NORTHAMPTON GATEWAY
STRATEGIC RAIL FREIGHT INTERCHANGE

APPLICANT'S RESPONSES TO ExA FIRST WRITTEN QUESTIONS

DOCUMENT 8.2

The Northampton Gateway Rail Freight Interchange Order 201X

APPLICANT'S RESPONSES TO ExA FIRST WRITTEN QUESTIONS | 6 NOVEMBER 2018

www.northampton-gateway.co.uk

ROXHILL

The Northampton Gateway Rail Freight Interchange Order 201X

Applicant's Responses to ExQ1 – Document 8.2

ExQ1	Question to:	Question:	Applicant's Response
1.0	**General and Cross-topic Questions**		
1.0.1	The Applicant	The NPSNN is the guiding principal document against which the Proposed Development will be assessed. However, the National Planning Policy Framework (NPPF) can also be important and relevant. At the time the application was prepared and submitted, the original NPPF was in force and has been referred to where appropriate. The NPPF has now been updated (July 2018). Can the Applicant please check its application material and revise as necessary in light of this update? It would be helpful to the ExA for this to be in the form of a freestanding document which cross-refers to the relevant sections of original documentation where revision is necessary.	The table at **Appendix 1** identifies the references made to the NPPF in the Application documents – it highlights the new text included in the 2018 NPPF, and includes comments to explain the nature of changes made between the 2012 NPPF and the updated 2018 NPPF. It includes, in the final column, the Applicant's view on whether the changes made are relevant to the content of the Application, and whether any revision of substance is necessary. It is the Applicant's view that any revisions would only be to cross-references to NPPF paragraph numbers or Sections, and therefore inconsequential to the consideration of the Application. Therefore, no revisions are proposed to any Application documentation to update those NPPF references.
1.0.2	The Applicant	It is not always clear from the aspect chapters in the ES how the mitigation measures relied upon in the ES have been secured. Can the Applicant provide a table including all mitigation relied upon in the Environmental Statement (ES) and the mechanism by which mitigation is	The Commitments Tracker provided with the Application (**Document 6.11**, APP-381) includes the information requested.

ExQ1	Question to:	Question:	Applicant's Response
		secured, as recommended in Annex 1 to the Inspectorate's Advice Note 7 (Presentation of the Environmental Statement)?	An updated Commitments Tracker is being prepared for **Deadline 3**.
1.0.3	The Applicant	In some chapters of the ES a summary table is provided presenting the potential effect of the Proposed Development, the mitigation applied (if applicable) and the significance of the residual effect. Can the Applicant please provide a consolidated summary table in this format for all the ES chapters?	Please refer to **Appendix 2**. A consolidated table has been prepared – this either replicates the 'effects' summary tables where these were included, or presents new summary information drawn from the ES chapters.
1.0.4	Applicant	Within the ES Non-technical summary [APP-303] at paragraph 1.3 the Applicant lists the *"key elements required"* in the ES. Please will the Applicant comment on the wider requirements of Reg 14(2)(f) and Schedule 4 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 and identify how those are addressed?	The text of paragraph 1.3 could perhaps be clearer as to what is being described, but the intention was to explain the role and content of a non-technical summary (NTS), rather than of an ES. The text included in the bullet points of Paragraph 1.3 of the NTS serves to describe in simple terms what is required of the NTS. The text of points a – d of paragraph 1.3 is based heavily (almost verbatim) on the content of Regulation 14(2) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 – see Regulation 14(2) (e) - which advises on the required content of an NTS. The wider issues covered by Schedule 4 of the 2017 Regulations are covered in the ES and the table included at **Appendix 3** identifies where all of the relevant information in Regulation 14 and Schedule 4 is located.

ExQ1	Question to:	Question:	Applicant's Response
	The Applicant	In the ES Non-technical summary at paragraph 2.30 it is concluded that the Rail Central project is *"materially inferior".* Please will the Applicant clarify exactly where that conclusion is reached in the ES?	This judgment, as to the relative quality and likely environmental effects of the Rail Central project, is based on the assessments undertaken on the draft Rail Central proposals as at their Stage 2 Consultation, in April 2018. It is not known as yet how relevant those judgments are to the application which was submitted to the Planning Inspectorate on 29 October 2018 a copy of which has just been received (30 October 2018). In summarising the ES, the NTS has sought to crystallise the conclusions reached from a number of chapters where the cumulative effects with Rail Central were assessed as being negative. The NTS reference to Rail Central as being 'materially inferior' is also intended as a non-technical abbreviation to judgments reached about the relative suitability of the sites, and of the conclusions of Sections 15.3 of the ES where some key impacts are identified as being notably more significantly adverse (e.g. Landscape and Visual), and some benefits reduced (e.g. Transport) as compared to Northampton Gateway alone.
1.0.5	The Applicant	Can the Applicant please explain the basis of the scheme design now providing rail connection to about 60% of the on-site warehousing? Within the Design and Access Statement [APP-379] an earlier iteration of the evolving design showed a greater percentage of warehousing being directly connected to rail but by July 2016	Earlier versions of the design iteration did not have all the subsequently available information on levels and on-site rail operational requirements. Zone A1a, b and c will have lower finished floor levels than Zones A2, A3 and A4. Due to the relative levels between the Zone B reception sidings and Zone A1, it was considered impractical to provide direct rail

ExQ1	Question to:	Question:	Applicant's Response
		connection to units closest to the M1 was omitted "*due to levels*". Please explain.	connections to Zone A1. Further, and having regard to the NPSNN, particularly paragraphs 4.83 and 4.88, it is not considered to be necessary in market terms to provide all development zones with the ability to be directly rail connected. All warehousing on the site will be directly rail served. The issue of the extent of directly rail connected warehousing was specifically considered during the Examination and determination of the East Midlands Gateway application. On the East Midlands Gateway scheme none of the warehouse units have a direct rail connection, instead they will be served by the rail terminal with connections between the terminal and warehousing being undertaken by road within the scheme. The Secretary of State's conclusions on this matter are set out at Paragraphs 18 and 19 of his decision letter, where he concludes that the East Midlands Gateway application is acceptable notwithstanding there are no directly rail connected warehousing.
1.0.6	The Applicant	The provision of an aggregates terminal within the Proposed Development is stated as being to accommodate the existing GRS business currently located in Northampton, which has expressed a commitment to move there. Can the Applicant enumerate the potential benefits of such a move, particularly as this would appear to be merely a transfer of rail freight paths?	Paragraph 4.39 of the Planning Statement (**Document 6.6**, APP-376) and Paragraph 9.2 of the Market Analysis Report (**Document 6.8**, APP-378) explain the general benefits to GRS of a relocation from their existing Northampton facility to Northampton Gateway. Further details of the benefits to GRS are set out in a letter from GRS which is appended to the Planning Statement at Appendix 3.

ExQ1	Question to:	Question:	Applicant's Response
			This explains that GRS's current facility in the centre of Northampton is constrained due to its size and location and their relocation would allow them to invest in their operation and support the growth of their business. The Government is clear that supporting local economic activity and facilitating growth and creating jobs is a fundamental part of its vision and strategic objectives for the national networks (Section 2 of the NPSNN – summary of need). Paragraph 4.39 of the Planning Statement also refers to the benefit of releasing the current GRS site, which is located in the centre of Northampton, for redevelopment. The location of the current facility is identified on the Plan attached at **Appendix 4**. Benefits beyond the transfer of existing rail freight paths relate to the removal of freight trains from the vicinity of Northampton Station, as well as removing the existing aggregates site from a sub-optimal urban location in Northampton where it has proximate and direct residential neighbours, much closer than any residential properties would be to the new facility. This will therefore deliver environmental and amenity benefits in Northampton, and remove HGVs from the town centre. Also, the proposed relocation of the existing aggregates operation will enable future regeneration of the existing site in due course – it is understood there are aspirations for both

ExQ1	Question to:	Question:	Applicant's Response
			Station car parking, and/or residential development on that centrally located site, these can only be aspirational pending a relocation of GRS. The proposed relocation (and operational expansion) of the aggregates facility is also likely to deliver some, albeit small-scale, additional employment opportunities.
1.0.7	The Applicant/Northampton Borough Council (NBC)	The present application documentation has little by way of detailed information on the Northampton South Sustainable Urban Development (SUE), which is a proposed development area close to the main site of the SRFI. Can the Applicant/Northampton Borough Council please provide details of the current position regarding proposals for the SUE, including relevant documentation in terms of planning policy, master planning and extant planning permissions?	The South Northampton SUE (now known as Rowtree Park) was identified by Northampton Borough Council as a preferred location for a Sustainable Urban Extension, in the region of 1,000 homes, under Policy S5 of the West Northamptonshire Joint Core Strategy (adopted December 2014). In August 2016, Outline Planning Permission was granted for up to 1,000 homes; a mixed use local centre; a site for a primary school and extensive green infrastructure, including public open space on the site and a re-configuration and extension of Collingtree Park Golf Course. Reserved Matters Approval for the first phase was granted in March 2018. The Applicant anticipates that NBC will be in a better position to provide an update on the current planning position, however, the following documentation is enclosed at **Appendix 5**:

