works.
- 1.1.2 The Cambridge South Infrastructure Enhancements (CSIE) scheme (which encompasses the station, its associated infrastructure, and minor track realignment works at Shepreth Branch Junction) aims to improve connectivity across south Cambridgeshire and provide more sustainable travel options for patients, visitors and employees when travelling to and from the CBC.
- 1.1.3 This report has been commissioned by Network Rail to consider the effect that the CSIE would have upon the Cambridge Green Belt (GB), within which part of the proposals are located.

1.2 Proposed Development

- 1.2.1 A preferred location for the station was identified in June 2020 following a period of public consultation. This situated it along the London-Cambridge railway immediately south of the Cambridge Guided Busway (CGB) bridge (known as Addenbrooke's Bridge), and to the north of Nine Wells Bridge (supporting Addenbrooke's Road), along the western edge of CBC and within the north-eastern corner of Hobson's Park (Refer to Figure 14 Site Plan). Hobson's Park forms part of a linear area of publicly accessible and privately owned space that runs north to south from the city's built-up edge, and which is included within the GB.
- 1.2.2 The railway forms the eastern edge of the GB along the majority this linear belt. Near to Nine Wells Bridge the GB boundary stretches over the track and uses, for a short distance, the western edge of the CBC as its boundary. To the south of Nine Wells Bridge the area covered by the GB opens out and shares its extents with the built-up boundary of the city.
- 1.2.3 Given the proximity of the existing railway to the GB, the CSIE scheme would result in parts of the development being located within the policy and land-use zone designation. To the north of Addenbrookes Road this includes widening of the railway tracks to accommodate the station, the western of the two station buildings, its northbound platform, the western edge of the covered footbridge/stairs at the southern end of this platform (which provides secondary access to other platforms), the western areas of covered cycle parking, a station forecourt for pedestrians and cyclists only, a hardstanding for occasional maintenance vehicles, a pedestrian/cyclist pathway eastwest across Hobson's Park (with low level bollard lighting and signage), new surface water drainage swale/SuDS features along the eastern edge of the park, and a mosaic of planting/seeding and other habitat creation to compensate for habitat loss and to enhance local biodiversity.
- 1.2.4 To the immediate south of Addenbrookes Road the proposals include some minor track widening between Nine Wells Bridge and Hobsons Brook, a new farm bridge over Hobsons Brook leading to an area of new publicly accessible open space termed as the 'exchange land' (as it provides compensation for the loss of open space resulting from the proposed track widening, and the proposed station buildings, forecourt, pathways and associated infrastructure within Hobson's Park), a 'railway systems' compound. At Shepreth Junction there would be a minor realignment of the existing track curves (all within the existing railway boundary), a replacement telecommunications mast and minor safety works to the existing pedestrian crossing bridge.
- 1.2.5 At the point of preparing this report the proposed station buildings have yet to be fully designed. The design stage currently reached has simply determined their location (immediately south of Addenbrooke's Bridge so that it utilises an available space within the CBC to the east of the railway), the spatial provision needed to accommodate the predicted approximate passenger movements, and a number of design principle relating to the buildings' form and materiality.
- 1.2.6 The circa. 171 passengers that are predicted to access the western side of the station by foot or by bicycle across Hobson's Park at the peak morning hour has determined a requirement within the

- proposed western building for ticket vending machines, a single retail/catering unit, an accessible toilet, a waiting area with seating, staff facility rooms, and lifts and stairs leading to the covered walkway over the railway between the two sides of the station.
- 1.2.7 The footprint of the resultant building would be approximately 700m2 and would rise to two storeys in height to accommodate the covered walkway. The ground floor level of the building would be approximately 16m **Above Ordnance Datum** (AOD) in order to provide step-free access between the forecourt, concourse and the western platform, and given the necessity to retain the height of the current tracks. For the purpose of this study, therefore, the assumed height of the building, including lift shaft overruns, would be approximately 14.5m above platform level i.e., 29.5m AOD.
- 1.2.8 The station's 250m-long / 12 carriage western platform, which also encroaches into the GB, would be constructed to a surface height of 16m AOD. It is envisaged that a parapet fence of sufficient height to arrest falls from the rear of the platform, and to deter people from gaining access to it from Hobson's Park is necessary.
- 1.2.9 South of the station's western building, parallel with the platform, would be space for the secure and covered parking of 500no. bicycles (using a mixture of surface and double stacked stands) covering approximately 1200m2.
- 1.2.10 Where the platform's parapet fence would not be visually screened by the covered cycle parking area, a native species hedgerow would be planted along its boundary with the park to visually integrate the structures in views from the park and to act as a further access deterrent.
- 1.2.11 At the southern end of the platform a secondary covered foot bridge is necessary to provide an alternative route over the tracks. As with the station building this footbridge would be approximately 14.5m above platform level i.e., 29.5m AOD.
- 1.2.12 There is no confirmed indication at the current design stage of the proposed external finishes of the station buildings, platform fencing, covered cycle parking or footbridge. Initial exploratory studies, such as the visualisations prepared for the public consultation on the scheme in Autumn 2020 indicated a desirability for their material, form and colour to reflect both its parkland setting and the CBC buildings which it would be seen in the backdrop of most views to it. This report assumes this design principle for the proposed structures in its consideration of harm to the purposes and openness of the GB.
- 1.2.13 In the same way, whilst there is as yet no design for the lighting proposals associated with the station, it is envisaged, for the purpose of this report that lighting would be necessary at the station building entrance, within the area of cycle parking, along the shared cycle/foot path between the station's western entrance, along the platform and within the secondary footbridge.
- 1.2.14 The quantity and illumination of the lighting proposed would:
 - be the minimum necessary;
 - be positioned and directed only to where it is required, so as to minimise glare, light spillage and sky glow from the scheme, by avoiding lighting near or above the horizontal and utilising low light pollution lanterns with flat glass lenses, horizontally mounted asymmetric luminaires / floodlights and full horizontal cut off optics / luminaries, where possible, i.e., no direct upward light;
 - comply with the lighting levels, uniformity and other parameters of current and relevant lighting standards, and higher than recommended lighting levels would be avoided;
 - where possible and appropriate, used timed lighting units and part-night lighting switching-off at quiet times, or a curfew which extinguishes all non-essential lighting after an agreed time, to ensure safety but minimise night disturbance; and
 - use of physical barriers e.g., proposed built form, existing areas of vegetation or new structural planting to obscure or reduce the effects of installed artificial light sources on adjacent areas.
- 1.2.15 To support the new four platform station, the current dual track (approximately 11m wide) would be widened to four tracks to accommodate the station platforms. At its widest point, where it passes through the station, the proposed track layout would extend approximately a further 15m into the GB.

- Beyond the 250m length station platforms the four-track layout would taper back to two tracks. The taper would extend until the railway is adjacent to Long Road Sixth Form College in the north and to just south of Nine Wells Bridge in the south.
- 1.2.16 A permanent 'railway systems' compound serving the station and associated infrastructure, would be located also within the GB, immediately south of Nine Wells Bridge in the existing triangle of land between this, the railway and Hobson's Brook. The compound would cover approximately 1000m2 and would contain a single storey building (approximately 8m x 4m) housing railway systems equipment, other surface mounted cabinets and equipment, plus areas for maintenance vehicle parking and material storage. A security-grade fence would surround the compound. An electrical sub-station would be located next to the compound.
- 1.2.17 On the opposite side of the railway, also within the GB, an equivalent shaped and sized triangle would be used for the creation of a storm water attenuation basin.
- 1.2.18 The CSIE scheme also necessitates a small number of measures to Shepreth Branch Junction (where the lines from King's Cross and Liverpool Street meet) in order to maintain the reliability of the train service once the station is operational and to maintain a safe environment. These are: the minor realignment of a short section of the existing track within the current railway boundary to permit the line speed through the junction to be increased from 30mph to 50mph; the closure of two private level crossings, the relocation of an existing GSM-R mast, and minor safety works to the existing pedestrian crossing bridge.
- 1.2.19 There would be some loss of existing, young, native tree and shrub vegetation and wildflower grassland along the western edge of Hobson's Park to allow for the construction of the station and its associated infrastructure.
- 1.2.20 This loss would be compensated for with replacement planting and seeding at the same density and with similar native species.
- 1.2.21 In addition, between the railway and the main area of Hobson's Park further native tree, hedge and shrub planting, wildflower grassland, and areas of marginal / wetland / riparian planting would be implemented to mitigate for the introduction of the built form, enhance the mosaic of habitat within the park.
- 1.2.22 Further new native trees and shrubs would be planted within the exchange land, and around the railway-systems compound, sub-station and the attenuation basin both south of Nine Wells Bridge. In addition, the margin of Hobson's Brook past this would be planted with marginal / wetland / riparian vegetation.

1.3 Structure of the Report

- 1.3.1 The following sets out the structure of the report:
 - Section 2 Describes the relevant policy background and previous studies applicable to the GB.
 - Section 3 Sets out the methodology used to carry out the study.
 - Section 4 Identifies Sectors and sub-areas of the GB for inclusion in the study.
 - Section 5 Sets out baseline studies and analysis.
 - Section 6 Sets out the qualities relevant to openness & GB purposes.
 - Section 7 Provides an overview of GB Sectors and sub-areas.
 - Section 8 Assessments of the proposals within each GB Sectors.
 - Section 9 Conclusion.

2 Green Belt Policy & Previous Studies

2.1 National Planning Policy Framework

- 2.1.1 The fundamental aim of GB policy as set out in paragraph 133 of the National Planning Policy Framework (NPPF) (ref. 01) is to 'prevent urban sprawl by keeping land permanently open'. The policy further notes that 'essential characteristics of Green Belts are their openness and their permanence'.
- 2.1.2 The five purposes of the GB set out in NPPF paragraph 134 are as follows:
 - a) to check the unrestricted sprawl of large built-up areas;
 - b) to prevent neighbouring towns merging into one another;
 - c) to assist in safeguarding the countryside from encroachment;
 - d) to preserve the setting and special character of historic towns; and
 - e) to assist in urban regeneration, by encouraging the recycling of derelict and other urban land.
- 2.1.3 Although the NPPF does not define openness, it is usually understood to be the absence of built development.
- 2.1.4 Para. 146 of the NPPF describes how certain forms of development are 'not inappropriate in the Green Belt provided they preserve its openness and do not conflict with the purposes of including land within it.' An example of such development includes 'local transport infrastructure which can demonstrate a requirement for a Green Belt location'.
- 2.1.5 The station would be considered local transport infrastructure and therefore this report assesses whether such a development preserves the openness of the GB and does not conflict with the purposes of land included within it as set out in para. 146.
- 2.1.6 The degree of harm on the GB is described where the proposals are assessed to not preserve the openness of the GB and/or conflicts with the purposes of the GB.

2.2 Planning Practice Guidance (2019)

- 2.2.1 Planning Practice Guidance (ref. 02) considers the potential impact of development on the openness of the GB and states that the courts have identified a number of matters which may need to be taken into account in making an assessment of impact. These include but are not limited to:
 - 'openness is capable of having both spatial and visual aspects in other words, the visual impact of the proposal may be relevant, as could its volume;
 - the duration of the development, and its remediability taking into account any provisions to return land to its original state or to an equivalent (or improved) state of openness; and
 - the degree of activity likely to be generated, such as traffic generation.'
 (Paragraph: 001 Reference ID: 64-001-20190722)

2.3 Local Planning Policy

Cambridge Local Plan, 2018 (CLP)

2.3.1 Policy 4 of the CLP (ref. 03) which relates to the GB states that:

'The Green Belt preserves the unique setting and special character of the city and includes green corridors that penetrate deep into the urban and historic heart of Cambridge. It is a key component in providing for active and passive sport and recreation, for amenity and biodiversity. A significant proportion of the Cambridge Green Belt within the city's boundaries is in agricultural use. The Green Belt is one of the key elements that contribute to the symbiotic relationship between high quality of life, place and economic success of Cambridge.'

- 2.3.2 Alongside the national GB purposes (outlined in the NPPF), Policy 4 sets out the following Cambridge-specific GB purposes:
 - 1) Preserve the unique character of Cambridge as a compact, dynamic city with a thriving historic centre.
 - 2) Maintain and enhance the quality of its setting.
 - 3) Prevent communities in the environs of Cambridge from merging into one another and with the city.
- 2.3.3 The following extracts from the CLP set out its policies relating to sustainable strategic development and in particular in relation to transport. They provide the context for a new station located within and adjacent to the GB to the south of the city.
 - Para. 2.21 which notes that the transport strategy has been prepared in parallel with the two new local plans (Cambridge Local Plan 2018 and South Cambridgeshire Local Plan 2018). It notes that sustainable transport capacity needs are "to be provided in the sub-region between the key economic hubs in and around the city and where people live and access services. The strategy plans to further improve the sustainable transport network around the economic hubs and the hi tech clusters in and around the city, by making movement between them straightforward and convenient."
 - Para. 2.25 indicates that the sustainable development strategy is "a considerable challenge for the Cambridge area...The need for jobs and homes has to be considered within the context of a tightly-drawn Green Belt, which aims to protect the unique character of Cambridge as a compact, dynamic city with a thriving historic centre, maintain and enhance the quality of the city's setting, and prevent the city merging with the ring of necklace villages. The Green Belt and its purposes help underpin the quality of life and place in Cambridge, which are fundamental to economic success. Achieving an appropriate balance between these competing arms of sustainable development is a key objective of the development strategy for the new local plans".
- 2.3.4 Parts of the proposed scheme are also located within Policy 18 Southern Fringe Area of major change. The vision for this area is "to create attractive, well-integrated, accessible and sustainable new neighbourhoods for Cambridge." Planning applications within this area should take opportunities "to enhance amenity and biodiversity in the associated Green Belt land and access to this and the open countryside beyond. Key features to be taken into account include Hobson's Brook and other features important for biodiversity, existing trees, and the sensitive transition between the urban fringe and the open countryside."
- 2.3.5 Paragraphs 9.12 of the Local Plan relates to land for public transport and states that "it is important to safeguard land for new public transport infrastructure, such as bus lanes, interchange facilities and junction improvements."
 - South Cambridgeshire Local Plan, 2018 (SCLP)
- 2.3.6 Policy S/4 'Cambridge Green Belt' of the SCLP (ref. 04) confirms that new development in the GB will only be approved 'in accordance with Green Belt policy' in the NPPF. The policy's supporting text lists among the established purposes of the GB the preservation of the 'unique character of Cambridge as a compact, dynamic city with a thriving historic centre' and the maintenance and enhancement of its 'quality setting.'
- 2.3.7 The factors the SCLP lists as defining the special character of the GB include:
 - key views of Cambridge from the surrounding countryside;
 - a soft green edge to the city;
 - a distinctive urban edge;
 - green corridors penetrating into the city;
 - designated sites and other features contributing positively to the character of the landscape setting;
 - the distribution, physical separation, setting, scale and character of Green Belt villages; and

Consideration of Green Belt Issues

a landscape that retains a strong rural character.

2.4 The Cambridge Inner Green Belt Boundary Study (2015)

- 2.4.1 The 'Cambridge Inner Green Belt Boundary Study', November 2015 (CIGBBS) (ref. 05), was undertaken by LDA Design for Cambridge City Council (CCiC) and South Cambridgeshire District Council (SCDC).
- 2.4.2 Section 2.3 of the study identifies from previous policy documents and studies relevant qualities for Cambridge and its surrounding landscape that contribute to the performance of GB purposes. It concludes from these policies and studies the following:

'Whilst there is significant variation in the number of Green Belt qualities mentioned in the various studies and policy documents, there is notable consistency among those mentioned, with a number of substantively the same qualities mentioned in several different documents. The up to date analysis undertaken in the course of the present study largely confirms the relevance of the previously identified qualities as criteria for the Green Belt assessment.'

2.4.3 The CIGBBS has been used in the preparation of this report in terms of an initial understanding of the qualities of the GB and as a basis for the methodology as described in the following section.

3 Methodology

3.1 Introduction

3.1.1 The methodology sets out how the assessment of whether the CSIE scheme preserves the openness of GB and whether it conflicts with its purposes is made. Where the proposals do not preserve the openness and/or conflict with the GB purposes, a judgement upon the degree of such harm/conflict is given and explained.

3.2 Methodology

3.2.1 The methodology is comprised of four stages which broadly follow those set out in the CIGBBS. A description of each stage is set out below.

Stage One - Identification of Sectors and sub-areas

• Stage One will identify the Sectors and sub-areas from the CIGBBS which are relevant to the proposals and which will form the basis of this study.

Stage Two - Baseline Studies and Analysis

- Stage two will review the findings of CIGBBS to build up an understanding of Cambridge and its surrounding landscape and to inform considerations relevant to any potential harm to the openness of the GB and potential conflict with GB purposes.
- Extracts of the CIGBBS figures, which are relevant to the Sectors identified in stage one, are used in this report and are shown in Appendix A, Figures 1-11.
- Key findings from fieldwork and from analysis of the baseline studies, relating to the identified Sectors/sub-areas, are set out in a series of drawings and photo-sheets (Figures 12-17).

Stage Three – Qualities which contribute to openness and performance of Green Belt Purposes

• Stage three sets out the 16 qualities of the city and its surrounding landscape which directly contribute to openness and the performance of GB purposes (as identified in the CIGBBS).

Stage Four - Assessment of Sectors

• Stage four sets out a detailed assessment of the proposals for each of the Sector sub-areas likely to be affected and considers the degree of harm that would result from the development

- upon the performance of national and local GB purposes, and upon the GB's sense of openness.
- The assessment identifies whether the proposals preserve the openness of the GB or would conflict with GB purposes within the identified Sector sub-area.
- Firstly, the development's accordance with the 16 qualities (that were identified in the CIGBBS, as those that contribute to the performance of the national and local GB purposes) are assessed for each Sector sub-area that may be affected by the scheme. This is followed by a concluding summary of the overall degree of conflict with the purposes.
- Following this, the considerations relevant to GB openness for each Sector sub-area are identified and an assessment of the reduction in openness is carried out.
- The two assessments are brought together into a table that reports on a resultant overall degree of harm to the GB Sector sub-area, which is categorised in accordance with the descriptions set out in Table 1. These have been adapted from the recent site-specific green belt study that was carried out for the Cambridge South East Transport scheme, and which was prepared by the same authors of the CIGBBS:

Table 1: Categories of overall degree of harm to a GB Sector sub-area

Major	Total or major alteration to key elements, features, qualities or characteristics relevant to GB openness or purposes, such that post development the baseline would be fundamentally changed
Moderate	Partial alteration to key elements, features, qualities or characteristics relevant to GB openness or purposes, such that post development the baseline would be noticeably changed.
Minor	Minor alteration to key elements, features, qualities or characteristics relevant to GB openness or purposes, such that post development the baseline would be largely unchanged despite discernible differences.
Negligible	Very minor alteration to key elements, features, qualities or characteristics relevant to GB openness or purposes, such that post development the baseline would be fundamentally unchanged with barely perceptible differences.
None	No alteration to key elements, features, qualities or characteristics relevant to GB openness or purposes, such that post development the baseline would be unchanged.

