

TRANSPORT AND WORKS ACT 1992

INQ

TOWN AND COUNTRY PLANNING ACT 1990

PLANNING (LISTED BUILDINGS AND CONSERVATION AREAS) ACT 1990

TRANSPORT AND WORKS (INQUIRIES PROCEDURE) RULES 2004

THE PROPOSED NETWORK RAIL
(CAMBRIDGE SOUTH INFRASTRUCTURE ENHANCEMENTS) ORDER

CLOSING STATEMENT ON BEHALF OF THE APPLICANT

All references to inquiry days in this document have been calculated to exclude Mondays and weekends. Calendar dates are also given.

A. INTRODUCTION

1. This closing statement is made on behalf of Network Rail ('NR'), the applicant for the Network Rail (Cambridge South Infrastructure Enhancements) Order, pursuant to which NR proposes to carry out the Cambridge South Infrastructure Enhancements ('CSIE') Project.
2. The ambition of the CSIE Project, discussed in greater detail below, is to bring a direct rail connection to the Cambridge Biomedical Campus ('the CBC'). The CBC is a seat of life sciences innovation without any real parallel in the UK (**NR16**, Vol 3, 17-2, PDF146) and a cornerstone of projected employment growth in Cambridgeshire and beyond. In addition, the CBC harbours a significant hospital complex, with two major NHS hospitals, and at least two further hospitals – a new children's hospital and a specialist oncology hospital underway. This serves as an important community resource, offering specialist health care and high-quality employment for the Cambridge region and beyond.
3. In tandem with the biomedical expertise housed there, the wider Cambridge Southern fringe is identified as an area of major change in the local development plan, with land to the West of Hobson's Park outside the Green

Belt allocated for significant residential development. Much of that development has come forward (as set out in **INQ33**), although further building is anticipated.

4. Effective transport links are vital to support the CBC's growth potential and that of the surrounding communities, and it is that which the CSIE Project seeks to deliver.
5. At the time of the Pre-Inquiry Meeting, the CSIE Project was the subject of 25 objections, including both local planning authorities, the County Council, and major campus stakeholders including Astra Zeneca ('AZ'), the Medical Research Council ('MRC'), Cambridge University Hospital Trust ('CUH') and the University of Cambridge ('UoC').
6. As the inquiry closes, the number of outstanding objections has been approximately halved, to 13, with a further three of those expected to withdraw upon completion of legal agreements.¹
7. Significantly, all of the local authorities have withdrawn their objections, with Cambridge City Council ('CCiC') and South Cambridgeshire District Council ('SCDC') now offering the Project their support, subject to conditions. With the exception of CBC Estate Management Company ('CBC Man Co') and Cambridge Medipark Limited ('CML'), who are amongst those who are anticipated to withdraw upon completion of their legal agreements, so too have all the CBC stakeholders. There are no objections from any statutory undertaking, or statutory consultee.
8. Of the 10 remaining objectors not expected to withdraw, who comprise affected landowners, residents and local interest groups, only three have actively participated in the Inquiry. All parties had the opportunity to cross-examine any of NR's 13 witnesses, but this opportunity was availed only by Mr Leigh of Smarter Cambridge Transport ('SCT') and Mr Littlewood of Cambridge Present and Future ('CPPF') to a very limited extent.

¹ OBJ 10 and 11, CBC Estate Management Company and Cambridge Medipark Limited, and OBJ 17 Countryside (Cambridge) 1 & 2. Heads of terms have been agreed, and agreements are in a progressed form.

9. It is not unreasonable to infer that the absence of any material challenge to NR's evidence reflects a widespread recognition that this is the right scheme to meet a universally acknowledged need.
10. The remainder of these submissions is structured as follows:
 - a. Section B provides a short summary of the CSIE Project;
 - b. Section C provides a response to all 12 matters set out in the Secretary of State's Statement of Matters dated 27 October 2021;
 - c. Section D sets out the planning case for the Project;
 - d. Section E addressed outstanding objections; and
 - e. Section F provides a short conclusion.

B. THE CSIE PROJECT

11. The CSIE Project was fully described in NR's written evidence and in the oral evidence of, in particular, Mr Barnes and Mrs Brocken (XC Day 1 and Day 4 respectively). It comprises three principal elements: (1) the creation of a new station – Cambridge South – and related track works; (2) junction improvements at Shepreth Branch Junction; and (3) a new connection between existing lines at Hills Road (to improve the southern access to Cambridge Station).
12. *Station* The new station, called Cambridge South, will be a two-storey building situated on the West Anglia Main Line, between Cambridge Station in the North and Shepreth Branch Junction to the South. It will have four 250m platforms (with lifts for both people and bicycles), each capable of accommodating stopping and non-stopping 12 car trains passing the station.
13. The station is bordered to the South by Hobson's Park and the Astra Zeneca development, and beyond that by Nine Wells Bridge (carrying Addenbrooke's Road) and to the North by Addenbrooke's Bridge (carrying the Guided Busway). To the West is Hobson's Park and the residential community of Trumpington, and to the East is the wider CBC. The track layouts will be remodelled in the vicinity of the station, and two additional loops will be installed to serve the four platforms.

14. The station footprint includes an Eastern building and a Western building. The Eastern building will house the ticketing facilities, with views of the concourse and forecourt. There will be designated waiting areas, information boards and ticket machines. Public toilets (including a 'Changing Places' WC) will be directly accessible from the concourse, beyond the gate line (a point to which we return in the context of the CPPF objection, below in Section E). The Western building, which will reflect the informal park and green corridor setting of Hobson's Park, will house similar facilities, as well as the plant, including a substation and back-up supply. The height and maximum envelope of the buildings is controlled through the parameter plans **NR13**, (DRWG 102, PDF40), which are for the Secretary of State's approval.
15. Vehicular access to the station is proposed from the East alone, from Francis Crick Avenue. It will be limited to taxis, drop off, Blue Badge holders and staff. There will be five bays for Blue Badge holders; three bays for drop-off by private cars and three bays for drop-off by taxis on the East, four of which spaces are now to be served by four EV charging points, as well as passive provision for further points in the future. This Eastern access will be facilitated by modifications to the Guided Busway and roads and crossings to the East of the railway.
16. In order to facilitate and encourage access by sustainable modes, access for pedestrians and cyclists (together with maintenance and emergency vehicles) is from both sides. A segregated pedestrian and cycle track will be provided through Hobson's Park to facilitate connectivity with Trumpington to the West. Sustainable access to the station will be further encouraged through the provision of cycle parking spaces, 20% of which will be secure. The number of cycle parking spaces, as well as the split between the East and Western frontages, will be determined following a further study and agreed with CCiC, in consultation with CCoC as local highways authority (**INQ50-1**, Condition 22). The split will however reflect not only the limited space to accommodate cycle parking infrastructure in the East, but also the fact that cyclists are expected to access the station from both the East and the West, in broadly similar levels (**NRE2.2**, p. 37, [9.1.22]) contrary to the expectations of the Trumpington Residents' Association ('TRA').

17. As one would expect of any modern development, the station has been designed to be accessible by all. Persons with reduced mobility will be able to enjoy step-free access to the station, the use of the passenger lifts and WC facilities, and the ability to arrive by vehicle if that is their need or preference. This is in marked contrast to the only alternative proposed to the station, which would require those who need to access the station by vehicle to continue using Cambridge station to access the CBC, depriving that category of users of the benefits associated with the new station. This is addressed further below in Section E.
18. *Improvements to Shepreth Branch Junction* are necessary to maintain the current levels of operational performance, which require an increase in the line speed through that junction from 30 mph to 50 mph. The junction will be re-modelled to incorporate a larger radius curve within an extended double junction. The works also include installation of safety screens on the existing footbridge, works to existing railway embankments, relocation of the GSM-R mast, and the creation of a small railway maintenance area.
19. *Works at Hills Road Junction* include the extension to the existing Shunt Spur² and connecting it to the main line. The purpose of these works is to provide flexibility around the existing Cambridge Station in order to maintain operational performance following the opening of the new Cambridge South station (where existing trains will then stop). Without these interventions (including increasing the line speed at Shepreth Junction and the additional signalling works) the performance would not be able to be maintained. These works are covered by permitted development rights and do not form part of the application for a direction for deemed planning permission, although they were subject to environmental assessment (**NRE9.2**, Section 2.3, p.5).
20. That operational performance would be maintained by the CSIE Project was further confirmed in Mr Wingfield's note to the Inquiry (**INQ 35**), which explained that such 'performance neutrality' was a Project requirement.
21. Additional elements of the CSIE Project include the stopping up of two level crossings – Duke's No. 2 and Webster's – and their replacement with a new

² A short section of track allowing for reversal of train direction away from a main running line or platform. In layperson's terms, it is an arrangement designed to facilitate a train reversing.

accommodation bridge to the West of the railway; a new railway systems compound West of the railway line and South of Addenbrooke's Road, containing a substation, signalling and telecommunications equipment, within a fenced enclosure; four supporting Distribution Network Operators supplies; the provision of supporting infrastructure such as overhead line electrification; modification of existing signals and associated cabling to allow new track layout to be installed; new telecommunications facilities; power cables to serve railside and station infrastructure; reconstruction of Tibbets Culvert to minimise flood risk and provision of additional sustainable drainage for the railway infrastructure and modification of several existing culverts to accommodate the new track layout; landscaping, both hard and soft, across the CSIE Project; and ancillary infrastructure such as fencing, lighting and electrical connections.

22. The timely and safe construction of the CSIE Project will require temporary construction compounds, temporary access roads and haul roads on both sides of the railway. The five construction compounds for the works on Cambridge South Station are split across both sides of the railway, and include three compounds in Hobson's Park.³ Four further compounds are required for the works on the Shepreth Branch.
23. The scale of the temporary compounds required for the construction of the Project, so far as that has been put in issue, is addressed further in relation to **Matter 9(d)**, below.

C. THE STATEMENT OF MATTERS

24. This section of NR's closing statement addresses each of the matters in relation to which the Secretary of State has indicated that he wishes to be advised in turn.
25. It is noted that the Secretary of State did not indicate that he wished to be advised in relation to the impact of the Project upon trees. Given that they have however been the focus of some discussion during the Inquiry, we have made submissions on these after **Matter 3(i)** below.

³ There are two compounds in Hobson's Park, and a third in the Active Recreation Area (which will, on completion, be subsumed into the Hobson's Park).

Matter 1: The aims and objectives of, and the need for, the proposed Cambridge South station (“the scheme”). The justification for the proposals in the draft TWA Order, including the anticipated transportation, environmental and socio-economic effects of the scheme

Need for the CSIE Project

26.The need for the CSIE Project was identified in detail in the Strategic Outline Business Case (‘SOBC’) and the Outline Business Case (‘OBC’) (**C3; NR20**) and was the subject of Mr Wingfield’s written and oral evidence (**NRE 11.2**, Section 6).

27.The need arises as a result of a requirement to address the following four matters:

- a. Indirect public transport accessibility within the Southern Fringe, which generates a reliance on infrastructure within Cambridge City Centre;
- b. The unacceptable impacts of highway congestion;
- c. The absence of long-distance public transport opportunities to access the CBC and Southern Fringe, including from international gateways; and
- d. The constrained parking opportunities within CBC.

28.It is a striking feature of this case that all before the Inquiry are united in recognising the justification for the CSIE Project. Not a single objector takes issue with the identified need for the CSIE Project or its ability to respond to that need (a point expressly confirmed by Mr Leigh for SCT under XX, Feb 17, Day 11 AM).

29.Against that background, each aspect of the need described above is summarised in turn (see **NR20**, Section 1.2).

Indirect public transport accessibility

30.The Southern Fringe area suffers from indirect public transport accessibility, with those residing within or travelling to the area often being dependent upon the use of public transport infrastructure within the City Centre to access it.

31. In particular, all rail trips are currently compelled to route via Cambridge station and use alternative modes for their onward trips. Given the scale of development proposed over the next 10-15 years it is considered that this arrangement would be likely to place substantial pressure on Cambridge station, potentially resulting in overcrowding issues at that station, and exacerbating a situation previously seen prior to the COVID-19 pandemic.
32. Where public transport journeys are indirect, this significantly impacts upon their attractiveness and encourages people to instead travel unsustainably by private car. This in turn exacerbates the highway congestion issues which are currently prevalent in the County, and which also give rise to the need for the station.
33. The Southern Fringe is of course identified as an area of major change in the Cambridge Local Plan (**D06**, Figure 3.5, PDF77). Many of the approximately 3,300 new homes that the CLP allocated for development have been provided, or are in the course of completion (**INQ36**). This adds further urgency to the need to provide sustainable transport options.

Highway congestion

34. Commuting journeys in Cambridgeshire are dominated by private car use (estimated at 42.2% in the 2011 census). Only 2.5% of working age residents are believed to commute by train. As a result, highway congestion is a significant problem for Cambridge, with congestion on all radial routes into Cambridge during the morning peak period and in both directions during evening peak periods. This includes congestion on the routes that provide access to the CBC. Existing congestion is expected to be exacerbated by continued employment and residential growth in the absence of sustainable transport interventions.
35. The point is starkly but fairly put in the CBC Transport Needs Review:
- "Whilst economic success [in the CBC] to date has been widely celebrated, it is now contributing to a shortage of housing and significant transport congestion that threatens to choke further economic growth and compromise a high quality of life"* (**NR16, Vol 3**, App 17-2, PDF147)
36. As well as creating delays and frustration for transport users, congestion also generates knock-on effects on air quality. This is a recognised problem in the

city centre. CCiC declared an AQMA in 2005 that covers the entire city centre, some 1 mile North of the CBC.

Absence of long-distance opportunities into the CBC and Southern Fringe, including to international gateways

37. The absence of a direct rail link limits the catchment of the CBC as an employment site. Those seeking to rely on public transport face unacceptably long journey times to the CBC, and those arriving by private car have to either contend with the highway congestion described above, or the parking constraints described below. The limitations placed on the catchment can be observed from Table 21 of the OBC, which describes the cumulative population within generalised journey time ('GJT') bands of up to 60, 90, 120 and 240 minutes (**NR20**, PDF 58).
38. In the 'do minimum' scenario (closest to the current baseline), the population within those bands is just 169,617 (60mins), 297,815 (90mins), 2,308,232 (120mins) and 19,201,672 (240mins). By contrast, in the with-station scenario, the catchments were increased to 768,534 (60mins, a 4.5 x increase), 2,072,544 (90mins, a 6.9 x increase), 5,554,943 (120mins, a 2.4 x increase) and 28,208,444 (240mins, a 1.4 x increase), bringing a total of more than 9m additional people within the maximum 4hr journey time.
39. Lack of connectivity with international hubs is also problematic. There is no direct access to any international hub from the CBC; they all require an onward journey to Cambridge Central using the local road network. This can take between 9 and 17 minutes by bus, 30 minutes on foot, 15 minutes by bike and 10 minutes by taxi (**NR16**, Vol 3, 17-2, PDF18). This adds to the journey time, and is particularly unsatisfactory for those international visitors whose value of time is high, and who are less likely to use sustainable modes of travel for their trip onward trip to/from Cambridge City Station. Overall GJTs for such users are high, being 150mins to Stansted (1 interchange), 245mins to Heathrow (2 interchanges), and 280mins to Gatwick (1 interchange) (**NR20**, Table 1, PDF9).
40. International connectivity is considered to be particularly important for the CBC given that it is intended to attract a highly skilled and globally mobile workforce, as well as international visitors.

Parking constraints

41. In recognition of the congestion and environmental issues associated with high levels of private car use, limited parking availability at the Cambridge Biomedical Campus is currently designed in to existing and further development in that area. However, in order for parking constraints to deliver the desired outcome of reduced car use without affecting overall development viability, alternative sustainable forms of transport must be available and need to be attractive to use.

The objectives of the CSIE Project

42. In order to address the above-described need, a suite of strategic objectives were developed for the CSIE Project. There were five, as follows (**NR20** OBC, PDF13, Section 1.4.1):

- a. Improve sustainable transport access to housing, services, and employment within the Cambridge Southern Fringe and Biomedical Campus area, to fulfil existing and future demands;
- b. Contribute to minimising highway congestion associated with the Southern Fringe and Cambridge Biomedical Campus by increasing the mode share for sustainable transport modes;
- c. Reduce reliance on Cambridge city centre transport infrastructure for serving the Southern Fringe and Biomedical Campus;
- d. Be capable of integrating with and enhancing the opportunities presented by Thameslink and East West Rail, to support development of the Biomedical Campus as part of the Golden Triangle life sciences cluster; and
- e. Increase public transport connectivity between the Cambridge Biomedical Campus and international gateways, in recognition of its international significance.

43. The performance of the CSIE Project has been scored against each of the above criteria, and has been found to be beneficial in respect of all five objectives, and “*large beneficial*” against four (**NR20**, Table 3, PDF16). By acting as a hub to the area, it supports sustainable transport; reduces road congestion; avoids the need to interchange in the City Centre; and increases connectivity to

international hubs. Its careful design and location (discussed below) facilitate links to the broader transport network.

44. The Secretary of State has asked to be advised in relation to the transportation, environmental and socio-economic effects that justify the Order, and these are described below. It must however be appreciated that the benefits identified are cross-cutting; the benefits that arise do not necessarily sit only in one of these three categories.

Transportation benefits

45. As described in the evidence of both Messrs Wingfield and Hilling (**NRE 11.2**, Section 8 and **NRE 3.2** [2.1.20] – [2.1.26]), the CSIE will have positive transportation effects. The principal transportation benefits identified are as follows:

- a. Time travel savings for passengers;
- b. Delivery of sustainable transport access and consequent improvements in highway congestion;
- c. Improvements in international transport connectivity;
- d. Reduction in City Centre reliance; and
- e. Integration with other schemes.

46. The CSIE Project would result in *time travel savings for passengers*, of nearly 20% of generalised journey time (**NR20**, PDF17). Rail is uniquely well positioned to provide this benefit. The advantage of rail is that it can cover a wide catchment area, as further evidenced by through the substantial increase in cumulative passenger numbers that would be able to access the CBC within 4hrs, as described in the preceding section. Furthermore, there is currently an untapped potential offered by trains, with trains travelling to Cambridge between the hours of 8 to 9 am remaining 36% unused (**NR20**, PDF18), increasing the sustainability of the overall scheme.

47. *Delivery of sustainable transport access* would be achieved by offering a viable and practicable means of transport – rail – to access the CBC and the wider Southern Fringe. As will be discussed below, the station integrates well with other sustainable modes of transport, with 95% of trips from the station expected to use sustainable onward modes (**NR16**, Vol 3, App 17-2, Fig. 61,

PDF60). This creates an incentive to use sustainable transport access. This is a benefit of itself, but it also serves to ease *highway congestion*.

48. In that regard, it is anticipated that the delivery of the CSIE Project will remove 858 vehicle movements (**NRE2.2**, [8.1.8], p. 43) from the local road network in its opening year. Were the station to attract more passengers than forecast, this would only serve to increase the number of movements removed from the road a result of further modal shift (**INQ51**).

49. The CSIE Project will also result in material improvements in *international transport connectivity*, providing a direct transport link to Stansted and Gatwick, and reducing the GJTs by between c.13 – 31% for standard fare passengers (**NR20**, Table 22, PDF59). It would also provide a direct link from the CBC to St Pancras International and the Eurostar.

50. *Integration with other schemes*. The CSIE Project has been designed with connectivity to other schemes in mind. In particular, it will deliver a significant transport hub close to the Cambridgeshire Guided Busway ('CGB') bus stops to the North of the station building, and the planned Cambridge South East Transport ('CSET') scheme on Francis Crick Avenue. Further developments, such as East West Rail Phase 3 ('EWR'), would also dovetail (and even benefit from) the CSIE Project, which will add a further stop on that route. Integration with other schemes is addressed further at **Matter 5** below (see also **Matter 3(d)**).

51. Against this backdrop, it is not surprising that in Inquiry Mr Hilling's uncontested evidence was that the CSIE Project would deliver a "*significant benefit for transport users and the campus itself... probably long overdue*", with any temporary disbenefits subject to adequate mitigation.

Environmental benefits

52. The environmental effects of the CSIE Project are fully assessed and discussed below under **Matter 3**. There are, however, a number of important environmental benefits which arise as a result of the CSIE Project.

53. *A modal shift towards sustainable transport*. The modal shift towards sustainable modes of transport is discussed in Matters 3(a) to (d), below. The modal shift is in and of itself a benefit, given that it reduces reliance on unsustainable modes of transport that use fossil fuels. There are also broader

environmental benefits which include contributing to the decarbonisation of transport, and the Government's net zero strategies. The latter is particularly important given the projected growth of the NHS hospitals, as the NHS has its own policies which commit it to reducing emissions from staff travel. The CBC will no longer depend on unsustainable transport, but will be connected as part of a broader network of walking and cycling paths, and railroads.

54. *Achievement of BNG.* The CSIE Project will also result in environmental gains, with NR having committed to the achievement of 10% Biodiversity Net Gain ('BNG') over baseline levels (**NRE9.3**, Appendix A, PDF6ff), which is to be achieved through a combination of on and off-site measures, with the former being illustratively shown in Appendix A, **REB-06-01**. That this level of gain is realistic and achievable is now also agreed by the relevant local planning authorities, whose earlier concerns have been overcome. In the long term this represents a significant benefit from the CSIE Project (**NR16**, PDF274, [8.5.117]).

Socio-economic benefits

55. There are a number of socio-economic benefits that flow from the transportation benefits to which the CSIE Project would give rise. Principal among these is the monetised value of time savings for passengers of £3,200,000 per annum (**NR20**, Fig 5, PDF26). These arise as a result of the superior point-to-point journey times offered as a result of the new station.

56. Less tangible, but no less important, is the contribution that CSIE can make to the Government's "Levelling Up" agenda. By providing a substantial enhancement in public transport accessibility to a wide catchment for the CBC, Cambridge South would bring a major, high-quality employment site, with a mixture of both higher and lower skilled opportunities, into the range of the more deprived parts of the wider region, and also open up improved healthcare opportunities to a wider cohort of society (**NR20**, PDF6; **NRE 11.2** Fig. 4, p.40).

57. In terms of its direct contribution to the labour market, the CSIE Project will also likely create 178 full time equivalent jobs during construction (**NR16**, PDF561, [16.5.3]), as well as 10 full time equivalent station jobs and 44 jobs in the wider economy during operation (**NR16**, PDF 565, [16.5.32] and

[16.5.33]). Both constitute direct benefits to the local economy, and will result in further indirect benefits.

58. By acting as a gateway to the CBC, the CSIE Project also enhances the attractiveness of the CBC as a place to work, which, as mentioned above, risks being undermined by poor transport links. The economic risks of doing nothing are not easy to quantify, but DfT figures have estimated that the failure to provide the CSIE Project would have a 20% impact on the development of the CBC (**NR20**, PDF79).

59. Overall, the CSIE Project is considered to have a 'medium' to 'high' benefit to cost ratio (BCR), with the most recent work suggesting the BCR may be as great as 2.2 (which is 'high') (**NRE11.2**, [7.1.2]). Even the lower estimate of the BCR contained in the Outline Business Case was 1.9, in circumstances where 'high' is 2.0 or greater.

Matter 2: The main alternative options considered by NR and the reasons for choosing the preferred option set out in the Order

60. The CSIE Project is the product of careful consideration, both against other non-station alternatives and against different iterations of the various stations.

61. From the outset, NR has been conscious of the various constraints at the site, which include the Public Open Space and Green Belt to the West, the presence of the CGB to the North, the sensitive uses carried on at the CBC to the East and buried infrastructure such as the high pressure gas main to the South, as well as the local watercourses and other features of interest such as Nine Wells LNR and the Scheduled Monument (**NRE 11.2**, Section 4.6, p.15 ff; **NRE 1.2**, Section 4, p.18 ff). It has carefully designed Cambridge South to take advantage of its opportunities whilst minimising its impacts. The resultant Project is considered to cohere with the constraints to the maximum extent possible, whilst still delivering a significant piece of transport infrastructure.