ExQ1	Question to:	Question:	Applicant's Response
			• Policy S5; • Location Plan; • Masterplan; • Outline Planning Permission (Appeal Decision reference APP/V2825/W/15/3028151) dated 9 August 2016
1.0.8	The Applicant, South Northamptonshire District Council (SNDC)	Please comment on views expressed in relevant representations that the building of the suggested alignment of the proposed Roade bypass would lead to the inevitable further residential expansion of the settlement between its present western edge and the bypass.	This is an issue beyond the control or influence of the Applicant who is not promoting or proposing new residential development. The route of the bypass was identified following a process including consultation with the local community and other interested parties and consultees. The intention was to strike an appropriate balance between minimising landscape and visual harm (by not locating the road too far from the village edge), and not creating significant adverse effects on nearby residents. A very low number of comments or suggestions were received initially by the local community, and no overall consensus emerged. Some concerns about future infill were raised in the context of support for an 'inner' as opposed to an 'outer' alignment, as were concerns about noise from the road if located too close to the existing village edge with some local residents keen to see the road as far away as possible. The proposed bypass alignment is the 'inner' of the two routes considered, but is sufficiently far away to enable

ExQ1	Question to:	Question:	Applicant's Response
			appropriate mitigation of noise and other potential local effects. In that regard, the proposed alignment limits the scope for any future infill development as compared to the 'outer' alternative. The Roade Bypass Options Report (**Document 5.2, Chapter 12, Appendix 12.1, Appendix 20**) provides further background and explanation of the assessment and issues considered in identifying the most appropriate route. Additional land being made more accessible is an inevitable consequence of a bypass, and it is rarely possible to design a road on an alignment without creating some pockets of such land. Any future housing proposals would ultimately be a matter for the local planning authority (South Northamptonshire Council) to consider with regard to the spatial strategy for the District, or in response to speculative planning applications by landowners or others. It is not something being promoted or planned for by the Applicant, and not something within our direct control. To suggest the delivery of any such aspirations for new housing development as 'inevitable' would pre-empt one or both of the statutory plan preparation processes of SNC as the local planning authority, and/or the determination of any future planning applications by SNC. The Applicant has no view on the extent to which SNC is likely to promote or support additional residential development in or around Roade should future land promotion or applications be brought forward in due course.

ExQ1	Question to:	Question:	Applicant's Response
1.0.9	The Applicant, SNDC	ES Chapter 4 (Landscape and Visual Impact) Figure 4.1 [APP-085] shows a substantial portion of the main site of the Proposed Development falling within an 'Area of Important Local Gap' to which saved Policy EV8 of the South Northamptonshire Local Plan applies. This policy seeks to prevent development that would significantly intrude into this gap. Please comment on the significance of the apparent conflict with this policy.	The 1997 South Northamptonshire Local Plan included a policy (EV8) which identified a local important 'gap' adjacent to the M1 where development was actively discouraged. This was on the basis that the land represents '*attractive countryside*' but primarily to prevent coalescence with nearby villages. The 1997 Local Plan was prepared in the context of the former Regional Planning Guidance, and County Structure Plan - it clearly pre-dates the NPPF, and (by in excess of 15 years), the adopted Core Strategy of 2014 which was prepared in the context of the NPPF, and with regard to an updated evidence base regarding landscape value. While 'saved' (in 2007), policy EV8 is clearly out of date, and the policy approach of seeking to identify the area of landscape south/west of the M1 for preservation has not been carried forward or updated through subsequent Local Planning policies since 1997. Parts of 'local gaps' are now included for development as part of SUEs in the Northampton Related Development Area which extends into South Northamptonshire. EV8 is therefore considered contrary to strategic policies of the now adopted Joint Core Strategy which identifies development '*in and adjoining*' the principal urban area of Northampton as the key location for major growth, and which provides criteria for the assessment of landscape and other effects, without reference to Policy EV8 or any "local important gap".

ExQ1	Question to:	Question:	Applicant's Response
			It is relevant to note also that the '*important local gap*' approach is not being proposed for inclusion by SNC in their emerging Part 2 Local Plan. The Part 2 Plan is informed in part by an updated evidence base regarding Landscape Character (of 2017). The Landscape and Visual Assessment within the ES (Chapter 4) provides an assessment of the existing landscape character of the site, as well as of the likely landscape and visual effects, and this directly considers issues of visual and physical encroachment. The ES identifies the Main Site as being of 'Low/Medium' landscape value.
1.0.10	The Applicant	The main site phasing plan (within ES Appendix 2.1) [APP-126] indicates development arisings in the second year of completed earthworks of 149,000m^3. Please explain what will happen to these arisings having regard to the following: (i) How does this relate to what is stated in ES Chapter 14, paragraph 14.5.12 that there will be no requirement for the disposal of excavated material off site and paragraph 14.5.15 which states that waste will either be re-used on site or exported off site for re-use?	The arisings are included for in the year two calculations. The amount of material generated in year two is: Main earthworks: 1,395,000m^3 Arisings: 149,000m^3 Total: 1,544,000m^3 As can be seen in year two the amount of 'fill' to be placed is 1,544,000m^3 and hence all of the arisings are re-used within the earthworks. As such we can confirm that there is no requirement for off-site disposal of arisings.

ExQ1	Question to:	Question:	Applicant's Response
		(ii) If it is the intention that arisings are to be moved off site would this be via rail, given the stated intention to provide the rail terminal at an early stage of the development? (iii) If they are to be moved off site by road, has this been taken into account in the construction traffic impacts? And (iv) What is their likely destination?	
1.0.11	The Applicant	How is the figure of up to 155,000m^2 of mezzanine floorspace within the proposed warehousing derived?	This figure was essentially derived from the Applicant and wider team's market experience and knowledge gained from other large-scale distribution sites, including that gained from the East Midlands Gateway SRFI. It reflects a realistic expectation of the desire of many occupiers to incorporate mezzanine space into their warehouses from the outset (i.e. as part of the base-build or fit-out).
1.0.12	The Applicant	The ES does not appear to provide an estimate of the duration of the construction of the 'expansion' and 'Rapid Rail Freight' facilities as shown on the Illustrative Rail Terminal Plan [APP-060]. Can the Applicant explain what the duration of the construction of these facilities will be, and how this has been accounted for in the assessment of effects?	A fully operational rail terminal, compliant with the criteria set out in s.26 of the Planning Act 2008 and the NPS for an SRFI NSIP, will be delivered prior to the occupation of any warehousing (see requirement 3(3) of the dDCO). The elements comprising the terminal are identified in the column identified as " a) Terminal" on the Illustrative Rail Terminal Plan (**Document 2.8**, APP-060). The timing of the expansion of the terminal, including provision of the Rapid Rail Freight terminal is not currently

ExQ1	Question to:	Question:	Applicant's Response
			known as it will be driven by demand The 'rapid rail freight sector is currently a nascent sector in the rail freight market, creating some uncertainty about the likely rate of growth. This is explained in the Market Analysis Report (**Document 6.8**, APP-378) (see paragraphs 9.3 – 9.6) However, the ES has assessed the likely effects of the construction of the Proposed Development as a whole, including the Rapid Rail Freight terminal. This is consistent with the approach taken to the construction of the warehousing, with the assessment based on the whole despite no certainty about the likely rate of construction/occupation. The Rail Report (**Document 6.7**, APP-377) explains that the Rapid Railfreight facility would utilise the rail infrastructure put in place for the main terminal (Network Rail connections, signalling, Reception Sidings, headshunt) and would therefore benefit from this infrastructure which would be delivered at the outset. This minimises the future level of construction required for the Rapid Railfreight facility to a further extension to the terminal slab, small-scale building(s), and an additional rail line link to serve the Rapid Rail Freight terminal.
1.0.13	The Applicant	ES Chapter 1 (Introduction) [APP-077] refers at paragraph 1.4.3 to "*terminal container safety issues"*. Can the Applicant please explain what is a *"terminal container"* and what are the safety issues?	The term 'terminal container' is meant to describe the containers commonly used both in the UK and elsewhere to transport many forms of freight ('intermodal' traffic).

ExQ1	Question to:	Question:	Applicant's Response
			The risk identified relates to the storage of the containers which are typically stacked on top of each other. As containers are designed to be stacked and stored in this way the risks are not considered to be significant, but, it was thought, might be considered relevant to the requirement to consider major accidents in Regulation 5 of the relevant EIA Regulations.
1.0.14	The Applicant	ES Chapter 2 (Description of development) [APP-078] at paragraph 2.3.5 refers to the Illustrative Rail Terminal Plan. Although illustrative the description then says it shows the stages of *"how the terminal will be expanded over time"*. The use of the word "will" is not consistent with the document being illustrative. Please can the Applicant clarify whether the ExA is to take it that the stages are not illustrative, but definitive? Is the Illustrative Rail Terminal Plan illustrative or not?	The Rail Terminal Plan (**Document 2.8**, APP-060) is Illustrative (however, as identified in the response to ExQ1.0.12), a fully operational terminal is committed prior to any occupation of any warehousing). The Illustrative Rail Terminal Plan was thought to be helpful in identifying the different elements within the Terminal. It demonstrates the way in which the fully compliant Rail Terminal could be extended as the rail traffic grows, as well as identifying the Terminal facility which will be delivered and available from first occupation – in column a). Proposed DCO requirement 3 requires that precise details of the rail infrastructure have to be agreed before construction of it is commenced.
1.0.15	The Applicant	There is considerable reliance on phase-specific Construction Environmental Management Plans, which are to be drafted in accordance with the principles set out in the overarching Construction Environment	The EIA law on multi stage consent is enshrined in The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regs). The inclusion in the EIA Regs of provisions governing the approval of subsequent

ExQ1	Question to:	Question:	Applicant's Response
		Management Plan. Please can the Applicant explain how this will this comply with EIA law on staged approvals? Please also see questions ISH1:107A, 107B and 107C.	applications is designed to deal with the position where a subsequent application gives rise to a change to the authorised development which may have significant adverse effects on the environment. That will apply to any subsequent approvals which are provided for under this dDCO. The existence of the need for some aspects of a development to be subject to subsequent approval as provided for in requirements is therefore expected, and expressly dealt with in the EIA Regs. However, the principle governing the EIA law on multi stage consent (where matters fall to be approved following a decision permitting the principle) is that the likely significant effects on the environment should normally be identified and assessed when the decision relating to the principle is made. The Environmental Statement and EIA process for this scheme identifies the likely significant effects of the proposed development. The parameters identified on the parameters plan and the requirements in Schedule 2 of the dDCO, as with planning conditions, ensure that the development that has been assessed is the development that is taken forward. If there is doubt as to whether or not an approval required under a requirement is consistent with the development assessed then Regulations 4 and 8(2) provide the appropriate mechanism for addressing that situation.