- 3.2.2 Where necessary, variances between the categories (such as minor/moderate or moderate/major) will be used where a clear accordance to one or another of the categories cannot be properly assigned. In such instances a written justification based on the professional judgement of the author will be provided.
- 3.2.3 The methodology was discussed with planning and landscape officers from the Greater Cambridge Shared Planning (GCSP) on 26th November 2020. This methodology responds to the comments received at that meeting and within the follow-up notes received from GCSP on 7th December.

4 Stage 1: Identification of Sectors and Sub-areas

4.1 Introduction

- 4.1.1 19 Sectors were identified in the CIGBBS. The CSIE scheme is located in Sector 9 Hobson's Brook Corridor and Sector 10 South of Addenbrooke's see Figure 2.
- 4.1.2 Within these Sectors, the proposals are located in sub-areas 9.1, 9.2 and 10.2.
- 4.1.3 The limitation of this study to these Sectors and sub-areas was discussed and agreed with GCSP on 26th November 2020.

5 Stage 2: Baseline Studies & Analysis

5.1 Introduction

- 5.1.1 This section summarises the key findings of the:
 - · baseline studies and analysis that was carried out as part of the CIGBBS, and
 - the field work carried out as part of this site-specific study.

which are relevant to the proposed development and identified Sectors. The studies were carried out to enable a thorough understanding of aspects of Cambridge and its surrounding landscape which are relevant to GB purposes.

5.2 Historical Development of Cambridge and the Villages

5.2.1 Key points:

- Substantial growth took place to the city as a whole during the 19th and 20th centuries, and into the early 21st century.
- Development of early 21st Century residential/mixed use development in the southern part of the city, includes Trumpington Meadows and Clay Farm and ongoing expansion of the CBC (with its associated infrastructure (Addenbrooke's Road and the CGB spur), and residential development on the former Bell School site.
- Despite 20th and 21st century expansion, Cambridge remains a compact city focussed on the medieval core.
- The CBC is still expanding. The approved masterplan for the CBC will bring about new buildings in its central and southern areas – closer to the GB. Land has been allocated by South Cambridgeshire District Council for further expansion of the CBC beyond its current southern boundary and into the GB.
- Many of the villages surrounding the city retain distinctive characteristics and are surrounded by notable landscape features.

5.3 Environmental Designations

- 5.3.1 Environmental Designations relevant to the identified Sectors 9 and 10, and sub-areas 9.1, 9.2 and 10.2 are shown on Figure 3 and include:
 - Nine Wells Local Nature Reserve (LNR) adjacent, but outside of, sub-area 10.2, is a statutory
 designation noted by Natural England as an 'historically important site containing several chalk
 springs, which form the source of Hobson Conduit.'
 - A number of City Wildlife Sites (non-statutory) are located within Sectors 9 and 10 including: Hedgerow west of Babraham Road on the north-east boundary of sub-area 10.2; the margins of the Guided Busway as it passes through the northern part of Hobson's Park along the west edge of sub-area 9.2; and Hobson's Brook along the western edge of Sector 9.
 - A County Wildlife Site is located in the north-east corner of sub-area 9.2.

5.4 Cultural Heritage Designations

- 5.4.1 Historical Designations within the vicinity of the proposals are shown on Figure 4 and include:
 - Scheduled Monument 'Site revealed by aerial photography West of White Hill Farm' located to the west of the railway line, along the east edge of sub-area 9.1.
 - Nine Wells Monument Grade II Listed Building is located within Nine Wells LNR.

5.5 Recreational Routes and Country Parks

5.5.1 Figure 5 illustrates the recreational routes and country parks within the vicinity of the identified Sectors including:

- National Cycle Network (NCN) Route 11 passes along the eastern edge of the railway line between Great Shelford and CBC. It then follows Francis Crick Avenue and crosses the CGB spur to then joins up the CGB and zig-zags its way into the centre of the city.
- Traffic-free cycle routes follow the Cambridgeshire Guided Busway within the northern part of Hobson's Park (Sector 9).
- Public rights of way (PRoW): public footpath 198/2 which connects Granham's Road to Nine Wells LNR and public footpath 39/47 which travels through the CBC (outside the GB).
- The E2 European Long Distance Route runs alongside Victor's Brook to the north of Long Road (within Sector 9).
- Hobson's Park forms a large part of sub-area 9.2 (this was created following the CIGBBS and therefore does not appear on the CIGBBS analysis). The park contains areas for formal and informal recreation, an expansive permissive path network, seating, allotments, bird hides and lake, areas of native tree and shrub planting, and a skate park (under construction).

5.6 Topography and Geology

- 5.6.1 Figure 6 illustrates the topography within the identified Sectors. Key points are summarised below:
 - The proposals sit within the relatively level area of Cambridge.
 - The foothills of the Gog Magog Hills extend to the south edge of the city (within Sector 10).
 - Localised landforms include the low mounds that were created along the edge of the railway through Hobson's Park, and the embankments supporting Nine-Wells Bridge and Addenbrooke's Bridge over the railway.

5.7 Townscape Character

- 5.7.1 The CIGBBS identified a number of townscape character types and character areas across the city (see Figure 7). The proposed station and its associated structures are located within and demonstrate accordance with: 'Large Scale Commercial, Industrial and Service development' and 'Green Spaces and Green Corridors' townscape types and sits predominantly within the Trumpington Road and Hills Road character area. The proposed elements of the CSIE scheme that lie south of the city's edge are not covered by any townscape typology or characterisation within the CIGBBS. Those works at Shepreth Branch Junction border Great Shelford recognised on in the CIGBBS as one of the 'Necklace Villages that surround Cambridge.
- 5.7.2 Paragraph 4.7.12 of the CIGBBS states that the 'Green Spaces and Green Corridors' townscape type covers significant green spaces and green corridors along rivers through the city, and paragraph 4.7.19 identifies that the 'Large Scale Commercial, Industrial and Service development' type includes 'medium to large-scale industrial, commercial and hospital buildings, often with closed facades, signage, security fencing and extensive areas of hard surfacing.'
- 5.7.3 The description of Townscape Character Area '6A Trumpington Road and Hills Road' at paragraph 4.7.39-40 of the CIGBBS includes reference to the 'distinctive new urban gateway' characteristics of the new developments such as that at Clay Farm. It also highlights the fact that the green corridor between this and the CBC provides 'an open, rural setting to the approach along the railway line from London.'. Albeit this was written before the creation of Hobson's Park.

5.8 Landscape Character

- 5.8.1 Figure 8 illustrates the landscape character of the area surrounding the CSIE scheme as identified in the CIGBBS. The affected Sectors are all located in the '*River Valleys*' landscape character type. As stated at paragraph 4.8.12 of the CIGBBS this includes areas of
 - River valley landscapes on Cambridge's south west and southern edges.
 - Valleys formed by rivers eroding the chalk or clay bedrock to create broad valleys, with a very gently undulating landform.
 - Numerous streams and tributaries.

Consideration of Green Belt Issues

- Alluvial sediment makes the land relatively fertile, allowing arable agriculture in higher areas, and pasture/meadows in flood plains closer to watercourses.
- Numerous villages established at the crossing-points of watercourses and grew to become major settlements.
- 5.8.2 The identified Sectors are all located at the very north of character area '4B Granta Valley'. The key specific characteristics of the area, as set out in paragraphs 4.8.39-40 of the CIGBBS include:
 - Low-lying, gentle topography of the River Valley landscape type.
 - Character is distinguished by its wooded appearance and by the relatively built-up and suburban character of its villages.
 - The woodland within the landscape gives it a relatively enclosed character, increases the 'greenness' of the landscape setting, and screen views. This restricts views to the villages, as well as more distant views to Cambridge.
 - Settlement comprises a relatively large portion of the land area. Many villages have developed along key routes into Cambridge, including the A10 and the A1301. The majority of these villages (which include Sawston, Shelford and Harston) have expanded through cluster or ribbon development, and this has led to a more suburban feel on the approaches to the city through this area.

5.9 Green Corridors into Cambridge

- 5.9.1 'Green Corridors' are described in paragraph 4.9.1 of the CIGBBS as "widths of countryside or green space, with public access penetrating from the open countryside into the urban fabric of Cambridge".

 The key function of the Green Corridors which are relevant to the identified Sectors are:
 - To provide a setting for an open approach to city
 - To provide pedestrian and cycle access
 - To provide corridors for wildlife
 - To provide a landscape setting to the edge of the city
 - To provide distinctive or supportive areas of landscape
- 5.9.2 Parts of the CSIE scheme (i.e., the station and its associated structures) are located within the green corridor alongside Hobson's Brook. Paragraph 4.9.3 of the CIGBBS describes this area as providing:
 - 'the setting for an important approach to the city, along the railway line from the south. Links between the city and open countryside for pedestrians and cyclists through this green corridor are poor, a single footpath along Vicar's Brook being curtailed at Long Road.'
- 5.9.3 Since the opening of the southern phase of Hobson's Park in 2017, access has improved through the introduction of new permissive footpaths and cycle tracks (not PRoW) through this area.

5.10 Visual Assessment

- 5.10.1 Figure 9 is an extract of the CIGBBS's visual assessment. Within this, Sector 9 is noted as an area of level views with mixed foreground and mixed urban edge.
- 5.10.2 Much of Sector 10 is within an area described as having elevated views with countryside foreground and mixed urban edge.
- 5.10.3 Immediately south of Sector 10 there are a number of key viewpoints identified along the ridgeline associated with the Gog Magog Hills. Field work has determined that the proposed development would not form a discernible part of the view from these due to the intervening distances, the main direction of views from these locations and intervening vegetation and built-up areas.
- 5.10.4 The key points drawn from the CIGBBS's visual assessment relevant to the proposed development include the following:
 - The character of the urban edge as seen from the countryside is generally mixed.
 - Some modern buildings including the CBC buildings are considered a detracting feature.

Consideration of Green Belt Issues

- Addenbrooke's Hospital is identified as a 'key Cambridge landmark' visible from the setting.
- The rural backdrop beyond the city is an important element in views across the city.
- The broader rural setting with scattered villages is important to the context of Cambridge and fundamental to people's perception of the city as they approach and depart.

5.11 Gateways and Approaches

- 5.11.1 Within Sector 9 and 10 the CIGBBS identifies the following 'approach' (shown on Figure 10) 'rail from the south (London)'. There are no gateways identified within the affected Sectors.
- 5.11.2 Paragraph 4.11.1 of the CIGBBS notes that such:

'approaches to and within the urban area provide the viewpoints from which most visitors see the city and gain their perception of scale. Distance and travel time between open countryside and distinctive Cambridge, and the character of the approaches, play an important role in determining people's perception of the character and scale of the city.'

5.11.3 The railway approach 'from the south (London)' is characterised as 'green/treed' and described at paragraph 4.11.17 as

'mainly green and rural in character, as the railway line passes through a green corridor along Hobson's Brook, although ongoing development at Addenbrooke's Hospital and Clay Farm are visible. The area between the urban gateway and the station is suburban in character but the effect on the quality of the approach is limited because the distance is short. Although the station is some distance from distinctive areas of the city, it is an important disembarkation point for many people arriving in Cambridge. The short length of approach, between the urban gateway and the point of disembarkation, contributes positively to the perception of a compact city in a rural landscape setting.'

5.11.4 The built up area of the CBC to the east of the railway line is now (in comparison to when the CIGBBS was first prepared) a prominent visual feature along this 'approach'.

5.12 Pattern of Distribution of Villages

- 5.12.1 The CIGBBS notes that the presence of villages that are close to Cambridge contribute significantly to the quality of the setting of the city and describes the GB as being 'scattered with villages'.
- 5.12.2 Maintaining separation between Cambridge and the '*inner necklace villages*' is noted as being an important factor to the setting of the city.
- 5.12.3 Great Shelford to the south of Sector 9 and 10 is the closest '*inner necklace village*' to the proposed development.

5.13 Character and Identity of Villages

5.13.1 The CIGBBS notes that each village in the GB possesses qualities which contribute positively to their character and identity and therefore to the quality of the setting of Cambridge. The CIGBBS states that the 'inner necklace villages' enrich the setting of Cambridge and emphasise the rural character of the landscape surrounding the city.

5.14 Townscape and Landscape Role and Function

- 5.14.1 *'Supportive townscape/landscape'*, as highlighted in the CIGBBS, consists of those areas of townscape/landscape that support the character of the city's historic core.
- 5.14.2 All of Sector 9 and 10, as shown on figure 11, is identified as 'supportive townscape/landscape'. The CIGBBS notes that such areas:
 - provide backdrop and ambience and bolster the sense of place and the city and its approaches;
 - are locally distinctive and recognisable to those familiar with the city as important elements of its character and identity; and

• are key elements of the distinctiveness of Cambridge and its setting, and a fundamental quality that strengthens and enhances the identity of Cambridge.

5.15 Summary of Baseline Studies and Analysis

- 5.15.1 The main findings drawn from fieldwork and the CIGBBS relevant to the identified Sectors and their contribution to the purposes of the GB are:
 - Despite the significant growth of Cambridge since the 19th Century, the city remains a compact city focused around an historic core.
 - 21st century urban expansion in and around these Sectors notably at Clay Farm and associated with the CBC forms a visually distinctive and often sharp edge to the city along its southern edge.
 - A few environmental and cultural designations affecting the city and its surrounding landscape are located in and around these Sectors.
 - There is an extensive network of permissive, PRoW and cycle routes with good links between the city and countryside in many places.
 - The city has its origins as the meeting point of three landscapes which, in terms of topography
 and landscape character, are still readily apparent in the landscape surrounding the city at the
 present day.
 - Cambridge has a distinctive historic core with an important setting of open spaces.
 - Green corridors extending from the countryside into the city contribute significantly to the character of Cambridge.
 - The rural landscapes forms both a foreground and a backdrop to many views.
 - Many approaches into the city centre are green and treed.
 - There are extensive areas of supportive landscape surrounding the city to the west, south and east, reflecting the important role played by landscape in the setting of the city.

6 Stage 3: Qualities Relevant to Openness & Green Belt Purposes

6.1 Introduction

- 6.1.1 The detailed description of the area surrounding the CSIE scheme (and the GB sectors likely to be affected by it) that is set out in Section 5 of this report was provided in order to determine those qualities of Cambridge and its surrounding landscape that are relevant to the GB purposes (both those at a national level and at a Cambridge level).
- 6.1.2 Section 5 of the CIGBBS defines 16 distinct qualities that are relevant to the GB purposes. These are used as the criteria for assessing the contribution a particular Sector makes to the GB purposes, and for identifying any potential conflict with these purposes that may arise from the proposals. The test relating to preservation of openness is addressed separately.
- 6.1.3 The 16 qualities, as set out in Section 5 of the CIGBBS, are:
 - 1. A large historic core relative to the size of the city as a whole.
 - 2. A city focussed on the historic core.
 - 3. Short and/or characteristic approaches to the historic core from the edge of the city.
 - 4. A city of human scale easily crossed by foot and bicycle.
 - 5. Topography providing a framework to Cambridge.
 - 6. Long Distance footpaths and bridleways providing access to the countryside.
 - 7. Key views of Cambridge from the surrounding landscape.
 - 8. Significant areas of Distinctive and Supportive townscape and landscape.

Consideration of Green Belt Issues

- 9. A soft green edge to the city.
- 10. Good urban structure with well-designed edges to the city.
- 11. The distribution, physical and visual separation of the necklace villages.
- 12. The distribution, physical and visual separation of the necklace villages.
- 13. The scale, character, identity and rural setting of the necklace villages.
- 14. Designated sites and areas enriching the setting of Cambridge.
- 15. Elements and features contributing positively to the character and structure of the landscape.
- 16.A city set in a landscape which retains a strong rural character.

7 Stage 4: Assessment

7.1 Introduction

- 7.1.1 The following sections of this report consider the degree of conflict that may occur to the purposes of the GB and its openness as a result of the CSIE scheme.
- 7.1.2 To identify this, firstly an initial table sets out the description of each Sector in terms of its affected sub-areas, location, distance from Cambridge's historic core, geographic extents, landform, land-use, designations and visual context. This is particularly important as aspects of these are likely to have changed since the CIGBBS was published in 2015.
- 7.1.3 Secondly, the CSIE scheme's accordance or conflict with the 16 qualities (that were identified in the CIGBBS, as those that contribute to the performance of the national and local GB purposes) are assessed for each Sector sub-area that may be affected by the development. This is followed by a concluding summary of the overall degree of accordance or conflict with the purposes.
- 7.1.4 Following this, the considerations relevant to GB openness for each Sector sub-area are identified and an assessment of the change to openness as a result of the CSIE scheme is carried out.
- 7.1.5 The two assessments are brought together into a table that reports on a resultant overall degree of change to the GB sub-area, which is categorised in accordance with the descriptions set out in Table

7.2 Sector 9: Hobson's Brook Corridor

7.2.1 Table 2 sets out a description of Sector 9 and its sub-areas:

Table 2: Sector 9 Description

Sector:	9 – Hobson's Brook Corridor		
Sub-areas	9.1 – South of Addenbrooke's Road		
	9.2 – North of Addenbrooke's Road		
Location:	Sector 9 is a comparatively narrow corridor of land in the south of Cambridge. The southern half (sub-area 9.1) stretches between Great Shelford and the southern built-up boundary of Cambridge. The northern half is contained within the built-up boundary and lies between Trumpington and the CBC.		
Distance from historic core:	The northernmost section of Sector 9 is 1.4km from the southern edge of Cambridge's historic core.		
Boundaries: Northern: Government offices and Cambridge University Press (outside G			
	Southern: Great Shelford village		
	Eastern: Cambridge-London railway line beyond which lies the CBC and Long Road Sixth Form College (outside GB). In the south of the Sector to the east lies arable fields.		

	Western: Hobson's Brook running along the edge of Trumpington and the development along Cambridge Road (A1301) (outside GB).		
Landform:	Predominantly flat, with some minor landforms associated with transport infrastructure.		
Land use:	To the south of Addenbrooke's Road (sub-area 9.1) land use is predominantly arable farmland with urban edge uses along the western side such as a caravan/camping site and a garden centre. To the north of Addenbrooke's Road (sub-area 9.2) the landforms part of Hobson's Park, an area containing wetlands, allotments, pathways. The park has been developed alongside the ongoing Clay Farm residential development to the west of the Sector and is in a state of transition with areas of the park to the north in the process of being completed.		
Designations Hobson's Brook and the parts of the environs of the Guided Busway which through this Sector are designated a City Wildlife Sites. Within sub-area 9.7 Nine Wells Bridge is located a Scheduled Monument (hidden).			
Views	Visibility is restricted within the north of the Sector by the high density and large scale developments along its eastern and western edges and by Addenbrooke's Bridge which cuts through the middle of the Sector. The land is predominantly flat, with gentle landforms in Hobson's Park, and more pronounced landforms supporting Addenbrooke's Bridge, Nine Wells Bridge and Long Road Bridge. Within Hobson's Park there are short-medium range views. Views to further afield are generally restricted by the extensive built form of the CBC, the landforms described above and by tree belts along adjacent roads. Partial, distant views towards Gog Magog Hills are available from a few locations in the park when looking south.		