62. No objector to the Project suggests that any non-rail alternatives ought to have been pursued, and only one objector, SCT (**OBJ22**), suggests an alternative design to that promoted by NR, in broadly the same location, but based on an alleged need to serve a far higher (c.9mmpa) passenger demand. Mr Leigh confirmed that he did not suggest that, if the DfT's passenger forecast is

accepted, there was any need for the size of station he has advanced (XX Day 11, AM).

63. SCT's alternative is addressed in Section E below. However, given that it does not challenge any of the optioneering work undertaken in relation to the Project for the size of station proposed, it is possible to outline the otherwise unchallenged alternatives relatively briefly below.

64. The development of the CSIE scheme, and consideration of alternatives has taken place within the structured progression of the GRIP framework, for the last four years. The three principal phases that will be referred (and the last two of which overlapped), were as follows:

- a. Output definition (GRIP1). This worked to clarify remit with the Department of Transport.
- b. Feasibility (GRIP 2). Development of concept scope and round 1 of consultation on the location of the station.
- c. Option Selection (GRIP3) Refinement of infrastructure designs in light of the outcomes from round 1, selection of the station location, and round 2 of consultation on the access to the station.

Non-station alternatives

65. The Strategic Outline Business Case (**C3**) considers four possible means of delivering the strategic objectives: (i) longer distance direct bus or coach services; (ii) a busway service enhancement; (iii) expanded park and ride sites; and (iv) doing nothing. Doing nothing was found not to be a viable option. It would imperil the future viability of the CBC, and with it a critical part of the UK's economy and its contribution to global pharmaceutical research. The cost of doing nothing would "*ultimately*", it found, be "*the success of the entire Biomedical Campus*" (**C3**, PDF23, [2.8.1]).

66. None of the other non-station alternatives delivered any large benefits against the strategic objectives; and none would have facilitated integration with other schemes. The Park and Ride would have even adversely impacted the existing congestion problems in the Southern Fringe Area. Moreover, no other option provided comparable cost benefit ratios. (**C3**, PDF 17, [2.5.3])

67. In the circumstances, a station at Cambridge South was determined to be the most effective way of meeting the strategic objectives, in particular because it had the best advantages in journey times and could respond to a larger demand base (**NR20**, PDF12, 1.5.1.1). It therefore had large benefits in terms of international connectivity; sustainable transport access; city centre reliance; and integration with other schemes. It was only in highway congestion that it had a moderate beneficial impact, but in this regard it was still ahead of the other options which would have either had only slight benefits or made congestion worse.

Station alternatives

68. As a consequence of the decision to proceed with a station option, it was necessary to consider alternative station options. In the feasibility stage (GRIP2), three locations were considered: South (close to the Nine Wells Bridge carrying Addenbrooke's Road), North (close to the Addenbrooke's Bridge carrying the Guided Busway Bridge) and Central (between the two bridges). The various options – together with various access arrangements – were then sifted and consulted upon. The three options can be seen in **NR07** Consultation Report (PDF185).

69. An overall majority (55%) of those consulted preferred the North option due to its proximity to the centre of the CBC and possibility for interchange with the CGB, bus stops and interaction with other planned development works (**NR07**, PDF191). In addition to the transport benefits, the Northern option also has the advantages of the smallest land take requirement, avoids the high pressure gas main, and retains the greatest level of local support (**NRE1.2**, Fig 13, PDF42).

70. Although the South and Central options did have some advantages, such as the South option being the easiest and least expensive to construct (**NRE1.2**, [127]). However, these were ultimately discounted, at least in part because of their potential impact upon CBC stakeholders such as the University of Cambridge ('UoC') and the desire to ensure that the selected option had as much local support as possible (**NRE1.2**, [127]; **NR07**, PDF49)

71. In the option selection stage (GRIP 3), NR conducted sifting workshops, and engaged in a second round of consultation in relation to access to the station, footprint and construction arrangements (**NR07**, PDF190ff).
72. The provision of full access to the Northern option via routes both from the East and with vehicular access through Hobson's Park was rejected due to environmental impact on the Green Belt and land take from Hobson's Park. Access solely by the West would have had similar drawbacks, and also presented a longer journey time for those seeking to access the CBC. NR therefore settled on vehicular and non-vehicular access to the East, with access to the West limited to non-vehicular modes (see **NRE1.2**, Fig 13).
73. For a full account of both the strategic and engineering development work undertaken, reference can be made to the evidence of Messrs Barnes (**NRE1.2**, Section 5, p.25 ff) and Wingfield (**NRE11.2**, Section 4, p.10 ff).

Matter 3: The likely impact of the exercise of the powers in the proposed TWA Order on local businesses, residents, Cambridge University, Cambridge Biomedical campus, Cambridge University Hospital, and the Medical Research Council, including any adverse impact on their ability to carry out their business or undertaking effectively and safely and to comply with any statutory obligations applying to their operations during construction and operation of the scheme.

74. The Secretary of State has requested that Matter 3 be addressed by reference to nine specific areas, each of which is addressed in turn below. As previously noted, in view of the representations made at the Inquiry, NR has additionally sought to address the likely impact of the Project upon trees within this section.
75. Both positive and negative impacts of the Project will be identified. As will be apparent from this section, the adverse impacts likely to arise from the CSIE Project have been limited to a very substantial extent. However, as with any Project of this type and scale, some impacts will remain.
76. When considering such impacts it is however necessary to keep in mind the previously identified benefits that the CSIE Project will provide. Those benefits are ones that will be enjoyed widely – by the residents in the Southern Fringe, the NHS workers in the hospitals, the globally mobile employees in the CBC,

and other users of the local road network. Having regard to the extent and reach of those benefits, none of the residual adverse impacts identified in the following can be regarded as unacceptable.

Matter 3(a): Impact of the closure of Dukes and Websters Level crossing

77. Level crossings are a live interface between the rail and the users of those crossings. They are by their very nature dangerous, accounting for nearly half of all catastrophic railway events (**NRE6.3**, p. 63, [1]). As explored in evidence with Mr Prest, consistent with the risk they pose, it is NR's policy to seek closure of level crossings.

78. Duke's No. 2 and Webster's are particularly dangerous crossings insofar as they rely upon users following instructions to phone up the signallers to obtain permission prior to crossing. There is no mechanism to enforce that requirement other than an appeal to good behaviour. Neither of the Crossings gives any warning of oncoming trains (e.g. light signals; automatic barriers; or audible warnings) and neither offers the required sighting distances to all users in order to enable them to cross safely⁴, although this is not immediately apparent. The result is two Crossings whose risk per traverse is high, even without the CSIE Project (**NRE6.2**, p. 29 [90] and [91]).

79. The safety of the Crossings is set to worsen with the CSIE Project (**NRE6.2**, Section 9). The CSIE Project will introduce a new obstacle on the line – a new station – which would further extend the required sighting distance. It would also add two further lines at Duke's No. 2. Other planned (albeit not committed) development – such as EWR – would add further trains passing over the Crossings. These additions would increase the danger posed by the Crossings (both individually and cumulatively); increase the likely waiting time before being allowed to cross; and widen scope for human error by the signallers when making the call as to when users (who may be in slow moving agricultural vehicles) may cross. Fundamentally, users worked crossings over more than two lines are unsafe. It is for that reason that, all other things being equal, NR would not introduce any such crossings over more than two lines (**NRE6.3**, p. 71, Table 1 (in row Section 10, User worked crossings (UWCs) for

⁴ Duke's No. 2 does offer the required sighting distance, but only for pedestrians. See **NRE6.2**, Table 4 and Table 5, pages 39 and 40 (For Duke's No. 2), and Table 6 and Table 7 pages 40 and 41 (For Webster's).

vehicles) and p. 228, second (unnumbered) paragraph, under (2)).⁵ The closure of the Crossings is eminently justified on safety terms, and firmly rooted in NR policy.

80.The Crossings to be closed are not ones over which the public have a right to cross. Rights are enjoyed only by the Authorised Users, being St John's College (OBJ01) ('St John's') and their tenant farmers, Messrs Webster, although in practice it is only the tenant farmers who makes use of the crossings (**NRE 6.2**, [67], [69], [80]-[82] & [85]-[86]).

81.The nature of the rights the authorised users enjoy over the Crossings is a matter for legal submissions, which are set out in (**INQ40**[17]ff) and to which reference should be made for the relevant authorities. In essence, the Crossings provide private rights restricted to authorised users for agricultural use. There are no general rights of way over the Crossings.

82.A Deed dated 1851 between NR's predecessor and St John's, required NR to construct and maintain Webster's as an 'accommodation work' to compensate St John's for the severance of its land by the railway authorised by an Act of Parliament in 1844. The 1844 Act obliged the railway company to provide such an accommodation work but no more.

83.Consistent with this, by the 1851 Deed the railway company did not grant St John's a general private right of way over Webster's, but the less extensive right to an 'accommodation work'. This is a crossing that could be used only for the purposes for which it was initially conferred, or which could have been in the reasonable contemplation of the parties at the time, and no greater use. In the present case, the use of the land served by the accommodation works at the time of the 1844 Act was for the purposes of agriculture (as indeed it remains today) and the right to use Webster's is limited accordingly.

84.That the nature of the crossing is an agricultural accommodation work rather than a general right is further confirmed by a (comparatively) recent

⁵ For ease of reference, those two citations read

"There should not normally be more than two lines over the crossing."

and

"New level crossings shall not be introduced onto Network Rail managed infrastructure in the following circumstances:

1. where the permissible speed is greater than 125mph (200 km/h); or
2. for footpath, bridleway or user worked crossings, where there are more than two running lines."

agreement with St John's from 1973 to widen Webster's Crossing, which explicitly refers to it as an "*agricultural accommodation level crossing*".

85. The deed for Duke's No. 2 has been lost. NR submits that, in the absence of any evidence to the contrary and in light of the obligations placed upon NR's predecessor by the 1844 Act to provide accommodation works but no more, the same rights apply to Duke's No. 2. It would be surprising if Duke's No. 2 – constructed on the same line at a similar time to Webster's – would have had a different arrangement. Such a position is consistent with the case law identified in Note 4 (**INQ40**).
86. The closure of the level crossings without more would impact upon the Authorised Users by depriving them of an existing access into the agricultural land to the West of the railway. That impact is however to be avoided through the provision by NR of an alternative, and, it is submitted, better, access – a farm accommodation bridge at the Western end of the Exchange Land, just off Addenbrooke's Road (Work No. 11, shown **NR9.1**, Sheet 6 and Sheet 9; **NR13**, PDF21, DRWG53).
87. In legal terms, the rights that the Authorised Users will be granted over the farm accommodation bridge will be no less than those that they currently enjoy over the Crossing. The accommodation bridge thus provides for all existing users of the Crossings and St John's objection to contrary effect is without merit.
88. In practical terms, not only will the alternative access be sized to sufficiently accommodate the agricultural vehicles that use the Crossings, but it will offer a markedly improved user experience when compared to the present arrangement. In particular, users will no longer have to phone up in advance to the signallers; they will no longer have to wait in order to access the farmland on the other side of the rail; and, most importantly, will no longer have an open and dangerous interface with the rails.
89. With the accommodation bridge, the Websters will continue to have three means of accessing their land. In addition to being able to via the local road network and the accommodation bridge, they can also access it (i) on foot via the Webster's footpath which will be retained as part of the CSIE Project

(**NR13**, PDF11; See PRoW198/1, **NR15**, Fig 2-6, PDF18) and (ii) through the Hectare as indicated in **INQ44**.

90. While it is not strictly necessary for NR to provide an alternative access under section 5(6) of the Transport and Works Act 1992 ('TWA 1992') (the right over the Crossings being private and not public, as explained in **INQ44**), less still one that is 'suitable and convenient' as per the associated guidance, the alternative access being provided plainly meets those tests because it not only facilitates the same type and extent of access, but because it is also unencumbered (in terms of providing unrestricted access at any time of the user's choosing) and far safer than Crossings.

91. Unsurprisingly in light of the above, not a single objector has taken issue with the safety case for the closure of the Crossings, or the principle of their replacement with an accommodation bridge. St John's complaint (**OBJ01**) relates to the extent of the rights granted over the accommodation bridge, and securing that bridge, and this is unfounded as explained above.

92. Tellingly, the Websters, who as noted above are the party actually using the Crossings (and who have done so historically – hence the crossing's name) and who lease the agricultural fields either side of the railway, have been consulted since the inception of the CSIE Project, and made no objection at all (**NR07**, PDF19, last bullet).

Matter 3(b): impacts on the local road networks, including access arrangements, and the blue light routes for emergency traffic and impacts on parking provision and pedestrian routes

93. The CSIE Project is anticipated to have a net beneficial effect on the local road networks by reducing the amount of trips required by private car (**NRE2.2**, p. 42, [8.1.3]). This is a benefit in itself (for various environmental and health reasons canvassed above, as well as reducing frustration for existing users of the road network), but also translates into a benefit for the pedestrians and cyclist as a result of the increased road capacity.

Local road networks and pedestrian routes

94. The impacts upon the local road network from construction and operation of the CSIE Project were fully assessed and described in the Transport Assessment ('TA') and Chapter 17 of the ES (**NR16**, PDF572).

95. During the construction phase, access to the site is to be obtained via five identified access points, seven site access roads, and the working areas either side of the railway are to be served by haul roads, all of which will serve to keep the majority of construction traffic away from the local road network (**NRE 1.2**, Section 6, p.84 ff). Furthermore, a Code of Construction Practice ('CoCP') will be secured by condition (**NRE9.3**, Appendix A, Condition 10). Part A of which imposes general construction traffic mitigation measures, and Part B of which requires the submission, approval and implementation of (amongst other things) Construction Travel and Construction Traffic Management Plans (**NR16**, Sections 4.5 and 1.2, pp. 13 and 1 respectively).
96. For construction, the estimated vehicle construction movements were estimated per access point, and compared to the future 2023 baseline (2023 being the peak construction year). None of the estimated total vehicle movements exceeded the 10% threshold increase, and would have – at most – resulted in a 6.6% increase, and in many cases far lower (**NRE2.2**, Table 7.2, p. 30). However, three roads would have exceeded that threshold for Heavy Goods Vehicle movements (Addenbrooke's Road, Francis Crick Avenue and A1309 Hauxton Road), and were subject to further assessment. That assessment included consideration of the impacts of the estimated travel levels on pedestrian and cyclist journey times and amenity, and on users of public transport. None of the impacts on those three roads were considered significant (See **NRE2.2**, Table 7.3, Table 7.4 and Table 7.5). As Mr Hilling explained in evidence, construction has in any event been a feature of the area; it is in reality a "*long-standing area of construction*".
97. A small number of objectors, including CUH (**OBJ06**) expressed concerns about the impact of the construction phase on their assets, and recommended the adoption of a Code of Construction Practice and a Construction Traffic Management Plan. After being provided with further details on those documents, as well as further commitments on wayfinding and construction signage, CUH has withdrawn its objection.
98. Similarly, concerns about the potential impact of damage caused to the private road network by construction vehicles have been addressed through commitments offered by NR to inspect and repair the affected CBC roads during the construction period, and to pay a defined maintenance contribution that

continues during the operational period. On the basis of the agreed heads of terms which included these commitments, the CBC Estate Management Company (**OBJ10**) and Cambridge Medipark Limited (**OBJ11**) did not consider it necessary to appear at the inquiry, and their formal withdrawal remains expected.

99. All of the above illustrates that the CSIE Project can be delivered in a way that respects the existing developments in the CBC.

100. For the operational phase, the additional trips likely to be generated by the station have been calculated by reference to a modal split agreed with CCoC as highways authority. It delivers a material benefit for the local road network, as it will result in an overall daily reduction of 858 vehicle movements (**NRE2.2**, [8.1.8], p. 43). This translates into a benefit passed on to pedestrians and cyclists, as reflected in the TA. (**NR16**, Vol 3, Appendix 17-2, PDF88, [12.3.2]).

101. The expected shift towards sustainable modes of transport from the station has been fully accounted for. Substantial improvements are planned to accommodate the increase in pedestrians and cyclists. This includes (**NRE 2.2**, p.44, [2.1.9]):

- a. a widening of the existing crossing on the southern arm of Francis Crick Avenue;
- b. widening the shared use cycle path on the West side of Francis Crick Avenue from the North of the CGB;
- c. widening the existing crossing across the CGB connecting Trumpington and Hobson's Park;
- d. provision of a new segregated pedestrian and cycle path through Hobson's Park;
- e. provision of cycle and pedestrian access to the station from both East and West, with accompanying cycle parking (described further below).

102. All of this will be facilitated by high quality signage to act as effective wayfinding, secured through the agreement with CUH (see **NRE-REB-01**, [2.31]ff) .

Access

103. Access to the station is the product of careful planning.⁶ In addition to the reconfigured access to the West via a segregated path, and the pedestrian and cycle access measures described above, pedestrian access to the South is provided on the West side of Francis Crick Avenue, and to the North (onwards to Royal Papworth hospital) from the station forecourt. Vehicular access for those who need it, including taxi users, private car drop offs and blue badge holders, as well as staff, is provided via a simple priority junction with Francis Crick Avenue on the East side of the railway, which leads on to the station forecourt.
104. Access for emergency and maintenance vehicles is also provided for. This is accommodated on both sides of the railway, using the “maintenance” track on the West (**NRE1.2**, [457]) and on the East using the station forecourt (**NRE1.2**, [182]).
105. To ensure that pedestrian and cycle access remains suitable into the future, beyond the expected demand for the station, the capacity of the pedestrian and cycle infrastructure, as well as the taxi and vehicular drop off areas, has been tested for up to 6mppa and been found to perform acceptably (**INQ51**).

Blue light routes for emergency traffic

106. These routes are addressed in the heads of terms agreed with CUH. The key point is that during construction period, five days’ notice of any traffic management on blue route that might affect response time will be given (see **NRE-REB-01**, [2.5]ff). It will be noted that CUH has since withdrawn its objection, indicating their satisfaction with the proposed arrangements. The CSIE Project may even result in a beneficial impact on the blue light routes due to the overall reduction in reliance on the local road network (**NRE2.3**, PDF80). CUH will be consulted on the Construction Travel Plan, the Construction Logistics Plan and the Construction Traffic Management Plan prior to submission to the local planning authority for approval, to ensure that any adverse impacts on the blue light routes can be identified and eliminated at the earliest stages (**INQ9**).

⁶ A simplified access diagram can be found in **NR15**, Fig. 4-2, PDF35

Impacts on parking provision.

107. The limited parking provision reflects the status of the station as primarily a destination station, with onward journeys carried out using sustainable modes of transport. It amply covers the anticipated 36 vehicular trips in peak hours by providing disabled parking, taxis bays and pickup/drop off bays (see **NR16**, Appendix 17-2, Table 6.8), as well as trips associated with up to 6mmpa (see **INQ51**, referred to above). As for the existing car parks within the CBC, there is a charge of £20 for any stay longer than 8 hours. This will act as a deterrent for their use as *de facto* park and ride facilities. The prospect of increased parking pressure arising from the Project is therefore unlikely.
108. The existing road network in the CBC has existing enforcement measures (including ANPR) and neighbouring residential areas are either unattractive due to the long walking distances or have existing parking restrictions (see **NR16**, Vol 3, Appendix 17-2, section 11.4 PDF85). In any event, to ensure that any unexpected impacts can be identified and addressed, NR has committed to carrying out monitoring sought by CUH during construction and contributing towards monitoring infrastructure during operation, in respect of matters including whether vehicular access to the station is causing congestion on Francis Crick Avenue or unauthorised waiting / parking on the Blue Light Routes (**REB-01**, [2.6]). That monitoring is the subject of agreement in the heads of terms between the parties based upon which CUH withdrew its objection.

Matter 3(c): provision of cycle access and parking and on cyclist's safety

109. As described above, NR will be providing a bespoke cycle path to the West of the station through Hobson's Park. Cyclist safety will be ensured by segregating the pathway between pedestrians and cyclists on the West. On the East, a further pathway will be provided next to the Astra Zeneca development. A close-up of the cycling and pedestrian access in the station forecourt region can be seen at **NR16**, Vol 3, App 17-2, PDF118ff.
110. Cycle parking spaces will be provided, in a split and number to be determined based on further studies as previously described (**INQ50-1** Condition 22). NR has additionally committed, in its agreed heads of terms

with CUH, to providing cycle repair tools at the station, to further support cycle journeys.

111. The NCN11 cycle path may have to be temporarily diverted during construction, in part because of the temporary land take for CC1. It is recognised that this is a well-used cycle path, and as such every effort will be taken to avoid diversion if possible. However and in any event, as explained by Mr Barnes, the diversion is not likely to be materially longer than the existing route (**NRE 1.2**, p.5, Section 6.8). Moreover, through the selection of the Northern station location, NR has been able to avoid the permanent diversion of NCN11, as would have been required for the Southern and Central options (**NR07**, PDF85).

112. Overall, the CSIE Project makes ample, high quality and safe provision for those wishing to access or egress the station by bicycle.

Matter 3(d): How the project would align with other forms of public transport and sustainable modes of travel

113. The station serves primarily as a destination and a gateway to the CBC. This builds on the existing high modal share of cycling and walking in the area, and is broadly reflective of the modal share for walking and bussing in Cambridge North.

114. It is expected that 95% of the patrons of the CSIE station would use modes other than car (public transport, walking and cycling) to access their onward destination. Over two thirds of passengers' true destination will be the CBC which is a short distance away (**NR16**, Vol 3, App 17-2, Fig. 61 PDF60).

115. As a result, the CSIE Project has been selected and designed with public and sustainable transport access in mind. The Northern location of the CSIE Project was chosen to maximise the possibility of combining rail with sustainable onward modes of transport, including walking, cycling, and using the local bus network. Even Mr Leigh for SCT, who objects to the Project on the basis of alleged inadequate integration with bus services, accepts that of the three options considered, the selected location provides the best access to bus services (both existing and proposed) and that no better access can be provided without demolition of the Guided Busway Bridge (February 17, Day 14, AM).

116. Together, pedestrian and cycle access is predicted to account for the majority of the journeys to the CBC – some 74% (**NRE 2.2**, Table 8.1, p.42). Accessibility of the station by those modes, and the enhancements proposed, have been addressed above. So too has taxi access for the limited number of passengers expected to use that mode (3%).
117. Access to bus services, both the CGB and regular services, is also appropriately provided for, for the minority of passengers (11%) expected to choose it.
118. In this regard, the main demand is likely to be from the CGB, which is 250m from the station entrance - a three minute walk - where 8 to 9 buses per hour link the campus to Trumpington and beyond. That bus interchange, as mentioned previously, will be facilitated by widening the pedestrian access. There are further 'regular' buses (Service U) available at the stop on the East side of Francis Crick Avenue, 200m, or a two minute walk. (**NR16**, Vol 3, Apd 17-2, Table 4.1 PDF37)
119. There is no planning policy requirement for bus stops be provided within a specific distance of a station, as SCT accepts (XX Day 12, 18 Feb, AM). Mr Leigh referred to the Government's William-Shapps Report and the Bus Back Better Strategy, neither of which are adopted policy but which it is accepted are capable of being material considerations. However, in practice neither of these is prescriptive as to bus station accessibility from train stations either. The highest either of these documents puts it is that rail stations 'should' be 'hubs' for connecting services (**INQ7**, Bus Back Better at p.32). They say nothing as to the precise proximity of bus stops. In any event, as Mr Leigh fairly accepted (XX Day 12, 18 Feb, AM), whether it is possible or appropriate for a station to be a 'hub' will depend on the particular location. Absent an unnecessarily large-scale intervention such as that proposed by Mr Leigh, turning Cambridge South into such a 'hub' is not possible given the site constraints (specifically the CGB) which SCT purports to recognise (**INQ58**, at [2]) and nor would it be appropriate given the likely demand for the station in general and for bus services in particular.
120. As Mr Hilling explained during XC (Day 2, 2nd Feb), in his view, it is appropriate for such facilities to be provided within a reasonable walk distance

(400m) and time, and the bus stops are well within that distance. It is to be noted that neither of the local planning authorities nor the highway authority have complained about the adequacy of the bus interchange facilities, nor has any operator. In all the circumstances, it is considered that the Project provides good (and certainly acceptable) integration with buses.