ExQ1	Question to:	Question:	Applicant's Response
			Regulation 4 of the EIA Regs provides a prohibition on the approval of subsequent applications for EIA development without an EIA being carried out. Accordingly, a mechanism is included in Regulation 8 of the regulations whereby it can be determined whether or not a "subsequent application" (being an application to the relevant authority pursuant to a requirement for an approval which must be obtained before all or part of the development may begin) would give rise to the need for an updated environmental assessment. The existence of the need for a subsequent application, is not in conflict with the EIA Regs. – quite the contrary, the subsequent application is governed by Reg. 4 of the EIA Regs and, if it were considered to give rise to significant adverse effects not previously considered, a decision to approve it would be unlawful without "further information" as defined in the regulations. This is not considered likely to be the case in the instance referred to. The approval of detailed P-CEMPS, which are to accord with the principles in the overarching CEMP, does not automatically engage EIA Development. The P-CEMPS are able to take account of the specific circumstances at the time of construction, the particular approach of the contractor appointed and, where relevant, the occupier. The content of

ExQ1	Question to:	Question:	Applicant's Response
			the P-CEMPS will not however be outside the scope of what has been assessed, given the requirement to comply with the overarching CEMP.
1.0.16	The Applicant	The Guide to the Application [APP-003] discusses works to Junction 15 of the M1 and the A45 (Works No. 8), concluding that having regard to the definition of a Nationally Significant Infrastructure Project (NSIP) in s.22 of the PA2008 the works do not in themselves constitute an NSIP. The justification provided in paragraph 3.10 does not appear to accurately reflect the wording of s22. Is the Applicant's position that Works Nos 8 and 11 are not NSIPs in their own right, and can only be within the DCO if they are Associated Development?	The intention in paragraph 3.10 of the Guide to Application (**Document 1.3A**) is to apply the criteria in s.22(4) and (5) of the Planning Act 2008. Subsections (4)(b) and (4)(c) refer to highways rather than the expression used in paragraph 3.10 of "all-purpose trunk road". The reason the reference to trunk road was made was because these are the only categories of road to which Works No.s 8 and 11 apply, apart from motorway. However, it is accepted this is unhelpful and the expression "all-purpose trunk road" can be replaced by "a highway" in paragraph 3.10, with the same conclusion. The Applicant confirms its position that Works Nos 8 and 11 are not NSIPs in their own right and that they are Associated Development.
1.0.17	The Applicant	At the PM Ashfield/Gazeley queried whether the Roade by-pass constituted associated development. Will the Applicant please indicate how the Roade bypass and other junction improvements on the A508 are properly considered to be within the scope of the DCO, presumably as associated development?	Chapter 7 of the Transport Assessment (TA) describes the work undertaken to establish the highway mitigation strategy. Paragraphs 7.5 to 7.15 deal specifically with the proposed dualling of the section of the A508 between the site access roundabout and M1 Junction 15. Paragraphs 7.16 to 7.38 deal specifically with the proposed M1 Junction 15 and A45 major upgrade, which includes improvements to the A508 node at the junction. Paragraphs 7.39 to 7.61 deal specifically with the proposed Roade Bypass.

ExQ1	Question to:	Question:	Applicant's Response
			Without the proposed Roade Bypass, the development could increase traffic flows travelling to and from the south of the Proposed Development on the A508 by some 2,034 vehicles over the course of a day. This would represent a 13% increase in current (2015) traffic levels passing along with A508 through Roade. Further, up to 190 additional HGV would use the A508 to arrive at the Proposed Development from the south. This is a 17% increase in the 2015 recorded levels of HGVs passing through Roade on the A508. As described at paragraphs 3.32 and 3.34 of the TA, there is existing congestion along the A508 through Roade at the A508/High Street mini-roundabout, the narrow railway bridge (where HGVs travelling in opposing directions are often obliged to give-way to each other), and at the A508/Hyde Road junction. As explained at paragraphs 8.41 to 8.50 of the TA, this congestion is forecast to worsen by the 2031 Reference Case (without the proposed development), meaning that drivers are increasingly likely to avoid using the A508 through Roade and seek alternative routes using the local roads. The addition of the Proposed Development traffic, unmitigated, would exacerbate the existing and forecast congestion issues in Roade and would likely further encourage drivers to seek alternative routes to the A508, placing addition demand on the local roads through the surrounding villages.

ExQ1	Question to:	Question:	Applicant's Response
			Due to the conditions at Roade, with the A508 bisecting the village, the unmitigated impact of the additional 2,034 daily vehicles passing through the village due to the Proposed Development was not considered acceptable. As set out at paragraph 7.60 of the TA, this view was confirmed by South Northamptonshire Council in their response to the Stage 2 consultation, in which they stated that the forecast 13% increase in daily traffic levels through Roade as a result of the Proposed Development would *"…be unacceptable as it would have a further detrimental impact on the settlement and community. The proposed bypass is required to take traffic out of the village centre and around the settlement".* Northamptonshire County Council in their response to the Stage 2 consultation also confirmed their support for the principle of the Roade Bypass (TA paragraph 7.61). This position is reiterated at paragraph 3.12 of the Statement of Common Ground with NCC on highway matters (**Document 7.5**, AS-006). The proposed Roade Bypass is therefore required to remove the Proposed Development traffic from travelling through Roade, thereby reducing the impact of the Proposed Development on the village to acceptable levels.

ExQ1	Question to:	Question:	Applicant's Response
			The agreed need for the proposed highway mitigation measures, including the Roade Bypass and other junction improvements on the A508 is captured at paragraph 3.16 of the SoCG with NCC on highway maters, which states that it is agreed that the *"highway mitigation measures are required to provided satisfactory access to the proposed development and to accommodate the traffic reassignment effects resulting from the impact of the Development traffic and highway mitigation works".* Having regard to the above, the Roade Bypass is in accordance with the statutory definition of Associated Development contained in s.115 of the Planning Act 2008, being development which is associated with the development for which development consent is required i.e. the SRI NSIP. The DCLG guidance on Associated Development (April 2013) indicates some core principles which the Secretary of State will take into account in deciding, on a case by case basis, whether or not development should be treated as Associated Development. These core principles are set out in paragraph 5(i) – (iv). In the case of the Roade Bypass all of those core principles are complied with. There is also precedent for the inclusion of a Bypass as Associated Development to an SRFI NSIP within a DCO. A bypass to the village of Kegworth was authorised as Associated Development in the East Midlands Gateway Rail

ExQ1	Question to:	Question:	Applicant's Response
			Freight Interchange and Highway Order 2016. That bypass is currently under construction.
1.0.18	The Applicant	The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 require consideration of monitoring and remedial action – see for example Schedule 4 paragraph 7 and the Secretary of State's duties at Regulations 21(1)(d) and (3) and 30(2)(dd). Please will the Applicant explain what monitoring arrangements are proposed and what provisions in relation to remedial action are proposed?	The Applicant proposes to update the Commitments Tracker (**Document 6.11**, APP-381) to include monitoring arrangements. It is proposed to submit this for **Deadline 3**.
1.0.19	The Applicant, NBC, SNDC	Several relevant representations and oral submissions at the Open Floor Hearing on 10 October questioned the need for this SRFI given the proximity to DIRFT (in all its phases) and other rail freight interchanges. (i) Please can the Applicant comment and respond on those?	(i) The Market Analysis Report (**Document 6.8**, APP-378) outlines the economics and operation of rail freight in the logistics market and analyses the market requirement for the Northampton Gateway SRFI. A fundamental part of the report is an explanation of the current operation of both the logistics market generally and existing SRFI's (including DIRFT) and how the Northampton Gateway site will respond to these market conditions. Section 7 of the Market Analysis Report is particularly relevant. It defines the markets served by rail

ExQ1	Question to:	Question:	Applicant's Response
			terminals and plots the extent to which the market for existing and proposed terminals will overlap (Figure 13). It concludes that the existing concentration of SRFI's in the Midlands is not surprising and is wholly consistent with the concentration of logistics within this area generally and, importantly, the concentration of National Distribution Centres. It also reflects the economics of rail freight, which are explained elsewhere in the Market Analysis Report, particularly Sections 5 and 7. Section 8 of the Report identifies a strong logistics market in the immediate catchment area around Northampton Gateway, which is not currently well-served by DIRFT or other SRFI's. Northampton Gateway has the potential to expand the network of existing SRFI's in the Midlands to address markets which are currently not served by existing terminals as well as to help meet the anticipated growth in rail freight.
		(ii) Please will the Applicant and the district planning authorities also comment on the role of demand and need in (a) the consideration of the Application and (b) the NNNPS?	(ii) The NPSNN paragraphs 2.42 – 2.58 set out the Government's position on the need for the development of strategic rail freight interchanges. This includes an explanation of the importance of SRFI's and the drivers of need for SRFI's. At paragraph 2.56 the NPSNN states that;

ExQ1	Question to:	Question:	Applicant's Response
			'the Government has concluded that there is a compelling need for an expanded network of SRFI's' Paragraph 2.56 goes on to explain that given the locational requirements of SRFI's the locations that will be suitable will be limited. Paragraph 4.83 – 4.89 sets out the locational and other requirements with which SRFI's must accord. As explained in the Planning Statement (Document 6.6) particularly paragraph 4.42 – 4.52, the Northampton Gateway Scheme will fully comply with each of these requirements. Paragraph 4.84 of the NPSNN states that *'it is important'* that SRFI's are '*appropriately located relative to the markets they will serve, which will focus largely on major urban centres, or groups of centres, and key supply chain routes'.* The application, particularly having regard to the Market Analysis Report, seeks to explain the markets (i.e. demand/need) including urban centres and supply chain routes that will be served by Northampton Gateway.