- 7.2.2 The new station building is proposed to be located within sub-area 9.2. This would include the western entrance to the station building, the northbound platform, the secondary footbridge/stairs, the area of covered cycle parking, the station forecourt, and a cycle/pedestrian path east-west across the park.
- 7.2.3 The proposed track widening would extend from the new station northwards to as far as Long Road 6th Form College, and southwards through the whole of the Hobson's Park to a point just south of Nine Wells Bridge in sub-area 9.1.
- 7.2.4 The proposed landscape works associated with the station building provisionally include new native woodland planting, SuDS features, wildflower grassland areas along the eastern edges of Hobson's Park lie within sub-area 9.2.
- 7.2.5 The permanent 'railway systems' compound would be located just to the south of Nine Wells Bridge within sub-area 9.1. These works would be provisionally set within an area of new woodland planting, new ponds, wildflower grassland and enhancements along Hobson's Brook.
- 7.2.6 The railway alignment and safety works at Shepreth Branch Junction would be located at the very southern end of sub-are 9.1.
 - Assessment of Qualities Relevant to Green Belt
- 7.2.7 The following table summarises the 16 qualities (that were identified in the CIGBBS, as those that contribute to the performance of the national and local GB purposes for Sector 9), and assesses the development's degree of conflict or accordance with them in this Sector:

Table 3: Sector 9 Analysis

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Assessment Criteria	,	Proposed Development
16 qualities of Cambridge (which contribute to the performance of GB Purposes)	Sector 9 – Hobson's Brook Corridor	Degree of conflict with the performance of GB Purposes
1) A large historic core relative to the	Despite ongoing development to	Sub-area 9.1
1) A large historic core relative to the size of the city as a whole Relates to: National GB Purposes Sprawl Setting/character Cambridge GB Purposes Character	 Despite ongoing development to north of the Sector, the scale of historic core relative to the overall city currently remains. Visually detracting townscape along the railway. Historic core relative to whole city is still apparent despite new CBC and Clay Farm development. This sub-area plays an important role in restricting further growth of the city into the green corridor. Significant expansion of development into this Sector would increase the impression of a city sprawling outwards from its historic centre in an uncontrolled manner and could start to threaten Cambridge's identity as a city dominated by its historic core. 	Negligible conflict The proposed Shepreth Branch Junction works and the introduction of the railway systems compound to this sub-area are not considered to conflict with the city's identity as a place dominated by its historic core, due to the lack of intervisibility between the city's core and them, the proposals' relatively modest scale and massing, and the compound's confinement by existing field boundaries, the railway, Hobson's Brook and new native tree / shrub planting - which would all arrest a perception of sprawl. The development would, therefore, on balance only have a negligible conflict with this quality's related GB purposes. Sub-area 9.2 Minor conflict Whilst the proposed built form in this sub-area would contribute to the perception of growth within a green corridor stretching towards the city's historic core, the proposed built form would not have intervisibility with the city's centre. In addition, the relative scale of the new station and its associated infrastructure is not considered a 'significant expansion'. Nor would it be perceived as 'sprawl' given its proposed confinement by existing landforms and native tree belts. Further, the planned built character of the development would reflect that of both the adjacent CBC and Hobson's Park – so not
		conflicting with the character of the historic core. The development would, therefore, on balance only have a minor conflict with this quality's related GB purposes.

Assessment Criteria (CIGBBS)		Proposed Development
16 qualities of Cambridge (which contribute to the performance of GB Purposes)	Sector 9 – Hobson's Brook Corridor	Degree of conflict with the performance of GB Purposes
2) A city focussed on the historic core Relates to: National GB Purposes Setting/character Cambridge GB Purposes Character	There are a number of neighbourhood hubs, commercial, industrial, institutional, retail areas in the south of the city – these nodes serve local community needs without seriously competing with the city centre or specialise in certain services the city centre cannot cater for and would be out of character with the city centre. The presence of this green corridor provides direct link from the Sector to the historic core.	No conflict The proposed Shepreth Branch Junction works and the introduction of the proposed railway systems compound to this sub-area is considered not to conflict with the city's identity as a place focused on its historic core, due to the lack of intervisibility between them, the proposal's relatively modest scale and massing, and the compound's proposed confinement by existing field boundaries, the railway, Hobson's Brook and new native tree / shrub planting that would help integrate it into the character of its immediate surrounds. Sub-area 9.2 No conflict The new station would serve the neighbourhood hubs in this part of the city that have been identified in the CIGBBS. Its function as a 'local' station would unlikely compete with the city centre due to its scale and massing.

Assessment Criteria (CIGBBS)		Proposed Development
16 qualities of Cambridge (which contribute to the performance of GB Purposes)	Sector 9 – Hobson's Brook Corridor	Degree of conflict with the performance of GB Purposes
Short and/or characteristic	Rail approach to Cambridge from	Sub-area 9.1
approaches to the historic core from the edge of the city	south is mainly green & rural in character.	Negligible conflict. The proposed development in this sub-area is located along the edge of the railway's approach into the city.
Relates to:	Railway passes	The proposed Shepreth Branch Junction works and the railway
National GB Purposes	through the green corridor of this Sector.	systems compound in this sub-area is relatively small in nature so is likely have negligible impact on the characteristic approach to the historic core. In addition, it would be experienced over a short
Sprawl Setting/character	The area between the urban gateway	distance.
Cambridge GB Purposes	and the station, north of this Sector, is commercial and industrial in	Overtime the new woodland, shrub and riparian planting proposed within the exchange land, and surrounding the compound and adjacent to this would contribute to the rural and green character of the rail approach.
Setting	character.	As such there would, on balance, only be a negligible conflict with this quality's related GB purposes.
		Sub-area 9.2
		Minor conflict
		The proposed built form of the station and its associated structures would be sited along a stretch of the railway approach that is identified in the CIGBBS as already 'industrial in character', and which has extensively urbanised edge.
		For the relatively short distance of the station's platforms there would be some loss of existing views over the Hobson's Park for rail users.
		The compensatory and enhancement native tree and shrub planting would, overtime assist in the mitigation of this.
		The development would, therefore, on balance only have a minor conflict with this quality's related GB purposes.

Assessment Criteria	(CIGBBS)	Proposed Development
16 qualities of Cambridge (which contribute to the performance of GB Purposes)	Sector 9 – Hobson's Brook Corridor	Degree of conflict with the performance of GB Purposes
A city of human scale easily crossed by foot and bicycle Relates to: National GB Purposes Sprawl Setting/character Cambridge GB Purposes Character Character - Good cycle lin including SUSTRANS realong the railwand dedicated lane along the	development either side of Sector is extending the distance from the edge of the city to the core. Sector benefits from direct and accessible routes into the centre. Good cycle links	No conflict. The proposals would not harm the ability for the city to be crossed by foot or by bicycle and would therefore not conflict with this quality's related GB purposes. Sub-area 9.2 No conflict + beneficial effect The proposals include a new cycle/footpath providing an east-west connection across Hobsons Park between the station and Clay Farm, with onwards connections to the dedicated cycle lane into the city centre. The proposals are therefore not considered to conflict with this quality's related GB purposes but would actually contribute to greater connectivity.
5) Topography providing a framework to Cambridge Relates to: National GB Purposes Setting/character Cambridge GB Purposes Setting		No conflict + beneficial effect The proposals would not bring about any perceptible changes to the existing topography of this sub-area that would alter the existing sense of a low-lying flat landscape at the foot of the Gog Magog hills The landscape proposals would, in fact, contribute to the improved visual integration of the existing discordant landforms of Nine Wells Bridge. The proposals are therefore not considered to conflict with this quality's related GB purposes but in fact would deliver an overall beneficial effect to it. Sub-area 9.2 Negligible conflict The proposals introduce some minor level changes to allow stepfree access from the cross-park path to the station's platform. Where earthworks are required, these would been designed to integrate into the surrounding landscape by adopting a similar gradient as found upon the existing artificial landforms along the park's eastern edge. A sense of an essentially overall flat landform of the green corridor would continue. The development would, therefore, on balance only have a negligible conflict with this quality's related GB purposes.

Assessment Criteria (CIGBBS)		Proposed Development
16 qualities of Cambridge (which contribute to the performance of GB Purposes)	Sector 9 – Hobson's Brook Corridor	Degree of conflict with the performance of GB Purposes
6) Long Distance footpaths and bridleways providing access to the countryside Relates to: National GB Purposes Setting/character Cambridge GB Purposes Setting	Route of SUSTRANS NCR 11 follows the railway line to the east of the southern part of the Sector, before turning towards Addenbrooke's and then following the A1134 along the northern section of the Sector. Provides links between Great Shelford and the centre of Cambridge. The E2 European Long Distance Footpath follows the northern boundary of the Sector – provides links from historic core to wider countryside. PROW through and out of the Sector are limited but access has improved through Clay Farm green corridor. (Hobson's Park)	No conflict The proposals would not affect with the existing routes providing access to the countryside and therefore the development would not conflict with this quality's related GB purposes. Sub-area 9.2 No conflict The proposals would not affect with the existing routes providing access to the countryside and therefore the development would not conflict with this quality's related GB purposes.
7) Key views of Cambridge from the surrounding landscape Relates to: National GB Purposes Setting/character Cambridge GB Purposes Setting	No key views in the vicinity of this Sector.	No conflict The proposed development does not lie within any of the key views identified in the CIGBBS. The development would therefore not conflict with this quality's related GB purposes.

Assessment Criteria (CIGBBS)		Proposed Development
16 qualities of Cambridge (which contribute to the performance of GB Purposes)	Sector 9 – Hobson's Brook Corridor	Degree of conflict with the performance of GB Purposes
8) Significant areas of Distinctive and Supportive townscape and landscape Relates to: National GB Purposes	 All of this Sector is identified as supportive landscape. Important in the setting of the city when approached from the south along the railway. Important as a green corridor into the city. 	Negligible conflict The proposals in this sub-area area are located along an important approach to the city and, subsequently, introduce a small degree of built form along the railway approach. Once established, however, the landscape proposals would assist in establishing a 'supportive landscape' to the city's edge through
Setting/character <u>Cambridge GB</u> <u>Purposes</u> Character Setting		Important as a green corridor into
		Sub-area 9.2
		Minor conflict
		The proposals in this sub-area area are located along the approach to the city and would introduce built form to it. These would, however, be relatively small in extent and would be viewed alongside an already urbanised edge. During the detail design stage, the proposed built form presents an
	dis	opportunity to contribute towards improved local townscape distinctiveness (when compared to that of the existing edge of the CBC).
		In addition, once established, the proposed woodland, shrub and riparian planting along the western edge of the railway would likely contribute to a supportive landscape approach to the city.
		The development would, therefore, on balance only have a minor conflict with this quality's related GB purposes.

Assessment Criteria (CIGBBS)		Proposed Development
16 qualities of Cambridge (which contribute to the performance of GB Purposes)	Sector 9 – Hobson's Brook Corridor	Degree of conflict with the performance of GB Purposes
9) A soft green edge to the city	Looking north across the Sector	Sub-area 9.1
Relates to:	the edges of the	Negligible conflict + beneficial effect
National GB Purposes Encroachment Setting/character	Sector appear fairly green and treed. CBC development and Clay Farm have harder more urban edges.	Despite the introduction of a small degree of built form, the proposals create new woodland planting, wildflower grassland, and vegetative enhancements around Hobson's Brook and the new attenuation basin, and so would contribute to an improved 'green edge' to the city – particularly when considered adjacent to the visually discordant Nine Wells Bridge.
Cambridge GB Purposes Setting	A softer green edge would become apparent as planting associated with the above	The development would, therefore, on balance only have a negligible conflict with this quality's related GB purposes, which would reduce to no conflict, with beneficial effects in the longer term.
	developments	Sub-area 9.2
	matures.	Negligible conflict
		The proposed station, platforms and footbridge would be positioned along the urban edge of the Sector, and not the <u>city's</u> defined edge – which, in this part of the city, lies along the line of Addenbrooke's Road, and along the southern extents of the CBC and the Clay Farm neighbourhood.
		As the existing and proposed woodland vegetation in the park establishes, the station and its associated infrastructure would become visually integrated into that of the park, so would have an overall negligible effect of the city's edge in this area as a whole.

Assessment Criteria (CIGBBS)		Proposed Development
16 qualities of Cambridge (which contribute to the performance of GB Purposes)	Sector 9 – Hobson's Brook Corridor	Degree of conflict with the performance of GB Purposes
10) Good urban structure with well-	The ongoing CBC and Clay Farm development CBC has been designed to create a strong,	Sub-area 9.1
designed edges to the city		Minor conflict
Relates to:		The proposals introduce new built form to the edge of the city at this point and so are in conflict with this quality. The development
National GB Purposes	long term edge to Cambridge, with the green corridor within the northern	is, however, relatively small in extent when compared to the visible vast mass of the existing (and future planned) CBC buildings, and the visually discordant Nine Wells Bridge, that are readily apparent throughout this stretch of the city's edge.
Sprawl	part of the Sector retained permanently as open space.	Once the proposed planting establishes it would not only mitigate the effects of the railway systems compound at its centre but would also create an improved edge to the city at this point by softening the visually discordant existing Nine Wells Bridge.
		The development would, therefore, on balance only have a minor conflict with this quality's related GB purposes.
		Sub-area 9.2
		Minor conflict
		The proposed station, platforms and footbridge would be positioned along the urban edge of the Sector, and not the <u>city's</u> defined edge – which, in this part of the city, lies along the line of Addenbrooke's Road, and along the southern extents of the CBC and the Clay Farm neighbourhood.
		The proposed station, platforms and footbridge are, however, proposed within an area which is identified as for retention as permanently open.
		With the introduction of built form into the permanently open part of the Sector this would likely create a conflict with this quality.
		During the detail design stage however, the proposed station and the planned planting presents an opportunity to create a better designed edge between Hobson's Park and the CBC.
		The development would, therefore, on balance only have a minor conflict with this quality's related GB purposes.

Assessment Criteria (CIGBBS)		Proposed Development
16 qualities of Cambridge (which contribute to the performance of GB Purposes)	Sector 9 – Hobson's Brook Corridor	Degree of conflict with the performance of GB Purposes
11) Green corridors into the city Relates to: National GB Purposes Sprawl Setting/character Cambridge GB Purposes Character Setting	 Sector is an important green corridor into the city. Provides a setting for an important approach into the city along the railway line. Hobson's Brook is well vegetated. 	Negligible conflict This sub-area is essentially outside of the 'green corridor' – being part of the open countryside that is beyond the city's defined edge. The proposed railway systems compound here is, however, located at the edge of, and along the railway approach to the corridor. Once the proposed planting in this area establishes it would not only mitigate Significant areas of Distinctive and Supportive townscape and landscape. Sub-area 9.2 Minor conflict The proposed station, and its associated infrastructure are proposed within the green corridor and are therefore at conflict with this quality. The effect of the development on the +400m wide corridor is, however, limited to just the southern compartment of this sub-area – the landforms of Addenbrooke's Bridge and Nine Wells Bridge preventing the development's visibility beyond this. The proposed built form would only encroach into the corridor by approximately 7%, and only affect approximately 13% of its length. The bridges, their embanked approaches and the visible vehicular traffic upon them already adversely sever the corridor and so conflict with this quality. The development would, in fact, have a positive effect on this existing conflict, because less traffic would use Nine Wells Bridge as more people use the station to access the CBC (albeit there would be more pedestrian and cycle movement across the park). The effect of the development would be further tempered by the planned careful siting of the station building in the crux of existing landform of Addenbrooke's Bridge, and by the planned visual integration of the built form with external material choice being considerate to the character of both Hobson's Park and the CBC. The resulting effect would not, therefore fundamentally change the perception of a green corridor, and therefore, on balance the development would only have a minor conflict with this quality's related GB purposes.

Assessment Criteria (CIGBBS)		Proposed Development	
16 qualities of Cambridge (which contribute to the performance of GB Purposes)	Sector 9 – Hobson's Brook Corridor	Degree of conflict with the performance of GB Purposes	
12) The distribution, physical and visual separation of the necklace villages Relates to: National GB Purposes Merging Setting/character Cambridge GB Purposes Character Setting Merging Merging	 Development at CBC is currently extending the edge of Cambridge further southwards. This Sector is key in maintaining separation between Cambridge and Great Shelford. 	No conflict. The proposed Shepreth Branch Junction works do not introduce any new built form between the 'Necklace Village' of Great Shelford, so would not alter the sense of visual separation between this and the city. New sub-station/compound are located within the close setting of the railway line approach. The landscape proposals include woodland planting, ponds and wildflower grassland and enhancement of Hobson's Brook. The introduction of built form would not significantly affect the visual separation between the city's edge and the surrounding villages, and the sense of separation between them would be retained. The development would therefore not conflict with this quality's related GB purposes. Sub-area 9.2 No conflict. The introduction of built form would not significantly affect the visual separation between the city's edge and the surrounding villages, and overall, the sense of separation between them would be retained. The development would therefore not conflict with this quality's related GB purposes.	
13) The scale, character, identity and rural setting of the necklace villages Relates to: National GB Purposes Merging Setting/character Cambridge GB Purposes Setting Merging Merging	 Sub-area 9.1 plays a limited role in the rural setting of Great Shelford to the north. Sub-area 9.2 does not form part of the setting of any of the necklace villages. 	No conflict The proposed Shepreth Branch Junction works do not introduce any new built form and are confined within the existing railway environment so would not alter the sense of character, identity or rural setting of Great Shelford. In addition, the distance between the railway system's compound and Great Shelford means that the overall rural setting, character and identity of the village would not be affected by these elements either. The development would therefore not conflict with this quality's related GB purposes.	