121. The delivery of the proposed CSET Project only further improve public transport accessibility, with the proposed stops being located just South of the Eastern station access (**NRE 3.2**, p.69, [9.1.185]). Integration with CSET and other schemes such as EWR have been taken into account in the Project development, as explored in more detail in **Matter 5**.

Matter 3(e): Impact from construction and operation including in relation to new cabling, and positioning of cranes.

122. The construction and operation impacts of the CSIE Project were fully assessed in the ES, and are discussed in greater detail (by reference to the relevant subject matter areas) below under **Matter 7**. The CSIE Project has been sensitively designed to fit within existing constraints, and contains a number of in-built mitigation features. The remaining mitigation is comprehensively addressed in a suite of conditions, which include the requirement to submit a CoCP for approval by the Local Planning Authorities, and adhere to the same once approved. The parties listed in Note 1 (**INQ9**) and Note 2 (**INQ17**, [12]) will be consulted prior to submission, and all other concerned stakeholders will be able to submit their comments as part of the consultation process for approval.

123. In addition, the position of individual Campus stakeholders with specific needs is protected through existing and proposed legal agreements, as will be identified in the Schedule of Commitments to be submitted. Whilst the precise detail of many of these agreements is confidential, the Secretary of State has already been informed about the scope of many of these in the evidence submitted (including the Rebuttal evidence) (see, for example, MRC **REB03**, [2.1.4] and [2.2.17]) and in the Statement of Common Ground agreed with the UoC (**INQ33**). Most significantly, the agreements reached have facilitated the withdrawal by those parties of their objections, most of which focussed on potential construction phase impacts. If the individual parties are content with

the position reached, then it is submitted that there is no basis for residual concern on the part of the Secretary of State.

124. In relation to the specific matters identified by the Secretary of State under this matter, which are not covered under Matter 7, the position is as follows:

Cabling

125. New cabling has not been identified as posing any particular risks or issues for the CSIE Project, save in relation to potential impacts from electro-magnetic interference ('EMI'), which is addressed below, under **Matter 3h**. A more pertinent issue for the construction phase is the risk associated with working around buried services. Such risk is however well known to and well understood by NR, and it has a suite of standards within its business processes to manage this risk. These include

- a. NR/L1/AMG/1010, Policy on Working Safely in the Vicinity of Buried Services
- b. NR/L2/AMG/1020, Buried Services Data Provision
- c. NR/L2/AMG/1030, Working Safely in the Vicinity of Buried Services

126. Normal site practice includes verifying the actual position of utilities, which have been catalogued in **NRE1.3**, Appendix D, Fig 58, PDF51, and using non-intrusive techniques such as Ground Penetrating Radar. 'Dial before you Dig' arrangements will also be documented within Work Package Plans prepared by NR's Main Works Contractor following NR's Business Processes. Any activities to break the ground are undertaken within a Permit to Excavate and any overhead cables around the site will be 'goal posted' (See **NR1.2**, [288]ff).

127. The presence of the High-Pressure Gas main has heavily influenced the development of engineering proposals and the selection of the preferred option. Regardless, the proposed works are at the limits of usual exclusion zones for high pressure gas mains and detailed discussions have now taken place with Cadent to agree protective measures including monitoring arrangements, which have been included within the Proposed Order and allowed Cadent to withdraw its previous objection (**OBJ12**).

128. In view of all of the above, neither existing or new cabling is expected to give rise to any unacceptable adverse impacts.

Cranes

129. Cranes will be required as part of the construction, and their location is set out in **NRE1.2**, Fig. 52, PDF102. Subject to detailed lift planning and construction methodology, the largest crane required (a telescoping crane, used when the railway is closed) is illustrated in **NRE1.2**, Fig 53, and multiple smaller city cranes will also be required (see **NRE1.2**, Fig 54). Lifting operations next to the railway are highly sensitive and tightly regulated by best business practice, which NR will uphold throughout construction (See **NRE1.2**, para 300), as well as the CoCP (**NR16**, Vol 3, Apx 2.4, [3.1.8]).
130. No significant adverse effects arising from the operation of cranes have been identified in the ES, notwithstanding that their potential use has formed part of the assessment (**NR16**, PDF69, 'Lifting' and, e.g., PDF69 [4.3.28]; PDF80 [4.3.125]; PDF342 [10.5.14] and PDF449 ([13.5.50])

Matter 3(f): The effects of noise, dust and vibration during construction and operation

131. The impacts of the CSIE Project on noise, dust and vibration have been fully assessed in the ES. All aspects of noise, dust and vibration are submitted to an effective enforcement regime which shall be agreed with the local planning authority prior to construction commencing. Appropriate stakeholders - listed in **INQ09** and **INQ17**, [12]– will be consulted prior to submission for approval. It is therefore unsurprising that no Campus stakeholder to the East of the railway in the CBC with specialist needs and sensitive equipment - such as the MRC and UoC – continues to object to the CSIE Project on these grounds.
132. The existing presence of the railway is significant for two reasons. First, it demonstrates that receptors in the vicinity are already subject to, and tolerate, an existing source of noise and vibration, and which, in the case of the particularly sensitive stakeholders in the CBC, has already been taken into consideration in the development and layout of their buildings. If vibration and noise can be controlled so as to be no greater than they are currently, then it must be accepted (and indeed now is by MRC and UoC) that significant adverse effects from the CSIE Project will not arise. This analysis is in line with the "agent of change" principle in the NPPF (referred to in **NRE3.2**, [3.1.1.5] and **NRE4.2** [5.7]). As Mr Taylor explained in evidence, the agent of change

principle is a strict test in that it applies the onus on the agent of change – here NR – to eliminate all unreasonable noise (and vibration) impacts.

133. Second, the presence of the existing railway is a benefit because it has allowed for more precise identification of both the level of noise and vibration to which the railway gives rise, as well as how vibration waves and noise propagate into the CBC, and how particular buildings respond to them. This is because there is an existing, real-world base from which to take and cross-check measurements, as opposed to having to estimate them. This adds yet further confidence to the conclusion that noise and vibration from the CSIE Project will not adversely affect the CBC.

Noise

134. The baseline noise survey methodology was agreed in consultation with CCiC's and SCDC's Environmental Health Officers. As a result of the consultation that had taken place, NR assessed further receptors including at Trumpington Meadows, Nine Wells Nature Reserve and Hobson's Park Nature Reserve.
135. The assessment included construction noise and construction road traffic, and all operational noise (from traffic, road and rail, including the increased speed and additional tracks, and the public address/voice alarm ('PAVA') system). The baseline was established by assessing eleven receptors representing a mix of residential and non-residential receptors near the site (see **NR16**, PDF96, [5.2.13] and [5.2.14], [5.2.16]), which were then modelled with commercial noise software to give values for the day, evening and night (**NR16**, Table 5-12, PDF108).
136. The assessment was conducted on the basis of a worst-case scenario. During construction, it was assumed that all plant would be running with 100% on-times, and with concurrent construction stages (See **NR16**, PDF107, [5.2.44] and **NR16**, Appendix 5-3); in short, every noise, all at once. This situation is unlikely to apply in practice. The measures for the noise levels of the equipment was taken from a DEFRA study in 2004. In oral evidence, Mr Taylor explained that, as a result of these factors, the model would overpredict 99% of the time, and that the assessment was "*very robust*". Correction factors

were applied, but only to ensure that the model was calibrated with measured baseline noise levels (**NR16** PDF107, [5.2.46]).

137. Significant residual adverse effects from construction noise were predicted during both the day (See **NR16**, Table 5-14, PDF112) and night (See Table 5-15, PDF113) for a small number of locations in proximity to the Station Road and Hills Road areas. The receptors affected include both residential and scientific research receptors.
138. However, as explained by Mr Taylor, the impacts identified would arise for only very short durations, associated with temporary activities such as concrete breaking, which would occur only on a small number of occasions (a matter of days) during the construction period. For over 98% of the construction period, no significant adverse impacts would be expected to be encountered (**NRE4.2**, pp.22-23, [9.10] – [9.17]).
139. No significant residual effects were however predicted during operation (**NR16**, PDF124, [5.6.22]).
140. All noise was considered to be manageable through the adoption of BPM, appropriate construction methods and the implementation of a noise monitoring regime (**NR16**, PDF 127 [5.7.3]). That included the noise generated by the noisiest construction works, which are breaking out the pile caps (**NRE4.2**, Table 10.4, p. 41).
141. The methods to be utilised as BPM were explained by Mr Taylor in detail in oral evidence (XC, Day 3, Feb 3rd, PM), and they would include the use of continuous flight augering rather than vibratory piling for the OLE gantry works; daily inspection of equipment, and the use of modern equipment that is no noisier than the baselines used in the 2004 DEFRA study mentioned above. There will also be real-time noise assessment which will provide automatic text alerts to nominated stakeholders and construction personnel so that action can be taken to prevent exceedance (**NR16**, [5.5.4]).
142. The appropriate measures will be secured through the detailed Code of Construction Practice, upon which UoC will be consulted on prior to submission for approval by the local planning authorities.
143. The assessment presented in the ES did not address the effects of noise upon equipment and/or laboratory animals within the UoC's Anne McLaren

Building ('AMB') and the MRC's Lab of Molecular Biology ('LMB'). Impacts of noise upon both sensitive imaging equipment and lab animals were subsequently raised as a concern in the objection of the UoC, and impacts on lab animals was also raised by MRC.

144. In response to the concerns expressed, additional assessments were carried out and presented to those parties, both in a suite of technical notes (included in **NRE 4.3**) and in the evidence of Mr Taylor (**NRE 4.2**, Section 10, pp.24-43). The conclusion of these assessments was that, applying BPM, no significant adverse effects would be experienced by either the imaging equipment, or lab animals in either building, and that in fact, the significant effects previously identified in relation to those buildings would not be experienced *within* those buildings (predicted noise levels being lower than existing maximum noise events). The ES did not therefore fail to report any likely significant effects from the Project.

145. These results were the subject of discussion with both MRC and UoC, both of whom have now withdrawn their objections.

146. At no point were any additional likely significant effects beyond those reported in the ES identified, confirming the adequacy of the assessment carried out.

Vibration

147. Vibration has the potential to result in adverse effects on residential accommodation (affecting human response and quality of life), on hospitals (which house operating theatres), and stakeholders in the CBC (who have sensitive equipment) (**NRE3.2**, [2.2.3]). The CSIE Project gives rise to new sources of vibration during construction owing to the works themselves, and during operation because of the increase in lines, increase in line speed, and the additional switches and controls required on the lines (**NR16**, [6.1.3] – [6.1.11]).

148. The receptors that were assessed in the ES are indicated in **NR3.2**, Fig 2, p. 5. They comprise residential receptors (near Shepreth Branch and West of Hobson's Park), a school (Hills Road Sixth Form), research facilities (Cancer UK, MRC, AMB, ABCAM and UoC) and a hospital (Royal Papworth Hospital). All

residential receptors were considered moderately sensitive, and the CBC stakeholders high (**NR16**, PDF141).

149. The baseline vibration survey locations were agreed in consultation with CCiC's and SCDC's Environmental Health Officers. As a result of the consultation that had taken place, NR assessed further receptors including at Davey Crescent/Granham's Close. Consultation also took place with the CBC stakeholders as had been requested, and baseline locations were aligned accordingly (**NR16**, PDF127-138).
150. Residential facilities and the school were assessed using BS5228-2 method and hospitals in accordance with the relevant NHS guidance (HTM08-01).
151. The research facilities were assessed with a bespoke measuring system that considered the sensitivities of their particular equipment (**NR16**, 6.2.29 PDF142). The particular 'Vibration Criteria' ('VC') curve requirements for MRC, UOC and AZ were agreed with the stakeholders. This included VC levels at VC-B and VC-D for the MRC LMB and VC-A and VC-C for UoC AMB. These levels are explained in the evidence of Mr Spencer-Allen (**NRE 3.2**, Section 5.1, p.14).
152. Full details of the assessments are contained in **NR16**, Appendices 6.2 and 6.3. A pessimistic approach was taken to the assessment of vibration. In particular, VC curves do not take account of the duration of the vibration. This is important in the context of construction and railway-induced vibration, where the passage of a train or construction activity may give rise to short periods of vibration and where averaging over a longer period might artificially reduce the impact. Consequently the ES assessed vibration over short periods of a second. This ensures that vibration is over estimated and mitigated rather than underestimated (**NRE2.3**, [5.2.2]ff, pp.14-15).
153. Only three receptors were predicted to have significant effects (**NR16**, Apx 6.2, Table 6-2-7 PDF31, Apx 6.3). These were:
 - a. Residential receptors near Shepreth Branch Junction construction works, in circumstances either where large earthworks operations are undertaken within 30m of a residential receptor (one property) or where vibratory piling is used;

- b. At the UoC AMB, where construction phase activity was anticipated to give rise to significant effects; and
- c. At the MRC LMB, where both construction was identified as giving rise to significant effects, and a potential for significant effects in the operation phase.

154. In relation to the Shepreth Branch effect, vibratory piling is to be avoided unless it can be carried out at sufficient distance to avoid significant effects or where it is unavoidable. In the event that it is unavoidable, such piling is not expected to last longer than two days, and can be managed through the giving of notice. This same procedure can be used for the one property affected by the earthworks. Furthermore, appropriate piling methods (which the ES did not yet have the detail of) could considerably reduce any vibration and avoid altogether any adverse effects on those residential areas (see **NRE3.2**, 6.2.6ff). This mitigation, which may be capable of reducing the effect, is to be secured through the CoCP Part B.

155. As a result of concerns expressed about these results in the objections of the UoC and MRC, further work was undertaken to refine the assessments undertaken (**NR3.2**, Section 6.3 and 6.4), and liaison with both parties ensued.

156. As a result of this work, NR has been able to satisfy those stakeholders that no significant adverse effects from vibration will arise. To reinforce and secure this, there are now also binding legal commitments in place with both parties that ensure that their vibration requirements are met and both objections have accordingly been withdrawn.

157. As a result, the Secretary of State can be satisfied that no significant adverse effects from vibration will be experienced by any of the sensitive CBC stakeholders, and that the only remaining significant effect on the Shepreth Branch properties (if it cannot ultimately be avoided as contemplated above) will be a matter of days in duration and managed through appropriate communication.

158. Again, at no point were any additional likely significant effects beyond those reported in the ES identified, confirming the adequacy of the assessment carried out.

159. All of the above is confirmed by the UoC in its recent Statement of Common Ground, where it stated that *"based on the...commitments and undertakings, NRIL and the University hereby confirm to the Inspector that no further grounds for objection remain in respect to noise and vibration"* (**INQ33**, [6.1.5]). More detailed information on those commitments and undertakings is provided in the SOCG, also in Section 6.1.

Dust

160. Dust is primarily an issue during construction, which will involve the excavation of a significant volume of earthworks. As explained in the proof of Andy Barnes, managing dust is *"an important construction requirement"* (**NRE1.2**, [322]). His evidence gives a long list of tried and tested mitigation techniques to reduce any impacts from dust (**NRE1.2**, Section 6.10.4). This includes active monitoring of particulate matter, covering stockpiles, and water bowsers and sprinkler systems.

161. These methods are secured by the CoCP, which itself is secured by planning condition (**INQ50-1**, Condition 10). That document will require best practicable measures to reduce dust (**NR16**, Vol 3, Appendix 2.4, p. 11), and a dust management plan based on accepted international standards to mitigate against particulate matter. NR will also provide a materials management plan which will make provision for the storage of excavated material; and a Construction Traffic Management Plan which will contain site specific controls in consideration of potential nuisance from dust. This will ensure, based on techniques with a demonstrated track record, that the dust will be effectively managed.

162. The ES included a specific Construction Dust Assessment (**NR16**, Vol 3, Apx 7.3) but, in view of the mitigation proposed and secured, did not report any likely significant effects upon any receptor arising from dust, with impacts being 'negligible' during both construction and operation (**NR16**, PDF184, Section 7.5).

163. The only objector to raise a concern about the impact of dust emissions was the MRC, who have particularly stringent air quality requirements. They have however been able to withdraw that objection on the basis of a legal agreement

which provides for NR to pay for the replacement of air filters where they are affected by an increase in particulate matter.

Matter 3(g): The effect on drainage during construction and operation

164. The CSIE Project is located within the Hobson's Brook catchment. Downstream of its crossing with Long Road, the watercourse splits into Hobson's Conduit and Vicar's Brook. Hobson's Conduit supplies water to the Cambridge University Botanic Garden and the City of Cambridge further downstream. Vicar's Brook discharges to the River Cam approximately 2km downstream of the Long Road crossing and 4km downstream of Nine Wells.
165. The key drainage routes within the site boundary are the North Ditch and the South Ditch, both of which comprise culverted and open channel reaches and discharge to Hobson's Brook. The North Ditch drains a large proportion of the existing hospital site, whilst the South Ditch receives discharges of attenuated surface water runoff from the CBC, as well as runoff from a small, rural catchment to the southeast of the CBC site.
166. All of these drainage features mentioned are the responsibility of CCiC and Hobson's Conduit Trust ('HCT'), both supporters of the Project. The HCT benefits from a number of covenants with CBC owners and occupiers, which impose requirements upon discharges from premises on the CBC as regards both water quality and surface water run off rates, with the latter being limited to 2l/s/ha (litres per second per hectare). The only exception to this run off rate is that in place for Francis Crick Avenue, where the allowable rate is of 3 l/s/ha based on a 1% annual chance storm event.
167. Further drainage features of the CBC include a range of SuDS and three attenuation basins. The North and Middle attenuation basins discharge to the North Ditch, and the South to the South Ditch. The main area in which the CSIE Project will impact on the existing drainage features is in relation to the Northern part of Francis Crick Avenue (shown as catchment area FC2 on **NRE5.2**, Fig 2-5, PDF19), and therefore on the North and Middle attenuation basins.
168. The drainage proposals for the station involve the creation of an entirely separate and self-contained drainage system for the station development, which will ultimately discharge to Hobson's Brook. In greater detail:

- a. South of the station, the initial proposal was to discharge to a pond South of the South Ditch (and then on to Hobson's Brook). As that land may be required for the CSET guided busway, the proposal is to relocate the pond to the West side of the rail corridor, with a connecting channel underneath the railway lines. Discharge will ultimately still be into South Ditch at 2l/s/ha.
 - b. West of the Station, water is collected and discharged into the North Ditch, with a discharge rate of no more than 2l/s/ha. The North Ditch will be culverted in this location, to connect to the existing Hospital culvert under Francis Crick Avenue.
 - c. East of the station, water will be discharged into a sub-surface storage tank, with a flow control chamber limiting it to no more than 2l/s/ha.
169. The station itself will be constructed on the mid attenuation basin. That basin will be relocated within the station forecourt, to provide equivalent attenuation volume. The volume will also account for the loss of the AZ swales and UoC swales (illustrated **NRE5.2**, Fig 6-5).
170. Surface water management is the subject of an outline surface water drainage strategy ('SWDS') (with updated strategies required by condition for the construction and operation phases of the Project (**INQ50-1**, Condition 14). This sets out the key principles to be employed by NR in the management of surface water, which include ensuring that it respects and is sympathetic to the existing drainage network, and that it does not increase surface water runoff rates above existing rates (**NR16**, Apx 18.2, Section 6.3).
171. During construction, the CoCP will require adherence to best practice measures for ensuring the protection of water quality, amongst other matters (**NR16**, Apx 2.4, Section 10). Specific measures will be provided in CoCP to ensure that the topsoil on the CC1 and CC2 compounds will not be disturbed so as to prevent pollution in the nearby Nine Wells Nature Reserve (see, also, **INQ50-1**, Condition 28).
172. The likely significant effects of the drainage proposals were considered in the ES (**NR16**, Chapter 18, PDF624ff). The abovementioned drainage features were identified as potentially affected receptors, and attributed degrees of sensitivity ranging between medium and high. So too were the existing CBC

stakeholder drainage systems, which were assessed as having medium-high sensitivity. Other receptors considered included groundwater sources (medium to very high sensitivity) (**NR16**, PDF642, Table 18-9).

173. Potential impacts were identified as arising during the construction stage from matters including pollution, excavation and dewatering, and increase in surface water flood risk resulting from an increased impermeable area; and during operation from accidental pollution, changes in flow conveyance/local hydraulics, and increase in flood risk. No residual significant effects were however identified as being likely to arise in respect of any of the receptors during either construction or operation, as shown in Tables 8-1 and 9-1 (**NRE 5.2**, pp.60-61 and 64-65; **NR16**, Table 18-11, PDF652ff).
174. Although there have been some modifications to the detail of the design proposed, none of these impact upon the principle of the drainage assessed within the ES, which is to discharge (ultimately) to Hobson's Brook at an attenuated rate of 2l/s/ha and to employ SuDS for the purpose of providing attenuation and water quality management. This was confirmed by Mrs Brocken in her oral evidence (XC, Day 4, 4th Feb, AM). No likely significant effects upon water resources and drainage have been identified by any party subsequent to the production of the ES.
175. In view of the Project's partial location in Flood Zone 3, it was necessary for detailed flood risk modelling to be carried out, subject to the guidance of the EA. A Flood Risk Assessment ('FRA') was prepared and included in the ES (**NR16**, Apx 18.2). This describes flood risk to the CSIE Project site from a range of sources (fluvial, surface water and groundwater) and the measures proposed to manage this risk over the development's lifetime. Although the EA initially objected the Proposed Order on the basis that further analysis of North Ditch was required, that further work was undertaken, including confirmation of the storm flows within the watercourse during storm events and up to the 1 in 1000 year event. This demonstrated that peak flows for that extreme event are 0.132m³/s, which is well within the design capacity of the proposed culvert (2.5m³/s) (**NR16**, Apx 18.2, Table 6, PDF23). The EA subsequently withdrew its objection (**OBJ 05**) based on its satisfaction with the further information provided.

176. The environmental information establishes that there would be no out-of-bank flooding in all modelled scenarios, including making a substantial 40% allowance for climate change over the lifetime of the project. The site is at lower risk of fluvial flooding than the EA Flood Map would suggest. In view of those findings, no mitigation measures to control fluvial flood risk during operation have been found to be necessary (**NRE 5.2**, Section 9.2, p.62).
177. It is fair to record that, following submission of the Order application, the potential implications of the proposed development upon drainage during construction and operation generated the greatest level of third-party interest, notwithstanding the absence of objection on that basis from the Lead Local Flood Authority ('LLFA'), the positive support for the Project from the HCT, and the early withdrawal of the EA's objection.
178. There are a number of potential interactions between the CSIE Project and existing drainage features benefitting CBC stakeholders, as described in **NRE 5.2** (Section 6.5) and the rebuttals to the evidence of MRC and UoC, amongst others (**NRE-REB-01**, Section 3; **NRE-REB-02**, Section 3; **NRE-REB-03**, Section 3). Mrs Brocken's evidence also described how those interfaces are to be managed, without affecting storage volume enjoyed by those parties, and without risking them being put in breach of their obligations under the HCT covenants (**NRE 5.2**, Sections 6.6-6.10; **NRE-REB-02**, [3.1.14]).
179. At the close of the inquiry, NR is pleased to report that the majority of objections which raised drainage as an issue have been withdrawn (**OBJ 03**, AZ; **OBJ 06** CUH; **OBJ 08** UoC; **OBJ 09** MRC; **OBJ 18** CCoC; **OBJ 23** CCiC and **OBJ 24** SCDC). Of the remaining objectors who raised drainage concerns, **OBJ10** CBC Man Co and **OBJ 11** CML, their substantive concerns have both been addressed through the Heads of Terms agreed between the parties and they did not appear at the Inquiry as a result. The only outstanding drainage concern is therefore the generalised concern raised by the Pemberton Trustees **OBJ15**, who did not appear at the Inquiry, and whose concern is addressed at Section E below.
180. In view of all of the above, the Secretary of State can be satisfied that effects upon drainage and the water environment will be acceptable. Flood risk is also acceptable, and the planning implications of this are considered in Section D below.