ExQ1	Question to:	Question:	Applicant's Response
1.0.20	The Applicant	The paragraph and figure references in the following questions (1.0.20 – 1.0.xx) refer to the Market Analysis Report (Document 6.8) [APP-378]. The Market Analysis report gives some data in metric and some in Imperial. Please can the Applicant explain why this is? Please will the Applicant supply a revised version with all the data in metric?	An amended version of the Market Analysis Report (**Document 6.8A**) is included with the **Deadline 1** documentation. All references to sq. ft have been changed to sq. m.
1.0.21	The Applicant	Paragraph 1.5; please will the Applicant indicate whether the demand is from senders or receivers? Is the demand to send from or to the south?	Paragraph 1.5 of the Market Analysis Report (**Document 6.8**, APP-378) forms part of the Executive Summary. The paragraph summarises the conclusions of the Report in relation to research into the existing stock of warehousing in the area around Northampton Gateway. In relation to the operation of the rail freight terminal it is anticipated that goods will be both brought into the terminal (for example imported goods from ports or goods moving around the Country from other terminals) and taken out of the terminal (for example goods taken to ports for export or good transported around the Country to other terminals). Section 5 of the Market Analysis Report seeks to explain how rail operates in the logistics sector. Whilst it is expected that a greater number of full containers will be received at the terminal than sent from the terminal, reflecting the current national balance of import and export, the precise balance will depend on the customers utilising the terminal. Terminal operators will seek to achieve as close a balance as possible

ExQ1	Question to:	Question:	Applicant's Response
			so that they maximise the efficiency of trains movements, minimise the movement of empty containers and therefore help to keep costs lower. Maritime Transport Limited who are the preferred operator for the rail freight terminal at East Midlands Gateway and who operate terminals at BIFT (Birch Coppice) and Tilbury have written to Roxhill setting out their views on rail freight. The letter is Appended at **Appendix 6.** The letter includes information about the operation of the terminal at BIFT. It explains that, at BIFT, virtually all containers arriving at the terminal are laden, whereas outbound, whilst the trains are still full of containers, generally only over half the containers are laden. The origin and final destinations of goods will also depend on the occupiers of the site and the users of the terminal. In terms of the operation of the terminal, the Rail Reports (**Document 6.7**, APP-377) conclude that the majority of trains are likely to come from, and travel to the south, reflecting the location of major sea ports. The Market Analysis Report paragraph 1.6 refers to the potential for Northampton Gateway to expand, to the south, the network of SRFI's in the Midlands. In this regard, with reference to Figure 13, the area around Northampton Gateway and particularly to its south towards London, are not well served by existing SRFI's.

ExQ1	Question to:	Question:	Applicant's Response
1.0.22	The Applicant	Paragraph 3.8; will the Applicant please indicate what network capacity enhancements are: (i) necessary; (ii) in hand to accommodate new SRFIs; (iii) what will be their effect on passengers; and (iv) will they be adequate to accommodate the Proposed Development and other likely foreseeable developments? In relation to question (iv) the ExA recognises that the Applicant may wish to refer the ExA to the relevant parts of other application documentation and examination documents.	Paragraphs 3.5 to 3.9 of the Market Analysis Report (**Document 6.8**, APP-378) summarise relevant aspects of Network Rail's *'Freight and National Passenger Operators Route Strategic Plan',* published in 2018. This document is included at **Appendix 7**. Paragraph 3.8 includes a direct quote from the Document. The Route Strategic Plan sets out a range of objectives that support Network Rail's customers, i.e. both freight and national passenger businesses. This includes a vision to facilitate significant rail freight growth over the next fifteen years (see Document forward – page 3). At Appendix B (page 121, third column, fourth bullet point), the Plan also states that Network Rail will facilitate new terminal developments at Daventry, Northampton, West Midlands and Parkside. It is the Applicants' position (see Rail Reports (**Document 6.7**, APP-377)) that no capacity enhancements are required to accommodate Northampton Gateway. The Freight and National Passenger Operator Route Strategic Plan, sets out Network Rail's overall aspirational plans for capacity enhancement on the national rail network to accommodate freight growth up until 2034. Annex C of that document (Page 156) confirms that the only infrastructure work that Network Rail considers necessary on

ExQ1	Question to:	Question:	Applicant's Response
			the West Coast Main Line south of Stafford is linespeed and headway improvements on the Northampton Loop. Network Rail's evaluation is that this work is not required to be delivered until Control Period 8 (2029 to 2034). None of the work identified above is required to support new SRFIs, and indeed the key focus of this work is at Northampton station, which is north of Northampton Gateway. Only a small proportion of the total rail traffic is expected to pass in this direction. The majority of trains to and from the SRFI are expected to run between London and Northampton Gateway via Milton Keynes. Any capacity enhancement implemented by Network Rail could be used equally by freight and passenger services and is not restricted to one or the other. The Applicant has demonstrated (see Rail Reports) that the existing WCML freight paths provide sufficient spare route capacity to serve Northampton Gateway.
1.0.23	The Applicant	Paragraph 4.5; will the Applicant please explain whether *"the availability rate of units over 50,000 sq ft at the end of 2016 across the country was 6.2% for all qualities of space"* is intended to mean that only 6.2% of all space in units in excess of 50,000 sq ft was on the market?	Yes, that is correct. Of all the existing buildings over 50,000 sq ft, or 4,645 sq m, in the UK, only 6.2% of them were being marketed as being available to occupy.
1.0.24	The Applicant	Paragraph 4.8; please can the Applicant give earlier figures to demonstrate to what extent this is "much	Gerald Eve Prime Logistics research maintain data on the logistics market. This includes the ability to study the take up

ExQ1	Question to:	Question:	Applicant's Response
		increased" and supply figures for comparable periods for other relevant types of space? Please indicate when replying the reasoning behind the choice of comparators.	of large units, in this case units over 46,452 sq m. In the three year period 2015 – 2017, Gerald Eve recorded 35 individual occupier transactions of buildings over 46,452 sq m in size, totalling 2,471,221 sq m. This compares to 21 individual occupier transactions, totalling only 1,411,867 sq m for the 3 year period 2012 - 2014 and 26 individual transactions totalling only 1,538,127 sq m for the 3 year period 2009 - 2011.
1.0.25	The Applicant	Paragraph 4.15; please will the Applicant say whether these locations will be served by the Proposed Development. If not, please can the Applicant explain why not? How would serving them by road be consistent with the policy support for SRFIs?	Paragraph 4.15 sets out a list of factors, which in the authors view have driven the locational choice of logistics businesses and which have resulted in the concentration of logistics activity in the centre of the Country. i.e. these are the drivers for where business want to locate their warehouses. This is particularly true of large National Distribution facilities located in the Midlands Distribution Heartlands, as explained in Section 4 of the Market Analysis Report (**Document 6.8**, APP-378). National, and indeed Regional Distribution Centres will distribute goods to large parts of the Country. There is a concentration of these types of warehousing in the Northampton area. Importantly, these types of facilities are more likely to utilise rail as part of their logistics operation (see Paragraph 7.12 and 7.13 in particular). Other parts of the Market Analysis Report, in particular section 7.0, seek to explain the likely core and secondary catchment area of the Northampton Gateway Rail freight terminal

ExQ1	Question to:	Question:	Applicant's Response
			The NPSNN paragraph 2.42 – 2.45 explains broadly the way SRFI's function in the logistics supply chain. A more detailed explanation is set out in the Market Analysis Report (particularly Section 5.0 and 7.0). The NPSNN explains that for many freight movements rail is unable to undertake a full end-to-end journey and that SRFI's enable freight to be transferred between transport modes, thus allowing rail to be used to best effect to undertake the long-haul primary trunk journey with other modes (usually road) providing the secondary or final delivery leg (Paragraph 2.43). It goes on to state that the aim of SRFI's is to optimise the use of rail in the freight journey by maximising rail trunk haul and minimising some elements of the secondary distribution leg by road, through co-location of other distribution and freight activities (Paragraph 2.44). Paragraph 5.5 of the Market Analysis Report explains that there is no one template model for the use of rail within the logistics network. However, a simple example of how this could work at Northampton Gateway helps to explain how serving a catchment area around Northampton Gateway with the secondary leg undertaken by road fits entirely with the expectations of the NPSNN. The example works as follows:

ExQ1	Question to:	Question:	Applicant's Response
			1. Containerised Goods imported to a UK Sea Port 2. Containers transported by rail to Northampton Gateway SRFI 3. Containers stored at Northampton Gateway SRFI and at the appropriate time moved by road to warehousing (either on site or off-site) 4. Goods sorted and stored within the warehouse and then distributed by road to a final destination or to a smaller local distribution facility for onward delivery to customer. So, whilst in this example the customer for the container (the warehouse occupier) is likely to receive their goods by road and the final customer of a product is almost certainly going to receive their goods by road, a key part of the supply chain journey has been undertaken by rail rather than by road in accordance with the expectation of the NPSNN at paragraphs 2.43 – 2.45. Without an SRFI the bulk haul leg of the journey (point 2 above) would be carried out by HGV's.
1.0.26	The Applicant	Figure 2 shows intermodal traffic share of the total UK freight market. Other categories include construction and metals. Given that few receivers in any of these categories have their own railheads, and thus the last few miles will be by road, please could the Applicant: (i) explain how the categories are actually differentiated; and	Figure 2 is an extract from the Office of Road and Rail's Freight Rail Usage Report for Q4 2016/17. This could have been made clearer. Notwithstanding the origin of Figure 2 an answer to the question is provided below.