Assessment Criteria (CIGBBS)		Proposed Development	
16 qualities of Cambridge (which contribute to the performance of GB Purposes)	Sector 9 – Hobson's Brook Corridor	Degree of conflict with the performance of GB Purposes	
14) Designated sites and areas enriching the setting of Cambridge Relates to: National GB Purposes Setting/character Cambridge GB Purposes Setting	 Hobson's Brook designated a City Wildlife Site. Trumpington Dismantled Railway/Guided Busway designated a City Wildlife Site. Long Road Plantation designated a City Wildlife Site Sub-area 9.1 contains a Schedules Monument Sub-area 9.2 contains a number of sports pitches that are protected open spaces. 	Negligible conflict. Whilst the new railway systems compound would be located near to Hobson's Brook and the Nine Wells scheduled monument (SM) in the field to the south of it, it is not anticipated that the development would create more than a negligible conflict with the contribution they make to the setting of Cambridge - the proposed compound would be set back by 15m from the Brook and by approximately 100m from SM. The planned landscape proposals include the enrichment of the edge of Hobson's Brook with new riparian planting and creation of woodland which would provide a better sense of separation between the SM and the visually discordant Nine Wells Bridge. The development would, therefore, on balance only have a negligible conflict with this quality's related GB purposes. Sub-area 9.2 No conflict The proposed station, platforms and footbridge are located approximately 350m from the Guided Busway Wildlife Site and 400km east of Hobson's Brook. The development would therefore not conflict with this quality's related GB purposes.	

Assessment Criteria (CIGBBS)		Proposed Development	
16 qualities of Cambridge (which contribute to the performance of GB Purposes)	Sector 9 – Hobson's Brook Corridor	Degree of conflict with the performance of GB Purposes	
15) Elements and features contributing positively to the character and structure of the landscape Relates to: National GB Purposes Sprawl Setting/character Cambridge GB Purposes Setting	 Hobson's Brook and its vegetated corridor are a notable landscape element within this Sector. Sub-area 9.1 lacks a strong landscape structure, which increases its vulnerability to harm from urban sprawl. The green corridor within sub-area 9.2 contributes positively to the setting of Cambridge and the adjacent developments of Clay Farm and CBC, particularly once the extensive areas of tree planting have matured. 	No conflict + beneficial effect The proposed Shepreth Branch Junction works are confined within the existing railway environment, and the proposed railways system compound is sited within the centre of an area of rank grassland with immature scrub. Therefore, neither would have any physical effect on those elements or features that are listed as currently contributing to the character and structure of the landscape in this sub-area. The planned addition of new native woodland and shrub vegetation surrounding the compound, however, and the planned enrichment of the habitat along Hobsons Brook here would have a beneficial effect by providing greater landscape structure and character to this sub-area. The development would therefore not conflict with this quality's related GB purposes and would in fact have a beneficial overall effect. Sub-area 9.2 Minor conflict The construction and operation of the station building and its associated infrastructure through this sub-area would necessitate the removal of some existing, young, native tree and shrub planting that was planted to provide landscape structure along the eastern edge of Hobson's Park, and mitigate the visual effect of the CB upon it. The development proposals would provide both compensatory planting of similar numbers, densities and species within the park and enrichment with further planting and other created habitats. The development would, therefore, on balance only have a minor conflict with this quality's related GB purpose.	

16 qualities of Cambridge (which contribute to the Corridor Cambridge (which contribute to the Corridor Cambridge (which contribute to the Cambridge (which	
performance of GB Purposes)	
16) A city set in a landscape which retains a strong rural character to the south. 17	d are ub- n that Park e Nine s of of the ad and ural posed

- 7.2.8 The proposals affecting Sector 9 have been assessed against the 16 qualities which contribute to the performance of the GB purposes. Nine of these qualities would not be conflicted at all by the development. These are:
 - A city set in a landscape which retains a strong rural character (sub-area 9.2).
 - The distribution, physical and visual separation of the necklace villages.
 - The scale, character, identity and rural setting of the necklace villages.
 - Designated sites and areas enriching the setting of Cambridge.
 - · A city focussed on the historic core.
 - A city of human scale easily crossed by foot and bicycle.
 - Topography providing a framework to Cambridge (sub-area 9.1).
 - Long Distance footpaths and bridleways providing access to the countryside.

- Key views of Cambridge from the surrounding landscape.
- 7.2.9 Of the remainder, none would be more than minorly conflicted by the development, and most would be negligibly conflicted.
- 7.2.10 Those conflicts considered to be minor in nature centre around the topics of:
 - effects on approach to the historic core from the edge of the city along the railway (9.2 only),
 - encroachment of built form into the green corridor (sub-area 9.2 only),
 - Significant areas of Distinctive and Supportive townscape and landscape (9.2 only),
 - loss of some existing elements that contribute positively to the character and structure of the landscape (9.2 only), and
 - additional built form at the edge of the city (sub-areas 9.1 & 9.2).
- 7.2.11 The change that would occur to the 'mainly green railway approach' to the 'historic core from the edge of the city' in sub-area 9.2 is inevitable given that the nature of the development is a new railway station (with its associated platforms and foot bridges).
- 7.2.12 The proportion of this approach that would actually be affected, however, amounts to approximately only 8% of the corridor's length through the Sector (and approximately only 13% of sub-area 9.2). In the same way, the degree of encroachment into the 'green corridor', which is recognised as a key area of 'supportive landscape' to the city, only amounts to approximately 7% of the corridor's width. In this context, therefore, the scheme cannot be described as a 'significant expansion' into the GB.
- 7.2.13 In addition, the proposed built development in sub-area 9.1 and 9.2 would not be intervisible with the historic core and would be well contained and well related to its adjacent land uses. The line of the existing railway track, Addenbrooke's Bridge, and the existing landforms and vegetation (bolstered by further new native planting) within Hobson's Park will both physically and visually provide a sense of containment to the proposed station (and its platforms) and would offer a robust defensible edge that will check any perception of sprawl.
- 7.2.14 Unlike other potential development within the GB, the proposed built form of the station would appear intrinsically related to its location i.e., both as a community asset within the hub of a new, distinct and expanding neighbourhood, and as a building that is part of an existing railway environment one that already contributes significantly to the character of sub-areas 9.1 and 9.2.
- 7.2.15 It is inevitable that the construction of a station and its associated infrastructure would bring about the loss of some vegetative habitats that contribute to those 'existing elements that contribute positively to the character and structure of the landscape in this Sector'. The existing woodland planting established as part of the Clay Farm development would, however, be predominantly retained, and the resultant loss would be relatively small. Regardless, all removed vegetation would be fully compensated for with replacement planting of equivalent species, densities and numbers, and bolstered with additional new planting.
- 7.2.16 The greater sense of activity created by the movement of pedestrians and cyclist accessing the station across Hobson's Park within sub-area 9.2 would mainly occur close to the existing activity of the CGB spur.
- 7.2.17 The proposed railway systems compound would have only a minor conflict with one quality that is related to GB purposes that of 'Good urban structure with well-designed edges to the city'. Whilst the proposals would introduce a small degree of new built form to sub-area 9.1 this would be relatively small in extent when compared to the vast visible mass of the existing (and future planned) CBC buildings, and the visually discordant Nine Wells Bridge, that are readily apparent throughout this stretch of the city's edge. Once the proposed planting establishes it would not only mitigate the effects of the railway systems compound at its centre but would also create an improved edge to the city at this point by softening the visually discordant existing Nine Wells Bridge.
- 7.2.18 The proposed Shepreth Branch Junction works do not introduce any new built form to the area and are confined within the existing railway environment. As such, the assessment has shown that they would bring about no more than a negligible conflict with the quality's that are related GB purposes.

Consideration of Green Belt Issues

Importantly the works would not bring about any reduction in the separation between Great Shelford (as a 'necklace village' to Cambridge) and the city, and would not alter the settlement's sense of character, identity or its rural setting.

- 7.2.19 The assessment also identified that there would be a number of other changes brought about by the development that would positively contribute to the qualities and purposes of the GB. These were:
 - A softer, green edge to the city when viewed from the south, on account of the new native tree
 and scrub planting proposed within sub-area 9.1 which would help address the current
 discordant views of Nine Wells Bridge (and its embankments) and the CBC from the open
 countryside beyond this and help improve the recognised lack of landscape structure within
 this Sector.
 - Strengthening and enhancing the setting of and mosaic of habitats along Hobson's Brook.
 - Less traffic on Nine Wells Bridge as a result of people using the station to access the CBC rather than cars and taxis (reinforced by the fact that there is a 'automatic number plate recognition' system already in operation within the CBC).
 - Improved visual transition for users of Hobson's Park between it and the stark 'industrial character' of the existing (and emerging) edge of the CBC, through the use of station cladding which is appropriate in material, form and colour to the park, and the further native tree and shrub planting along this boundary.
- 7.2.20 It is considered, therefore, that on balance, the overall development in sub-area 9.1 would have a negligible conflict, and the development in sub-area 9.2 would have a minor conflict with the local and national GB purposes.

7.3 Key considerations relevant to Green Belt Openness

- 7.3.1 The key considerations in relation to openness within Sector 9 include:
 - The Sector is broadly flat. Variation in landform comes in the form of the gentle artificial
 mounds along the east edge of Hobson's Park, incised watercourse and field drainage ditches
 and the visually prominent embankments of Addenbrooke's Bridge, Nine Wells Bridge and
 Long Road Bridge.
 - All three bridges run east-west across the full width of this Sector creating visual separation between sub-areas 9.1 and 9.2 and within sub-area 9.2.
 - The relative openness of the large agricultural field-scape of sub-area 9.1 contrasts with the clearly compartmentalised urban/suburban character of Hobson's Park and the playing fields within sub-area 9.2
 - The open, plain, generally unpopulated large fields outside and to the east of sub-area 9.1 increase its sense of openness.
 - Closer to the city edge this sense quickly dissipates with the clear visual prominence, and impenetrable 'curtain-like' built edge of the tall CBC buildings, road embankments and structurally planted margins outside of the GB.
 - The visually prominent built form at the edges of the GB around sub-area 9.2 foreshortens the sense of openness.

7.4 Preservation of Green Belt Openness

Sub-area 9.1

- 7.4.1 The proposed Shepreth Branch Junction works would not affect the sense of openness. These works would not bring about any new built form or change the vertical form of existing elements.
- 7.4.2 The proposed railway systems compound would be relatively small scale, both in terms of height (a one-storey building) and extent (an 8m x 4m building alongside other surface mounted cabinets and equipment within an approximate 1000m2 compound) and would be positioned at the very northern edge of sub-area 9.1. As such its effect on the openness of this zone would be particularly limited.

Consideration of Green Belt Issues

- 7.4.3 The openness of this part of sub-area 9.1 is already compromised by the visual presence of Nine Wells Bridge and its embankments, and by the relative vastness and visual prominence of the CBC buildings.
- 7.4.4 The proposed native tree, shrub and riparian vegetation that would be planted around the compound and along Hobson's Brook would reinforce the existing character at the end of the sub-area, and diminish, to a degree, the adverse effect that the Bridge and the CBC buildings have.
- 7.4.5 Therefore, whilst the proposed compound would reduce the sense of openness by virtue of the fact that there is no built form in this location presently, the degree of reduction on the sub-area as a whole, when taking in the Shepreth Branch Junction proposals as well, would be **negligible**.

Sub-area 9.2

- 7.4.6 The proposed station, the western platform and parts of the southern footbridge would all be located within sub-area 9.2 of the GB, and as such the current openness of this zone cannot claim to be preserved with the introduction of the scheme.
- 7.4.7 The proposed built-form's visual containment within only one compartment of sub-area 9.2, its relatively small extent within the green corridor, and its positioning immediately alongside the existing infrastructure and built form (which it has been identified as already foreshortening the sense of openness in this area), however, considerably limits its effect on the openness of sub-area 9.2.
- 7.4.8 Such positioning means that there would be very few locations where users of Hobson's Park would experience a direct loss of the sense of openness in views along the green corridor.
- 7.4.9 In addition, the visual containment of the proposed built form by the existing landforms and by existing structural vegetation along the eastern edge of Hobson's Park (bolstered further by the proposed planting in the same general location), would, in addition mean that the current degree openness would not be noticeably compromised. The increased activity with the park resulting from users accessing the station would not reduce the sense of openness given that their movements are on foot or by bicycle.
- 7.4.10 Therefore, whilst the proposed station and its associated infrastructure would reduce the degree of openness by virtue of the fact that there is no built form in this location presently, the degree of reduction on the sub-area as a whole would be **minor**.

7.5 Sector 10: South of Addenbrooke's

7.5.1 Table 4 sets out a description of Sector 10 and its sub-areas relevant to this study:

Table 4: Sector 10 Description

Sector:	10 - South of Addenbrooke's
Sub-areas	10.1 – South of Granham's Road
	10.2 – north of Granham's Road
	10.3 – White Hill
Location:	Sector 10 lies between the city's southern boundary and the village of Great Shelford, extending to the foothills of Gog Magog Hills.
Distance from historic core:	The northern most edge of Sector 10 is 3.26km from the southern edge of Cambridge's historic core
Boundaries:	Northern: Addenbrooke's Hospital (AH)/Cambridge Biomedical Campus (outside GB)
	Southern: Granham's Road forms the southern boundary to sub-Sector 10.3 and 10.2, Hinton Way forms southern boundary to sub-Sector 10.1. Further south lies Great Shelford village and arable fields.
	Eastern: A1307 beyond which lie arable fields (Sector 11)

	Western: Cambridge-London railway line beyond which lies arable land (Sector 9 – sub-area 9.1) and Shelford Road.
Landform:	Predominantly flat. Sub-area 10.3 predominantly flat with land rising towards Gog Magog Hills.
Land use:	Large arable farmland is the predominant land use. Smaller field parcels, a wooded hilltop and tree belts are located on White Hill. Nine Wells Local Nature Reserve located in the south west of the Sector. A hedgerow along the northern boundary of sub-area 10.2 to the west of the A1307 is designated as a City Wildlife Site. Cambridge-London railway along western boundary of Sector. Strip of land along northern boundary designated by South Cambridgeshire DC for the future expansion of the CBC.
Views:	Views into this Sector available from Magog Down. CBC obstructs views towards historic core.

- 7.5.2 The proposals in this Sector are located within the north-western part of sub-area 10.2, adjacent to the existing rail corridor. The proposals comprise of slight widening to the existing tracks by approximately 5m, soft landscape works including new native trees and hedgerow, species rich wildflower grassland, attenuation basins and woodland/shrub planting. To facilitate the siting of a temporary works compound within this sub-area, a section of existing hedgerow would be removed (approx.113m length) and would be reinstated following completion of the works. There would be no new structures or buildings.
- 7.5.3 Given that sub-area 10.1 and 10.3 are outside the site boundary and not considered to be affected by the proposals they have not been assessed as part of this study.

Assessment of Qualities Relevant to Green Belt

7.5.4 The Table 5 summarises the 16 qualities (that were identified in the CIGBBS, as those that contribute to the performance of the national and local GB purposes for sub-area 10.2), and assesses the development's degree of conflict or accordance with them:

Table 5: Sector 10 Analysis

Assessment Criteria (C	IGBBS)	Proposed Development
16 qualities of Cambridge (which contribute to the performance of GB Purposes)	Sub-area 10.2 – north of Granham's Road	Degree of conflict with the performance of GB Purposes
1) A large historic core relative to the size of the city as a whole Relates to: National Green Belt Purposes Sprawl Setting/character Cambridge GB Purposes Character	 Despite ongoing development to north of this Sector and sub-area, the scale of the historic core relative to the overall city currently remains. Sub-area 10.2 is relatively remote from the historic core. Adjacent development (along its northern boundary) has little sense of connection with the historic character of the city. This sub-area plays an important role in restricting further growth of the city. Significant expansion of development into this sub-area could start to threaten Cambridge's identity as a city dominated by its historic core. 	No conflict + beneficial effect The development in this area would compromise of track widening and the creation of an attenuation basin. There would not be any intervisibility between this and the city's historic core. The landscape-related proposals would improve the vegetated structure along the edge of the city/GB boundary and therefore help to restrict the perception of urban sprawl. The development would therefore not conflict with this quality's related GB purposes and would in fact have a beneficial overall effect.
2) A city focussed on the historic core Relates to: National GB Purposes Setting/character Cambridge Green Belt Purposes Character	 There are a number of neighbourhood hubs, commercial, industrial, institutional, retail areas in the south of the city – these nodes serve local community needs without seriously competing with the city centre or specialise in certain services the city centre cannot cater for and would be out of character with the city centre. The presence of Addenbrooke's Hospital complex creates a physical barrier between this Sector and the historic core. No visual connection from the Sector to the landmark features in the city centre. 	No conflict + beneficial effect The development in this area would compromise of track widening and the creation of an attenuation basin. There would not be any intervisibility between this and the city's historic core. The planned addition of new native woodland and shrub vegetation surrounding the attenuation basin would have a beneficial effect by providing greater landscape structure and character to this sub-area. The development would therefore not conflict with this quality's related GB purposes and would in fact have a beneficial overall effect.

Assessment Criteria (C	IGBBS)	Proposed Development
16 qualities of Cambridge (which contribute to the performance of GB Purposes)	Sub-area 10.2 – north of Granham's Road	Degree of conflict with the performance of GB Purposes
3) Short and/or characteristic approaches to the historic core from the edge of the city Relates to: National GB Purposes Sprawl Setting/character Cambridge GB Purposes Setting	 Rail approach to Cambridge from south is mainly green & rural in character. Railway runs along western boundary of this Sector. The Sector makes a significant contribution to the rural character of these approaches to the city edge but does not contribute to the approaches from the city edge to the historic core. 	No conflict The existing land use is currently arable and marks the edge of the rural approach to the city. The proposed track widening in this sub-area would have no impact on the characteristic approaches to the historic core along the east of the sub-area. The proposed landscape planting is likely to preserve the rural and green character of the rail approach in this section and the sub-area would remain intrinsically rural. The development would therefore not conflict with this quality's related GB purposes.
4) A city of human scale easily crossed by foot and bicycle. Relates to: National Green Belt Purposes Sprawl Setting/character Cambridge GB Purposes Character	This quality has been eroded to a certain extent due to extent of suburban development and expansion of Addenbrooke's Hospital. The compactness of the city has been reduced – this Sector is relatively far from the historic core for people to walk/cycle into the centre. Well used cycle/pedestrian including SUSTRANS route NCR 11 along the western edge of railway.	No conflict The proposals would be sited alongside a small section of the NCR 11. Though a well-used route, NCR 11's stretch through this sub-area is some distance from the historic core. It is therefore considered that any impact would be relatively local. The development would therefore not conflict with this quality's related GB purposes.
5) Topography providing a framework to Cambridge Relates to: National GB Purposes Setting/character Cambridge GB Purposes Setting	 Chalk hills of Gog Magog Hills are a key element of the topographic bowl in which Cambridge is located – proved physical and visual containment to south east of the city. The northern and eastern parts of sub-area 10.2 are relatively flat & part of the bowl landform. The central, western and southern parts are on the Gog Magog foothills. White Hill is prominent area of landform within sub-area 10.3. 	No conflict + beneficial effect The proposals would not bring about any perceptible changes to the existing topography of this sub-area that would alter the existing sense of a low-lying flat landscape at the foot of the Gog Magog hills The landscape proposals would, in fact, contribute to the improved visual integration of the existing discordant landforms of Nine Wells Bridge. The proposals are therefore not considered to conflict with this quality's related GB purposes but in fact would deliver an overall beneficial effect to it.