Matter 3(h): Whether the proposal would give rise to electro-magnetic interference

181. It is accepted that the CSIE Project has the potential to give rise to EMI, in particular because of the increase of the number of tracks from two to four and the increase in power demands for the station (see **NRE13.2**, paras [3.2.6] and [3.2.7]). As Mr Hameed explained in XC (Day 6, Feb 9, PM), this risk arises because the torque needed to propel the train relies on a current which can induce currents in conductive materials, which in turn can affect (amongst other things) scientific research institutions in the CBC and hospitals, through impacts on sensitive imaging and other equipment. This was identified as being of particular concern to the UoC and the MRC
182. The potential for effects to arise was identified within the ES, which also identified the means by which they were to be mitigated: through the carrying out of a bespoke Immunisation Study, and the subsequent implementation of specific mitigation measures identified therein (**NR16**, PDF30-32).
183. The scope of the Immunisation Study was further described in the evidence of Mr Hameed (and a copy supplied) (**NRE13.2**, [6.1.7]) and adjustments were made to it to accommodate the particular needs of stakeholders including the UoC (see below). In short, the Study will carry out a detailed assessment of the electro-magnetic environment within the vicinity prior to and post construction (described at **NRE13.2**, paragraphs [5.5.3] – [5.5.7]). NR will use bespoke, pessimistic assumptions as to the effects of the CSIE Project to ensure that the precise extent of any impact on the third party assets are fully understood, and set out the mitigation required to neutralise any such impacts.
184. The Immunisation Study now makes provision for all measurements sought by the UoC, including Mr McAuley's request for Quasi-DC magnetic fields at frequencies between DC and 50Hz to be assessed (**OBJ08/W3-3**, paras 2.9 and 2.10).
185. As to the required mitigation, this will be implemented in accordance with specification identified through the Immunisation Study. As explained by Mr Hameed in XC (Day 6, Feb 9, PM) the methods used for controlling EMI are tried and tested techniques in which there is a high degree of confidence. They include simpler techniques such as burying relevant cables deeper or changing

the materials used, to more advanced electrical earthing strategies and the use of Faraday cages. NR's experienced consultants have a past track record of success with such measures in cases that were much more challenging than the CSIE Project (see **NRE13.2**, p. 28, [5.5.12]). In evidence, Mr Hameed gave the example of the Crossrail project, which came within 27m of the Francis Crick Institute, with a much more aggressive system than the CSIE Project (doubling the voltage to 50kV, and tripling the current) and high service per hour and which was able to be successfully protected.

186. Whilst the Immunisation Study will ensure any impacts that arise are addressed, a number of features of the CSIE Project make it less likely that extensive mitigation will be required. These include the facts that (i) the CSIE Project will have no impact on the voltage which will remain at 25kV; (ii) the traction power system outside of the new Cambridge station will not undergo any major changes; and (iii) while one side of the loop will be brought closer to the CBC, when the train approaches that loop it will be travelling slower (either because it is stopping at Cambridge South or because it is approaching a station).

187. Significantly, not one of the parties who have raised EMI concerns persist in their objections. The UoC has confirmed in terms that it has no concerns in relation to electro-magnetic interference (**INQ33**, Section 6.2) after NR entered into a legal agreement committing it to not increasing any electro-magnetic interference. A similar commitment was offered to – and accepted by – the MRC. Together with all of the above, these institutions' withdrawals demonstrate their faith in such guarantees and evidence that the Secretary of State can be satisfied that there will be no unacceptable impacts arising from residual EMI.

Matter 3(i): The effect of the proposal on biodiversity including biodiversity net gain

Potential effects

188. It is recognised that both the construction and operational phases have the potential to impact upon biodiversity, both directly and indirectly (**NRE 12.2**, [2.2.12]-[2.2.13]).

189. The potential for these impacts to give rise to adverse effects has been considered in relation to a range of receptors, of national, regional and local importance (**NR16**, Table 8-4 PDF210ff and Table 8-5 PDF214ff) This has included designated sites such as Paradise LNR and Byron's Pool LNR, species and habitats of principal importance as prescribed pursuant to section 41 of the Natural Environment and Communities Act, including broadleaved woodland, and species protected under the Wildlife and Countryside Act 1981 such as bats (see **NR16**, Vol 3, Apx, 8-7).
190. As explained by Mr Stone (**NRE 12.2**, p.10 ff, Section 4; XC Day 5, 8th Feb, AM), the assessment of effects has been undertaken on the basis of a baseline understanding of the relevant features derived from a full suite of survey work carried out in accordance with industry best practice (see also **NR16**, Table 8-5, PDF213). This included specific assessments for Great Crested Newts, Water Vole, and Breeding and Wintering Birds amongst others. Assessments were undertaken of plants and habitats (see **NR16**, Appendix 8-2), terrestrial and aquatic invertebrates, fish, amphibians, reptiles and birds. Brown hare (which TRA touch upon in their objection) are considered to be of negligible value and low in number (**NR16**, PDF250, [8.3.70]). The future baseline took into account the anticipated development in the area, which would give rise to increased recreation pressure on Hobson's Park (as mitigation for existing development) (**NR16** PDF251, [8.3.76]).
191. Mitigation has been built in to the construction of the CSIE Project through good practice set out in the CoCP Part A and as part of the Project's design. This includes:
- a. Good practice set out in CoCP Part A, which includes detailed pre-commencement surveys to identify any protected species, the appointment of an Environmental Clerk of Works, storage and replanting of wildflower grassland and precautionary methods of working.
 - b. Design features including habitats creation to replicate areas of woodland, scribe and semi-improved grassland. Part of the habitat creation will be provided on site, with the remainder provided off site as described below. All hedgerow and ditch habitat loss will be provided

on site. Habitat enhancement will also be provided (bat boxes and bird nest boxes).

192. During operation, the effects of the CSIE Project are mitigated by features including a lighting plan approved by the local planning authority, and designated pedestrian and cycle paths through Hobson's Park (to avoid recreational disturbance).
193. With one exception, the CSIE Project is not anticipated to have any significant adverse effects upon biodiversity features of interest. That exception relates to the loss of mature broad-leaved semi-natural woodland during construction (0.26ha, lost to facilitate access to the track), and the loss of broadleaved plantation woodland in Hobson's Park (0.45ha) (**NR16**, PDF262, 8.5.27). The significance of the effect identified is due to the length of time that it takes for replacement woodland to mature. It will be observed that the loss of woodland in Hobson's Park is however mostly recently planted, and will be replaced by an additional 0.84ha of woodland. The CSIE Project also results in additional river and hedgerow units on site (without taking into account the overall 10% biodiversity net gain). In the long term, this is predicted to result in a slight beneficial effect.
194. That aside, no significant habitat loss, degradation or fragmentation or effects on species were identified.
195. A small number of objectors to the Project, including CCiC, raised concerns about potential effects on Nine Wells Local Nature Reserve ('LNR') and upon ground-nesting birds, in particular corn-bunting.
196. The effects on Nine Wells LNR are addressed further below under **Matter 4**. In relation to corn buntings, as Species of Principal Importance in England, effects upon the birds and their territories has been carefully assessed, with no likely significant effects being identified even on the conservative assumption that the site has 20% of the county's territories. More recent data – which still likely underestimates the county-wide number – suggests only 6 or 7%, provides additional comfort on this point (see **NRE12.2**, p. 20 Table 3).
197. This view was reached based on mitigation including noisy construction activities being carefully controlled to avoid the March to September breeding

period for the birds (**NRE12.2**, [6.6.1.12], p. 32), and an ecological clerk of works being appointed to oversee those activities (see condition 12(b)(vii)).

198. CCiC was however particularly concerned about the loss of, or displacement of the birds from, favourable weedy habitat and their preferred song posts (on the overhead lines along the railway), and from increased pressure on territories as a result of the more intensive use of the reduced area of Hobson's Park available for use during construction.
199. In order to accommodate these concerns, NR proposed in its rebuttal evidence to use the Exchange Land (principally being acquired to replace the permanent loss of open space) to support corn bunting populations in the construction phase (during which time that land will not be accessible to the public), and to provide alternative posts from which they may sing. In addition, signage will be used to mitigate dog-related and other recreational pressure on birds in Hobson's Park, as will fenced exclusion zones where appropriate (**REB06**, pp.7-10). As explained by Mr Stone in XC (Day 5, 8th Feb, AM), the Exchange Land (with high song posts and weedy borders) represents a substantial improvement in habitat terms over the current state of the land (which is an intensively managed arable field) for corn bunting and skylarks.⁷
200. Following consideration of this further information, CCiC has confirmed its satisfaction with the proposal, and no longer maintains its objection to the CSIE Project which is now considered to be consistent with CLP Policy 70 (**OBJ23** Withdrawal, [12]-[14]) subject to the mitigation described.
201. If any further reassurance were needed, the continued presence of corn bunting on the site, despite over ten years of construction in the area, confirms the resilience of the bird populations and their ability to successfully recolonise the area.
202. Finally, the RSPB – who were specifically consulted on the CSIE Project – commented that the development is not likely to affect any designated site or priority species (**NR16**, PDF207, Table 8-2).

⁷ As an aside, the Exchange Land will also be suitably planted to provide foraging and cover for brown hares (which TRA refers to in its objection, see OBJ07, p. 11).

Biodiversity Net Gain

203. In addition to avoiding significant adverse effects upon the environment as described above, it is intended that the Project will in fact have *net beneficial* effects upon the same, through the delivery of 10% BNG. As a result, not only does the Government's statutory advisor in relation to the environment, Natural England, not object to the CSIE Project, but has positively "*welcome[d] the proposed approach to minimising impacts to the natural environment*" (**NRE12.2**, p. 19 [5.3.2.7]).
204. There is, at present, no statutory obligation to provide BNG as the relevant provisions of the Environment Act 2021 are not yet in force. Nor is there any development plan or national policy requirement to provide any particular level. Notwithstanding the absence of any obligation upon it to do so, NR has nevertheless agreed to provide 10% BNG on a voluntary basis. While the CSIE Project will increase both the hedgerow and river biodiversity units on site, the overall loss of biodiversity (7.57%) will be compensated for through both on-site and off-site means, with the latter being proposed to be achieved through the purchase of additional units from CCoC in respect of a site at Lower Valley Farm (**NRE12.2**, p. 11 [4.4.1.2]; **REB06**, Appendices, PDF10). This is a strategic site for habitat creation, and will be under the care of CCoC, who will provide long-term maintenance.
205. Although having initially expressed some concerns about the deliverability of 10% BNG, and whether NR had exhausted all on-site opportunities, both relevant local planning authorities now agree (based on the further information provided in **REB06** and its appendices) that due to the constrained nature of the site, on-site provision of all units is not possible (**INQ24** at [3]-[7]; **INQ25** at [3]-[4]), with CCiC additionally noting that the proposals will lead to "*genuine and demonstrable gains*" for biodiversity.
206. The delivery of the units will be secured by planning condition (see conditions 13 and 29), and through an option agreement to be entered into with CCoC. The conditions require the submission of an updated BNG calculation to ensure that the 10% secured reflects the final baseline assessment of habitats being lost, and the ultimate detailed design of the Project.

Additional Matter: Impact on Trees

207. The CSIE Project is required in an area which has the benefit of considerable tree cover, both mature and recently planted. Some of the trees within the Order Limits are protected by tree preservation orders ('TPOs') or are within a Conservation Area and so benefit from particular protection. Many of these trees are in woodland belts in or along the railway, and unfortunately, due to the nature of the works required to or near this fixed linear feature, it is inevitable that some will be lost.
208. Trees provide benefits to both biodiversity, and landscape character and visual amenity. Consequently it was necessary to, and the ES does, fully assess the implications of tree removal in the chapters relating to those topic areas. Details of the assessment of the loss of structural vegetation within the landscape and visual chapter of the ES were provided to the inquiry in **INQ22**, and the effects of the assessment of such loss for biodiversity was described in the evidence of Mr Stone (**NRE12.2**, p. 35, [6.6.2.1]ff). Both chapters of the ES (and their appendices) are of course also before the Inquiry. No statutory consultee objected to the Order application on the basis of the inadequacy of any such assessment.
209. The only significant adverse effect that was identified in relation to, or as a consequence of the loss of trees, was the loss of broad-leaved mature woodland (**NR16**, PDF262 [8.5.28]). This will be mitigated by providing like-for-like replacement through the biodiversity net gain commitment (**NRE12.2**, [5.2.4.6]), but a short-medium term effect arises due to the length of time it takes for such replacement woodland to grow back (discussed further in Matter 7(d)). This is factored into the biodiversity net gain metric, which reflects the fact that it will take in excess of 32 years for the replacement woodland to become mature (**NRE-REB-06-01**, Appendix B, PDF13). In the long term, however, the CSIE Project will result in a net benefit on overall tree provision (**NRE12.2**, [6.6.2.3]; **NR16**, PDF262, [8.5.28])
210. It is recognised that CCiC's tree officer, Joanne Davies, has had some concerns about the level of information she has received about tree loss, although her concerns appear not to have been considered sufficient to merit her producing any written evidence to the Inquiry, as her colleagues did in

relation to Open Space and Biodiversity. In order to mitigate some of these concerns, NR has provided her with an Arboricultural Impact Assessment (**INQ13**), at an earlier stage than it would otherwise have done given that detailed design is not yet concluded. That report finds that the vast majority of the arboricultural features are of low quality, with 182 of the 201 individual trees and 53 of the 66 groups falling within that category (Table 2, PDF11; PDF21, [6.5.1]). No ancient woodlands or veteran trees have been found (PDF14, [5.5.2]). Of the 282 arboricultural features, only 42 will be fully or partially impacted by the CSIE Project (namely, 21 individual trees, 15 groups of trees and 6 hedgerows) (Table 5, PDF15). The effect is that substantial parts of the existing woodland are maintained (see **NRE-REB-06-01**, Appendix A for an illustration).

211. In her oral evidence to the Inquiry, Ms Davies indicated that she was still dissatisfied with the information provided, considering that further assessment of individual tree stems is required in relation to Groups 149, 151 and 142, and expressing consequent uncertainty as to whether the tree loss will be as limited as described. NR has sought to respond to this through the provision of a note prepared by its arboricultural consultant, who confirms that the approach taken in the AIA is consistent with the requirements of the relevant British Standard ('BS'); is of a level of detail that is typical and appropriate for a project of this type at this design phase; that a precautionary approach to assessment has been undertaken in accordance with the BS' requirements, and that successful mitigation is considered likely to be achievable, given the tried-and-tested measures available.
212. The Proposed Order secures mitigation for any impact on trees. As secured by planning conditions 34 and 35 (**INQ50-1**), NR must prepare and submit for approval an Arboricultural Method Statement (AMS) and Tree Protection Plan (TPP). A proposed AMS is included in Appendix C to **INQ13**, and will govern the supervision of works, the protection of trees, and the retention of an arboricultural consultant. NR has also committed to making good any damage caused by the CSIE Project on trees in accordance with proposed conditions 35 and 36.
213. The loss of trees is a matter which is the subject of specific planning policy. Policy 71 of the CLP (**D06**) provides that development which involves felling,

significant surgery and potential root damage to trees of amenity or other value will not be permitted 'unless there are demonstrable public benefits accruing from the proposal which clearly outweigh the current and future amenity value of the trees'.

214. Regardless of the tree officer's outstanding concerns (to the extent that are merited), compliance with CLP Policy 71 (**D6**, PDF 212) requires a planning balance, and falls to be determined by reference to the benefits to which the development under consideration would give rise. As the Council now rightly recognises, the benefits to which the CSIE Project gives rise are so substantial that they will clearly outweigh any loss to trees and their amenity value which the tree officer is concerned might be occasioned by it (**INQ24**, [36]). Whilst NR does not consider that more trees are likely to be lost than described in the AIA, even if they are, the proposed development is compliant with Policy 71 on that basis alone (See also, paragraph 361 below).

215. In view of all of the above, the Secretary of State may be satisfied that the implications of prospective tree loss have been adequately assessed within the ES; that mitigation for any tree loss as might occur are well-controlled through the proposed conditions; and that the long-term implications of the Project for trees would be positive. Accordingly, the loss of trees should present no bar to either the grant of the Proposed Order or the deemed planning permission.

Matter 4: Impact on Hobson's Park and Nine Wells Local Nature Reserve

216. The potential impact on Hobson's Park has been recognised from the inception of the project. The SOBC (**NR20**, PDF27) recognised that the land to the West is Green Belt and parkland. The universally accepted Northern location for the railway station enjoyed considerable support in part because it had the potential to have the least impact on Hobson's Park (**NR7**, Table 5, PDF85). Moreover, the Northern option was preferred on the basis that it could be most visually contained in the Green Belt as it would fit in between existing or approved developments (**NR7**, PDF88 [5.1.21]). The constraints posed by Hobson's Park have been factored into the CSIE Project, which is designed to integrate within that park setting.

217. The design of CSIE Project takes stock of the many facets to Hobson's Park, which include a recreational value, visual/amenity value and a biodiversity value. The CSIE Project's sensitivity to those values is not only due to effective design, but constructive dialogue with a number of residents' and other associations who have sought to protect Hobson's Park (CPPF **OBJ14**; TRA, **OBJ07**). It is notable that these associations, in particular the TRA (XX Mr Plank, Feb 15, Day 9, AM), praised the fruitful and constructive relationship they have had with NR. These are, as far as NR is concerned, on-going relationships with NR committing to ongoing review – particularly in relation to land take in Hobson's Park.
218. Inevitably, given its proximity to the selected station location, the CSIE Project will, during the construction and operation phases, have some adverse effects on the Park, including by reason of temporary and permanent land take. It is simply not possible to construct a linear project without construction compounds either side of the railway, and maintain that project without additional infrastructure support on public open space (a point addressed in detail in **Matter 9(a)**). Nonetheless, the CSIE Project does preserve the value of Hobson's Park in the long term.
219. The impact on Hobson's Park raises cross cutting issues that are dealt with in detail throughout in these Closing Submissions, but summarised here for convenience.
220. The *recreational value* of Hobson's Park is maintained as follows. While there will be some temporary land take during construction, the extent of this land take has been reduced by roughly two-thirds from that initially required, with an area of 425,054 m² out of a total Park area of 482,880 m² (approximately 88%) remaining open for public use and enjoyment (**NRE8.2**, p. 12, 5.2.3] (see **INQ17**, [11] for source material for Park size). In addition, as noted by Mr Wilson for CCiC (XC, Day 9, 15th Feb, AM), given that construction is due to start at the earliest in Spring 2023 ((**E1**, PDF64, Fig 7.1), any recreational pressure caused by the temporary land take will be partly offset by the opening of the Active Recreational Area to the North of Hobson's Park.
221. In the operational phase, the land take is considerably reduced – just 20,439m² or 4.2% of the total Park area (**NRE8.2**, [5.2.15]). In line with

statutory and policy requirements, the CSIE Project will deliver the Exchange Land as compensation for the permanent open space being lost. The area of the Exchange Land is marginally greater than the land being acquired, and will have some recreational and biodiversity advantages than the land it replaces. This is examined in full in **Matter 12** which deals with open space.

222. The *landscape value and visual amenity* of Hobson's Park is also preserved. During the construction phase, this will be through the implementation of considerate construction practice secured through the CoCP, including measures such as: appropriate construction fencing and site hoarding; measures to limit artificial site lighting; restricting temporary stockpile heights and locating them (as well as construction parking and other visually obtrusive activities) away from sensitive receptors where possible; the protection of existing structural vegetation and the reinstatement of anything removed (**NRE 8.2**, [5.27]). With these measures in place, impacts on the landscape character and visual amenity of Hobson's Park and its users have been assessed as being moderate/minor. Given the moderate sensitivity of the receptors identified, the resultant effects are not significant (**NRE 8.2**, [5.28]-[5.29]).
223. In operation, the indicative design for the station (which includes a biodiverse green roof secured by condition, Condition 29(f)) suggests that it will be able to go some way to softening the existing abrupt boundary between the CBC to the East of the railway and the park setting to the West (a point discussed further in Section D in relation to Green Belt). It will also be the subject of a hard and soft landscaping scheme aimed to further integrate the building with the Park, the discharge of which will require compliance with the approved Design Principles document (**INQ21** Condition 29, header), and be subject to the approval of CCiC.
224. Design Principles relevant to the protection of, and integration with, Hobson's Park include the following, under the overall heading of "Contextual" design which seeks to "recognise, respect and respond appropriately to the existing context and emerging CBC whilst developing an integrated station appropriate for the Green Belt" (**INQ21**, [3.7.1]):

- a. Design Principle 3.7E, “[...] the design of the station needs to maintain and serve as a visual amenity to both sides of this emerging urban context each side of the Green Belt”
- b. Design Principle 3.7F “The layout of the station will seek to integrate and connect with the landscape setting of Hobson’s Park and its watercourses by creating a visually and biodiversity enriching design.”
- c. Design Principle 3.7J “The development’s external form, roofscapes and materiality to reflect the semi-naturalised character and landform of the park.”
- d. Design Principle 3.7S “The landscaping scheme shall enhance the area between the new path (Work no. 4) across Hobson’s Path [...] and the existing Cambridge Guided Busway with, for example, new tree and shrub planting, ponds and wildflower meadows, in order to enhance the environmental value of this part of open space and in doing so provide screening to the guided busway.”

225. If planned upgrades to the signalling in the Cambridge Area do not precede the CSIE Project in time, a Railway Systems Compound (‘RSC’) is required to the East of the exchange land (but to the West of the railway), in order to service the power and other technical needs of the railway. The Inquiry heard evidence from Mr Barnes as to the RSC’s locational requirements, which included the need for 360 degree access for maintenance and safety purposes. If it is provided, the RSC will be sympathetically landscaped to screen views of it. NR has undertaken to liaise with TRA on this point (**INQ10**, [7.4.3]).⁸

226. As in the case of the construction phase effects, the overall impacts of the operational phase of the Project on the landscape character and visual amenity of Hobson’s Park have been assessed as moderate/minor, affecting receptors of moderate sensitivity, and consequently not significant (**NR16**, PDF427-428, [13.5.40]-[13.5.43]; PDF475-476, [13.5.63]-[13.5.69]).

227. As a final point on amenity, CPPF make a generalised complaint about the increase in noise on Hobson’s Park from the station. However, the ES shows that the noise increase would be just 0.4dB. As explained by Mr Taylor in XC, even the most trained musicians cannot detect under 1dB in laboratory

⁸ As Mr Barnes explained, a DNO cubicle will be required in any event (XC, Day 1, PM); **NRE1.2**, [245].

conditions (XC, Day 3, Feb 3rd, PM). Any operational noise impact on Hobson's Park will be imperceptible about the existing noise climate. CPPF's remaining objections, that the station does not respect the 'park' setting, and that it impacts important views, are not well-founded and are dealt with in full in Section E.

228. The effects on the *biodiversity value* of Hobson's Park are as described under Matter 3(i) above; that is to say, there were no significant adverse effects identified save in respect of the broadleaved and plantation woodland as previously described.

229. *Nine Wells LNR* which is a statutory site outside the Project's redline boundary. The site itself was able to be scoped out of the biodiversity assessment on the basis of the absence of impact pathways for hydrological effects to occur, and the distance that would obviate the risk of air quality effects (**NR16**, Table 8-6, PDF233), although it was considered in the context of being a habitat for certain species including Great Crested Newts (in relation to which no significant adverse effects were identified). In its Scoping Response, Natural England in fact explicitly commended "*the proposed approach to minimising impacts to the natural environment including locally designated sites such as Nine Wells Local Nature Reserve and Hobson's Park, watercourses and hydrology*" (**NRE12.2**, [5.3.2.7]).

230. Although the TRA initially expressed some concerns about the potential for the CSIE Project to impact upon the LNR, following the provision by NR of further information about the minimum distance between the construction area and the LNR, the TRA withdrew that aspect of its objection (**INQ10**, [6.2.3]). CPPF now stands alone in objecting on the grounds of impacts on Nine Wells LNR in its written material, although it did not pursue that particular objection in its oral evidence to the Inquiry. In the absence of any concern expressed by the relevant statutory consultee or any of the local authorities about the conclusions reached in relation to Nine Wells any residual concern is considered to be without foundation.