ExQ1	Question to:	Question:	Applicant's Response
		(ii) give a definition of intermodal traffic? The ExA notes that there does not appear to be a definition in the NNNPS.	The categorisation of commodities is embodied in the Rail Regulator's (ORR's) determination of track access charging, and this categorisation is used by Network Rail to report rail traffic volumes, which are then incorporated into volume statistics published by ORR. There is no clear definition in legislation, either in the UK or EU of 'intermodal' but the UIRR (International Union of Combined Road-Rail Transport Companies) defines it as: "*the type of multimodal transport where the cargo carried is loaded into an intermodal loading unit for the entire duration of the journey, which enables efficient transhipment from one mode of transport to another.*" The generally held definition is that the goods themselves are not handled at all while they are transported by two or more modes of transport within a container or swapbody. In practice therefore in Figure 2 ORR summarises all the rail freight traffic moved annually (expressed as net tonne kilometres) and splits it between goods of any kind moved in containers (domestic intermodal) and bulk goods in the other commodity sectors, loaded directly into wagons. These other commodities may move from private siding to private siding and be loaded and unloaded directly to rail, or may have a road element as part of their overall journey. No definite data is published, but much of the bulk materials traffic does move directly between rail connected plants

ExQ1	Question to:	Question:	Applicant's Response
			rather than by road, especially in the coal, oil and metals sectors where the trains link industrial processes. Conversely almost all the construction sector traffic (bulk aggregates and cement) will involve road delivery from railhead to site. For intermodal traffic no data is collected on the type of goods moved by container, which may for example be construction products. The distinction is that it is the mode of transport that is measured, and not necessarily the contents.
1.0.27	The Applicant	Figure 3 gives several statistics, in boxes. If we give the rows a letter (A,B, C and so on from top to bottom) and the columns a number (1, 2, 3, from left to right):	Figure 3 is an extract from a report from the group, Freight on Rail titled 'Rail Freight Facts at a Glance'. Freight on Rail is a partnership of the rail freight operators, Rail Freight Group, Network Rail, the transport trade unions and Campaign for Better Transport working to promote the shift to rail freight, and acts as a pressure group and advocacy body for the railfreight industry. This could have been made clearer in the Market Analysis Report. The comments provided below are therefore intended to assist with an understanding of the data rather than being able to definitely explain each point. Box A3 This figure is provided by Freight on Rail. It measures the environmental and social benefits of the 17.2 billion tonne

ExQ1	Question to:	Question:	Applicant's Response
		Box A3 - please can the Applicant explain of what and how the £1.6 bn pa figure is made up? For example, is it the revenue of the rail operator, the rail operator and Network Rail, or some other participants in the market?	kilometres of freight that was carried by rail in the financial year 2016/7, using DfT's figures on the lower impacts of rail freight rather than road freight per kilometre transported.
		Boxes B1 and C1- presumably this depends on the length of the train. Please can the Applicant comment and indicate the length used, and why it is appropriate? How does it relate to the trains likely to use the Proposed Development?	Boxes B1 and C1 The figures quoted are generalised statements based on a gross tonne kilometre transported by either mode and do not depend on train length. This is the accepted ORR and DfT methodology to equate the emissions from different modes, where the transport units have very different characteristics. Train lengths vary, but emissions will be greater for a diesel locomotive the heavier the load, as also applies to road. An element of rail freight is electrically hauled, with correspondingly lower emissions (including those produced by the electricity generation).
		Box D1 - please will the Applicant explain what is meant by the phrase "*consumer rail freight*"; and how does it relate to intermodal freight - what proportion of consumer rail freight is intermodal freight?	Box D1 'Consumer rail freight' refers to goods moved by rail to supply the retail sector, either from port to rail served warehouse, or between rail served warehouses within the UK. These goods are mainly moved by rail in intermodal containers.
		Box D3 - please will the Applicant explain the arithmetic behind this conclusion? Where does the figure of 1.62 bn fewer HGV kms come from? Is the removal 1.62 bn per	Box D3 Freight transport statistics for road, rail and water are generally measured in gross tonne kilometres, to account for the different carrying capacities, tare weights and other

ExQ1	Question to:	Question:	Applicant's Response
		freight train or 1.62 bn when all the freight trains are taken together?	characteristics of the transport units. The 1.62 billion figure in the table should read *tonne* kilometres rather than imply *vehicle* kilometres, and is an estimate of the impact if all rail freight ceased and the equivalent volume of goods had to be moved by road instead.
		The Figure as a whole - (i) please will the Applicant explain what point it is seeking to make from this figure, and how precise is the point in question;	(i) The figure is intended to support the beneficial impact that rail has in moving significant volumes of traffic, which reduces the impact on the national road network and reduces transport emissions through rail having less impact on the environment per tonne kilometre moved. This is provided as independent information on the benefit of rail and helps to support and understands the conclusions reached by the Government in the NPSNN that it supports the growth of rail freight, encourages a modal shift in the movement of goods from road to rail and that there is a compelling need for an expanded network of SRFI's.
		(ii) are the figures for the UK as a whole, Great Britain (i.e. England, Scotland and Wales) alone, England alone, or some other combination?	(ii) The figures are for Great Britain (excluding Northern Ireland) as a whole.
1.0.28	The Applicant	Figure 5 forecasts rail freight growth. Paragraph 6.4 sets out the assumptions behind this growth *("The Freight Network Study sets out the assumptions on which this growth forecast is based")* and says this is dependent on the provision of more SRFIs. And paragraph 6.15 says *"if rail freight growth is to occur as forecasted, there will*	The NPSNN recognises that SRFI's are both chicken and egg. Paragraph 2.50 sums up the need for SRFI's both to meet existing demand and to provide the necessary infrastructure for new demand to be met. It states that forecasts *'confirm the need for an expanded network of large SRFI's across the regions to accommodate the long-term*

ExQ1	Question to:	Question:	Applicant's Response
		need to be a significant expansion in the number of SRFI's (sic)". Paragraphs 8.2 and the conclusions in paragraph 10.8 may also be relevant to this issue. There appears at first sight to be some uncertainty as to whether the rise in rail freight occurs because SRFIs are provided, or whether the demand for SRFIs occurs because of the rise in rail freight. Given that this is a report on market demand, clarity on which is the chicken and which is the egg would be helpful. Please will the Applicant comment on the extent to which the demand for more rail freight capacity is driven by: (i) the market place and relative cost of rail transportation; (ii) by the provision of SRFIs; (iii) Government policy; and (iv) other factors to which the ExA should be having regard? Is the demand for SRFIs caused by rise in rail freight or is the rise in rail freight caused by the availability of SRFIs? Please will the Applicant also comment on the extent to which intermodal rail freight can grow without the provision of; (i) more SRFIs; and	*growth in rail freight'* and that they also '*indicate that new rail freight interchanges, especially in areas poorly served by such facilities at present, are likely to attract substantial business, <u>generally new to rail</u>'* (Our emphasis). Paragraphs 2.46 – 2.52 outline the Government's position on the drivers of the need for SRFI's. The Market Analysis Report (**Document 6.8**, APP-378) sets out the drivers of the growth of rail freight (and thus SRFI's) at Paragraphs 7.1 – 7.6. These drivers all influence the potential demand for rail freight services and therefore need for SRFI's. The extent to which each driver influences a particular businesses decision to utilise rail (via an SRFI) will depend upon the specific circumstances of that business and their corporate objectives. The NPSNN is quite clear however that there is a compelling need for additional SRFI's if the growth in rail freight is to be facilitated / met. The applicant shares this view. Existing SRFI's neither provide the combined capacity nor an appropriate network to either accommodate anticipated growth in intermodal rail freight nor to facilitate the growth in rail freight. The view is also shared by Network Rail, see in particular paragraph 3.5 – 3.9 of the Market Analysis Report which summarises the relevant parts of Network Rail's Freight and

ExQ1	Question to:	Question:	Applicant's Response
		(ii) the Proposed Development?	National Passenger Operators Route Strategic Plan 2018 (**Appendix 7**). Section 7.0 and 8.0 of the Market Analysis Report seeks to explain the markets that will be served by the Northampton Gateway Rail Freight terminal. This explains that some of the Northampton Gateway core and secondary market areas are not currently well served by an existing SRFI and therefore without Northampton Gateway the use of rail freight in this market area will be constrained.
1.0.29	The Applicant	Paragraph 6.6 refers to ESI coal. Please will the Applicant explain what this is?	ESI stands for 'Electricity Supply Industry' coal, which is a rail freight industry categorisation of coal destined for thermal power stations, as opposed to coal used for other industrial purposes. The categorisation reflects the fact that special wagons and operational methods are used to move ESI coal, and demand is influenced by different factors than apply to other markets.
1.0.30	The Applicant, NBC, SNDC, NCC Highways England, Network Rail	Paragraph 8.3; will the Applicant, the District Councils, the County Council, Highways England and Network Rail please indicate what weight they consider the ExA and Secretary of State should put on the potential to serve destinations between 90 minutes and 4.5 hours' drive time away, and whether this should be counted a benefit or an adverse effect?	The point being made at paragraph 8.3 about drive times is simply an explanation of why demand for logistic warehouse space is expected to be strong at Northampton Gateway. This should be read in the context of Section 4 of the Report and Appendix A1. Appendix A1 explains the importance of drive times in the locational decisions of logistics operators and in turn why the Midlands Distribution Heartlands contains such a high concentration of logistics activity.