Assessment Criteria (CIGBBS) Proposed Development			
16 qualities of Cambridge (which contribute to the performance of GB Purposes)	Sub-area 10.2 – north of Granham's Road	Degree of conflict with the performance of GB Purposes	
6) Long Distance footpaths and bridleways providing access to the countryside Relates to: National GB Purposes Setting/character Cambridge GB Purposes Setting Setting	 Route of SUSTRANS NCR 11 follows eastern edge of the railway along the western edge of the Sector before turning along the northern edge of the Sector - Links Cambridge with Great Shelford. Limited public access elsewhere in Sector, with exception of public footpath connecting Granham's Road to Nine Wells Local Nature Reserve. 	No conflict. The proposals would not affect with the existing routes providing access to the countryside and therefore the development would not conflict with this quality's related GB purposes.	
7) Key views of	No defined key views in this Sector.	No conflict + beneficial effect	
Cambridge from the surrounding landscape	 Sector is visible in key views from Magog Down and Babraham Road. Views obstructed to the historic city centre landmarks to the north by the ongoing development. 	The development area is only slightly perceptible in views from the nearest 'key-views' (Magog Down and Brabham Road).	
Relates to: <u>National GB</u>		There are no views within this sub-area to the historic core.	
Purposes Setting/character		The track widening would not be perceptible from outside of the immediate surrounds within this sub-area.	
Cambridge GB Purposes Setting		The landscape proposals would visually soften the heavily engineered appearance of Nine Wells Bridge in views from further the south within Sector 10 and further afield.	
		The proposals would not affect views of the historic core.	
		The development would therefore not conflict with this quality's related GB purposes and would in fact have a beneficial overall effect.	
8) Significant areas	All of this Sector is identified as	No conflict + beneficial effect	
of Distinctive and Supportive townscape and landscape	 supportive landscape. Much of the Sector lies on the lower foothills of the Gog Magog Hills which are an important feature of the setting of Cambridge – form the backdrop in views out of and across 	The proposals in this sub-area are complementary to the existing land uses (i.e., railway and structural vegetation).	
Relates to:		Proposals would not introduce any new incongruous elements to the area of supportive	
National GB Purposes Setting/character Cambridge GB	 the city. White Hill in sub-area 10.3 is a particularly notable expression of this landform. 	landscape. The landscape proposals would enhance the essence of a 'supportive landscape' to the city's edge.	
Purposes Character	The flatter land in the northern and eastern parts of this Sector forms part of the rural foreground to the city as seen in elevated views from	The development would therefore not conflict with this quality's related GB purposes and would in fact have a beneficial overall effect.	
Setting	the south east.		

Assessment Criteria (C	IGBBS)	Proposed Development	
16 qualities of Cambridge (which contribute to the performance of GB Purposes)	Sub-area 10.2 – north of Granham's Road	Degree of conflict with the performance of GB Purposes	
9) A soft green edge to the city Relates to: National GB Purposes Encroachment Setting/character Cambridge GB Purposes Setting	 Sector lacks a green edge where new developments occurring around CBC. Hard urban edge Softer green edge would become apparent as new planting associated with developments matures. 	No conflict + beneficial effect Proposals include tree and hedgerow planting and slight track widening. The proposals would contribute to the creation of a 'green edge' along the boundary of the CBC. The proposed planting would bring a more appropriate edge to the city, when compared to the existing embankments and heavily engineered structure of the Nine Wells Bridge. The development would therefore not conflict with this quality's related GB purposes and would in fact have a beneficial overall effect.	
10) Good urban structure with well-designed edges to the city Relates to: National GB Purposes Sprawl	Masterplans for developments at CBC and the Bell School site indicate that the developments have been designed to create long-term edges to the city.	No conflict + beneficial effect Proposals include tree and hedgerow planting close to the boundary of the CBC with the open countryside beyond, and slight track widening. The proposals would contribute to the creation of better-defined edge to the city. The development would therefore not conflict with this quality's related GB purposes and would in fact have a beneficial overall effect.	
11) Green corridors into the city Relates to: National GB Purposes Sprawl Setting/character Cambridge GB Purposes Character Setting	Sector is adjacent to green corridor along Hobson's Brook west of the railway – separated from Sector by railway line with limited connections into the green corridor.	No conflict Proposals within this sub-area are adjacent to the green corridor however separated by the rail line with no connections across in this location. The proposals here would not affect the integrity of the adjacent green corridor. The development would therefore not conflict with this quality's related GB purposes.	

Assessment Criteria (C	IGBBS)	Proposed Development
16 qualities of Cambridge (which contribute to the performance of GB Purposes)	Sub-area 10.2 – north of Granham's Road	Degree of conflict with the performance of GB Purposes
12) The distribution, physical and visual	 Development at CBC is currently extending further southwards. The open countryside of this Sector is key in maintaining separation between Cambridge and Great 	No conflict
separation of the necklace villages		The proposals in this sub-area do not include any new building or structures.
Relates to:		Slight track widening.
National GB Purposes	Shelford.	The slight widening of the track corridor would not significantly affect the visual separation between the city's edge and the surrounding villages, and the sense of separation between them would be
Merging		
Setting/character		retained.
Cambridge GB Purposes		The development would therefore not conflict with this quality's related GB purposes.
Character		
Setting		
Merging		
13) The scale, character, identity and rural setting of the necklace villages Relates to: National GB Purposes Merging Setting/character Cambridge GB Purposes Setting Merging Merging	The western part of this Sector forms part of the rural setting of Great Shelford.	No conflict Due to the distance between the proposed development and Great Shelford there would be no conflict to the overall rural setting, character or identity of Great Shelford, or other necklace villages. The development would therefore not conflict with this quality's related GB purposes.
14) Designated sites and areas enriching the setting of Cambridge Relates to: National GB Purposes Setting/character Cambridge GB Purposes Setting	Nine Wells Local Nature Reserve – ecological and heritage associations (sub-area 10.1) Hedgerow west of A1307 is designated as a City Wildlife Site (sub-area 10.3)	No conflict There are no designated areas within sub-area 10.2. The proposals are located approximately 0.2km north of Nine Wells LNR (located within sub-area 10.3). Whilst the new railway systems compound would be located near to the Nine Wells Nature Reserve it is not anticipated that the development would not conflict with the contribution it makes to the setting of Cambridge. The proposals in this sub-area would complement the nature and appearance of the Nine Wells NR. The development would therefore not conflict with this quality's related GB purposes.

Assessment Criteria (C	IGBBS)	Proposed Development	
16 qualities of Cambridge (which contribute to the performance of GB Purposes)	Sub-area 10.2 – north of Granham's Road	Degree of conflict with the performance of GB Purposes	
15) Elements and features contributing positively to the character and structure of the landscape Relates to: National GB Purposes Sprawl Setting/character Cambridge GB Purposes Setting	 Small number of mature hedgerows and treed approach along A1307 are important features. Small woodland blocks including Nine Wells LNR. Lack of strong landscape structure increases risk of urban sprawl if development is extended into the Sector in the future. Distinctive wooded hilltop - White Hill 	Negligible conflict The proposals would include the removal of small areas of existing scrub and hedgerow to allow for construction of the widened railway. The landscape proposals to mitigate and compensate for this includes reinstatement of such features and the creation of new areas of hedgerow, tree planting, meadow and ponds.	
16) A city set in a landscape which retains a strong rural character Relates to: National GB Purposes Encroachment Setting/character Cambridge GB Purposes Setting	Sector retains a rural character to the south. Urbanised to the north as a result of new development – creates sense of encroachment into the countryside. Effect of ongoing development of CBC should reduce once development is completed and the surrounding planting begins to mature.	No conflict + beneficial effect The proposals in this sub-area are complementary to the existing land uses (i.e., railway and structural vegetation). The proposals would complement the existing form of the sub-area and would not urbanise it further. The sub-Sector would therefore retain its rural character. The landscape proposals would soften the existing urbanised edge created by the Nine Wells Bridge and CBC buildings.	

- 7.5.5 The proposals have been assessed against the 16 qualities which contribute to the performance of the GB purposes. They were found to have a negligible conflict with only one quality (no 15 Elements and features contributing positively to the character and structure of the landscape). This conflict would dissipate in the longer term as the proposed vegetation establishes and matures. The development was found to have 'no conflict' with all other qualities and associated purposes.
- 7.5.6 Overall, the development is not considered to conflict with the purposes of the GB in this this Sector. The area would retain its overall rural character, and the villages beyond would retain their landscape setting. The landscape related aspects of the development would reduce/soften the effects of the existing urbanising features (such as the Nine Wells Bridge and its embankments, and the built-up edge of the CBC) to the north of the Sector and would reduce the perceived sense of encroachment into the countryside they have. It is noted above that there is a lack of landscape structure along the northern boundary of the Sector. The proposals would strengthen this and in addition enhance the setting of Nine Wells Nature Reserve, the amenity of local PRoW and NCN Route 11.
- 7.5.7 It is considered, therefore, that on balance, there would be **no fundamental conflict** with the local and national GB purposes from the development in this sector.

Key considerations relevant to Green Belt Openness

- 7.5.8 The key considerations in relation to openness within Sector 10, and in-particular sub-area 10.2, as noted in the CIGBBS include:
 - There is very limited built development within this Sector, and hardly any within sub-area 10.2. The only buildings of note are contained within the White Hill Farm complex and occasional properties along the A1307.
 - There is some variation in landform across the Sector (i.e., the elevated landform of White Hill and the gently rising land towards the Gog Magog foothills), but the area immediately surrounding the proposed development is relatively flat. The railway sits atop a slight embankment for part of its stretch along the western edge of the Sector.
 - There is a relative lack of vegetation within much of Sector 10. This and the relatively large, open featureless fields contribute to the sense of openness.
 - The lack of a strong green edge to the city boundary, and the relatively large scale and height of buildings within the CBC, foreshortens the sense of openness throughout Sector 10, in particular sub-area 10.2.

Preservation of Green Belt Openness

- 7.5.9 There would be no new built form or significant landform changes resulting from the development within sub-area 10.2. The proposals simply include the slight widening of the railway track corridor and new areas of hedgerow, tree planting, meadow and attenuation basins.
- 7.5.10 These would be located upon existing arable land that is currently unencumbered by built form and structures, which is relatively open and flat, but which already contains scrub (along the railway), hedgerows (between some fields) and woodland (Nine Wells NR). The development would be restricted to the very north-west corner of the Sector only.
- 7.5.11 It is therefore considered that there would not be a reduction in the openness of the GB. Whilst the increase in vegetative form in this area has the ability to hinder a few existing long views across the landscape these are very limited in number and are positioned at the edge of this sub-area.
- 7.5.12 The proposed vegetation would help provide a softer and more appropriate landscape edge to this Sector, such that the adverse effect of the current CBC buildings upon the sense of openness are lessened.
- 7.5.13 It is considered, therefore, that on balance, there would be **no reduction** in the openness of the GB in this sub-area.

8 Conclusions

8.1.1 The resultant overall degree of harm to GB sub-area 9.1, 9.2 and 10.2 is set out in the Table 10:

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Table	5.	Sector	10	Analys	2.12

Sub- area	Conflict with GB purposes	Reduction in openness	Degree of Harm
9.1	Negligible conflict	Negligible reduction in openness	Negligible
	There would a minor conflict with only one of the qualities which related to the GB purposes. All others would experience either no, or a negligible conflict. The minor conflict – built form at the edge	There would be a negligible reduction in the openness of the GB on account of the introduction of a relatively very small area of built form at the edge of this sub-area, and in a location that is already compromised by nearby existing infrastructure and built form.	Very small change to a few non-key elements, features, qualities or characteristics, so that the post development the baseline would be fundamentally

Sub- area	Conflict with GB purposes	Reduction in openness	Degree of Harm
	of the city, would be compensated for by proposed planting which would reduce and soften the existing urbanising aspects that Nine Wells Bridge and the built-up edge of the CBC have upon this sub-area of the GB.	The planting that is proposed would help provide a softer and more appropriate landscape edge, such that the adverse effect of the Nine Wells Bridge and CBC upon the sense of openness are lessened.	unchanged with very few barely perceptible differences.
9.2	Minor conflict	Minor reduction in openness	Minor
	The development would conflict minorly with 6 out of the 16 quality's which relate to the GB purposes. All other qualities would experience either no, or negligible conflicts with the purposes of the GB. The minor conflicts relate to the encroachment on to the current green corridor, the effects upon the current green approach along the railway line from the city's edge to its historic core and loss of positive elements. The study has shown how the relatively little of the approach and corridor are actually affected and how the purposeful positioning, containment and design of the development and its proposed mitigation limits these conflicts further.	There would be the introduction of new built form into an existing area of visually enclosed and compartmentalised landscape of the green corridor. The proposals would be positioned at the edge of one compartment of this sub-area, such that the perception of a loss of openness would unlikely be apparent to most users of the space, and hence very localised. As the presence of existing infrastructure and built form already foreshortens the sense of openness in this area, the development was found to assist in the transition between this and the GB, such that the overall openness of this sub-area is only minorly reduced.	Minor alteration to key elements, features, qualities or characteristics relevant to GB openness or purposes, such that post development the baseline would be largely unchanged despite discernible differences.
10.2	Negligible / No conflict	No reduction in openness.	Negligible / None
	Only one of the 16 qualities is temporarily affected. The adverse effect of this is overly compensated for by the proposed planting which reduces and softens the existing urbanising aspects of Nine Wells Bridge and the built-up edge of the CBC.	There would be no new built form or perceptible landform changes. The proposed vegetation would help provide a softer and more appropriate landscape edge to this Sector, such that the adverse effect of the current CBC buildings upon the sense of openness are lessened.	Very small change to a few non-key elements, features, qualities or characteristics, so that the post development the baseline would be fundamentally unchanged with very few barely perceptible differences.

- 8.1.2 Overall, this assessment concludes that the proposed introduction of the Cambridge South Railway Station within the GB would:
 - be relatively small in physical extent compared to the size of the GB sub-areas that the development's components are located in;
 - be experienced over a short distance relative to the overall approach into the city through this part of the GB;
 - not compete with, or conflict in terms of intervisibility, setting, or importance with the historic core that the GB seeks to protect;
 - be well related to its location within the GB being associated with the existing railway and by being a necessary part of the neighbourhood around it that have been identified in the CIGBBS;

The Network Rail (Cambridge South Infrastructure Enhancements) Order

- prevent the sense of 'sprawl' through the GB by purposefully positioning built form in areas of existing confinement, and by bolstered these with additional new site-appropriate planting;
- help retain the rural setting of the GB at the city's edge by positioning the station and its associated infrastructure at a point where there is limited intervisibility between the two;
- maintains the intrinsic openness of the valued GB green corridor between the city's edge and the historic core;
- bring about less traffic on Nine Wells Bridge as a result of people using the station to access the CBC rather than cars and taxis;
- retain the critical separation between Cambridge and its surrounding necklace of villages within the GB:
- strengthen and enhancing the setting of and mosaic of habitats along Hobson's Brook; and
- help create a softer, green edge to the city when viewed from the southern areas of the GB.

9 References

9.1 References

Reference	Title
Ref. 1	National Planning Policy Framework, (2019) Ministry of Housing, Communities and Local Government https://www.gov.uk/government/publications/national-planning-policy-framework-2 accessed on 19th April 2021
Ref. 2	Planning Practice Guidance Notes, (2019) Ministry of Housing, Communities and Local Government https://www.gov.uk/guidance/green-belt accessed on 19 th April 2021
Ref. 3	Cambridge Local Plan, (2018) Cambridge City Council https://www.cambridge.gov.uk/local-plan-2018 accessed on 19th April 2021
Ref. 4	South Cambridgeshire Local Plan, (2018) South Cambridgeshire District Council https://www.scambs.gov.uk/planning/local-plan-and-neighbourhood-planning/the-adopted-development-plan/south-cambridgeshire-local-plan-2018/ accessed on 19th April 2021
Ref. 5	Cambridge Inner Green Belt Boundary Study (2015), Cambridgeshire County Council https://scambs.moderngov.co.uk/documents/s83223/Appendix C A. Cambridge Inner Green Belt Boundary Study_ Main Report.pdf accessed on 19th April 2021