231. *Heritage*: The Nine Wells LNR contains the grade II listed Nine Wells Monument. The Monument is surrounded by a dense woodland screen. There exists no visual relationship between the Monument and the elements outside

the Nine Wells Nature Reserve (including Hobson's Brook). It will not be possible to see the CSIE Project, or any of its compounds, from the Monument. Any noise from the CSIE Project – which some objections have voiced concern over – makes no contribution to the setting. It will, in any event, be noted that the noise at the Nine Wells LNR has been assessed to *decrease* as a result of the CSIE Project.⁹

232. It is difficult to disagree with Ms Wylie's conclusion that the CSIE Project will have an "*extremely limited*" impact on the Monument (**NRE7.2**, [6.3.6] (p. 42). That Monument will continue to stand as an important reminder of the origins of Hobson's Brook and the City of Cambridge as a whole, nestled in the thick woodlands of the Nine Wells Local Nature Reserve and removed from the outside world.

Matter 5: The impacts and interaction of the scheme with future planned developments including at Cambridge Biomedical Campus and proposed public transport schemes such as Cambridge South East Transport

233. The integration of the CSIE Project with other modes of transport is addressed above in Matter 3(d). This matter addresses integration with other public transport schemes.

234. The fifth strategic objective for assessing the alternatives was "*integrating and enhancing Thameslink and East West Rail opportunities*" (see paragraph 41, above). The CSIE Project was assessed as "*large beneficial*" against that metric, unlike all other alternatives considered, which would have had a neutral effect (**C3**, Table 3, p. 16). Indeed, one of the advantages of the Northern location for the CSIE Project was the advantage of easy integration with CSET bus stops.

235. NR is seeking the powers in the Proposed Order solely for the purposes of the CSIE Project. It is not seeking them for EWR and CSET, which are separate projects being promoted by other entities, and in relation to which there are no fixed dates for any applications. Nonetheless, having regard to the stage those schemes have reached, the interfaces between them and the CSIE

⁹ receptor K shown at **NR16**, PDF97; discussed **NR16, Table 5-18** PDF117

Project are well understood, and the CSIE Project has been appropriately tailored to account for them.

CSET

236. NR entered into an agreement with CSET to ensure that there is no conflict between the two projects (**INQ17**, Annex 1). The CSIE Project has been designed to ensure that CSET can be “fitted in” to the overall scheme, but it is not required to come forward in order for the CSIE Project to be successfully delivered. They are separate projects, which can mesh together if needed.
237. **INQ17**, Annex 1 summarises the interaction between the two projects. The agreement between CSIE and CSET identifies common plots, establishes an overarching principle of collaboration and co-operation (including between respective contractors), and sets up meetings every three months to discuss the interface. There have also been substantial modifications to the CSIE Project to accommodate CSET (see **NRE1.2**, PDF82, [252(b)]). This includes modifications in relation to matters such as drainage, as both projects had initially intended to use the same land parcel for water discharge, but since then the CSIE Project has made alternative drainage arrangements, and has relocated an attenuation pond to the West of the railway to accommodate those arrangements (**NRE5.2**, p. 24 and p. 26, and section 6.8, p. 41).
238. Other specific interactions between the two schemes are identified **NRE1.2**, PDF82, [252]. A number of them are positive, including easier access to the AZ buildings as a result of planned improvements by the CSET project (and, of course, convenient access to the proposed CSET bustops on Francis Crick Avenue from the station forecourt).
239. Both projects anticipate using a stretch of land East of the railway, northwest of the Nine Wells Local Nature Reserve: CSET’s proposed route bisects that land (see **NR13**, PDF38 DRWG100), and CSIE requires the land for its Main Site Compound CC1 (see **NRE1.2** Fig 49, PDF99). However, if the CSIE Project remains on track, it will likely be finished before that area is required for CSET (**NRE1.2**, PDF111, [309]). In any event, the agreement provides for collaboration between the two projects to ensure both projects can proceed.

EWR

240. EWR Connection Stage Three is still in consultation (see **INQ14**). The possibility of EWR coming forward has been a constraint factored in since the early design stages, and the interface between the two is well understood (see **NRE1.2**, PDF16, [33]). There is no suggestion that the CSIE Project would give rise to any technical impediments to the delivery of the EWR. A model Indicative Train Service Specification showed that the CSIE Project and EWR could dovetail (Id.). Indeed, some of the modifications proposed by the CSIE Project, such as the closure of Duke's No. 2 and Webster's Crossings, would be beneficial for EWR. More broadly, the CSIE Project may increase appetite for EWR services by adding an additional station on the line (**NRE11.2**, p. 36, [6.3.3]).
241. Ultimately, the CSIE Project has at its heart an aim to facilitate access to the CBC. It has, from the beginning, sought to take advantage of collaboration with other schemes. Both EWR and CSET on the one hand and the CSIE Project stand to benefit from each other insofar as they are all delivered.

Matter 6: The effects of the scheme on statutory undertakers, statutory utilities and other utility providers, and their ability to carry out their undertakings effectively, safely and in compliance with any statutory or contractual obligations and the protective provisions afforded to them.

242. A list of statutory undertakers and other like bodies having or possibly having a right to keep equipment or having the benefit of easements on, in or over the land within the Order Land is provided in the General Entries section of the Book of Reference (**NR8**).
243. NR has undertaken extensive searches with the statutory undertakers and buried services present within the project boundary have been identified. Appendix D to the evidence of Mr Barnes (**NRE 1.3**) details the known public utilities affected by the Project, and provides an assessment on the likely impact on each utility.
244. Planning for the limited number of diversions required for the CSIE Project is underway and the principle of continuity of service provision will be recognised wherever possible.

245. Article 42 and Schedule 12 of the Proposed Order (**INQ52-1**) set out protective provisions for various undertakers. Part 1 contains general protective provisions for electricity, gas, water and sewerage undertakers. Part 2 contains provision for the protection of electronic communications code networks; Part 3, protections for drainage; Part 4, protections for HCT; Part 5 protections for Cadent Gas Ltd; Part 6, protections for CCoC in respect of the CGB; and Part 7 protections for South Staffordshire Water ('SSW'). Although there is some variation in the detail, in broad terms the provisions prevent NR from acquiring or interfering with an undertaker's apparatus arbitrarily, require NR to comply with the specific provisions as to notice of, and liaison in relation to, proposed works affecting relevant apparatus, and require NR to pay the reasonable expenses and costs of the undertaker incurred in relation to requests for inspection, alteration, removal or protection of apparatus as part of the works.
246. Of the 17 statutory undertakers listed in the Book of Reference, only two made representations in relation to the Proposed Order, and a further two issued objections. In respect of the representations, National Grid confirmed that the Proposed Order would not interfere with their statutory functions (**REP06**), and HCT (which has statutory responsibility for drainage) offered its express support (**SUP02**).
247. Of the objectors, Cadent Gas and SSW have both since withdrawn, subject to the protective provisions as now amended (in the case of Cadent) or included (in the case of SSW) for their benefit within Schedule 12.
248. Based on the above, NR and its property expert, Mr Simms, do not consider that the Proposed Order would have any material or unacceptable impact upon statutory undertakers, statutory utilities and other utility providers, and their ability to carry out their undertakings effectively, safely and in compliance with any statutory or contractual obligations.

Matter 7: The adequacy of the Environmental Statement submitted with the application for the TWA Order, having regard to the requirements of the Transport and Works (Application and Objections Procedure) (England and Wales) Rules 2006. This should include consideration of [the matters identified as 7a- 7g].

249. The Order application is accompanied by a detailed ES which assesses all likely significant effects of the CSIE Project, both alone and in combination with other projects. In this section, we summarise:

- a. The legal requirements relating to the provision and consideration of environmental information;
- b. How NR has complied with those, and the ES's legal adequacy; and
- c. NR's position in relation to the overall findings of the ES.

250. Save where necessary, this section does not deal with the substance of the assessments carried out, which have been previously described in the context of **Matter 3** above.

The legislative requirements

251. The requirements that any application for a Transport and Works Act Order must satisfy in relation to the provision of environmental information are set out in the TWA 1992 and the Transport and Works (Application and Objections Procedure) (England and Wales) Rules 2006 (as amended) ('the 2006 Rules').

252. Section 13B of the TWA 1992 requires the Secretary of State to reach a 'reasoned conclusion' in relation to the likely significant effects of the proposed works on the environment. In reaching that reasoned conclusion, the Secretary of State must take into account the 'environmental information' (s.13B(3)) and may only determine an application for an EIA order where he has taken into account the EIA information and has reached an up to date reasoned conclusion (s.13B(1) and (4)).

253. An 'EIA Order' is defined in s.13A(4) as one which is for development in a class listed in Annex II to the EIA Directive which, by virtue of its nature, size or location, likely to have significant effects on the environment, as in the present case.

254. 'EIA Information' is defined in s.13A(3) as including the ES (s.13A(3)(a)) and also:

- a. *"any other information which the Secretary of State reasonably requires for the purpose of reaching a reasoned conclusion (see section 13B)" (s.13A(3)(b)); and*
- b. *"any representations made by any person about the environmental effects of the proposed works or other projects" (s.13A(3)(c)).*

255. The requirements imposed upon the ES itself are set out in the 2006 Rules. Per Rule 11 the ES is required to include (inter alia):

- a. *"a description of the likely significant effects of the proposed works on the environment";*
- b. *a "description of any features of the proposed works, or measures proposed to be taken in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment"; and*
- c. *"a description of the reasonable alternatives studied by the applicant, which are relevant to the proposed works and their specific characteristics [etc]".*

256. Rule 11 also requires the ES to:

- a. be prepared by competent experts and based on the most recent scoping opinion (if any); and
- b. to contain *"any additional information specified in Schedule 1 relevant to the specific characteristics of the proposed works or type of proposed works and to the environmental features likely to be significantly affected".*

257. The question of whether an ES is adequate is matter for the decision maker, subject only to review by the courts on public law grounds.¹⁰ An ES need not

¹⁰ The law in this area is well-established. leading cases remain those of: R v Rochdale Metropolitan Borough Council ex parte Tew and Others [1999] 3 PLR 74; R v Rochdale Metropolitan Borough Council ex parte Milne [2001] Env LR 416; R v Cornwall County Council ex parte Hardy [2001] JPL 786; and R (Blewett) v Derbyshire County Council [2003] EWHC 2775 (Admin).

report on every possible environmental effect; it need report only on those which are significant.

258. Moreover, case law further establishes that, although decisions on planning applications are required to be made based on full information about the likely significant effects of a project upon the environment, the ES itself will not necessarily contain all of this information. The consultation and publicity procedures during which further representations can be made are an integral part of the EIA process and the information arising from those procedures will form part of the environmental information that the decision maker must take account in coming to their conclusion.

Compliance with the legislative requirements

259. NR submitted a scoping request to the Department for Transport on 1st December 2020 with a Scoping Report (**NR16**, Vol 3 Appendix 2.1). The Scoping Report was itself the product of extensive consultation with relevant stakeholders, including Natural England, Historic England, and the local planning authorities. A Scoping Opinion dated 22 February 2021 was issued in response (**NR16** Vol 13, Appendix 2.2). As required by Rule 11, the ES was prepared by competent experts in accordance with the Scoping Opinion provided.

260. Given the outline nature of the planning permission sought, the ES was based on an approach that assessed the reasonable worst case likely effects and identified broad means of mitigation, which are secured in the usual way, through parameter plans and conditions. This is an entirely conventional and acceptable approach.

261. The ES identified all likely significant effects arising from the proposed works, in relation to all scoped-in topic areas. No outstanding objector to the Inquiry suggests that any categories of effect have been omitted, even where they disagree with the scale of effects identified.

262. It is recognised that the objections of a very small number of Campus stakeholders previously suggested that the ES is inadequate because it failed to provide a level of detail typically available at detailed design stage, or

because of a perceived failure to assess certain impacts.¹¹ Three of those parties have since withdrawn those objections, and the remaining parties (**OBJ 10 and 11**) have accepted the explanation provided in relation to the scope of the cumulative assessment with CSET (see *Matter 7(g)* below), did not appear at the Inquiry and are expected to withdraw in view of having agreed heads of terms. It is to be noted that in the Statement of Common Ground agreed with the UoC, it has now explicitly confirmed that “[it] consider[s] that the Secretary has sufficient information to reach a reasoned conclusion about the likely significant effects of the CSIE scheme upon the environment” (**INQ33**, p. 11 [6.7.1])

263. It is respectfully submitted that given the wealth of environmental information upon which can be drawn upon, including not only the ES but all the material before the Inquiry, the Secretary of State is well able to reach a ‘reasoned conclusion’ in respect of the effects of the Proposed Order.

Findings of the ES

264. The overall approach in the ES is to (i) identify sensitive receptors (ii) identify the possible impacts upon that receptor, (iii) assess the magnitude of harm to that receptor, determining whether that receptor will have a significant adverse effect and (iv) propose mitigation to address any such effects. The mitigation is, by and large, secured through the suite of planning conditions, which includes the CoCP.

265. The local planning authorities are required to approve that CoCP (which will be the subject of an application and consulted upon in the normal way), and if it fails to satisfy them that a particular effect is not adequately addressed, construction may not proceed. In addition, specific elements of that Code will be consulted on prior to submission as outline in Note 1 (**INQ09**) and Note 2 (**INQ17**, [12]), and the Code can be enforced – again in the normal way – as a planning condition. This is self-evidently the case with all other planning conditions imposed to control environmental effects, e.g. landscaping. This ensures a practical and complete means of addressing any environmental effects.

¹¹ OBJ06, CUH (on transport modelling assumptions only); OBJ08 UoC; OBJ09 MRC; OBJ 10 and 11 on cumulative effects with CSET.

266. Overall, the Environmental Statement finds very few significant adverse effects from the CSIE Project. They are limited to the following:

- a. Noise, but only on certain receptors during construction, as described in relation to **Matter 3f** above;
- b. Vibration, but only on certain residential receptors, and MRC and UoC receptors, during construction (and in the case of the MRC LMB, operation) (**NR16**, PDF153, [6.5.3]ff);
- c. Cultural heritage, but only during construction on the Scheduled Ancient Monument (**NR16**, PDF 372, [11.5.2], also described under **Matter 8** below) and on the nearby non-designated cropmark complex (**NR16**, PDF373, [11.5.3]);
- d. Impact on broad-leaved woodland (**NR16**, PDF262, [8.5.27], also described under **Matter 3(i)** above); and
- e. Loss during construction a total of approximately 7.5ha (based on available mapping) of Best and Most Versatile (Grade 2) land in agricultural use (**NR16**, PDF416, [12.5.6]) ('BMV Land').

267. The expert witnesses have, in any event, explained how and why the significant adverse effects that do arise are acceptable in context. See, respectively, **NRE3.2**, section 9; **NRE4.2**, section 6, **NRE7.2**, section 5.2; and **NRE12.2** at [6.6.2.3]. By way of summary:

- a. Noise is addressed in **Matter 3(f)**. Impacts identified would arise for only very short durations on a small number of occasions such that for over 98% of the construction period, no significant adverse impacts would be expected to be encountered.
- b. Vibration is also addressed in **Matter 3(f)** and all stakeholders have been satisfied that, as a result of further work, the effects can be acceptably managed through appropriate mitigation.
- c. The impact on the Scheduled Monument is addressed in **Matter 8**. The most sensitive part of that Monument in the north-western part is not affected by the CSIE Project, which will preserve the monument according to a written scheme of investigation.

- d. Broad-leaved woodland is addressed in **Matter 3**. It will be affected not due to any particular feature of the CSIE Project but because of the length of time it takes for the replacement trees to mature. The effect is therefore confined to the short/medium term. The trees taken will be fully replaced off-site, together with an additional number of trees to achieve a 10% BNG. This is assessed to provide a significant benefit in the long term.
- e. The BMV Land is addressed in **NRE9.2**, p. 34, [4.10.1]ff. Following the restoration of land required temporarily, the permanent loss would be reduced to approximately 4.5ha of BMV (Grade 2) land. In view of the wider sustainability and other benefits of the CISE Project, this loss is considered acceptable and consistent with local policy.¹² It will be noted that no party – including Natural England who first raised the point (**NR16**, PDF396), and from the Websters who are farmers on the field South of Addenbrooke's Road – have questioned that conclusion.

268. No significant adverse effects have been assessed as being likely to arise in relation to the following areas of interest to the Secretary of State:

- a. Drainage (matter 7(b));
- b. Construction dust and dirt (matter 7(c));
- c. Hedgerows or existing plants (matter 7(d));
- d. Biodiversity (matter 7(e));
- e. Spoil (matter 7(f));
- f. Cumulative effects (matter 7(g)).

269. Of these matters, adequacy of the information provided was only put in issue by any objectors in relation to vibration, drainage and cumulative effects (specifically, consideration of the Project together with CSET). The claims made in relation to drainage and vibration (by UoC/MRC) have since been withdrawn, and the claim in relation to cumulative effects (by OBJ10/11) is no longer pursued.

¹² The relevant policies are discussed at **NRE9.2**, [4.10.8], and are the CLP (**D6**), Policy 8(c) PDF44 and SCLP (**D8**), Policy NH/3 PDF126. See also **D2**, [174(b)].

270. Details of the substance of the assessments for matters 7(b)-(e) above have been provided under **Matter 3**, including comments on the adequacy of the vibration and drainage assessments. A summary of the position in relation to the outstanding areas, 7(f) and (g) (including in respect of the adequacy of the cumulative assessment) is provided below.

Matter 7(f): Control and storage of spoil during construction

271. Control and storage of spoil is assessed the ES, principally in Chapters 14 (Materials and Waste) (see **NR16**, PDF512, [14.4.16]ff), Chapter 17 (PDF604, [17.4.24]) (transport). Excavated material from construction would be targeted for fill and landscaping. Any spoil will be stored in carefully segregated piles. Site levels are managed to allow for "cut and fill", i.e. the amount of material from cuts roughly matches the amount of fill needed to make nearby embankments. In particular, excavations on the Eastern side of the railway would be considered for the softer landscaping on the Western side (**NRE1.2**, [228(f)]). The largest compound, CC1, will be used to store as much spoil as possible to facilitate that reuse of spoil (**NRE1.2**, [429])

272. Despite careful consideration, it will not be possible to store all spoil onsite. Spoil will have to be transferred off site and vehicle movements for such have been assessed (see **NR16** PDF 512, [14.4.18]). The CoCP will require the contractor to remove any spoil or debris deposited on the highway during construction (**NR16** PDF604 [17.4.24]).

273. No likely significant effects have been predicted as a result of the storage or handling of spoil during construction. No party has suggested that any likely significant effect would arise.

274. The conditions proposed to be imposed upon the deemed planning permission include a soil management plan (see **INQ50-1**, Condition 28) to be approved by the local planning authorities, which will govern the disposal and storage of spoil. CCiC has agreed with the wording of the condition.

Matter 7(g): Cumulative impacts

275. The ES systematically assesses the impacts of the CSIE Project both during construction and operation against a core list of committed and proposed development. The introduction to the ES, under the heading "*Cumulative Effects*" explains that both certain impacts have been assessed for their intra-

project effects and others have been assessed for this inter-project cumulative effected.

276. The committed projects for the inter-project assessment include all residential applications proposing 10 or more houses (if submitted in the last 5 years within 2km); 50 or more houses, commercial or transport infrastructure of 5000m² or greater (if within 2 to 3.5km); mixed-use and employment applications of 5000m² or greater (if submitted within the last 5 years within 2km); and all infrastructure projects (in the last 5 years within 2km). The 48 projects concerned have been identified in **NR16**, Vol 3, Appendix 2.3.

277. In particular, CSET, which is identified as project 37, in Appendix 2.3 has been systematically assessed for cumulative effects throughout the ES (save in relation to scoped-out topics, see below). It is however noted that in relation to cumulative transport effects:

- a. It was not considered possible to assess cumulative vehicle movements at the time of the ES, given that *"the [CSET] scheme [had] not progressed sufficiently enough"* and the information was not available (**NR16** [17.5.51] p .17-45). A high-level assessment was however undertaken once further information became available and presented in Mr Hilling's evidence (**NR 2.2**, [9.1.51]-[9.1.55]). No significant cumulative effects were identified; and
- b. No cumulative assessment of the impact on pedestrian, cycle and public transport demands on crossings and interchanges was undertaken. This is because the CSET scheme will involve a complete replacement of the relevant junctions and infrastructure and as such a cumulative assessment would be meaningless (**NRE 2.2**, [9.1.40]-[9.1.41]).

278. This approach has been accepted by the parties who raised cumulative impacts with CSET, being CUH (who have withdrawn) and CML/CBC Man Co (whose transport consultants accepted the response given by Mr Hilling, see **NRE 2.3**, Apx H1, final line entry on p.130).

279. In addition, the Protocol agreement with CSET sets out a general duty on both parties to liaise and co-operate with each other, and has specific duties for the management of mitigation and overlap sites (See **INQ17**, Annex I,

2.9(a)). This will further ensure that any potential cumulative impacts/effects can be adequately addressed.

280. Some environmental impacts, by their very nature, do not engage cumulative effects with those (or any projects), and/or were scoped out in the Scoping Report, with which the Secretary of State agreed. Those impacts have therefore been scoped out.¹³ They include the following effects:

- a. Climate Change Chapters, Chapter 9 (for which the *intra*-Project effects are assessed, as opposed to the *inter*-Project effects) and Chapter 10 (for which only the greenhouse gas emissions from the CSIE Project is assessed);
- b. Chapter 12 Ground Conditions and Contamination, because the cumulative effects were scoped out in the Scoping Report.¹⁴ Nonetheless, as a precaution the ES goes on to consider the potential cumulative agricultural land effects are considered.¹⁵

281. In view of the foregoing, the Secretary of State has more than sufficient information before him to reach a reasoned conclusion in relation to the cumulative effects of the Project.

Matter 8: The impact of the development on the Scheduled Monument – the site revealed by aerial photography W of White Hill Farm, Great Shelford. National Heritage List 1006891

282. The Scheduled Monument is a cropmark complex of rectangular enclosures, likely from the Iron to Roman age. The Scheduled Area as a whole has high archaeological potential, and NR has committed to applying to the SoS for Scheduled Monument Approval (**NR10**) under the 1979 Act.

283. As explained by Ms Wylie (XC, Day 3, 3rd Feb, PM) NR has, in consultation with Historic England and the Cambridge Historic Environment Team, undertaken extensive investigation of the asset. That includes a desk-based analysis, a trenching analysis where 10 trenches were dug around the

¹³ The elements of the cumulative effect with CSET ha

¹⁴ NR16, Volume 3, Appendix 2.1, [9.3.12], p. 82.

¹⁵ NR16, ES, [12.5.9], p. 12-30.

Scheduled Area and a geophysical survey to map the features of the Scheduled Monument.

284. The baseline for the ES assessment included all designated heritage assets within 1000m of the site boundary, and all non-designated heritage assets within 500m of the site boundary. These were discussed in the Desk Based Assessment **NR16, Vol 3, Apx 11.1**, and many were scoped out from assessment due to the lack of possible impacts from the CSIE Project. Only two receptors in the ES were assessed to have significant adverse effects as a result of the construction of the CSIE Project. This included the Scheduled Ancient Monument which is the subject of this Matter.
285. The effect on the Scheduled Monument was assessed as significant for the following reasons. As a Scheduled Monument, its significance is high (**NR16**, PDF359, Table 11-4), and CSIE Project construction works (namely the use of haul roads, in particular HR7 (**NRE1.2**, Fig 48, p. 96) and associated construction traffic) would have a major effect on the asset. Those works would have a direct physical impact on the shallow remains, particularly if the area became very wet due to heavy rain. This major magnitude on an asset of high significance amounted to a significant effect.
286. The value of the Scheduled Monument lies more than 30cm underground. That value – indeed the Monument itself – is not visible or appreciable from above ground. A thin sliver of the Scheduled Area to the East, adjacent to the railway, would be impacted by the CSIE Project during the construction phase when haul road HR7 would be required. The real heritage value of the asset, the remains in the northwestern area, is situated away from the railway and proposed haul road. This would not be affected by the CSIE Project.
287. The setting of the Scheduled Monument has undergone considerable change from developments, including the railway to the East and commercial garden centre developments on the West. That setting is limited and makes very little contribution to its significance overall. As a result, Ms Wyllie concludes that the CSIE Project will result in less than substantial harm to the asset, a conclusion shared by Historic England (**REP07**). Such limited harm is amply justified by the benefits of the CSIE Project covered above, and will be

appropriately mitigated by the extensive suite of provisions in the planning conditions. Those include:

- a. First, *preservation by record* of the asset. This will enhance the knowledge and understanding of the Iron and Roman ages. The Written Scheme of Investigation which secures such preservation will be submitted for approval by the local planning authority prior to construction of the CSIE Project. Historic England will be consulted as part of that application.
- b. Second, the Code of Construction Practice will make provision for, amongst other things, for *accidental finds during construction*.
- c. Finally, the very limited impact on the setting of the Scheduled Monument (which is of limited relevance to the significance of the Scheduled Monument as a whole) will be mitigated by *amenable soft and hard landscaping*, again secured by planning condition.