ExQ1	Question to:	Question:	Applicant's Response
			From a logistics property perspective, it is considered a benefit to be able to access destinations; particularly destinations with elevated population levels, within a short drive time. Many retail and logistics related occupiers seek quick access to end markets and would take into account the requirements of drivers' tachographs and specific Working Time Directives such as the Road Transport Directive when choosing warehouse locations. These requirements limit the number of hours that drivers can drive and occupiers would see it as a benefit to be able to make quick return journeys to and from end destinations, ideally in the same day, whilst adhering to these requirements. The regulations governing how long lorry drivers can drive stipulate 9 hours maximum in a day and a break totalling at least 45 minutes after no more than 4.5 hours driving – all recorded on a tachograph. The 4.5 hour drive time is particularly important for this reason – i.e. to demonstrate how far a lorry can reach, uninterrupted, in one drive and corresponding days round trip. The 90 minute drive time was used to demonstrate just how close significant end destinations are and how multiple trips could be done in one day, which would be seen as beneficial to occupiers. There is no attempt to describe this as a 'beneficial effect', other than to confirm that it is a benefit to many logistics businesses, hence the existing concentration of activity in the

ExQ1	Question to:	Question:	Applicant's Response
			Midlands Distribution Heartlands and expectation of demand for warehouse space at Northampton Gateway.
1.0.31	The Applicant	Paragraph 8.7 refers to Appendix 2. There is no Appendix 2. Is it intended to refer to App A2? Please could the Applicant check the other cross references in this report and indicate any corrections which need to be made?	The correct reference is Appendix A2. The Report refers to Appendix 1 (for example at paragraph 8.2) this and any other reference to Appendix 1 or Appendix 2 should be read as Appendix A1 and Appendix A2.
1.0.32	The Applicant	Paragraph 8.1 refers to a *"significant*" pool of potential users of the Proposed Development and to a *"significant proportion"* of floor space which would otherwise be road-based. Will the Applicant please give the proportions and actual estimates of floorspace, with margins for error? How much of that is new floorspace? Will the new floorspace come on stream in the absence of the Proposed Development? Please will the Applicant explain the reasoning behind its answers to these questions?	It is assumed this is referring to paragraph 8.11 rather than 8.1. Appendix A2 of the Market Analysis Report (**Document 6.8**, APP-378) explains the research that has been undertaken and which has informed the conclusion set out at Paragraph 8.11. The research set out at Appendix A2, has been undertaken to assess the potential depth of demand for rail freight services at Northampton Gateway. It identifies the area within which the research was undertaken and the size of warehouse units assessed. Paragraph 47 sets out the quantum of existing floorspace in the research area and the location of this existing warehousing. Paragraph 48 and Figure 23 then identify the amount of potential new floorspace that might come forward within the area by assessing committed development sites.

ExQ1	Question to:	Question:	Applicant's Response
			Having regard to this work there is 4.87 million sqm of existing warehousing in the research area in units over 9,290 sqm and a potential for a further 940,770 sqm of new floorspace in units above this size in the research area. Because this potential new floorspace is committed on existing road-based sites in an area of strong logistics demand, this floorspace will come on stream whether the proposed Development goes ahead or not. Without the new SRFI, that Development would be road served. The research presented in Appendix A2 then seeks to analyse the occupational status of the existing warehouse buildings in the research area with a view to understanding the occupier's potential propensity to utilise rail freight in their logistics operations if the opportunity to do so were provided. Paragraph 53 identifies the proportion of space occupied by retailers and manufactures and Figure 25 shows that the average unit size in the area is larger than the national average. Paragraph 55 explains that data has been collected on the use of rail freight by occupiers in the area, but notes that this relates to the occupier business as a whole and not to the specific operation of the unit in this area. It states therefore that this could be considered as an indicator of the current willingness of business to use rail freight and therefore an indicator of potential rail freight use at Northampton Gateway.

ExQ1	Question to:	Question:	Applicant's Response
			Paragraph 56 explains that the research found that 60% of the floorspace in the research area is occupied by businesses with an existing use of rail freight as part of their overall business, including 45% with some use of rail as part of their UK operations. This is 60% and 45% of the 4.87million sqm of existing warehouse space.
1.0.33	The Applicant	Paragraph 10.2 refers to the recent limited distribution role of rail *"in part been due to the limited number of, and therefore access to, rail terminals (where logistics could be transferred from road to rail)…".* Whilst rail terminals can provide transfer facilities from road to rail, would it be more appropriate to say from rail to road? What proportion of movements at the Proposed Development are expected to be from road to rail, and to what extent does the Applicant consider this to be significant, important and relevant? Please can the Applicant set out the reasons for their conclusions on this?	The Applicant's response to ExQ1.0.21 addresses this point. A summary response to the specific questions is set out here. SRFI's are places to transfer goods from road to rail and from rail to road, depending on the destination and origin of goods. The NPSNN confirms at Paragraph 2.45 that the logistics industry provides warehousing and distribution networks for UK manufactures, importers and retailers. The proportions of movements are not known and will depend on a wide range of commercial factors including eventual occupiers on the site and the operator of the rail freight terminal. It is likely that, having regard to the current trade balance in the UK as a whole, that more goods would arrive at than be taken out from, the rail terminal. This is not considered to be significant, important or relevant to the consideration of the application in accordance with the NPSNN. The information provided by Maritime Transport Ltd in their letter at **Appendix 6** is helpful in providing an understanding of the operation of an existing SRFI and therefore an indication as to how Northampton Gateway might operate.

ExQ1	Question to:	Question:	Applicant's Response
1.1.	**Air Quality and Emissions**		
1.1.1.	The Applicant	Paragraph references are to those in ES Chapter 9 (Air Quality) [APP-095] unless otherwise stated. (i) In relation to the Air Quality chapter [APP-095] as a whole the ExA would appreciate it if the Applicant could be very clear when answering in its explanation of the standards and tests how conclusions are reached. (ii) Please could the Applicant supply a glossary of all the abbreviations and acronyms used in this chapter? The UK Air Quality Strategy Paragraph 9.2.15 refers to the "UK Air Quality Strategy (UKAQS) (Ref 9.5). However, Ref 9.5 is the NPPF. It seems there is a choice of documents. Please state whether the reference is intended to be to: • The air quality strategy for England, Scotland, Wales and Northern Ireland: Volume 1 (26 March 2011), or • Air quality: draft Clean Air Strategy 2018, 22 May 2018,	(i) Noted (ii) Please see **Appendix 8** for the glossary requested The reference should be to Ref 9.1 in The UK Air Quality Strategy (Defra, 2007, The Air Quality Strategy for England, Scotland, Wales and Northern Ireland, HMSO).

ExQ1	Question to:	Question:	Applicant's Response
		• Air quality plan for nitrogen dioxide (NO2) in UK (2017), 26 July 2017, or • Defra, 2007, The Air Quality Strategy for England, Scotland, Wales and Northern Ireland, HMSO (which is ref 9.1 in the Chapter), or some other document.	
1.1.2.	The Applicant	Paragraph 9.2.16 refers to the Air Quality Management Regulations 2000 and the reference is 9.6, which is Planning Policy Guidance (PPG), 2014, Air Quality. Is it intended to refer to the Air Quality (England) Regulations 2000/928? If not, please specify.	Yes, that is the intention, apologies.
1.1.3.	The Applicant, NBC, SNDC	The Applicant and Councils will appreciate that the UK Government has come under considerable recent judicial scrutiny over the question of the implementation and compliance with the Air Quality Directive. Please will the Applicant and the Councils set out their understanding of the current legal position with regard to complying with the Air Quality Directive, particularly in the light of the Client Earth litigation, explain its relevance to this application for the Proposed Development, whether the Proposed Development can be permitted without infringing EU law and UK law in the light of that legal	The Applicant and Council understand that the UK Government has come under judicial scrutiny over the question of the implementation and compliance with the EU Air Quality Directive. The UK is currently in breach of the EU annual average air quality limit value (LV) for nitrogen dioxide (NO2) set at 40 micrograms per cubic meter (µg/m^3) (EU Directive 2008/50/EC). This air quality LV was set to be complied with by the objective year of 2010. Following several years of deferrals the Secretary of State for Environment, Food and