APPENDICES

Appendix 1

1 Figures

Figure 1: Study Area

Figure 2: Assessment Sectors and Sub-areas

Figure 3: Environmental Designations

Figure 4: Cultural Heritage Designations

Figure 5: Recreational Routes and Country Parks

Figure 6: Topography and Drainage

Figure 7: Townscape Character

Figure 8: Landscape Character

Figure 9: Visual Assessment

Figure 10: Gateways and Approaches

Figure 11: Townscape and Landscape Role and Function

Figure 12: Sector 9 Analysis

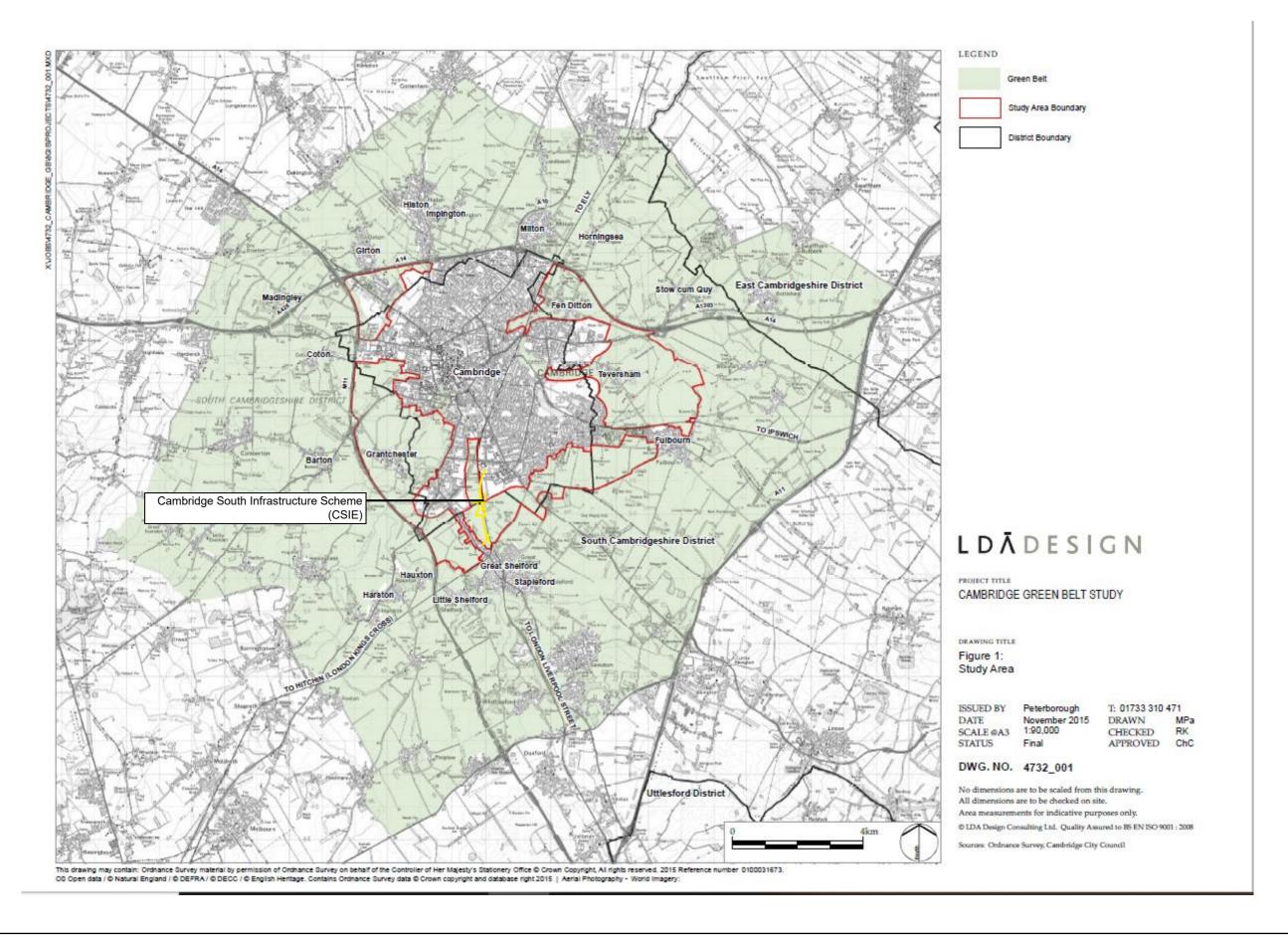
Figure 13: Sector 10 Analysis

Figure 14: Site Plan

Figure 15: Sub-area 9.1 photographs

Figure 16: Sub-area 9.2 photographs

Figure 17: Sub-area 10.2 photographs

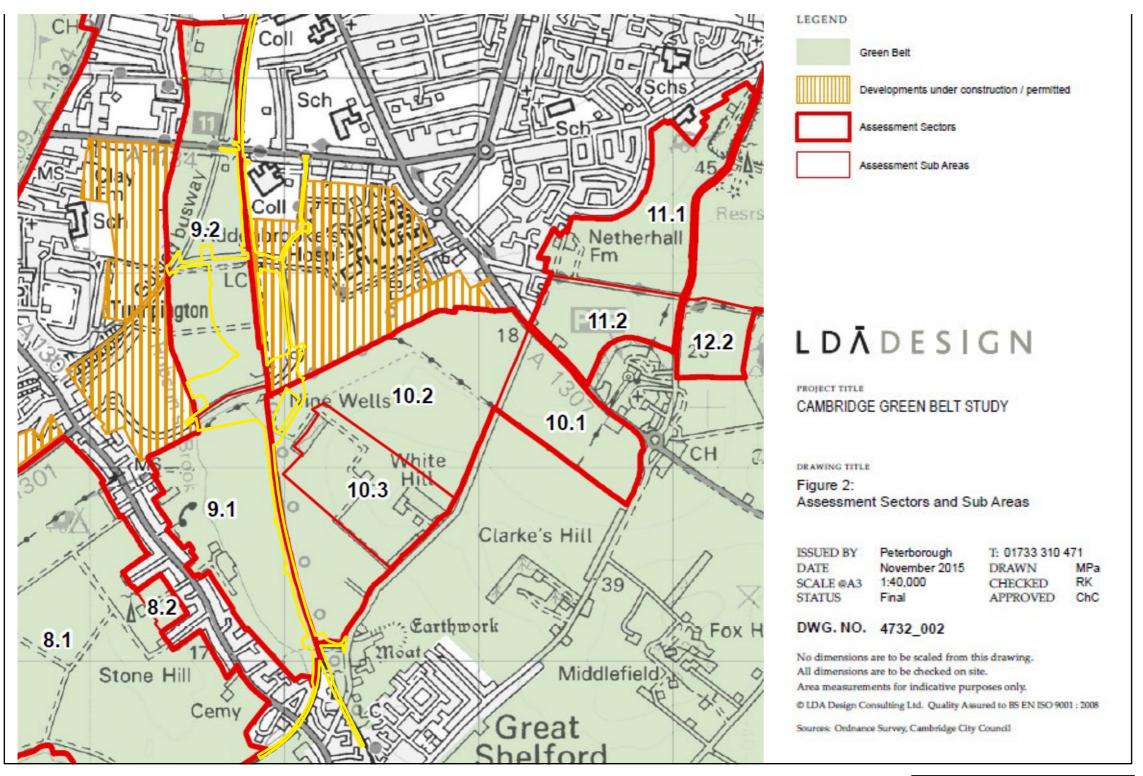






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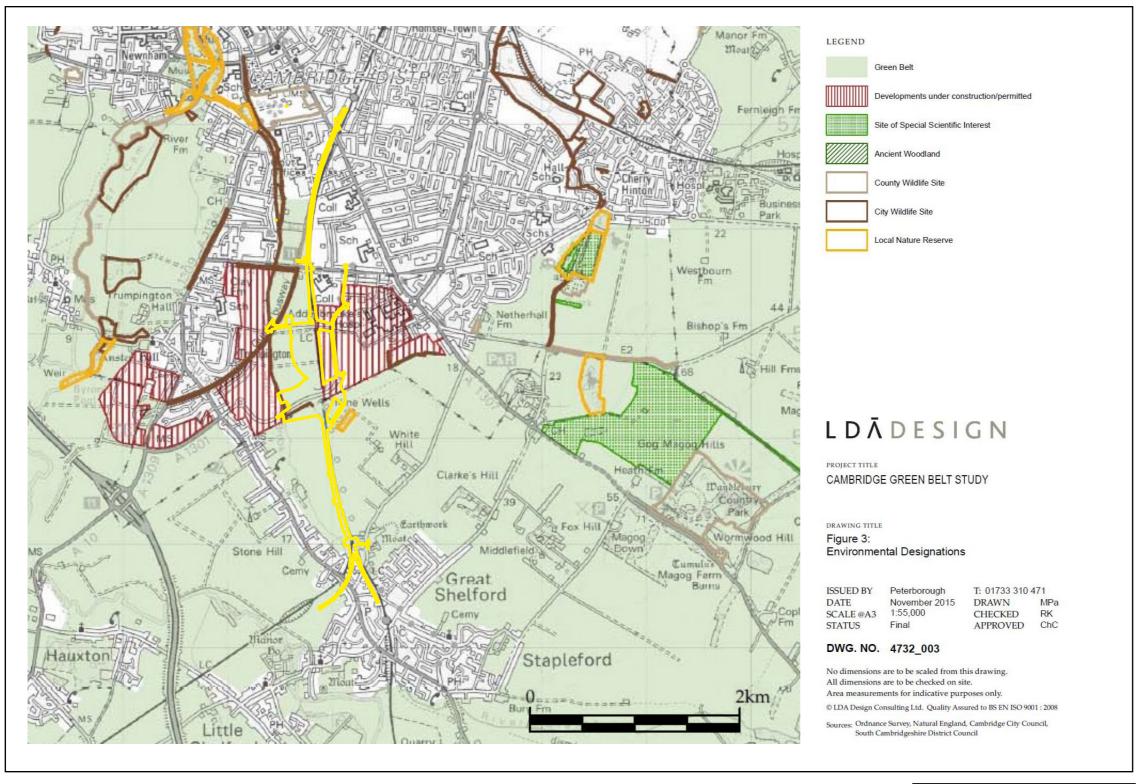
FIGURE TITLE: Extract from Cambridge Inner Green Belt Study 2015 - Figure 1 Study Area





PROJECT: CAMBRIDGE SOUTH STATION **CLIENT:** NETWORK RAIL

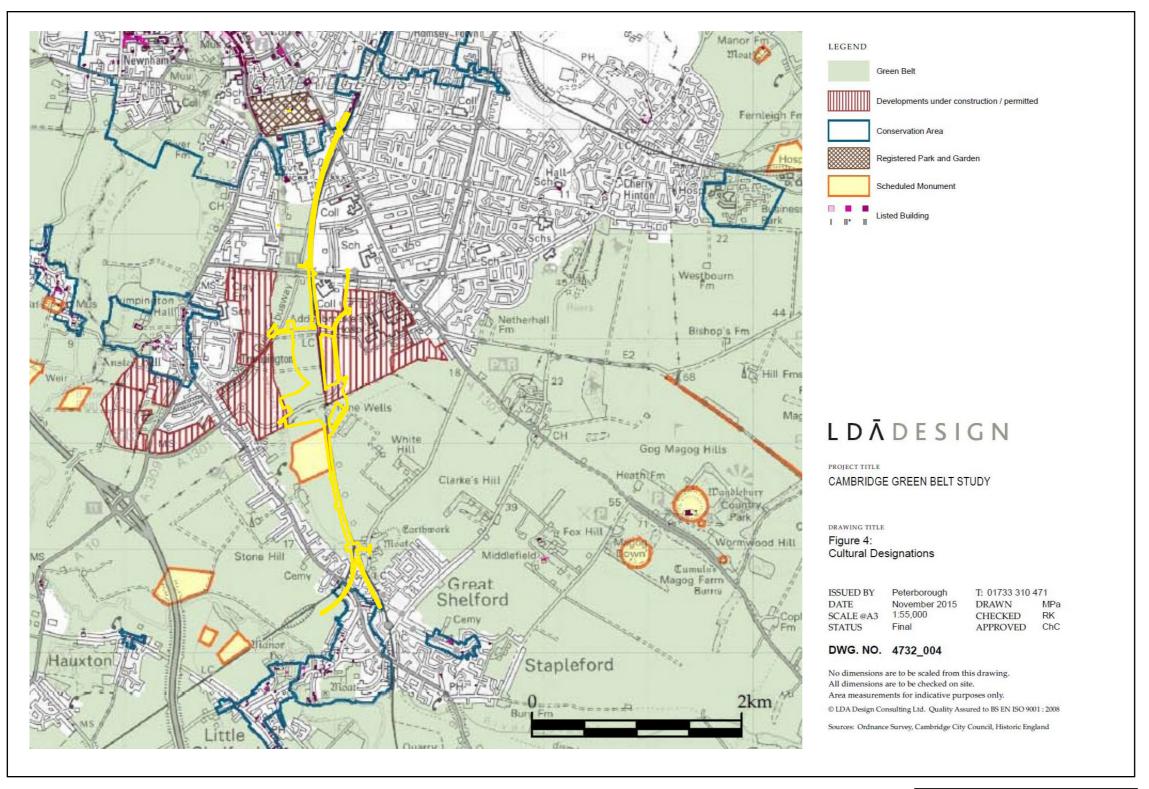
FIGURE TITLE: Extract from Cambridge Inner Green Belt Study 2015 - Figure 2 Assessment Sectors and Sub Areas





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FIGURE TITLE: Extract from Cambridge Inner Green Belt Study 2015 - Figure 3 Environmental Designations

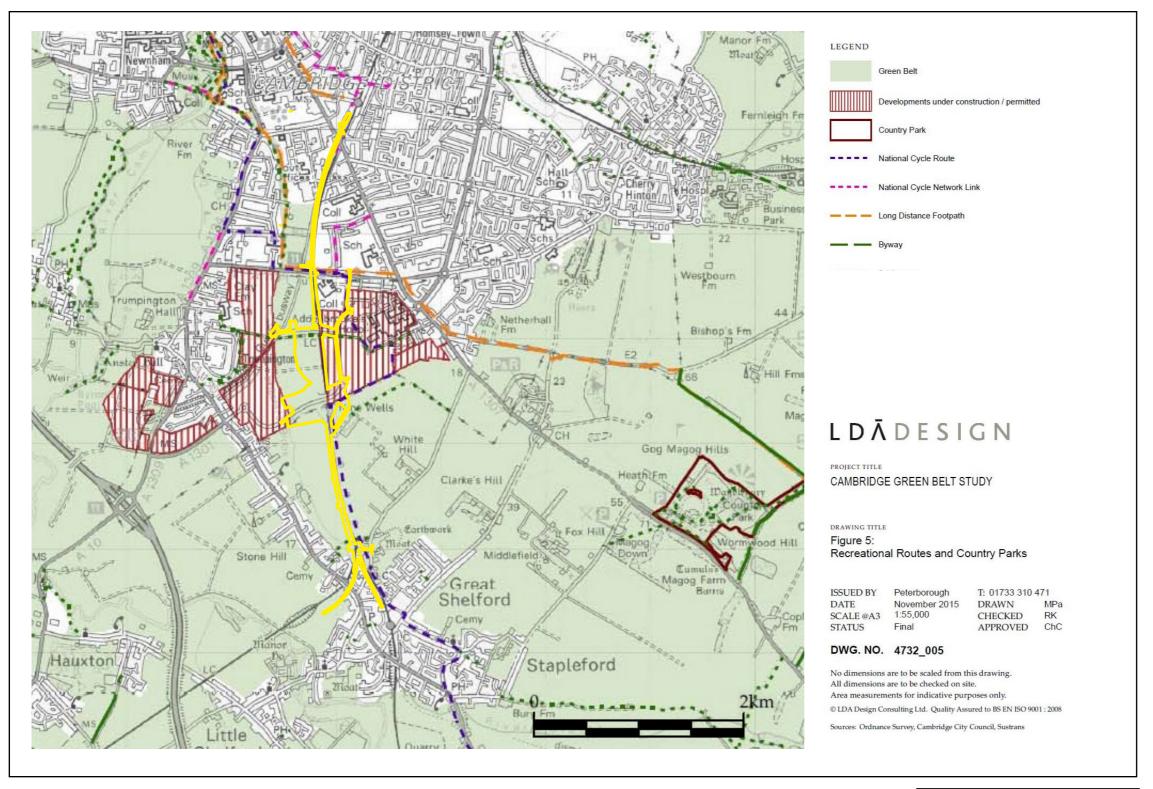




PROJECT: CAMBRIDGE SOUTH STATION **CLIENT:** NETWORK RAIL

FIGURE TITLE: Extract from Cambridge Inner Green Belt Study 2015 - Figure 4 Cultural Designations

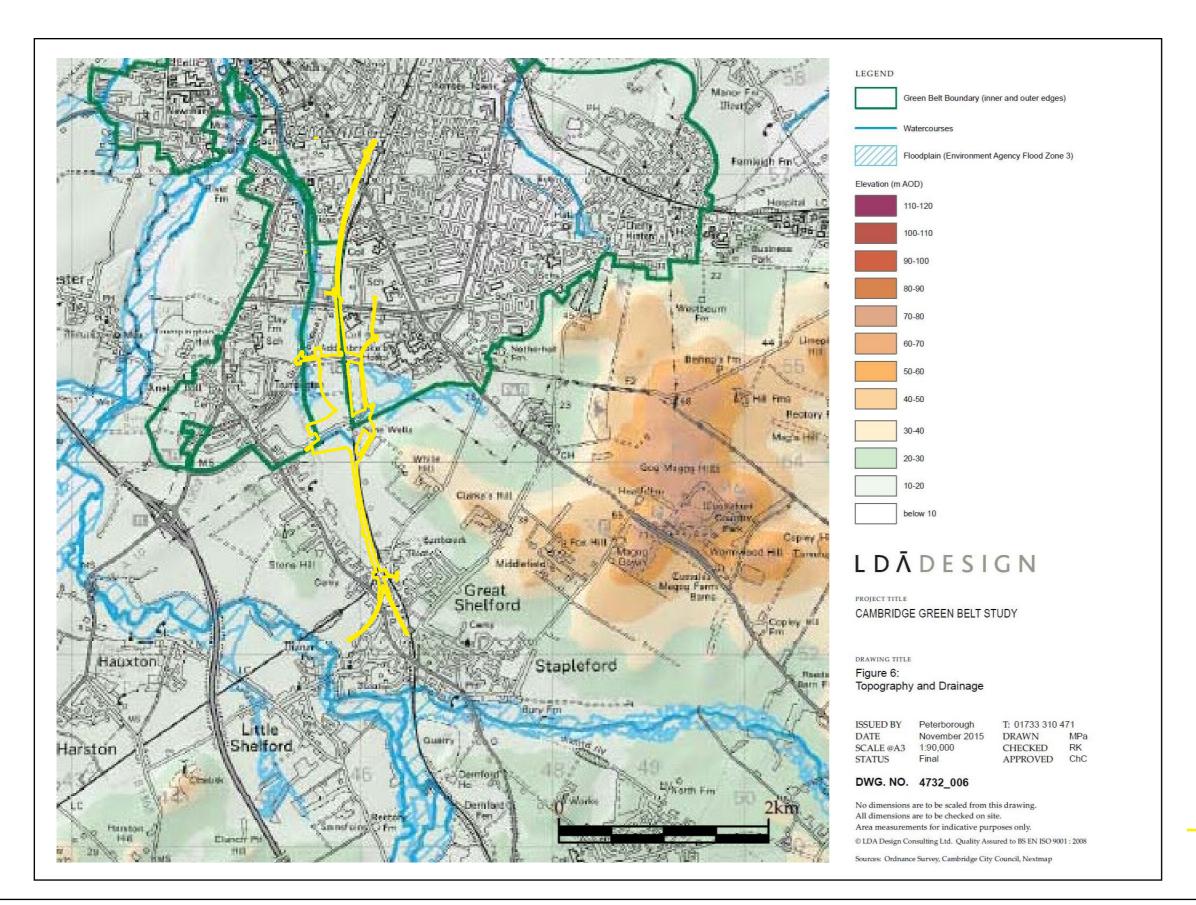
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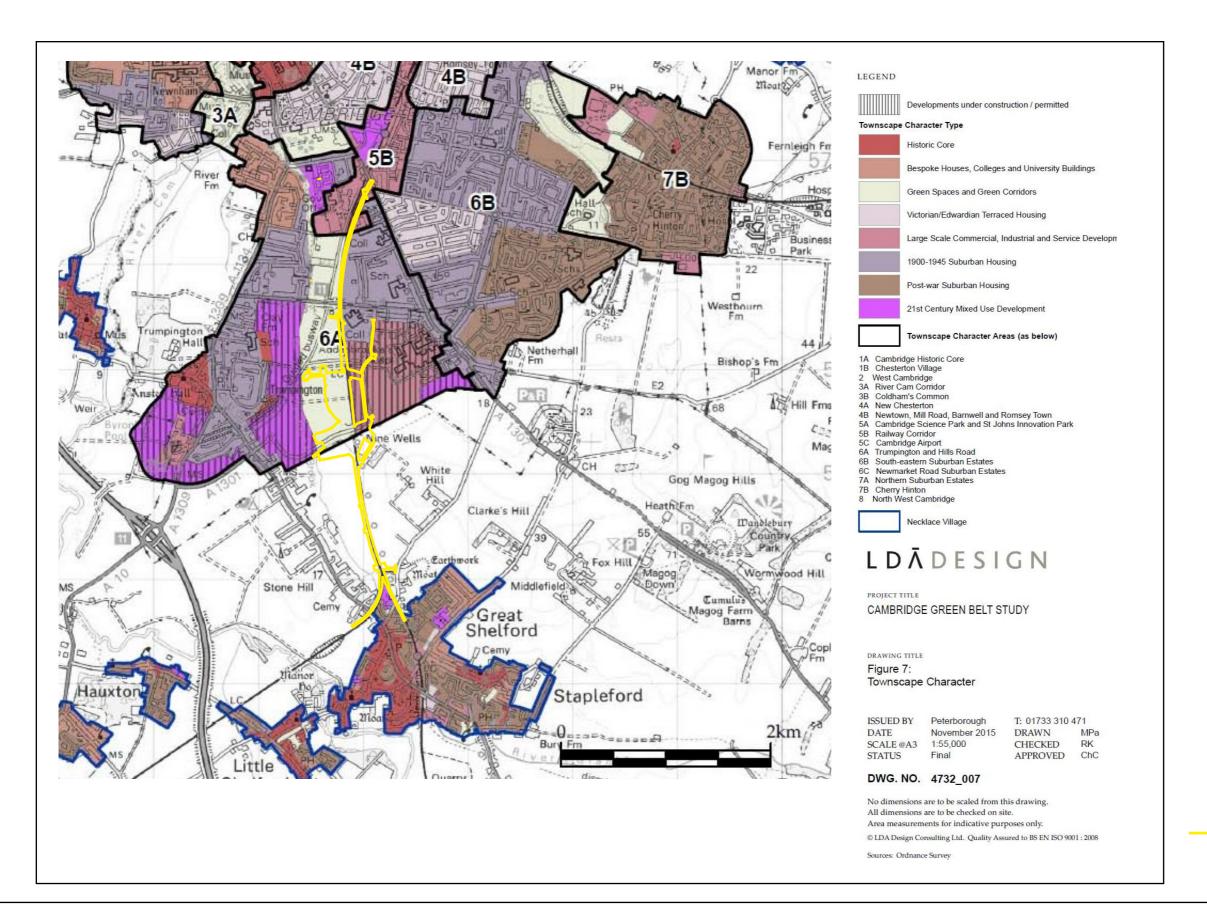