288. It will be noted that Historic England praises NR for its collaborative approach to this heritage asset and "*acknowledge[s] that design has sought to avoid encroachment and impacts on the White Hill Farm Scheduled Monument, and its setting, as far as possible*" (**REP07**). While the CSIE Project will result in a significant effect upon the Monument, this nonetheless equates to less than substantial harm to the Scheduled Monument, and the opportunity is being taken to ensure that lessons can be learned and recorded from this asset. The records it makes of will add a new chapter to this Scheduled Monument's history, and enhance contemporary understanding of the distant past.

Matter 9: Having regard to the criteria for justifying compulsory purchase powers in paragraphs 12 to 15 of the MHCLG “Guidance on Compulsory purchase process and the Crichel Down” published on 29 October 2015 (as amended on 16 July 2019):-

Matter 9(a): whether there is a compelling case in the public interest to justify conferring on NR powers to compulsorily acquire and use land for the purposes of the scheme

289. The need for the CSIE Project to support the growth in the Cambridge Southern Fringe and the CBC is set out in detail under **Matter 1** above, and the many benefits it provides are also described there. The points made are not repeated, but it is the combination of that significant need, and the benefits that would flow from addressing it, that gives rise to the compelling case in the public interest, justifying the temporary and permanent powers that NR seeks to acquire over the Order Land.

290. What is perhaps most remarkable about the CSIE Project is that it achieves these important benefits with such limited impact on homes and livelihoods. No residential properties are required to be acquired, and only a single home has been identified as being likely to experience environmental effects (from vibration, for a matter of days). No businesses are to be relocated or threatened, and no buildings will be demolished. Anyone with any experience of infrastructure planning in an urban or urban fringe environment will attest to the rarity of this.

291. As was explained in the SOBC (**C3**) and the OBC (**NR20**), doing nothing is not an option. Without this Project, there would be further congestion in the city centre, the growth of the CBC (and with it the expansion of the important research that it undertakes) would be threatened, and the vision of the local authorities to provide significant quantities of sustainable, accessible residential development in the Southern Fringe would be hampered. It is unsurprising in that context that Mr Simms’ opinion as to whether the Proposed Order was justified was: “*yes, without a shadow of a doubt*”. The Inspector and Secretary of State are invited to reach the same conclusion.

292. It is acknowledged that a compelling case can also only be made out where compulsory acquisition is being used as a last resort, although the Guidance

acknowledges that planning for compulsory purchase in parallel with negotiations is legitimate and appropriate.

293. In the present case, attempts to acquire by agreement have been undertaken with all affected landowners, as described in both the Proof of Mr Simms (**NRE 10.2**, Section 9) and as updated in his oral evidence (XC, Day 6, 9th Feb, AM). Substantial progress has now been made. Although acquisition of a number of interests remain outstanding, discussions are well advanced with many, which is evidenced by the fact that only five affected landowners remain objectors to the CSIE Project. This includes **OBJ10**, **OBJ11** and **OBJ17** (CBC Man Co, CML and CC1 & CC2), where heads of terms have been agreed and full agreements are well advanced.¹⁶ The remaining two landowner objectors are St John's **OBJ01** and the Pemberton Trustees **OBJ15**, and discussions are active with both.

294. It is always NR's preference to acquire land by agreement, and as such these efforts will continue after the close of the Inquiry.

295. The Guidance has therefore been complied with in both letter and spirit.

Matter 9(b): whether the purposes for which the compulsory purchase powers are sought are sufficient to justify interfering with the human rights of those with an interest in the land affected (having regard to Human Rights Act);

296. The compelling case for the CSIE Project is set out above. It is that compelling case that justifies any interference with Article 1, Protocol 1 ('A1P1'), which reads:

"1. Every natural or legal person is entitled to the peaceful enjoyment of his possessions. No one shall be deprived of his possessions except in the public interest and subject to the conditions provided for by law and by the general principles of international law.

2. The preceding provisions shall not, however, in any way impair the right of a State to enforce such laws as it deems necessary to control the use of property in accordance with the general interest or to secure the payment of taxes or other contributions or penalties."

¹⁶ It will be noted that CC1 & CC2's land interests are limited, being occupational only.

297. A1P1 grants a qualified right to property; a person may be deprived of their possessions where justified “*in the public interest*”. As detailed in the proof of Mr Simms (**NRE11.2**), the aims purposed by the CSIE Project comfortably sit within that public interest. States are afforded a particularly wide margin of appreciation to pursue infrastructure projects to the benefit of the general public. In the words of the Strasbourg court, urban and regional planning policies are, *par excellence*, spheres in which the State intervenes, particularly through control of property in the general or public interest.¹⁷ The community interest is, in that sphere, pre-eminent. What that means in this case is that the broader public’s interests at stake here – in access to the sustainable transport opportunities offered by the CSIE Project; to the medical care provided at hospitals in the CBC; and to the high quality and accessible housing in the Cambridge Southern Fringe – can legitimately be pursued through the Proposed Order.

298. The Proposed Order incorporates with necessary modifications the Compensation Code. Where the appropriate conditions are met, this ensures that interested parties who are deprived of their property and suffer loss as a consequence of the exercise of the powers in the Order are compensated. This includes provision for parties whose land is depreciated by the construction of the Project but where no part of that land is acquired by NR (see **NRE10.2**, [7.6]). Any person seeking compensation will have the right to have it determined by an independent Tribunal, represented by lawyers of their choosing. This ensures full and effective opportunity for any disappointed interested party to vindicate any property rights, consistently with A1P1.

299. The CSIE Project is a proportionate interference with such rights, justified by law in the public interest.

300. Further commentary on human rights can be found in (**NRE 11.2**, Section 8).

¹⁷ *Gorraiz Lizarraga and Others v Spain* (App. No. 62543/00) (27 April 2004), [70].

Matter 9(c): whether there are likely to be any impediments to NR exercising the powers contained within the Order, including the availability of funding

301. No impediments to the delivery of the CSIE Project pursuant to the powers that would be conferred by the Order are known to exist.

302. Planning would be addressed through the grant of deemed planning permission. All of the conditions proposed and agreed with the local planning authorities are considered to be reasonable and capable of being discharged.

303. Detailed design of the Project is well underway, with the contractor appointed and ready to commence works following the grant of the Order powers.

304. NR has, throughout the design of the Project, been supported by the Department for Transport. The Government in its March 2020 Budget confirmed that it would, subject to planning, “*build a new rail station at Cambridge South, improving connectivity to the world-leading research facilities of the Cambridge Biomedical Campus – the largest cluster of medical and life sciences research in Europe*” (**NR11.2**, p. 43 [8.2.4]). Subsequently, in April 2021, the Secretary of State approved the Outline Business Case for the project in April 2021, and has further confirmed in writing that funding will be met from the Department’s Rail Enhancements Budget (**NR05**), subject to a value for money analysis. The Project is therefore considered to be fully funded.

Matter 9(d): whether all the land and rights over land which NR has applied for is necessary to implement the scheme

305. The land proposed to be acquired, and other powers sought under the Proposed Order are described in **NR08** and illustrated on the Deposited Plans contained in **NR09-1**.

306. Mr Barnes has confirmed that the land shown in the Deposited Plans has been developed around the engineering proposals for the Project, as described in his Proof of Evidence. He has further confirmed that in his professional opinion, as a design engineer and construction manager of some 35 years’ experience, the land identified in the Order application is appropriate and necessary to deliver the CSIE Project.

307. No objector to the inquiry has made a case that any individual plot of land in respect of temporary or permanent powers are sought is not in fact so required.
308. The land included within the proposed permanent land take includes the land on which it is intended to construct the Railway Systems Compound. As the Inquiry has heard (XC Barnes, Day 1, PM; **NRE1.2**, [245]), it may be that certain elements of the RSC are not required owing to network-wide signalling upgrades. If so, this may present an opportunity for NR able to reduce the extent of the RSC and the related land take, and it has committed to doing so (see **INQ10**, [7.4.3]). Absent the advance delivery of those signalling improvements, however, all of the land sought for the RSC's delivery remains required.
309. The permanent rights are sought over land to facilitate later maintenance (as well as access for the same), and to enable NR to grant rights to third parties that will enable them to access and egress from the station over otherwise private roads, to access and egress to/from the Exchange Land, and to use the farm accommodation bridge in substitution for the level crossings. Without the grant of such rights the new station will neither be able to be used nor maintained, the Exchange Land will not be able to be lawfully accessed, and no usable alternative to the Crossings will be delivered.
310. Objections to land take have principally centred around the extent of temporary possession proposed within Hobson's Park. As also explained by Mr Barnes, land is required to assist with construction either side of the railway line. The compounds are indicated in **NRE1.2** Fig 49 (PDF 99) and Fig 50 (PDF100). The reason why they are needed is spelled out in **NRE1.2** Fig 52, (PDF102). The temporary land take required in the northeast part of Hobson's Park is further illustrated and justified in **INQ19**.
311. Every effort has been made to reduce the size of that temporary land take. To date, the main Hobson's Park compound has been more than halved, and what would have been CC5 is no longer being pursued. The TRA rightly characterise the former reduction as "*significant progress*" (**INQ10** [7.2.1]). Mr Barnes and the appointed contractor do however both take the view that

the CSIE Project cannot reasonably be constructed with any further reduced land take than that now proposed.

312. Nevertheless, NR has committed to keeping the position under review, and will endeavour to reduce land take in a piece-meal fashion, and return any land not required for construction purposes as soon as is reasonably possible. This is secured by condition 10 and the submission of construction plan and phasing details secured by condition 5 (See **INQ24**, [26]).

Matter 10: The conditions proposed to be attached to the deemed planning permission for the scheme

313. The conditions proposed to be attached to the deemed planning permission for the scheme have been substantially agreed with the local planning authorities. These were further discussed extensively in the conditions session of the Inquiry with Ms Charlotte Burton of CCiC and SCDC on 22nd February 2022, Day 13, and as a result, a further version, taking on board the additional points raised by both Ms Burton and the Inspector, has now been submitted (**INQ50-1**).
314. The only condition meriting specific mention at this point is that which requires NR to enter into a Section 106 Agreement with CCiC. Such conditions are not commonplace, but nor are they proscribed. The National Planning Practice Guidance is clear that a negatively worded condition making such provision may be appropriate in exceptional circumstances.¹⁸
315. In the present case, the exceptional circumstance arises because NR intends to deliver offsite mitigation, but does not presently have an interest in the land required for it. NR has however confirmed that it will do so following the securing of an option agreement with the CCoC, which option agreement is unlikely to be secured before the close of the Inquiry. Subject to receipt of a promised letter from the CCoC, CCiC is satisfied that NR will soon have the necessary interest in land and that, as such, exceptional circumstances exist to justify the imposition of a condition requiring entry into a Section 106 agreement to secure the offsite mitigation at that point (as well as the other

¹⁸ See Paragraph: 010 Reference ID: 21a-010-20190723.

matters that the agreement is intended to cover, e.g. maintenance) (**INQ 24**, p.2 at [8]-[10]). Network Rail agrees.

Matter 11: Whether all statutory procedural requirements have been complied with.

316. The relevant procedural requirements have been met, as set out in the statutory declaration of Michele Vas of Denton UK and Middle East LLP **INQ01**.

Matter 12: That it is appropriate for the Secretary of State for the Department for Levelling Up Housing and Communities to grant a certificate for the compulsory purchase of Open Space Land under Section 19 of the Acquisition of Land Act 1981.

Introduction

317. As a consequence of NR's proposal to permanently acquire land and rights over existing public open space, a certificate is sought pursuant to ss.19 (for land permanently acquired) and 28 (for land over which permanent rights are sought) of the Acquisition of Land Act 1981 ('the 1981 Act').

The provisions of the 1981 Act

318. Part III of the 1981 Act provides that the compulsory acquisition of open space requires Parliamentary approval, unless the Secretary of State certifies (so far as relevant to the present case) that the applicant has provided exchange land "*not being less in area and being equally advantageous to the persons*" (s. 19(1)(a) 1981 Act).

319. Likewise, s.28 and Schedule 3 (entitled "acquisition of rights over land by the creation of new rights") provide that Parliamentary approval for the acquisition of new rights over land will also be required, unless the Secretary of State certifies (so far as relevant to the present case) that "*the land, when burdened with that right, will be no less advantageous to those persons in whom it is vested [...] than it was before*" (Schedule 3, paragraph 6(1)(a), 1981 Act).

320. There is no statutory requirement to provide exchange land, or otherwise to seek a certificate, in respect of land which is subject to temporary use only.

NR's application

321. By an application dated 23 August 2021 (**NR21**) the scope of which was clarified in a letter dated 25 January 2022, **INQ2**), NR sought a certificate (i) under s. 19 in respect of the open space that it seeks to permanently acquire (namely, a small portion of Hobson's Park and a thin sliver of land adjacent to Long Road Sixth Form) and (ii) under s. 28 for the open space over which it seeks permanent rights (namely, plots 002, 008 and 008a).

322. As explained in Mr Wingfield's evidence (**NRE11.2**, p. 9, [3.4.2]) the Secretary of State indicated that he was minded to grant the certificate sought, and the application was subsequently publicised. Since confirmation that **REP11** (Mr Meed) was not in fact an objection to the certificate sought (**INQ12**), the application has been unopposed.

323. Nonetheless, NR sets out below its summary reasons why the certificate sought should be granted. For a fuller analysis in relation to the provision of the Exchange Land, additional reference should however be made to the evidence of Mr Jones (**NRE 8.2**).

Why the certificates should be granted

The provision of exchange land

324. NR is required to provide exchange land for (i) the permanent acquisition of an area of existing open space amounting to a total of 20,742 m² within Hobson's Park, and the grounds of Long Road Sixth Form College. The proposed permanent land take within Hobson's Park equates to 4.2% of its overall area, and less than 1% of the public open space within the border between the grounds of the Long Road Sixth Form College and the railway.¹⁹

325. An area of existing arable land to the immediate South of the existing boundary to Hobson's Park, and South of Addenbrooke's Road (Plot 092 shown in Sheets 3 and 6 of the Deposited Plans, **NR9.1**), is proposed to be acquired for the purpose of providing the Exchange Land.

¹⁹ These percentages are taken from the extent of public open space on Hobson's Park as indicated in the CLP. This is detailed in Note 2 **INQ20**, para. 11

326. The location of exchange land (indicated as EL4 on **NRE8.2**, Fig 9-9, p. 19) reflects a considered approach, which has been described and reviewed by Mr Jones (**NRE8.2**, Table C pp.20-21). Only one objector to the Project, Mr Chaplin's (**OBJ25**) suggested that any specific parcel would be preferable (EL2). Neither NR nor Mr Jones agree, for the reasons set out below in the Objections section (see paragraph 446 below). It will be noted that, even in their (now withdrawn) objection, CCiC recognised that EL4 is the most appropriate location for the exchange land (**OBJ23**, PDF8)
327. The exchange land is marginally bigger than the public open space land take and consequently satisfies the statutory requirement that it be 'no less in area' than the land being lost (see **NRE8.2**, [5.4.6], p. 22).²⁰
328. The test of being 'equally advantageous' is also satisfied, by reference to its quality, accessibility and usefulness.
329. As to *quality*, the Exchange Land is to be subject to landscape enhancement, indicatively shown in Drawing 158454-ARC-00-ZZ-DRG-EEN-000076 Rev P02 (**NR13**) but subject to a condition requiring the submission of details, with a view to ensuring wider community and amenity benefit to users of the Park. This landscape has, in itself, wider beneficial impacts on the area in terms of softening views (**NRE8.2**, 5.4.12 p. 23). This will ensure that the landscape delivered within the Exchange Land is at least equivalent, if not better, than that which is being lost.
330. As to *accessibility*, although the area of land to be provided is separated from the area of the existing park by the Brook, two direct pedestrian connections will be created into the Exchange Land from the existing park, at both the Eastern (shown as a future footbridge on the updated plans, **NR13**, PDF22, DRWG54) and Western ends (forming part of, but segregated from, the farm accommodation bridge shown on the same plan) of the Exchange Land. Delivery of the future footbridge is secured by condition (**INQ50-1**, Condition 39).
331. As to *usefulness*, the land being provided is equally, if not more, advantageous to the persons who use the public open space taken. The land being taken from the Sixth Form college is a thin sliver of woodland to the East

²⁰. The total land take is 20,742m²; the exchange land is 20,842m²

of the railway, with no practical public open space function. As for the land within Hobson's Park, it is predominantly a thin corridor of land adjacent to the existing railway and the bridge carrying the Cambridge Guided Busway, as well as a piece of land to the South of Addenbrooke's Road for the Railway Systems Compound (**NRE8.2**, fig 5-5, p. 12). Viewed in isolation, that land currently enjoys only a limited amenity value, as the land is bordered by a railway line, and the strip of land to the West of the railway is severed from the remainder of Hobson's Park by an embankment which acts as both a physical and visual barrier. Their replacement with a consolidated, accessible tract of land which will be sympathetically planted and integrated into Hobson's Park is considered to provide an area that is capable of providing at least as much, if not greater, utility for recreational users of the Park over the current position. It will be noted that CCiC now consider the exchange land capable of being "*equal or better quality*" as required by CLP Policy 67 (**INQ24**, [22]).

332. Critically, the CCiC will have the final word on whether the exchange land is indeed of equal or better quality, as they are required to certify that that land is of a satisfactory quality before the land is vested (see Article 36(4) of the Proposed Order).

Timing of the provision of Exchange Land.

333. At the time the Order application was made, the Proposed Order provided for the Exchange Land to be laid out for use by the public prior to first use of the Works (i.e. station opening). In their evidence, CCiC sought the delivery of the Exchange Land in advance of temporary possession being taken of the areas of land within Hobson's Park (**OBJ-23-W2/1**, [4.1.2](k)).
334. As at the close of the Inquiry, a compromise position which is mutually acceptable to NR and the Councils has been reached. The timing is set out in Article 36 of the Proposed Order and explained in **NRE8.2**, [5.4.13-14] p. 23. In short, the Exchange Land will be laid out for public use by the time any of the existing open space is vested (see **INQ52-1**, Article 36(3)).
335. For completeness, it is noted that, in addition to not being required by the 1981 Act prior to the permanent acquisition of the open space which is being replaced, the provision of the Exchange Land at an earlier date is not practically possible in this case. It would create potentially dangerous interactions

between the construction works (which include the construction of an accommodation bridge on EL4, and access to the Railway Systems Compound to the East of EL4) and the public seeking to use that exchange land (See **NRE8.2**, [5.4.15]). NR would therefore have to provide different exchange land pending the availability of EL4. That would significantly delay the proceedings, on David Jones' estimate by 1 to 2 years while the consulting process is recommenced, detailed drawings are prepared and fresh compulsory purchase proceedings are initiated. In addition, it would conflict with the proposal to use the Exchange Land to provide mitigation for any potential effects upon corn buntings. As evidenced by their withdrawals, the Councils are understood to accept this position, and CCiC has made this clear in terms at **INQ24**, [12].

Acquisition of permanent new rights

336. The permanent new rights which are sought over Plots 002, 008 and 008a are required to provide NR with rights of access to the Exchange Land (together with the ability to grant such rights to others) and for maintenance purposes.²¹ The use of these Plots by NR and third parties for access purposes will not result in the exclusion of any person who currently uses the land, or put them to any material inconvenience. Indeed, no person has suggested that it would. Consequently, the land when burdened with the new rights, will be no less advantageous to those persons in whom it is vested and other persons, if any, entitled to rights of common or other rights, and to the public, than it was before.

D. THE PLANNING CASE FOR THE CSIE PROJECT

337. In addition to the powers sought in the Proposed Order, NR has applied for deemed planning permission under section 90(2A) Town and Country Planning Act 1990, which provides that on making a TWAO, the Secretary of State may direct that planning permission be deemed to be granted for the works in the Order. The test to be applied to this application is the same as on a Town and Country Planning Act application and will be familiar to the Inspector, namely

²¹ NR confirmed the plots which were subject to the application made pursuant to s.28 and Sch.3 in a letter dated 25 January 2022.

that the application must be determined in accordance with the local development plan unless material considerations indicate otherwise.

338. The Secretary of State has not specifically sought advice on the compliance of the CSIE Project with the development plan or other planning policy. A full assessment of the planning position has however been provided through the written and oral evidence of Mr Pearson (**NRE 9.2 and 9.3**), which should be considered together with the revised conditions (**INQ50-1**)

339. The below submissions seek only to draw to the Secretary of State's attention NR's position on the key planning issues arising in this case.

The Local Planning Context and the Principle of Development

340. The CSIE Project is firmly anchored in the local development plan. At a high level, the Proposed Order responds to the broader strategic aims of the Cambridge City Local Plan ('CLP') and the South Cambridgeshire Local Plan ('SCLP') to promote accessible transport and support Cambridge's role as a world leader in higher education, research, and knowledge-based industries.²² They provide as follows:

- a. CLP, Strategic Objective 10: promote and support economic growth in environmentally sustainable and accessible locations, facilitating innovation and supporting Cambridge's role as a world leader in higher education, research, and knowledge-based industries, while maintaining the quality of life and place that contribute to economic success; ;
- b. CLP, Strategic Objective 13 (**D6**, PDF17): be located to help minimise the distance people need to travel, and be designed to make it easy for everyone to move around the city and access jobs and services by sustainable modes of transport
- c. SCLP, Policy S/2(a) (**D8**, PDF34): To support economic growth by supporting South Cambridgeshire's position as a world leader in research and technology based industries, research, and education; and supporting the rural economy;
- d. SCLP, Policy S/2(f) (**D8**, PDF35): To maximise potential for journeys to be undertaken by sustainable modes of transport including walking, cycling, bus and train

²² D06, CLP Strategic Objectives 10 and 13, PDF17; D08 SCDC Policy S/2 (a) and (f), PDF34-35.

341. More specifically, the need for the CSIE Project is expressly recognised in the Transport Strategy for Cambridge and South Cambridgeshire 2014 ('TSCSC') which identifies a longer-term opportunity for a new rail station at Cambridge South, as part of an overall strategy to strengthen employment hubs and high-tech clusters in Cambridge and South Cambridgeshire (**D10**, p. 5-4). While the TSCSC is not a local development plan document (see PCPA 2004, s. 38(6)) it is mentioned in terms in the CLP in Policy 5 which requires development proposals to be consistent with the TSCSC and the priorities set out therein. (**D6**, PDF38).
342. Likewise the Cambridgeshire Local Transport Plan 2011-2031, to which the SCLP cross-refers (**D8**, Policy TI/2, PDF238), identified need for a new rail station at Cambridge South (**D18**, p. 4-107); its replacement, the Cambridge and Peterborough Local Transport Plan (**D9**) identifies Cambridge South Station as a priority transport scheme. That Plan recognises the considerable rise of rail usage in the area, and seeks to provide a range of schemes to encourage this trend. This includes a station at Cambridge South that will *"significantly improve access to the Cambridge Biomedical Campus from the region and beyond"* (see [2.42]). The advantages of this station are expressly recognised, and they include reduction of congestion in the City Centre, modal shift, and support of high-quality employment opportunities in the CBC (see [3.66]).
343. Further material considerations weigh strongly in favour of the CSIE Project. They include its contribution to sustainable transport modes, the support of high-quality employment at the CBC, and provision for the committed housing developments to the West of the site. These aims – environmental, economic, and socio-economic – are at the heart of the local development plans, as well as national planning policy more generally. The CSIE Project makes a substantial contribution towards all three, and is therefore firmly rooted in the local development plan.
344. Against that backdrop, it is not surprising that both local planning authorities have – from the outset – recognised that the CSIE Project would *"support the objectives of"* the local development plan (**OBJ23**, p. 2) and have

supported the principle of the CSIE Project (**OBJ24**, p. 4). Indeed, of the 25 original objectors, not a single one has called into question that principle.