ExQ1	Question to:	Question:	Applicant's Response
		position, and clearly identify what they believe to be the current UK guidance and policy documents? The posing of this question does not imply any judgment at this stage by the ExA on this issue.	Rural Affairs (SSEFRA) was taken to court by the Environmental Lawyers Client Earth for not delivering compliance with the directive in the shortest possible time. Subsequently Defra produced the UK Air Quality Plan (2015 and revised in 2017) to deliver compliance across all of the UK. However ClientEarth returned to the High Court in February 2018 to challenge the UK Government (SSEFRA) urgency in delivering the UK Air Quality Plan. The High Court ruled in favour of ClientEarth and has required SSEFRA to accelerate the adoption of air quality plans and Clean Air Zones (CAZs). This was set-out in an update of UK Air Quality Plan (2018). The UK is split up into zones and agglomerations, (such as Nottingham or the East Midlands) and each zone is required to be compliant in the shortest possible time. Northampton and the NGSRFI are in the East Midlands zone. The Northampton Councils work with and contribute toward the UK Government's plan to reduce emissions and comply with the EU directive. Additionally, under the UK Local Air Quality Management (LAQM) regime local authorities monitor and develop policies and measure to reduce pollution and encourage modal shift to improve air quality . The Northampton local authorities also work toward EU compliance through Local Plan policies, development control policies and Low Emission Strategies as well as complying

ExQ1	Question to:	Question:	Applicant's Response
			with the national planning policy framework (NPPF) to reduce emissions. The proposed NGSRFI development has been assessed and will comply with UK AQSs and EU limit values set under the directive and will not cause a breach of the compliance LV for NO2. Additionally, the development will not hinder or cause an extension to the time required for the whole zone to become compliant. The development will engage with and support the local policies such as Northampton Low Emission Strategy and minimise emissions and encourage modal shift to accelerate the uptake of cleaner low emission vehicles and reduce pollutants to support compliance.
1.1.4.	The Applicant	Paragraph 9.4.3 indicates the stated justification provided for only assessing PM10 and NO2 effects on the environment is due to these pollutants being "the two main UKAQS pollutants of interest" Will the Applicant please justify why only PM10 and NO2 have been included in the air quality assessment even though there is a requirement in the EU Ambient Air Quality Directive and the associated UK regulations, and the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 to assess the impact from other pollutants?	Authorities in England are not required to report on Benzene, 1,3-Butadiene, Carbon Monoxide and Lead, unless there is a local issue that needs to be addressed. Local authorities are, however, required to report on NO_2, PM_{10} and SO_2. A review of recent 'air quality annual status reports' for NBC and SNC has showed that NO_2 and PM_{10} are the prime pollutants of concern within their administrative districts and there is no concern relating to any of the other pollutants above.

ExQ1	Question to:	Question:	Applicant's Response
			Furthermore, SO_2 is not a significant pollutant from road traffic emissions. There are no AQMAs in the UK declared for SO_2 due to road traffic emissions. Five of the six AQMAs declared across the UK for SO_2 are associated with industrial emissions. The operational phase road traffic assessment has not considered the impact of SO_2 as the impact on PM_{10} and specifically NO_x will be far greater. As such, any measures to reduce NO_x and PM_{10} will also influence SO_2. The potential for impacts on SO_2 due to rail were screened out of the assessment. This is discussed further in the Applicant's response to ExQ1.1.35. Box 5.1, from LAQM TG(16) provides a summary of emission sources and relevant pollutants to be considered as part of the Updating and Screening Assessment, which is a requirement under the Environment act (1995). Only emissions from NO_2 and PM_{10} need to be considered – see below.

ExQ1	Question to:	Question:	Applicant's Response
			Box 5.1 – Summary of Emission Sources and Relevant Pollutants to be considered as part of the Updating and Screening Assessment

Source Reference	Emission sources to be assessed	Relevant Pollutants
A: Road Transport Sources		
A.1	Narrow congested streets with residential properties close to the kerb	NO_2
A.2	Busy streets where people may spend 1-hour or more close to traffic	NO_2
A.3	Roads with a high flow of buses and/or HGVs	NO_2, PM_{10}
A.4	Junctions	NO_2, PM_{10}
A.5	New roads constructed since the last round of Review and Assessment	NO_2, PM_{10}
A.6	Roads with significantly changed traffic flows	NO_2, PM_{10}
A.7	Bus and coach stations	NO_2
B: Other Transport Sources		
B.1	Airports	NO_2
B.2	Railway (diesel and steam trains)	SO_2, NO_2
B.3	Ports (shipping) [35]	SO_2
C: Industrial Sources		
C.1	Industrial installations (new installations and those with significantly increased emissions)	Benzene, 1,3-butadiene, lead, NO_2, SO_2, PM_{10}
C.2	Major petrol storage depots	Benzene
C.3	Petrol Stations	Benzene
C.4	Poultry farms	PM_{10}
D: Commercial and Domestic Sources		
D.1	Biomass combustion (including domestic solid-fuel burning for PM_{10})	NO_2, PM_{10}
D.2	Domestic solid-fuel burning	SO_2, PM_{10}
E: Fugitive or Uncontrolled Sources		
E.1	Quarries, landfill sites, opencast coal mining, waste transfer sites, materials handling (i.e. ports, major construction sites)	PM_{10}

ExQ1	Question to:	Question:	Applicant's Response
1.1.5.	NBC, SNDC	Please will these Councils advise if they agree with the Applicant that an assessment of the effects that other pollutants (ie nitrogen oxides (NO_x), hydrocarbons, sulphur dioxide (SO_2) and particulate matter ($PM_{2.5}$)) is not required?	N/A
1.1.6.	The Applicant	Paragraph 9.2.20 reads "*The latest UK Government Air Quality Plan for nitrogen dioxide (NO_2) in the UK (2017) was published in July 2017 (Ref: 9:2).*" Should the reference be to Ref: 9:2?	The reference should be to 9.7.
1.1.7.	The Applicant	Dust emissions from construction: paragraph 9.3.6 states that Figs 9.1 – 9.4 show the location of receptors which could be sensitive to dust within 350m of the boundaries. Where are these on Figs 9.3 and 9.4 please?	In Figures 9.1 and 9.2 receptors were identified that were considered as being particularly sensitive (i.e. schools/ residential care homes). No highly sensitive receptors (except houses) were identified in Figures 9.3 and 9.4. It would be inappropriate to add a receptor point for every house.
1.1.8.	The Applicant	Is the reference in para 9.3.6, last sentence, to "*receptors"* intended to be *"human receptors*"?	No - Figure 9.1 also shows the Roade Cutting SSSI, which is not a human receptor.
1.1.9.	The Applicant	It is noted that para 9.3.10 states that non-statutory ecological receptors would be of very low sensitivity to air	IAQM's *Guidance on the assessment of dust from demolition and construction* states that an indicative example of a:

ExQ1	Question to:	Question:	Applicant's Response
		quality effects. Could the Applicant explain the justification in support of this statement?	- High sensitivity receptor = Special Area of Conservation designated for acid heathlands (i.e. of International and National importance); - Medium sensitivity receptor = Site of Special Scientific Interest with dust sensitive features (SSSI; i.e. National importance) - Low sensitivity receptor = Local Nature Reserve with dust sensitive features (i.e. local importance) The non-statutory ecological receptors in vicinity of the site are: a) non-statutory b) Not considered to contain any dust sensitive features. Therefore sensitivity is considered to be very low.
1.1.10.	The Applicant	Paragraph 9.3.15 states an assessment of operational dust impacts will be undertaken. Why has this not been done – see especially ex parte Hardy [2001] Env L R 25; [2001] JPL 786 – which was discussed at ISH1 and which at first sight requires surveys to be carried out prior to the grant of consent? Could the Applicant please describe how the operational dust assessment will be undertaken and taken into account and whether this is consistent with the case law, particularly in the light of ex parte Hardy?	The reference to "will" in this sentence is confusing, but is referring to the fact that the assessment is dealt with later in the chapter - an operational dust assessment has been undertaken. See paragraphs 9.5.41 – 9.5.47.