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FIGURE TITLE: Extract from Cambridge Inner Green Belt Study 2015 - Figure 6 Topography and Drainage

PROJECT NUMBER: 10027100 FIGURE NO.: 6 SCALE: As shown SIZE: A3

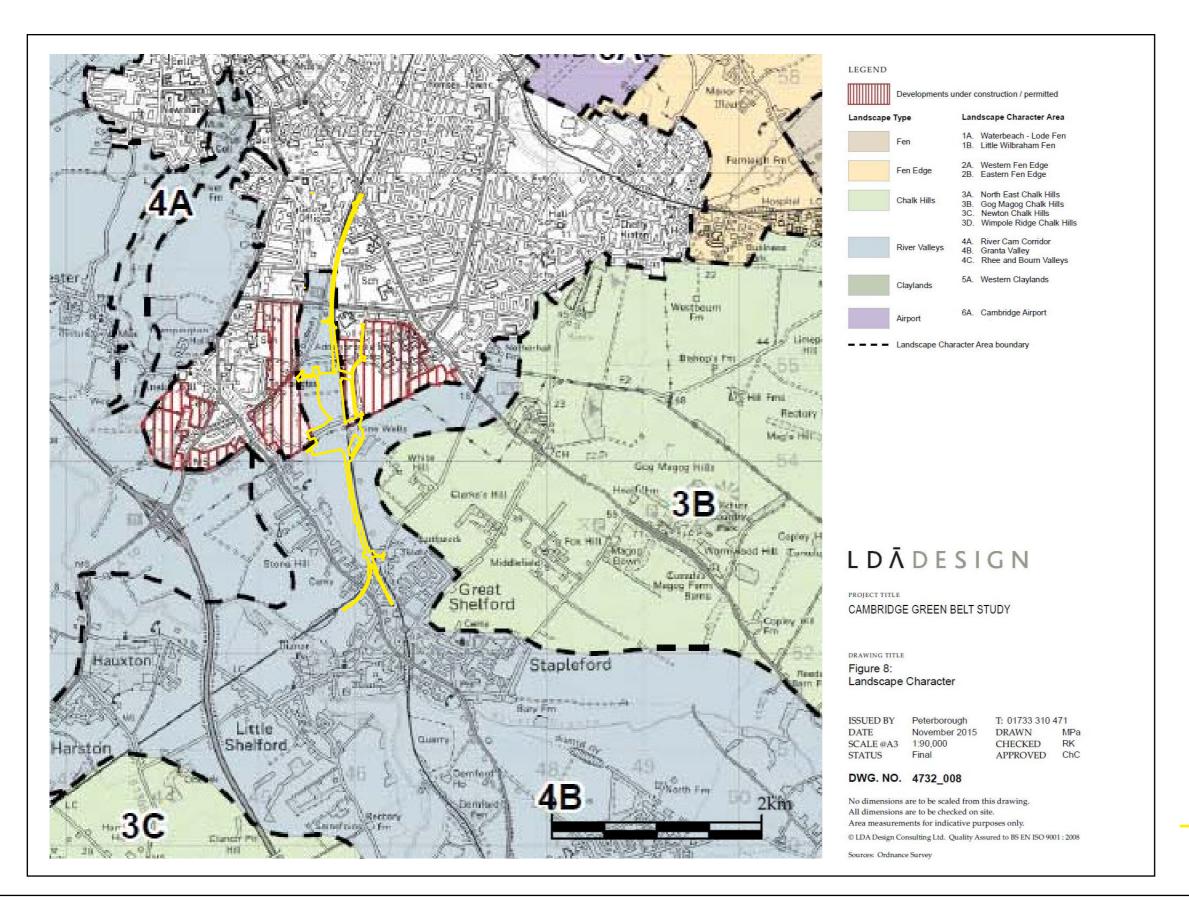




PROJECT: CAMBRIDGE SOUTH STATION **CLIENT**: NETWORK RAIL

FIGURE TITLE: Extract from Cambridge Inner Green Belt Study 2015 - Figure 7 Townscape and Character

PROJECT NUMBER: 10027100 FIGURE NO.: 7 SCALE: As shown SIZE: A3

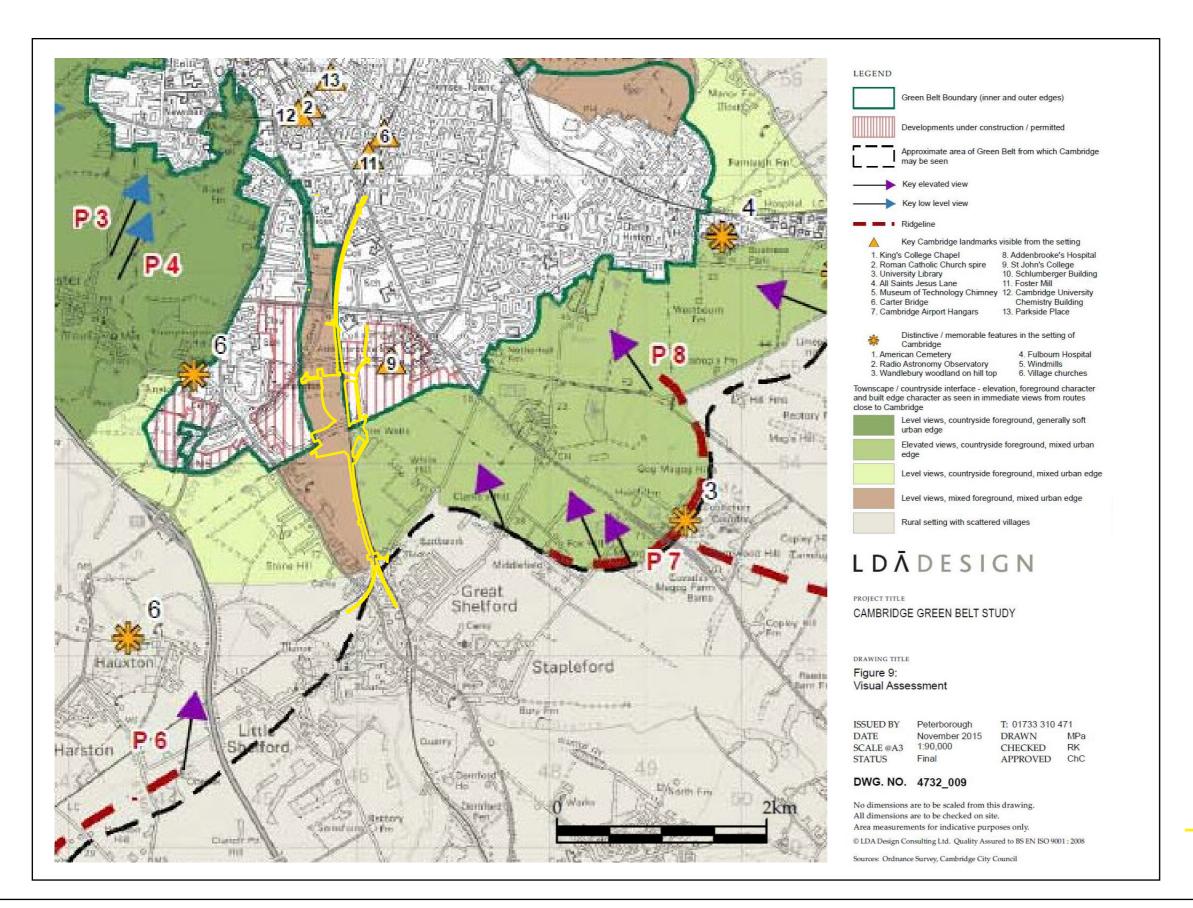




PROJECT: CAMBRIDGE SOUTH STATION **CLIENT:** NETWORK RAIL

FIGURE TITLE: Extract from Cambridge Inner Green Belt Study 2015 - Figure 8 Landscape Character

PROJECT NUMBER: 10027100 FIGURE NO.: 8 SCALE: As shown SIZE: A3





PROJECT: CAMBRIDGE SOUTH STATION **CLIENT**: NETWORK RAIL

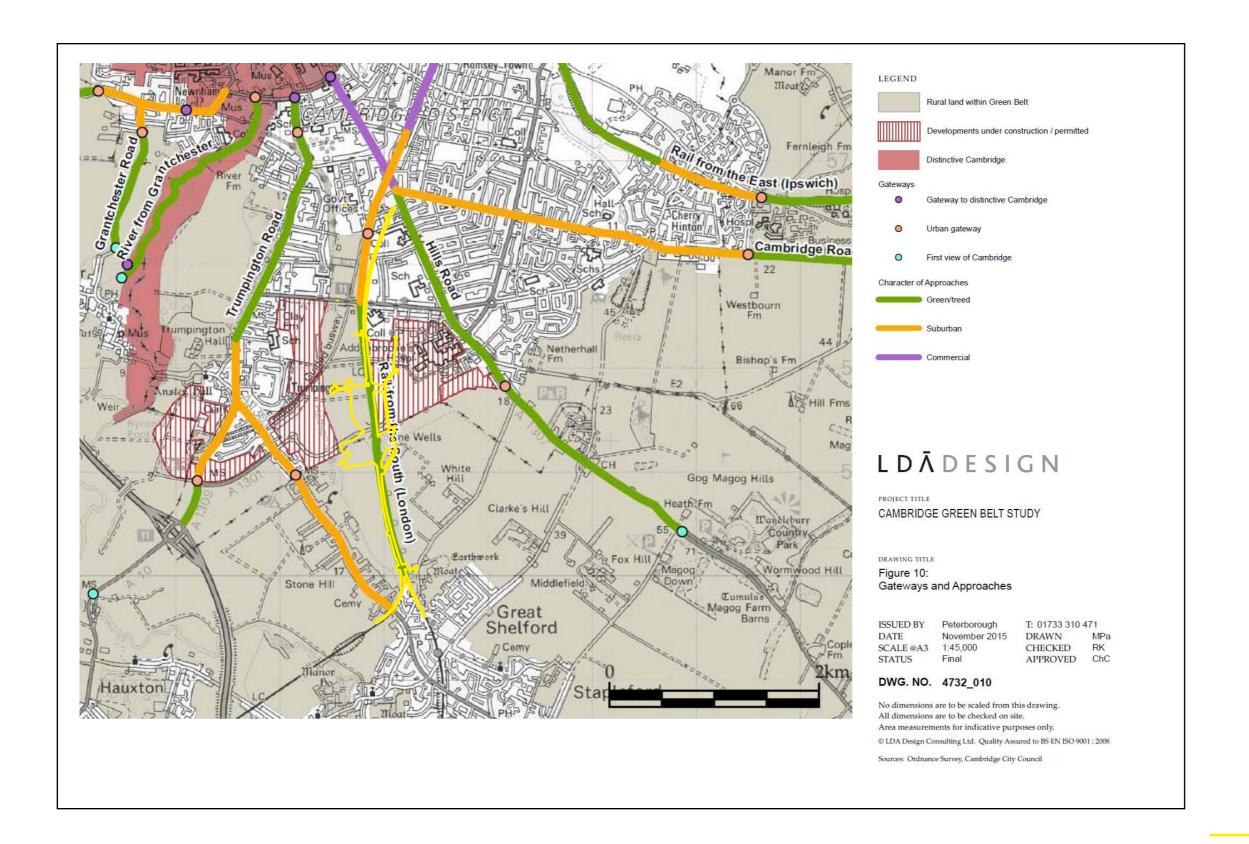
FIGURE TITLE: Extract from Cambridge Inner Green Belt Study 2015 - Figure 9 Visual Assessment

PROJECT NUMBER: 10027100 FIGURE NO.: 9 SCALE: As shown SIZE: A3 DATE: 16/12/2020 REV: B

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Design & Consultancy for natural and built assets

Design & Consultancy for natural and built assets

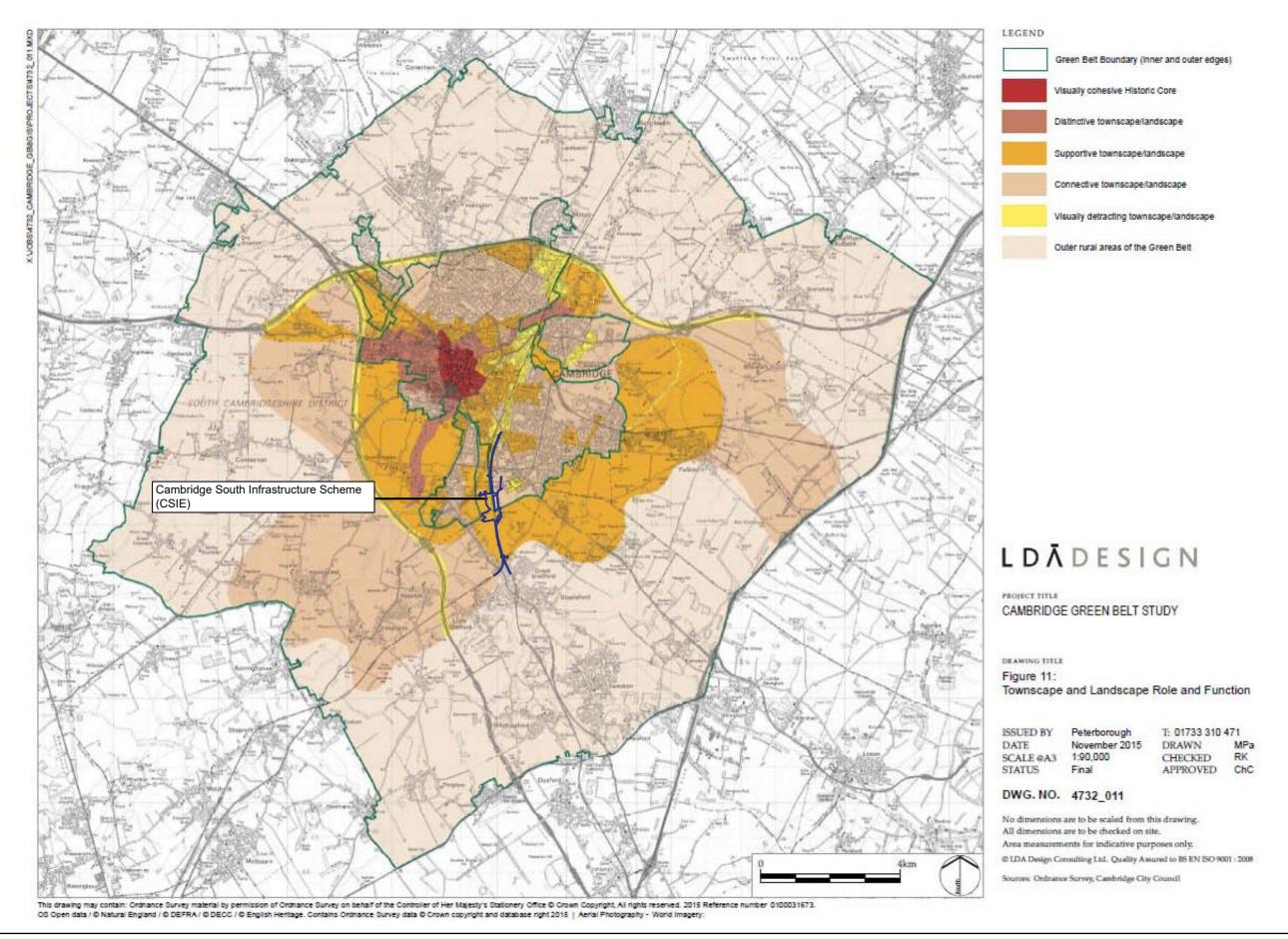




PROJECT: CAMBRIDGE SOUTH STATION **CLIENT**: NETWORK RAIL

FIGURE TITLE: Extract from Cambridge Inner Green Belt Study 2015 - Figure 10 Gateways and Approaches