Green Belt Policies

345. Chapter 13 of the NPPF (**D1**) seeks to protect green belt land, which, on the CSIE Project, is a large corridor between the railway in the East and the residential developments to the West. Inappropriate development is by its nature harmful and should not be approved save in very special circumstances (NPPF [147]). Development is not inappropriate if it is (i) *"local transport infrastructure which can demonstrate a requirement for a Green Belt location"* that (ii) *"preserve[s] [green belt] openness and do[es] not conflict with the purposes of including land within it"* (NPPF [150(c)] and [150]). The CSIE Project meets both criteria. It is therefore not inappropriate development, and its approval is therefore consistent with the Green Belt policies. This is considered in depth in **NR18**, and summarised in Mr Pearson's evidence (**NRE 9.2** p. 15, [4.4.1]ff).

346. As a preliminary point, the design of the station has carefully taken into account the Green Belt context (**NR15**, PDF32, [3.3.1]). Vehicular access is provided to the East alone, which reduces the need for land take on and visual intrusion in the Western side. The Design Principles will ensure that the final design is sympathetic to the park context, and will reduce any sense of visual clutter from the CSIE Project (see **INQ21**, 3.1B, PDF6; 3.7E, PDF12; see also those referred to in **INQ24**, [45] with the express purpose of preserving the visual integrity of Green Belt) The resultant project is respectful of the Green Belt designation, and sensitive to local context (**INQ21**, PDF12, [3.7.1]).

347. The CSIE Project constitutes local transport infrastructure. It also requires a Green Belt location, as it seeks to provide transport benefits to the CBC. The existing rail line – established in the 19th Century – is adjacent to the Green Belt. Providing the station further afield would make the station less attractive for those walking or cycling to the CBC, and fundamentally undermine the benefits that it seeks to provide.

348. The CSIE Project preserves the openness of the green belt, and does not conflict with any of the purposes of the Green Belt.

349. The *purpose* of the Green Belt was extensively considered in the Cambridge Inner Green Belt Boundaries Study ('CIGGBS') which considered 16 qualities that contribute to the performance of the Green Belt. The CSIE Project, which lies areas 9.1, 9.2 and 10.2 of the CIGGBS, was considered against those 16 qualities, and it was found that no qualities would have more than a minor conflict (**NR18**, Table 3, PDF18ff and Table 5, PDF35ff).²³ Indeed, some of those qualities – including a city of human scale easily crossed by foot and bicycles; a soft green edge to the city; and character and structure of the landscape – were found to be enhanced by the CSIE Project, which would improve foot and cycle paths through Hobsons' Park and provide a sympathetic design consistent with the overall landscape features.
350. While some qualities would be adversely impacted, this would be due to the novelty of the station in the green corridor **NR18**, [7.2.11]. However, less than 10% of that corridor would be affected, and would not be intervisible with the historic core of Cambridge. The only Green Belt quality to be adversely impacted is the "*well-designed edges to the city*", but the existing visual landscape is dominated by substantial developments in the CBC, with further developments underway, and Nine Wells Bridge. The CSIE Project would in fact reduce visual discordance by providing sympathetic landscaping around the Railway Systems Compound, softening Nine Wells Bridge.
351. The *openness* would not be compromised. The works at Shepreth Junction (in sub-area 9.1) do not involve any new built form or vertical encroachment, and the works to the South Addenbrooke's road (in the northwestern part of sub-area 10.2) would only include slight widenings to the track. The station building itself (in sub-area 9.2) would, while having a minor impact on overall openness, be limited to a small part of the Green Belt where there is already established development in the CBC to the East. Only a small part of the approach to the City would be impacted by the CSIE Project, which would also provide overall benefits in softening any sense of sprawl on the corridor from

²³ The areas and sub-areas after taken from CIGGBS, reproduced in **NRE18**, PDF47. Area 9 is Hobson's Brook Corridor, with sub-area 9.1 South of Addenbrooke's Road and sub-area 9.2 North of Addenbrooke's Road. Area 10 is South of Addenbrooke's, with sub-area 10.2 defined as North of Granham's Road. In short, with Addenbrooke's Road and the railway as dividing lines, 9.2 is upper left; 9.1 is lower left and 10.2 is lower right.

developments in the CBC to the East and residential developments on the West. On balance, the change is not considered to be harmful to openness.

352. In the alternative, and as confirmed by Mr Pearson in his evidence to the Inquiry (XC, Feb 9, Day 6, PM) if it is not accepted that the CSIE Project meets the two criteria NPPF [150] and [150c], it is eminently capable of satisfying the general test in paragraph 147 NPPF, namely that “*very special circumstances*” exist to outweigh any harm by reason of inappropriate development and planning permission should be granted in any event. These circumstances comprise the very significant planning and transportation benefits that the CSIE Project delivers, and the need for it to be located adjacent to the CBC in the green belt to deliver those benefits (see **NR14**, [6.3.7]).

Flood Risk

353. The flood risk tests imposed through national planning policy are set out in NPPF [162], the sequential test, and NPPF [164], the exception test. So far as relevant, they provide:

"[162] The aim of the sequential test is to steer new development to areas with the lowest risk of flooding from any source. Development should not be allocated or permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower risk of flooding. [...].

[164][...] To pass the exception test it should be demonstrated that:

- a) the development would provide wider sustainability benefits to the community that outweigh the flood risk; and*
- b) the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall"*

354. The vast majority of the CSIE Project lies in Flood Zone 1, but there is a small area in Flood Zone 2 (in Hobson’s Park, set back from the railway) and a

small area in Flood Zone 3 (to the West, near the forecourt) (see **NR16**, Appendix 18-2, PDF12, Fig 3).

355. *The sequential test.* It is not possible to locate the CSIE Project in any other reasonably available site. That is because the transport benefits that the CSIE Project is intended to deliver would be negated if it were provided away from the CBC. The sequential test is passed as there are no *appropriate* alternative sites in lower risk Flood Zones.

356. *The exception test.* The CSIE Project constitutes “*essential infrastructure*”, and, as such, the exception test applies as it is (partly) in Flood Zone 3. That test involves establishing (i) whether the station would provide wider community benefits that outweigh flood risk (dealt with in the evidence of Mr Pearson **NRE9.2**) and (ii) that the development would be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, reduce flood risk overall (dealt with in the evidence of Mrs Brocken **NRE5.2**).

357. As to point (i), this was addressed by Mr Pearson in oral evidence, who explained that the benefits of the station overwhelmingly justify the potential increase in flood risk (XC, Day 6, 9th Feb PM).

358. As to point (ii), this is covered in detail in the **NR16** (Appendix 18.2, the site-specific Flood Risk Assessment, ‘SFRA’), and discussed above in detail in Matter 7(b). In short, all sources of flooding were assessed to be a low risk, with some higher isolated risks of surface water flooding which is adequately dealt with by appropriate mitigation measures detailed in the SFRA. The SFRA showed that hydraulic modelling demonstrates that the proposed development will be safe with respect to *fluvial* flood risk from the North Ditch as no out-of-bank flooding is predicted in the modelled events, including when climate change is taken into account; and *surface water* runoff from the proposed development would be managed in line with national and local policy requirements through the implementation of the Surface Water Drainage Strategy.

359. As such, the CSIE Project is compatible with flood policy. Neither the EA nor the LLFA contest this, and no other party to the Inquiry suggests otherwise.

Other material considerations

360. *Provision of open space.* The provision of replacement open space for that taken by permanent land take is discussed above in relation to Matter 12. As confirmed by David Jones in oral evidence, the requirements of the ALA 1981 do not materially differ from local and national planning policy; the latter simply provide a greater level of detail. The exchange land provision is compatible with those policy requirements. This is now accepted in terms by CCiC (**INQ24**, [22]).
361. The impact of the CSIE Project on *trees* has been covered in detailed under Matter 3 and Matter 7(d) above. Under Policy 71 of the CLP (**D6**, PDF212) felling will not be permitted unless “*there are demonstrable public benefits accruing from the proposal which clearly outweigh the current and future amenity value of the trees*”. Two experts before the Inquiry gave evidence on whether the planning balance contemplated in that policy would be met by the CSIE Project. Both experts – Mr Pearson for NR (see **NRE9.2**, [4.7.25]) and Ms Burton for CCiC and SCDC – stated that their professional opinion was that any loss of the amenity value of trees was amply justified by the planning benefits of the CSIE Project.
362. *Design and Access* has been covered in **Matters 3(a) to 3(d)**. The access to the CSIE Project will ensure equitable access to a wide range of users, including disabled persons. Amenable cycle and pedestrians paths are provided through Hobson’s Park to the West, and modifications are proposed to the existing local road network to facilitate the increase in bicycles and pedestrians. NR has engaged extensively with TRA on their proposed alternative access to the station on the West, however consistent with the requirements of both the CCoC and CCiC (the latter of which has moved on from the different position previously advanced in its evidence, to return to the position it adopted at the pre-application stage), it is proposed to remain with the designs as originally proposed, noting that those designs respect the existing location of the path.
363. *Provision of electric car charging points.* Following discussion with CCiC, charging points will be provided for electric cars. This will ensure consistency with Policy 82, as well as the air quality improvements contemplated by Policy 36 of the CLP (**D06**, PDF141)

E. OBJECTIONS

Overview

364. This section addresses the representations, the three objections of those who appeared at inquiry, and the ten other remaining objections. It will be noted that a number of the objections echo points made by others, and only three objectors participated – and then to a limited degree – in the Inquiry.

Representations

365. As indicated in Opening Submissions, in total, eleven representations have been received in relation to the Project.²⁴ National Grid, a statutory undertaker, confirmed in its representation that it had no objection to the Proposed Order (**REP06**). Historic England, in its representation, “*welcomed the opportunity for early engagement that is referred to in the submission*” and praised NR for its design which has “*acknowledge that design has sought to avoid encroachment and impacts on the White Hill Farm Scheduled Monument, and its setting, as far as possible*” (**REP07**). They advise that the submission meets the test in what is now paragraph 200 of the NPPF (**D2**).

366. NR has responded to the remaining representations, addressing their issues of concern. With the exception of Mr Meed, who has stated that he is “*greatly reassured*” by NR’s response and will consider Mr Stone’s comments in relation to biodiversity as soon as he gets the opportunity, no further response has been received in relation to any of these. NR has provided the Inquiry with a note on the response to the Representations (**INQ49**).

Outstanding objections

367. As indicated above, only 13 objectors remain. What follows addresses how NR has responded to their concerns. While NR considers the below to address those concerns in full, NR is committed still to making ongoing attempts to resolve those issues, and engaging constructively with the objectors.

²⁴ Two of them, from CCiC and SCDC (REP08 and REP09) were treated as objections (see OBJ23 and OBJ24) and have since been withdrawn, and a third, Mr Chaplin, then submitted a letter of objection to the CSIE Project (OBJ25). The representations and responses have been provided to the Inquiry, and summarised in **INQ49**.

OBJ07: Trumpington Residents' Association

368. The TRA's initial objection raised a number of areas of concern. Following engagement between the parties, six of these areas were resolved to the TRA's satisfaction, as recorded in the Statement of Common Ground dated 18 January 2022 (**INQ10**, Section 6). As at the close of the inquiry, just five areas of concern remain, relating to: the impact on Hobson's Park; alignment of the segregated path through Hobson's Park; cycle parking provision; the location of the RSC; and the adequacy of bus interchange facilities.

369. It is notable that, under XX, Mr Plank of the TRA expressly praised NR's collaborative approach, and repeatedly emphasised that their relationship had been open, constructive and very helpful. While NR is endeavouring to accommodate and resolve all of the TRA's concerns in respect of the scheme, the Inspector will appreciate that factors including the construction requirements for the Project, and the constrained nature of the site itself, that mean that it cannot accede to all of TRA's requests. Moreover, some areas (such as cycle parking provision) are matters over which different stakeholders disagree, and in relation to which NR has to act to satisfy the widest interests.

370. *The adverse impact on Hobson's Park.* The TRA welcome the reduction in temporary land take secured by NR to date, but nonetheless wish for even less land within Hobson's Park to be temporarily acquired. The justification for the compound on Hobson's Park is however explained by reference to **INQ18** which provides a break-down of anticipated land use. That land take has been identified by the actual contractor, based on its known requirements, and based upon the identified requirement to preserve in situ as much of the existing landscaping and vegetation in that area. It will be observed that scale of the land take is in substantial measure driven by this.

371. The evidence of Mr Barnes, who has reviewed the contractor's proposal, is that, given that works are required to be undertaken on the West side of the railway, all of the land outside the protected vegetated area is required for their safe and efficient construction, and in particular, for ensuring the separation of people and plant. whilst also setting aside undisturbed a substantial area of.

372. Contrary to Mr Plank's assumption, NR is not compelled to take the proposed temporary work site on the West as a result of pressure from the East. The worksite is there because it needs to be there. Acting in good faith, NR has reduced the scale of the land take sought so far as possible at this stage, but it can do no more.
373. *Alignment of segregated path through Hobson's Park.* TRA's proposals have been carefully considered and are illustrated in **INQ08**. NR was prepared to implement those alternative proposals. Ultimately, however, CCiC and CCoC do not support the segregated path realignment, and as such it cannot be unilaterally pursued by NR, as Mr Plank fairly conceded. In the event, the proposed segregated path 25m South of the guided busway at the Northern extent of Hobson's Park builds on an existing path, and will assist with providing the accessibility benefits and modal shift that are integral to the CSIE Project's success.
374. *Cycle provision.* The distribution of cycle provision will be determined by a further study to ensure that the cycle parking responds to the needs of the station and its users. Mr Plank accepted that this will be subject to approval by the local planning authority, who will ensure that unacceptable effects on the park do not arise.
375. It is not accepted that because the station seeks in large measure to benefit the CBC that the cycle parking should automatically be skewed towards the East; rather, the cycle parking should respond to the actual needs of the users, based on representative trip distributions (and subject to approval by the local planning authority). Subject to further studies, that split is currently 48% to the West and 52 % to the East (**NR16**, Vol 3, 17-2, [9.4.8]). The suggestion made by TRA that users seeking to go West or arriving from the West should make use of parking spaces on the East is not a reasonable one, And may cause congestion for users of the shared use path that crosses over the railway alongside the guided busway.
376. *Location of the Railway Systems Compound.* TRA does not object to the principle of a Railway Systems Compound, nor does it propose that it moved to an entirely different location; its preference is to see it relocated closer to the railway within the existing plot. Mr Barnes gave evidence explaining why, in his view, the RSC will likely have to stay where it is presently proposed –

which included the manifold requirements for 360° access to the DNO cubicle, a safe working area and access around it, and landscaping (XC, Day 1, AM and **NRE1.2**, PDF133, Section 7.11).

377. Notwithstanding this, NR is committed to keeping the precise location of the RSC within that plot under consideration, and it may be that only a compound of a smaller size is required if other signalling infrastructure upgrades precede the Project (**NRE1.2**, [245]). Ultimately, however, if the multiple needs cannot otherwise be accommodated within the plot as Mr Barnes anticipates, or if the upgrades are not forthcoming within the right timescales, the RSC will have to be built 'as proposed'.

378. *Bus interchange facilities.* As became apparent during Mr Plank's live evidence, the TRA's complaint is not that NR's proposal fails to provide adequate interchange with the existing bus stops, but a broader desire to see additional bus services in that location. As Mr Plank accepted, the provision of additional bus stops is not a matter for the rail network operator, but for CCoC and the bus operators. They did not suggest that any such requirement would arise as a result of the new station in their consultation responses.

379. The acceptability of the station's interchanges with the existing bus network has in any event been covered above at **Matter 3(d)**.

OBJ14: Cambridge Past Present and Future

380. CPPF have raised concerns relating to the exchange land, the impact of the RSC on surrounding landscape, the design of the station so that it integrates with Hobson's Park, and the provision of toilets. It should be noted that CPPF take no issue with the principle of the station, and explained in terms in evidence to the Inquiry that they support it. Their concerns relate solely to the impacts of the Station on the Western side.

381. *Exchange land.* CPPF suggests that NR should look to integrate the exchange land with other projects, to create one large area of mitigation land. Whilst the sentiment behind the suggestion is understandable, it is unworkable in practice and flawed in law.

382. The projects identified by CPPF as requiring mitigation land in the area are not yet even at the application stage. Consequently, there is no guarantee that those projects will come forward (and if so which ones and when).

383. Even if they are to come forward at some future stage, NR does not know now (and quite likely even they may not know), what their mitigation land requirements might be, and/or what requirements that land might need to meet, which would depend on what the land was required for (e.g. BNG requirements, habitat replacement, replacement open space/recreational function etc). As such, it is impossible to know now what larger area of land might be suitable for meeting all parties' needs.
384. The practical difficulties associated with finding such a larger (albeit as yet unspecified) area of land are likely to be particularly acute for the CSIE Project, constrained as it is by the Green Belt, development, and a Scheduled Monument to the South of Hobson's Park.
385. As Mr Littleton accepted in XX, NR would not be able as a matter of law or policy be able to acquire land *in excess* of what is required for the CSIE Project, as compulsory purchase powers should be exercised over the minimum area necessary to achieve the project's ends. That would mean that even if NR acquired a portion of some larger site for its own purposes now, neither NR (nor any other public body) would have any power to ensure that the 'remainder' of the exchange land came forward as hoped for the other schemes.
386. It is telling that CPPF did not in its written evidence suggest any tract of land capable of accommodating the additional exchange land that would hypothetically be required. The closest site allocation for open space in the CLP (see Policy SC/1) is South of Granham's Road, Great Shelford (SC/1 2(e)), which is far in excess of the 400m "short walk" distance from Hobson's Park (see Policy 67) and which was accordingly discounted. The vague suggestion that the Nine Wells Nature reserve could be expanded would not be policy compliant, as it too would be likely to over 400m away from Hobson's Park. Nor – unlike EL4 – does it have the accessibility advantage of being directly adjacent to it.
387. *Impact of RSC on Landscape* On the impact of the RSC on landscape, CPPF point to a "*strategically important*" viewpoint towards the Gog Magog Hills that would be adversely impacted by the RSC. However, as CPPF rightly accepted in XX, there is no such strategically important view. The relevant viewpoints

for the Landscape and Visual Impact Assessment were agreed with GCSP, and no view points South of Addenbrooke's Road towards the Gog Magog Hills were to be assessed.²⁵ On the contrary, the ES quotes from the landscape assessment used for the CLP (the CIGBBS), and notes that the area (Sub-area 9.1) is flat before rising towards the Gog Magog Hills. Nonetheless it concludes that "there are no key views in the vicinity" (**NR16**, PDF446, para 13.3.39). Furthermore, the landscape impacts of the RSC were found to have only a "very small" change on the views and visual amenity given its small scale (PDF435, para 13.2.66).

388. The need for the RSC to be in the location presently proposed (subject to review) has been addressed above in relation to the TRA objection.

389. *Design of the station.* Contrary to CPPF's suggestions, the station has been designed with the Park setting to the West in mind. The Design Principles (**INQ21**) will ensure that the station faithfully reflects the contrasting park-urban settings, and integrates well within the broader landscape. The importance of careful integration with the park surroundings has been recognised since the beginning of the project.²⁶ The aim is for the development's external form, roofscapes and materiality to reflect the semi-naturalised character of the park and appear to connect across the railway to the purposeful visual, and green, gaps between the CBC Western buildings (**NR15** PDF32, [3.4.6]). As CCiC recognised in its "*overall design response to context*" – even in the early stages when they did not support the CSIE Project overall – the CSIE Project will bridge the transition between Hobson's Park public open space, which has a focus on the countryside, and the much more urban environment of the Cambridge Biomedical Campus (**INQ39-2**).

390. In any event, and as Mr Littlewood properly acknowledged in XX, approval of the detailed design of the building is secured by condition and will be subject to the scrutiny and approval of the local planning authority, who will be an independent arbiter of whether the Design Principles relating to respect for the Park have been upheld. There is no reason to believe, at this outline stage, that the CSIE Project cannot ensure that the design integrates well with

²⁵ NR16, Appendix 13.1, PDF4 shows the six viewpoints, which were agreed with GCSP (see NR16, Table 13-3, PDF433 The closest view points (3 and 4) do not even label the Gog Magog Hills.

²⁶ At stage 2 of the consultation, NR explained that "*not becom[ing] a dominating visual focus to users of Hobson's Park*" was a key design parameter (**NR07, PDF195**)

Hobson's Park. Indeed the contrary is true, as the local authorities have recognised; with the CCiC recognising that the design principles are an "*essential tool*" to ensuring that the CSIE Project integrates with Hobson's Park (**OBJ23**, PDF6).

391. *Provision of toilets.* As Mr Pearson explained, there is no policy requirement to provide toilets in a station *outside* the payline. The Councils have not suggested otherwise. Suitable provision is made for the patrons of the station, in the form of a fully-accessible 'Changing Places WC'. Any provision of toilets outside the payline brings with it issues of cost and maintenance, which are matters for the Train Operating Companies and not NR.

392. There is no suggestion that Cambridge South station serves as an additional attraction to Hobson's Park, and, as such, there can be no suggestion that such toilets are to be provided as part of a package of mitigation for Cambridge South. By contrast, Hobson's Park *was* brought forward as mitigation for the developments to the West; if such toilets were required to realise the public or mitigation value of the Park, they could reasonably have been expected to have been provided at that stage. They weren't – and that may at least in part have been in recognition that Hobson's Park is not a 'formal' park, like, say, Greenwich Park or Regent's Park, but instead a more wild space where people can enjoy nature, without the attendant urbanising facilities.

OBJ22: Smarter Cambridge Transport

393. SCT takes no issue with the principle of the CSIE Project, accepts the current transports problems identified in NR's evidence, and further accepts that the CSIE Project will address those problems. The only point that divides SCT and NR is whether the CSIE Project should pre-emptively account for the demand calculated by Mr Leigh's admitted "radical" modelling (c.9 million passengers per annum), or whether the CSIE Project should, as NR contends, account for the demand calculated by the Department for Transport's approved methodology (2.3 million passengers per annum, albeit sensitivity tested for 6mppa). SCT has, to that end, provided a schematic alternative for an over-railway development that it says will cater for their projected demand, and will integrate better with the bus services by providing bus stops within 20m of the entrance.

394. The nub of NR's response is that Mr Leigh's modelling has no policy or other industry support, and that the modelling undertaken in support of the Proposed Order is consistent with the methodology mandated by, and accepted by, the Department for Transport. Indeed, it was undertaken on their behalf. To accept Mr Leigh's alternative would be to impose upon the public purse an oversized solution; to fail to take stock of the constraints of the site and the need to provide for equitable access for all, and likely result in greater land take within the Green Belt/public open space of Hobson's Park.
395. The attitude of "*build it and they will come*" that essentially underlies SCT's approach is inconsistent with both the realities of a Government funded project, where expenditure must be carefully and robustly justified, and compulsory purchase law and practice which – for public interest reasons – requires land take to be no greater than what is required.
396. SCT's objections covered the following principal points, which we address in turn: alternative modelling of passenger demand, and an alternative station that would better integrate with the existing transport links.
397. Other detailed points made in relation to the Transport Assessment and other application documents were addressed in detail in the evidence of Messrs Hilling and Wingfield (**NRE2.2**, [9.1.166]ff, and **NRE2.3** Appendix G, PDF93; and **NRE11.2**, [9.8.9]ff) and **NRE-REB-05**. None of the detailed responses were the subject of any challenge by Mr Leigh (in spite of being afforded the opportunity) and as such should be accepted.

Modelling for passenger demand: inconsistent with DfT policy

398. Although Mr Leigh recently commenced employment in a transport policy post, he acknowledges that he has no professional experience of modelling demand for railway stations. Respectfully, his position is essentially that of an enthusiastic academic. By contrast, the modelling undertaken on behalf of the DfT was completed by Mott MacDonald ('Motts'), a well-known and well-respected national consultancy with relevant experience to undertake that type of work (**REB-05** p.8 [3.5.1]).
399. As would be expected, Motts conducted that modelling in accordance with the requirements of the Government guidance, *TAG UNIT M4, Forecasting and Uncertainty* ('TAG4'), adherence to which is explicitly required for all projects

intended to be funded and approved by the DfT, as here. That modelling has subsequently been reviewed by the DfT's Centres for Excellence; the DfT has accepted it (twice, at SOBC and OBC stage); and that the DfT has committed to funding the CSIE Project on the basis of the forecasts. It has been subject to sensitivity tests, the specification of which were agreed by the DfT (**REB-05**, p.8).

400. Mr Leigh accepts that the modelling work carried out was in accordance with TAG4 methodology. His view is essentially that the modelling process mandated by it is inappropriate, and that an alternative, bespoke method could and should have been used.

401. At some points, Mr Leigh suggested that TAG4 might in fact allow for the *ad hoc* methodology he has employed. That is incorrect. All DfT funded projects "are required to adhere to the methodology set out in [Section 8.1]" (see **INQ15**, [8.1.5] and [8.4.1]). There are "*a small number of circumstances*" where alternative approaches can be employed, but even these alternative approaches are set out, being those in TAG4 Section 8.2 or another document (the Passenger Demand Forecasting Handbook (PDFH) version 6, Section 9 and a now-withdrawn guidance document²⁷) may be more appropriate ([8.1.6] and [8.4.1, third bullet]). Mr Leigh rightly accepted that his methodology did not fit within the alternative methodologies set out in Section 8.2 or that other document. This is hardly surprising given what he described as the "radical" approach he took to applying decarbonisation policy in his modelling, which he further described in his own oral presentation as "not [being] approved by the DfT".

402. Mr Leigh could point to no other existing Government or industry policy or guidance document that supported his particular methodology. It is entirely novel. Moreover, while he conjectured that there might be other projects that followed a similar unique methodology, he could give no examples.

403. It is respectfully suggested that it is not for the Inspector to determine that the DfT's modelling methodology, which it accepted has been correctly applied,

²⁷ Guidance Passenger demand forecasting for third party funded local rail schemes: Advice for scheme promoters carrying out or commissioning demand forecasting studies for new railway stations and passenger services.(Withdrawn 1 July 2020) <https://www.gov.uk/government/publications/passenger-demand-forecasting-for-third-party-funded-local-rail-schemes>

is wrong, and it would be frankly perverse for the Secretary of State to proceed on the basis that his own department's forecasting methodology was inappropriate.

404. Similarly, regardless of whether Mr Leigh is right that DfT policy fails to act on the Government's commitment to Net Zero or decarbonisations strategies and that the DfT is "*behind the curve*" in this regard (in Mr Leigh's words), is not a matter for the Inspector to determine. That is a matter for Government itself (of which the DfT is part, in spite of the somewhat bizarre suggestion Mr Leigh made to the contrary), in a macro-level review of its recommended approach, and not on an ad-hoc, isolated-case basis.

405. Mr Leigh's attempt to cast doubt on the forecasts with the suggestion that any modelling is a matter of probability is of course correct. It is axiomatic, as any modelling exercise must look to the future, and the future is inherently uncertain. But the point goes nowhere. Uncertainty is not a license to conduct modelling without regard to established methodology. It is the very use of established and consistent methodology that helps to ensure that future uncertainties are accommodated in a manner that is both consistent and considered appropriate by Government, albeit with due allowance for the need for case-specific flexibility (as employed in this case, e.g. in relation to increased employment growth during the Plan period; see **REB-05** at Section 6.2).

406. NR accepts (as does relevant modelling policy) that rail stations should be stress tested to ensure that they can continue to deliver the transport benefits when the forecasted demand is exceeded, and that has been done. NR has stress tested the station capacity, and that of the related pedestrian and cycle infrastructure for 6 mppa, nearly three times more than the expected 2.3 mppa, and the CSIE Project passed that test.²⁸ SCT's core concern (that the CSIE Project should be able to cope with demand in excess of forecasts) has already been amply taken into account.

407. The Inspector is invited to place no weight on Mr Leigh's reliance on Cambridge North, which he claimed had already exceeded forecast demand set

²⁸ This stress testing for 6mppa has been undertaken both for the station access *and* for the pedestrian access capacity. See **INQ51**.

out in its business case. Mr Leigh conceded in XX that he was “not that familiar with the project”. He was unable to identify the source material for his claims, or even indicate whether he was comparing the same forecast year with the outturn year. NR was not responsible for that project’s business case, and has not been able to confirm whether any forecasts have been exceeded. No evidence is before the Inquiry that suggests that Cambridge North is or will at any point be over capacity.

408. As a sense check, it is worth recalling that Mr Leigh’s estimate of 9mppa would make Cambridge South busier than Oxford or Milton Keynes stations (two extremely busy commuter stations) pre-pandemic. That is inherently unlikely, and Mr Leigh’s overall response – that the situation could look very different in 2043 – is unconvincing.

409. There was considerable emphasis in Mr Leigh’s presentation upon a “significant error” in Mr Wingfield’s proof relating to his addition of a number of trips estimated to be removed from the highways to the overall estimated forecast demand. It was stated that the number added should have been greater, which would have meant that passenger demand would exceed the 6mppa upper station capacity relied upon by Mr Wingfield. However, under XX Mr Leigh properly and swiftly conceded that Mr Wingfield’s error was not that he should have added a larger figure to the overall estimated demand, but that he had treated it as an additional demand at all. Consequently the error was not a significant one and there is no evidence that passenger demand is likely to exceed the 6mppa capacity of the station at any point.

410. Finally, while Mr Leigh refused to answer whether he would prefer the CSIE Project over the “do nothing” scenario on the basis that this was a false dichotomy, the reality is that this is a real choice facing this Inquiry. As Mr Wingfield explained, if the CSIE Project is not consented, there is no guarantee that the DfT will fund another, bigger station in Cambridge South (or indeed the same station in a different funding period).

411. The CSIE Project represents a unique and appropriate solution to the transport problems that SCT aims to address, and its delivery of benefits for Cambridge and the wider region should not be put at risk to accommodate the wishes of a body that has all but ceased to exist.

The alternative: irrelevant in law, flawed in practice

412. As a preliminary point, the alternative proposed by SCT is not – in law – a relevant consideration for the Inspector. An alternative may only be considered to an acceptable proposal where, in essence, it is an exceptional case where it is appropriate to do so, and where (i) there is a realistic prospect of that alternative coming forward and (ii) that alternative is sufficiently well defined.²⁹ Were it otherwise, the consequences would be stark: decision-makers would “*constantly have to look over their shoulders before granting any planning application against the possibility of some alternative planning outcome, however ill-defined and however unlikely of achievement*”.³⁰
413. The CSIE Project, for the reasons given above, will respond to the predicted passenger demand, forecast consistently with the relevant methodology set out in TAG4. There is not an exceptional case where alternatives are relevant. In any event, even if it were, the alternative put forward by SCT is vague and inchoate; there is nothing even approaching a rough plan for the station – despite the Inspector specifically requesting that SCT put forward details of their alternative. Under XX Mr Leigh himself described the proposals depicted as ‘arbitrary’ in some respects. There is, also, no realistic prospect of that alternative coming forward in the event that the CSIE Project is not consented. As Mr Wingfield explained, there is no certainty that the DfT would fund any further station at Cambridge South in the event that the Proposed Order is not made.
414. Leaving that point aside, the alternative – to the extent that it can be made out from the scant information provided – is wholly unsuitable. It involves a single station, built on a podium above the railway, with bus stops directly outside it on Addenbrooke’s Bridge, and cycle parking on a desk above the station (see **OBJ22**, p. 14 for a schematic representation).
415. Construction would involve – at least – the demolition and rebuilding of the Guided Busway Bridge. That is in and of itself a significant cost (in the region of £30 million) which is unjustified on the methodology accepted by the DfT. Mr Barnes also explained that there would be a number of consequences to

²⁹ See R(oao Mount Cook Land Ltd) v Westminster CC [2004] P&CR 22 [30]ff; R(oao Zipporah Lisle-Mainwaring) v Carroll [2017] EWCA Civ 1315, [15]

³⁰ Mount Cook [32]

SCT's project, from the potential need to demolish further bridges, to signalling challenges, to the need to address potential concerns about fire safety.

416. It would also require diversion of the Cambridgeshire Guided Busway, and a significant extension of the travel time for cyclists and pedestrians during that period. The suggestion that this could be achieved within "*a few weeks*" is not only unsupported but plainly wrong (see **OBJ22**, p. 9). Mr Barnes' unchallenged evidence was that partial demolition and reconstruction would take between 6 to 9 months, including multiple closures of the railway. CCoC, who own the CGB, have already made clear that they do not support the alternative (**INQ16**). There is – frankly – no realistic possibility of SCT's alternative ever being consented in the absence of that stakeholder's support.
417. The operation of the alternative is equally unsatisfactory. One of the DfT's core requirements for the CSIE Project is the accessibility of the station for all (see, e.g. **NR07**, PDF11 [2.1.17]). This is important as a matter of principle – but especially given the proximity of hospitals (which Mr Leigh himself asserted in response to the Inspector's questions would give rise to a "*significantly higher amount of people who will be vulnerable*") and likelihood that individuals travelling from international transport hubs will be encumbered with luggage. Mr Leigh suggested that those who could not be accommodated in Cambridge South could simply travel to Cambridge Central and then arrange onward travel to the CBC, as they currently do. It scarcely needs to be pointed out that this somewhat surprising suggestion is fundamentally contrary to aims of Cambridge South as well as those SCT purports to advance (which include the advancement of "*integrated, sustainable and equitable transport for the Cambridge region*").
418. Moreover, the suggestion that courtesy NHS or CBC bus services be offered to serve the CBC and the hospitals is fanciful. The SCT proposal has no drop off area, and they would have to be provided from a near-by parking area. They would still not provide the convenience of a taxi point directly outside the station. Nor is it readily apparent whether parlous NHS resources could (or should) extend to providing such courtesy services. SCT simply assume that such a service could be provided to make up for what is, in effect, a shortcoming in the station design. This is yet another illustration of why the proposed alternative is deeply flawed.

Integration with Buses and Cycling: No policy basis

419. While SCT suggest that the busses are a seven minute walk, that is based on the entirely unrealistic assumption that all persons would have to walk from the very last carriage of a 12-carriage train. It is unsurprising, as Mr Hilling explained in his unchallenged evidence, that that additional distance is not typically factored in for such calculations. If it were a real criticism of this station, it would be a criticism of stations all over the country, which have entrance/exit points at one end of the train.
420. It will also be appreciated that no policy requires that bus stops be provided within a fixed perimeter of a station, still less that they be provided within the arbitrary distance of 20m that SCT refers to. Mr Leigh accepted that the proposals for bus interchange did not conflict with planning policy, albeit he said that such policy was "*not what we were concerned with*". The Inspector and Secretary of State must of course be concerned with it.
421. SCT referred to the William-Schapps Report and the Bus Back Better Strategy, neither of which are development plan documents, and neither of which lay down the 20m perimeter that SCT seek to rely on. SCT's drastic remodelling of the station – at great expense to the taxpayer and other constraints in the site – therefore has no policy foundation and would provide only a minimal improvement in terms of bus integration over the CSIE Project which already ensures (as above) good integration with existing bus stops.
422. SCT criticised the amount of cycle parking provided, but in XX (rightly) accepted that there was no breach of national or local planning policy in respect of the cycling provision. NR has built in a degree of spare capacity for the cycle parking (1000 spaces instead of 800)³¹, for a station whose peak capacity is estimated to be 2.3mppa. Yet SCT's proposal – ostensibly for 9mppa – contains only 1600. Mr Leigh's response was two-fold. First, that demand for cycle parking is not linear, yet no explanation – let alone evidence – was provided for that self-serving assumption. Second, that the actual number of cycle parking shown was arbitrary, and more could be provided if the concrete deck were built larger. Mr Leigh accepted that this would mean building something larger than what was actually needed.

³¹ The number of cycle parks will be agreed with the local planning authority, after consultation with the local highways authority: **INQ50-1**, Condition 29.

Conclusion on the case for SCT

423. SCT's ambitions are laudable – maximising public transport opportunities and integration is self-evidently a good thing. But those aims cannot be pursued at any (financial or environmental) cost. The station it proposes is not needed, is inappropriately scaled for its context, and consequently the additional disruption and cost to which it would give rise are unjustified. By contrast, NR's design is based on the DfT's own forecasts, which adopt tried and tested demand forecasting methodology, and have regard to the constraints of both the site and the public purse. SCT agrees it would address the needs that it is intended to serve, and give rise to the benefits claimed. There is consequently no need for the Inspector or the Secretary of State to look beyond it.

Other Objections

424. A number of parties are still formally objecting, but did not appear in Inquiry and have not responded to NR's requests that they withdraw objections if they felt their points of concern were addressed in NR's evidence (although nor have they stated that they maintain them). Reference to where the objections are addressed in that evidence can be found at **NRE11.3**, which the Secretary of State is respectfully requested to consider.

OBJ01 *St John's College*

425. The only substantive objections³² from St John's College have been, first, to ensure the accommodation bridge can safely accommodate agricultural vehicles and, second, to ensure a general right of way over that bridge.

426. The accommodation bridge is wider than both the gates at Webster's and Duke's No. 2 and able to accommodate all vehicles – agricultural or otherwise – currently using the Crossings. There are ongoing discussions with a view to agreeing how access by the Websters (the agricultural tenants) can best be managed. It is likely that (i) the vehicular accommodation bridge will be secured by locked gates with both St John's and the Websters being provided with a key and (ii) users of the exchange land using a segregated access adjoining/parallel to the accommodation bridge (not currently shown on the

³² The only other issue raised by St John's was the giving of an undertaking by NR for their costs, which undertaking (subject to an initial cap) has been given.

drawings) to access that land (see discussion above at paragraph 330). The limits of deviation for those works are broadly drawn so as to allow for room for negotiation on how the accommodation bridge will be provided (see **NR09**, Sheet 6, PDF10). This will fully address St John's safety concerns, as it will provide segregated access to the exchange land.

427. To grant a general right of way over the accommodation bridge would be to extend the rights currently enjoyed by St John's over the Crossings. NR's position is that it is not required to provide for greater rights than currently exist. The extent of rights over the Crossings is a legal matter for legal submission, which NR has summarised in a note: **INQ40**, [17]ff and has addressed above in **Matter 3(a)**.

OBJ02: Chris Pointon

428. Chris Pointon's objection mirrors SCT's objection which is dealt with in full above.

429. It is telling that, in supporting SCT's objection, he says: "*one would hope that travel by train will increase proportionately in coming years, so infrastructure investment like Cambridge South Station should err on the side of over-provision by current standards*". NR does not consider that it can deliver a station using public money based on unsubstantiated "*hope*"; it can only deliver based on what is likely.

430. In any event, the station and the supporting pedestrian and cycle infrastructure can accommodate nearly three times the expected demand, providing reassurance that it will be fit for purpose long into the future (see **INQ52**).

OBJS 10, 11 and 17:

CBC Management Company,

Cambridge Medipark Limited,

Cambridge Countryside One Limited and Two Limited

431. NR is currently negotiating agreements with these three objectors. Heads of Terms are agreed, and their withdrawal is expected. Consequently it is not proposed to respond to their objections in full.

432. Those objections focus on the following matters, which have largely been addressed elsewhere in this closing, as set out below:

- a. The justification for the Proposed Order (see **Matter 1** and **Matter 9**, above);
- b. The impact of the CSIE Project on the CBC, in particular on drainage, roads (see drainage: **Matter 3(g)**; roads **Matter 3(a) to (d)**). **OBJ10 and 11** (but not OBJ17) object to the CSIE Project's impact on the ability to bring forward Phase 2 of the development of the CBC; and
- c. The interaction between the CBC and other modes of transport (See **Matter 3(d) and Matter 5**).

433. In the unlikely event that these objections are not withdrawn as expected, NR relies on the responses given to the issues raised in its proofs of evidence. The relevant sections can be identified in Appendix 1, **NRE 11.3**.

OBJ15 Pemberton's Trustees

434. Their objections focus on the following:

- a. Nature, extent and justification for the land and rights taken.

This is dealt with generally at **Matter 9** and specifically in the evidence of Mr Simms (**NRE10.2**, [9.3.3.8], [10.9] and [10.11]).

- b. Access arrangements, including farm access.

Access is dealt with generally at **Matter 3(b) and 3(c)** and specifically in the evidence of Mr Hilling (**NRE2.2**, p. 62, [9.1.128])

- c. Drainage.

Drainage is dealt with generally at **Matter 3(g)** and specifically in the evidence of Mrs Brocken **NRE5.2**, p. 76, [10.2.55]ff

- d. Green space and Hobson's Park.

The Pemberton's complaint is dealt with in the evidence of Mr Pearson (**NRE9.2**, p. 63 [7.2.78])

- e. Interaction with CSET.

This is dealt with generally at **Matter 3(d) and Matter 5** and specifically in the evidence of Mr Hilling (**NRE2.2**, p. 62, [9.1.130]ff)

435. A summary of the responses given is also set out below.

- a. The *nature and extent of the rights* taken is set out in detail in **NR8** and **NR9**, and have been explained in a number of meetings between NR and their representatives (NRE10.2, [10.11.2]ff). It is necessary to acquire that land and those rights in order to deliver the CSIE Project. Since the Pemberton Trustee's objection, the extent of temporary land take in Hobson's Park has been substantially reduced. Exchange Land for the permanent land take on Hobson's Park of marginally greater size and equal (if not greater) quality will be provided.
- b. The *access arrangements* through Hobson's Park build on existing paths, and provide pedestrian access to the exchange land. Greater access is provided to the CBC with enhanced pedestrian and cycle infrastructure. All measures have the support of CCoC, CCiC and SCDC.
- c. Detailed analysis has been conducted of the *drainage arrangements* which show that they will not increase existing flows over the lifespan of the project, with a 40% allowance for climate change. In particular, the ES has provided a 1D model to assess the culverting of the North Ditch, and neither the LLFA nor the EA have any (extant) objections to the CSIE Project.
- d. The CSIE Project has sought to minimise land take on *Hobson's Park*, and will be providing exchange land for the permanent land take on Hobson's Park of marginally greater size and equal (if not greater) quality will be provided. It also integrates effectively with existing green belt designations to the West.
- e. The precise impacts on access to farmland South of Addenbrooke's Road will depend on the detailed arrangements of the *CSET project* which are not yet available. NR has agreed to work collaboratively with CSET and will engage with Pemberton's Trustees on this point. (**NRE10.2**, [10.11.4])

OBJ19 *St Mary's School*

436. St Mary's School had various issues limited to plots 001 and 002, principally relating to any proposed periods of stopping up, the potential for damage to

be caused to the surfacing of the access road off Long Road, and any accommodation works proposed.

437. In short:

- a. No accommodation works are considered necessary or proposed (and the objector has not identified any they consider appropriate) (**NRE 1.2**, Section 7.31, pp.43-44);
- b. NR has committed to making good any damage to the road surface (**NRE 1.2**, at [486], p.43, **NRE 2.2b** at [9.1.152] p.65); and
- c. NR is liaising with the objector to identify the time(s) at which the temporary stopping up of their access can be accommodated (**NRE 2.2**, [9.1.151], p.65).

438. In a note to NR dated 15 February, the Inspector expressed concern as to a possible inconsistency between the evidence of Messrs Simms (**NRE 10.2**) and Pearson (**NRE 9.2**) in their respective responses to the concerns raised by St Mary's.

439. NR has reviewed the position. Mr Pearson does not however address St Mary's objection and so no inconsistency is considered to arise.

440. It appears that the Inspector's concern *may* have arisen in relation to modest differences between the evidence of Messrs Barnes and Hilling. The former suggests that the peak construction period will see 6 vehicle movements/day on the access, and that damage is unlikely to be caused to the surface, whilst the latter suggests there will be 9 movements/day, and that there is a risk of damage to the surface.

441. These differences are immaterial. The difference between 6-9 vehicles/day is likely to be the result of slightly different construction periods being taken (Mr Barnes using a period of 'approximately' 100 days), and would not materially change the intensity of the use of the access.

442. The existence of a 'risk' of damage (as identified by Mr Barnes) does not mean that it is 'likely'; a risk may still exist even if it is 'unlikely' to materialise. The important point is that even if it does materialise, contrary to Mr Hilling's expectation, the objector will not be disadvantaged because NR will make good such damage in any event.

OBJ20: *Dave Jackson*

443. Dave Jackson's comments expressly repeat those made by TRA, which are addressed in full above. The substance of Mr Jackson's comments were also addressed in NR's evidence at (**NRE1.2**, Section 7.32; **NRE2.2**, [9.1.154]ff; **NRE12.2**, Section 6.5)

OBJ21 *Richard and Vanessa Price*

444. Their concerns also echo some of those made by TRA, which are addressed above. These include:

- a. The placement of cycle parking;
- b. Access to the station through Hobson's Park;
- c. Location of the Railway Systems Compounds; and
- d. Size of the construction compounds in Hobson's Park.

445. These matters have been addressed above in relation to the TRA objection and also in NR's evidence at (**NRE2.2**, Section 9, [9.1.157]ff; **NRE1.2**, Section 7.32-7.34).

OBJ25: *Mr Chaplin*

446. Mr Chaplin's objection is limited to the provision of exchange land. He suggests that EL2 should have been chosen as the Exchange Land, not EL4.³³ It will be noted that EL2 happens to be closer to his workplace in the CBC. EL2 is not, however, the best replacement – let alone a suitable one.

447. It is removed from Hobson's Park, on the East side of the railway. It is more than 400m away from much of the land being acquired, and is therefore not within a "short walk" (se per CLP, Policy 67). Further, Mr Chaplin is mistaken when he refers to the "value of time" benefit that might indicate that EL2 provides a suitable replacement. Consistently with the requirements of national policy, the exchange land has been assessed bearing in mind its accessibility, its quality and its quantity (**NRE8.2**, Sections 5.4 and 6.4) The "value of time" benefit is not a recognised measure of the suitability of replacement open space.

³³ See NRE8.2, Fig 9-9 for an illustration of EL1-EL4.

448. In any event, it is not correct to suggest (as he does) that EL2 provides greater accessibility. Neither EL2 nor EL4 have direct access to the open space being lost, and access to EL2 would require users of the Park to cross the busy Dame Mary Archer Way. It would also pose accessibility difficulties for those coming from the West (such as the users of Hobson's Park who live in Trumpington), and it is the advantage to all the users of the park – not just those like Mr Chaplin who would wish to access the exchange land from the East – that must be considered. In truth, EL2 simply does not provide the favourable accessibility benefits that Mr Chaplin relies on.
449. Considering – as the decision-maker is required to – the factors of quality, quantity and access for all park users (not simply those accessing it from the East), EL4 is the best option.

F. CONCLUSION

450. The CSIE Project is a timely intervention design to support a cornerstone of the UK's science-based industries. It unlocks the potential for development in the Southern Fringe and supports an internationally significant hub for high-quality employment. Without it, the existing congestion problems are set to continue and worsen; access to international hubs will remain awkward; and the sorely needed transition to sustainable transport modes will not come forward. If no one has challenged the need that underlies the CSIE Project it is because it is self-evident.

451. The CSIE Project is also the product of careful, sustained and thorough planning. Its affects have been minimised so far as possible as we have described, and it respects – and in some respects enhances – the existing constraints at the site, integrating well into the park context to the West, and providing a new amenity/biodiversity area to the South of Addenbrooke's road.

452. The CSIE Project is a much-needed and arguably long-overdue scheme, which should be allowed to proceed without delay. Consequently NR respectfully commends the Proposed Order and the deemed planning application to the Inspector and the Secretary of State.

REBECCA CLUTTEN

MICHAEL RHIMES

Francis Taylor Building

Temple, London

EC4Y 7BY

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