PROJECT NUMBER: 10027100 FIGURE NO.: 10 SCALE: As shown SIZE: A3

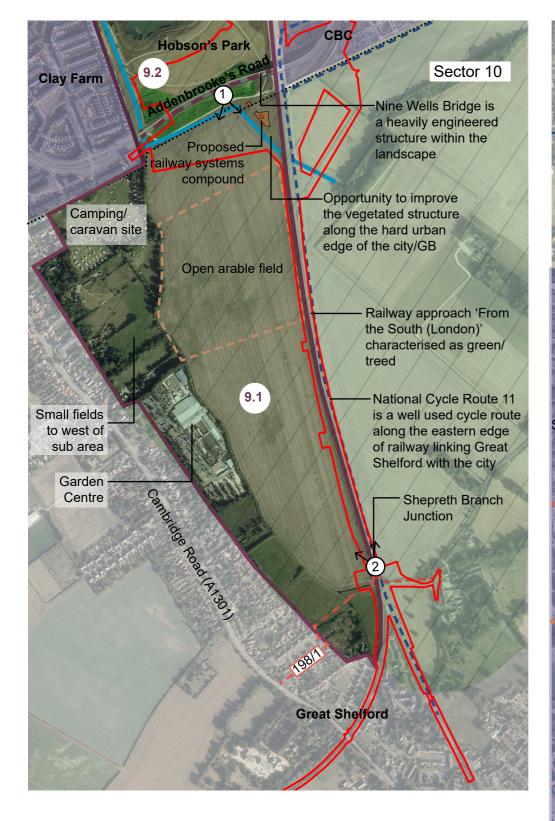






PROJECT: CAMBRIDGE SOUTH STATION **CLIENT:** NETWORK RAIL

FIGURE TITLE: Extract from Cambridge Inner Green Belt Study 2015 - Figure 11 Townscape & Landscape Role & Function





0.5km



Cambridge South Infrastructure Scheme (CSIE) boundary

Proposed built form

Green Belt

District boundary

Sector boundary

10.1 Sub area

Ongoing approved development

39/47 Public footpath

E2 European Long Distance Route

Traffic-free cycle route National Cycle Route 11

Scheduled monument

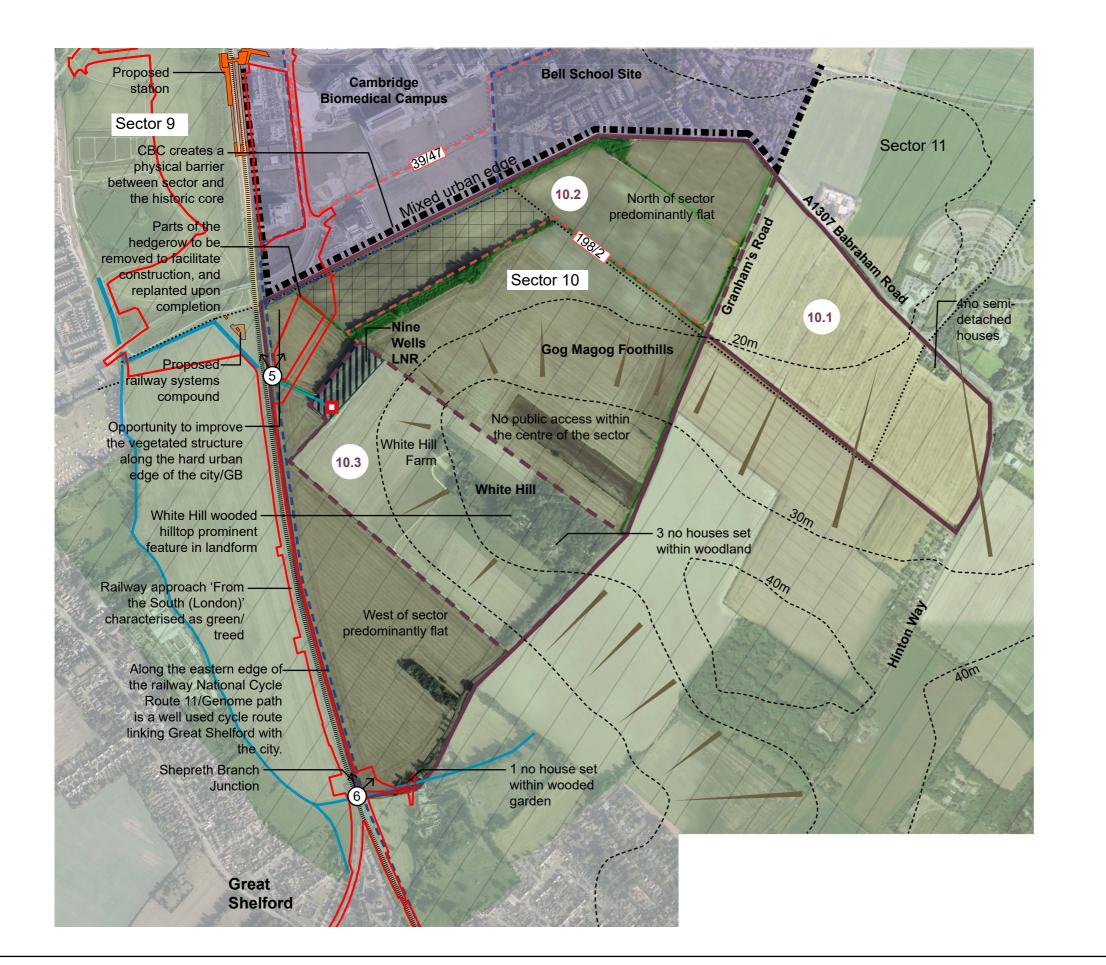
Existing woodland planting (associated with recent developments)

Trees/woodland with TPO

Hobson's Brook/Conduit (City Wildlife Site)

Photograph locations

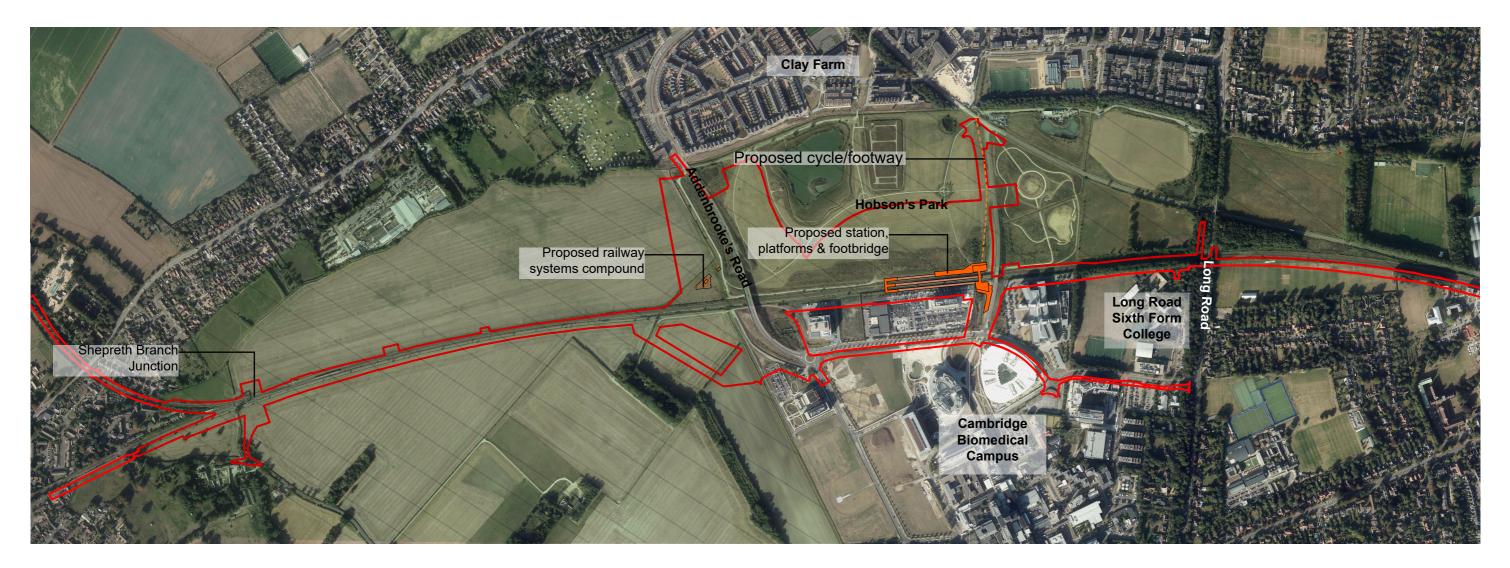




KEY CSIE boundary Proposed built form Green Belt District boundary Sector boundary Sub area Ongoing approved development Public footpath National Cycle Route 11 London-Cambridge Railway Local Nature Reserve Grade II Listed Structure Existing hedgerow/woodland belt Hobson's Brook/Conduit (City Wildlife Site) Contours Proposed track widening Photograph locations Waste consultation area / Employment Allocation E/2 (South Cambridgeshire DC



Local plan)



KEY

CSIE boundary Green Belt



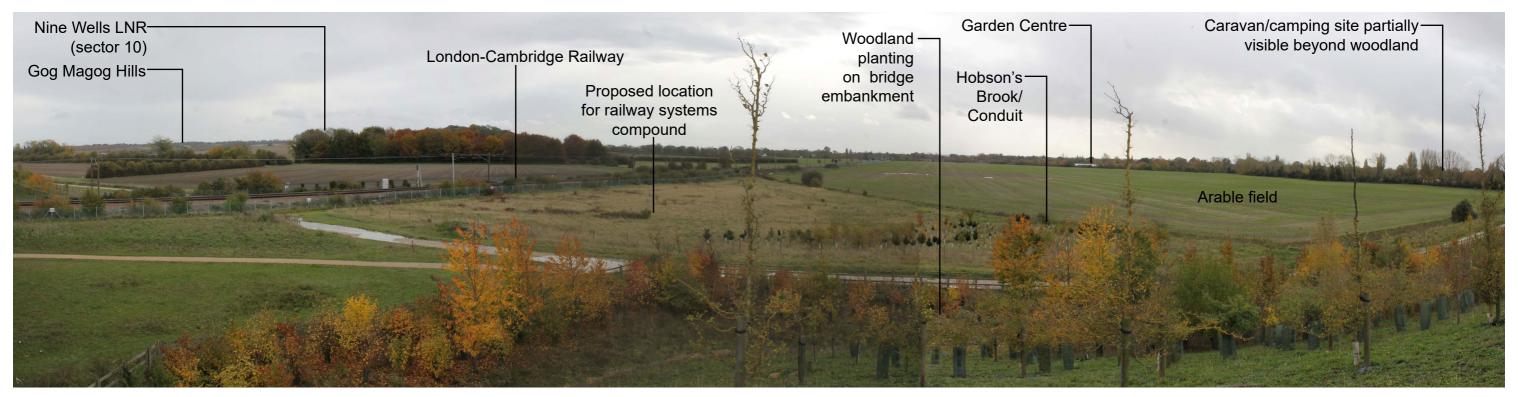
Station area inset



1km

PROJECT: CAMBRIDGE SOUTH STATION **CLIENT:** NETWORK RAIL

FIGURE TITLE: Consideration of Green Belt Issues - Site Context Plan



View point 1View from Addenbrooke's Road looking south over sub area 9.1



View point 2View from footbridge looking north-west over sub area 9.1

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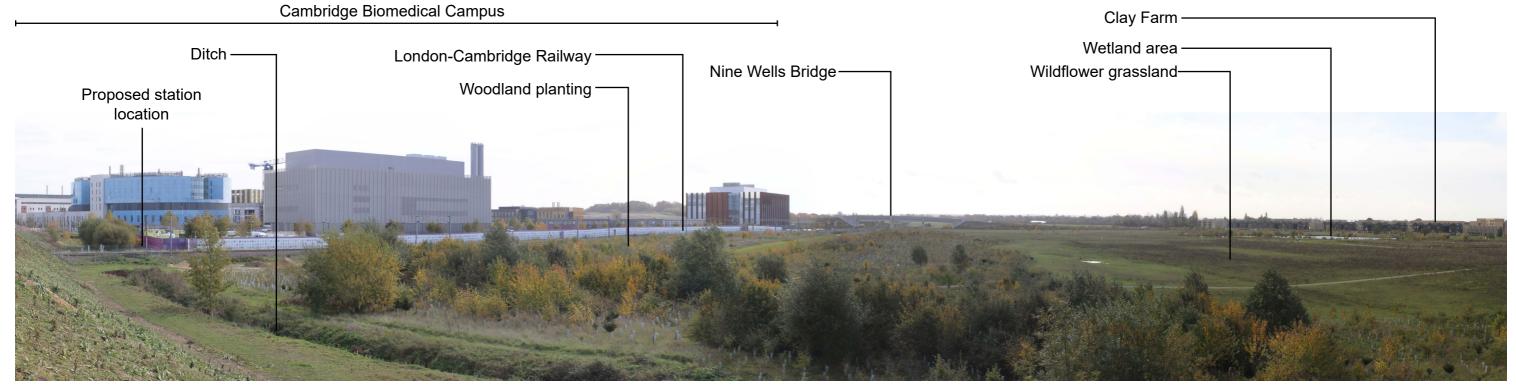
Design & Consultancy for natural and built assets

PROJECT: CAMBRIDGE SOUTH STATION

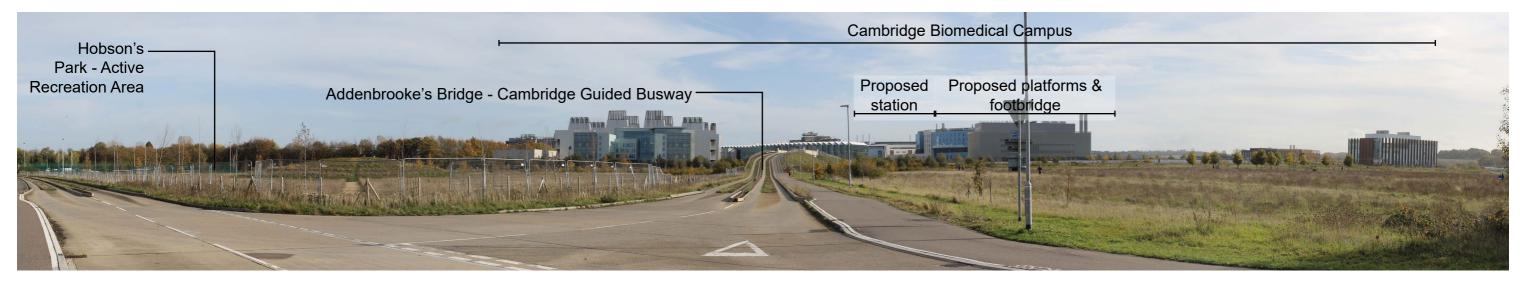
CLIENT: NETWORK RAIL

FIGURE TITLE: Consideration of Green Belt Issues - Sub area 9.1 Photosheet

PROJECT NUMBER: 10027100 FIGURE NO.: 15 SCALE: 1:10,000 SIZE: A3



View point 3View from Addenbrooke's Bridge looking south/south-east over Hobson's Park



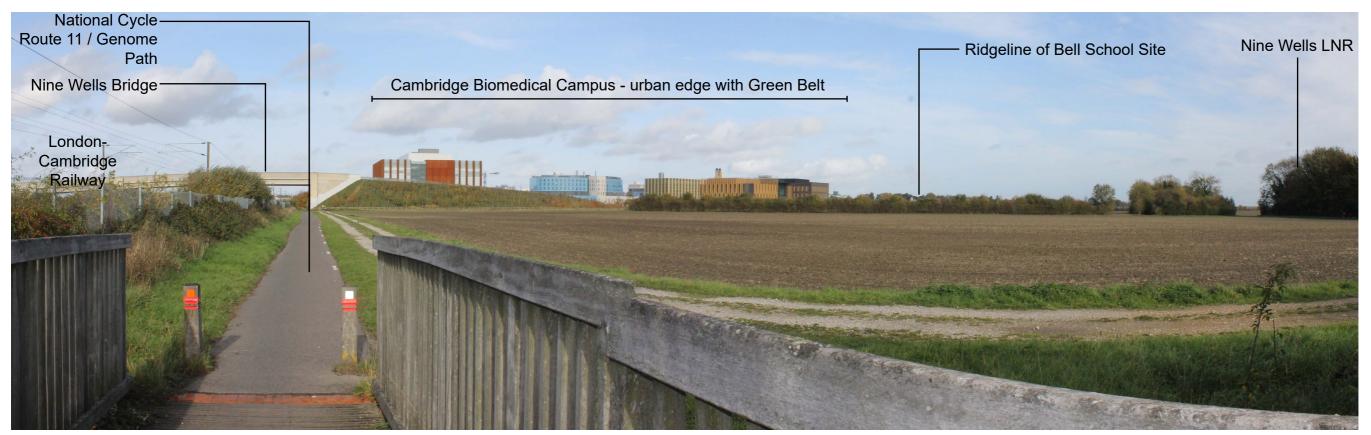
View point 4View from guided busway looking east along Addenbrooke's Road towards Cambridge Biomedical Campus



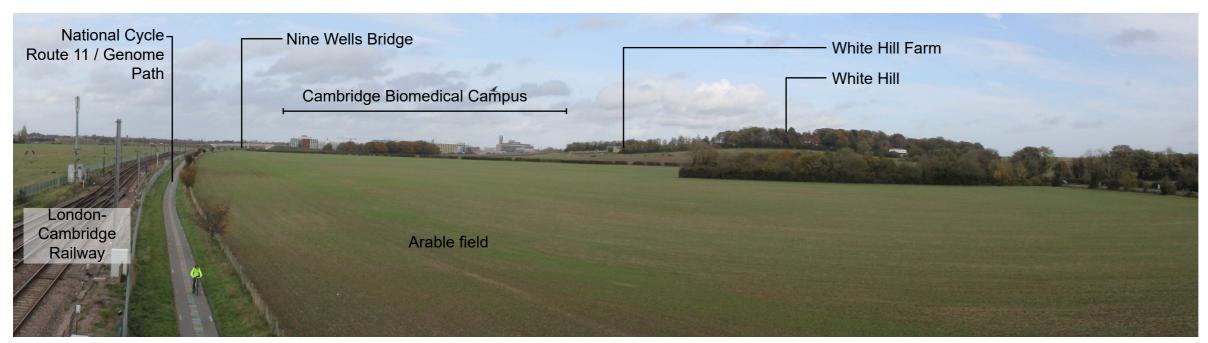
PROJECT: CAMBRIDGE SOUTH STATION **CLIENT**: NETWORK RAIL

FIGURE TITLE: Consideration of Green Belt Issues - Sub area 9.2 Photosheet

PROJECT NUMBER: 10027100 FIGURE NO.: 16 SCALE: 1:10,000 SIZE: A3



View point 5
View from NCR 11 looking north towards Cambridge Biomedical Campus



View point 6View from footbridge looking north-east over sub area 10.2



PROJECT: CAMBRIDGE SOUTH STATION CLIENT: NETWORK RAIL

FIGURE TITLE: Consideration of Green Belt Issues - Sub area 10.2 Photosheet