ExQ1	Question to:	Question:	Applicant's Response
1.1.11.	The Applicant	Paragraph 9.3.29 states that an additional transport scenario called "J3" has been assessed that takes into account Rail Central and which assesses the NO_2 and PM_{10} levels for construction and operation. No explanation has been provided why a cumulative dust assessment for both developments has not been undertaken. With reference to the potential for likely significant effects, can the Applicant explain why a cumulative dust assessment has not been undertaken?	A cumulative dust assessment with Rail Central was undertaken based on the Rail Central proposals at Stage 2 Consultation; this is outlined in paragraphs 9.8.1-9.8.2. Cumulative impacts were considered to negligible, which is not significant. Figure 9.18 is provided at **Appendix 9**: Northampton Gateway & Rail Central Construction Phase Receptors – this was mistakenly not included with the original Application.
1.1.12.	The Applicant	Paragraph 9.3.31 says "*Comparisons of modelled and monitored total annual mean NO_2 in each study area have been included in Appendix 9.3"*. Please summarise the comparisons and what they conclude.	The overall summary of what can be concluded from the comparisons is that the model 'ADMS-roads' tends to under-predict pollutant concentrations, when compared with monitored concentrations. Appendix 9.3 details the factors that were applied to modelled results to make modelled concentrations better match monitored concentrations.
1.1.13.	The Applicant	Paragraph 9.3.41 says *"In the absence of any other official stance we have assumed that the vehicle fleet will improve in line with predictions made by DEFRA"* in relation to choosing a realistic (or likely) worst-case estimate. Could the Applicant please state to which Defra predictions or guidance this refers?	The assessment has assumed that the vehicle fleet will improve in line Defra's Emission Factor Toolkit, which was recently updated in November 2017. The predicted reduction in vehicle emissions through tighter Euro standards and the reduction in number of older more polluting vehicles from the fleet (as these vehicles are

ExQ1	Question to:	Question:	Applicant's Response
			removed from the fleet) will have overall effect of reducing emissions over time.
1.1.14.	The Applicant	Paragraph 9.3.44 says there will be a reduction of 23 million HGV miles *"i.e. one quarter of 92 million miles"* associated with the operation of the Proposed Development in 2021. Where does the 92 million miles figure come from and what is its significance please?	The methodology used to calculate this is referred to in the Transport chapter of the Environmental Statement (**Document 5.2**) (see paragraph 12.9.3) The 92 million miles refers to the estimated reduction in HDV miles due to rail-freight replacing HGV/HDV trips from the key ports. A quarter of the sidings are predicted to be operational in 2021; as such, the reduction in 2021 is predicted to be 23 million miles. This is significant as it will reduce emissions of NO_x and PM_{10} nationwide. Please also see response to ExQ1.9.5.
1.1.15.	The Applicant	Paragraph 9.3.46 asks the reader to note that Highways England managed roads are excluded from the zone assessments. Please explain the significance of this exclusion. Are they excluded as receptors, or as sources? How does this affect the Secretary of State's decision, especially in the light of the Client Earth litigation?	Defra identified that Highways England (HE) managed roads would be assessed separately in the UK zone assessments as HE are the responsible authority for managing these strategic routes and ensuring compliance. Defra guidance on the UK National Plan modelling excludes HE roads as a source when assessing the impact of schemes or developments which may have an impact on

ExQ1	Question to:	Question:	Applicant's Response
			compliance with the EU directive. It should be noted that although these roads are not required to be assessed, the contribution of traffic from these roads onto the local road network are included in assessments. The A45 was identified in the UK Plan as a road with current exceedances of the limit value. The development impacts were assessed using the official (Defra) air quality assessment tool, SL-PCM for the opening year (2021) and results showed there would be compliance with or without the development traffic and, accordingly, the development would have no affect on delaying compliance with EU directive limit values for NO_2. This demonstrates that the development will not affect compliance with the EU Directive, notwithstanding the Client Earth litigation .
1.1.16.	The Applicant	Paragraph 9.3.49 states the assessment of the A45 is on the assumption that the Clean Air Zones (CAZ) measures are implemented. (i) Are these the CAZ measures in Derby and Nottingham?	The assessment of the A45 using the UK National Plan air quality assessment tool (SL-PCM) was undertaken under the following assumption that the UK Government mandated CAZ measures would be in place. i) Nottingham and Derby are two of the 6 identified mandated CAZ cities in the plan and therefore are the closest cities in the vicinity of Northampton. However Derby is the only CAZ city in the East Midlands zone in which Northampton and the NGSRFI is located.

ExQ1	Question to:	Question:	Applicant's Response
		(ii) Is it likely they will be implemented by 2020 (see para 9.3.48) and	ii) Derby is currently behind schedule in implementing the CAZ, but If they do not implement the mandated CAZ in Derby by 2020, the A45 would be due to become compliant by 2021 in any case (i.e. with or without the proposed development). *Note: several other roads in and around Derby are more polluted and are the 'weaker links' regarding the East Midlands Zone's compliance with the EU Directive, therefore if Derby do not implement a CAZ compliance of the East Midlands Zone would not occur until 2024*.
		(iii) What is the position if they are not?	iii) As mandated schemes the CAZs are required to be in place by 2020, otherwise the local authorities in question are in breach of the law.
1.1.17.	The Applicant	Paragraphs 9.3.50 to 9.3.53; could the Applicant explain why the Streamlined Pollution Climate Model (SL-PCM) has been used instead of the full PCM? Can the Applicant also explain the extent to which it is likely that the PCM would generate different results to the SL-PCM and what are the influencing factors?	The Streamlined PCM was built to approximate the results of the full PCM model (including NAEI emissions calculations and emissions mapping and PCM concentration calculations) and to run scenarios considerably more quickly in order to meet the immediate needs of Defra for policy support. The Streamlined PCM provides these substantially faster run times because it relies on information previously prepared for and by the full PCM model and does not require dispersion modelling for each scenario. The Full PCM is not available to the public and emissions calculations can take several weeks to complete.

ExQ1	Question to:	Question:	Applicant's Response
			Defra's Streamlined PCM Technical Report (produced by Riccardo) states: "The Streamlined PCM tool relies on a baseline for a specific year, which is obtained from a full run of the PCM model. It calculates roadside concentrations only; these are likely to determine compliance with the Directive 2008/50/EC annual mean NO2 limit value. The full PCM model calculates both roadside and background (1 km x 1 km gridded) concentrations. It can take into account the specific impact of changes in emissions on minor roads and cold start emissions on these background concentrations. The contribution of non-roadside sources remains unchanged with respect to the baseline, as the Streamlined PCM does not consider any non-traffic sources." The proposed development is not going to be a significant contributor of non-roadside sources of pollution and will have its principal impact on major roads (not minor roads). As such, you would expect results to be similar. A difference of +3.2µg.m^{-3} between the PCM and SL-PCM results would be required to alter the outcome of our assessment. This is considered highly unlikely as this is four times greater than the predicted development contribution with the SL-PCM model.

ExQ1	Question to:	Question:	Applicant's Response
			Defra's Streamlined PCM Technical Report also explores the extent to which it is likely that the PCM would generate different results to the SL-PCM. Section 1.3 of this report explores the difference in results between the PCM and SL-PCM for the modelling of four different Clean Air Zone Scenarios across the UK. It concluded: "The results [of the SL-PCM model] are very similar to the full PCM model for the four CAZ scenarios. In terms of distribution of these differences there is some variation across roads but the spread is close and provides confidence in the Streamlined PCM tool." The changes to the base SL-PCM model that were applied to create these four CAZ scenarios were far more significant than the changes applied to the model to create the with-development SL-PCM model. As such, you would expect the deviations from the full PCM model to be smaller. The full PCM model on average predicted higher concentrations (up to +0.25µg.m^{-3} in CAZ scenario type C) across all assessed road links in the UK. This average difference would not alter the outcome of our assessment. When considering the top 5% of differences between the PCM and SL-PCM on any of the 9,336 road links assessed. The full PCM model predicted higher concentrations (up to

ExQ1	Question to:	Question:	Applicant's Response
			+0.73µg.m^{-3} (In CAZ scenario type C)). This difference would not alter the outcome of our assessment.
1.1.18.	The Applicant	At paragraph 9.3.63 the ES concludes that due to proximity to the A45 and agricultural land use there is no need to make further assessment of nitrogen deposition on the Upper Nene Valley Gravel Pits, relying on the APIS website quoted in paragraph 9.3.62. To reach that conclusion, according to the quotation in paragraph 9.3.62, "the waters must be oligotrophic with low alkalinity". Where is the evidence to show that this criterion applies to and is met by the Upper Nene Valley Gravel Pits Special Protection Area (SPA)?	A full screening assessment has been undertaken which shows that the proposed development will have no significant impact on the Upper Nene Valley Gravel Pits SSSI/SPA. This is attached at **Appendix 10.**
1.1.19.	The Applicant	Paragraph 9.3.69, discussing Significance Criteria for Construction with reference to diesel exhaust gases, states *"should modelling of these emissions be undertaken the significance criteria would be the same as for the operational phase assessment …"*. Please explain and justify why modelling has not been done? Is this consistent with case law given the judgment in ex parte Hardy [2001] Env L R 25; [2001] JPL 786? Could the Applicant explain why it does not consider emissions from construction vehicles are likely to cause	This is, unfortunately, out of date and is an error. The modelling has been done and is contained in Appendix 9.11 to the Chapter. Impacts from construction traffic were predicted to be negligible, which is not significant. No mitigation measures are, therefore, required. Construction traffic generation on key routes are too small to have a significant impact on air quality.

ExQ1	Question to:	Question:	Applicant's Response
		significant effects to sensitive receptors during the construction phase of the Proposed Development, and describe any measures that may be in place to mitigate the potential significant effects?	
1.1.20.	The Applicant	Paragraph 9.3.72 says impact will only be considered significant if it results in non-compliance, or delays compliance in the East Midlands Zone. Please explain how this is justified. Is it being said that no matter what other effects there are, be they ever so significant, the Proposed Development will not have a significant impact (effect) unless the East Midlands Zone goes into non-compliance because of it, or is delayed because of it? Or is it being said that an effect on the East Midlands Zone will only be considered significant if it results in non-compliance/delays compliance? Please explain and justify in either case.	This section of the Chapter focuses solely on the ability of the proposed development to comply with EU DIRECTIVE 2008/50/EC and UK law. A pass/fail criterion, therefore, applies. This assessment is undertaken at locations which represent the general exposure of an area to pollution. As such, locations adjacent to junctions are not considered. The impact of the development on local receptors is considered in other parts of the Chapter (9.5.48 – 9.5.169).
1.1.21.	The Applicant	Paragraph 9.3.73 refers to *"The Regional impact assessment"* which is then not used because of difficulties in deciding whether the significance of the impact it assesses is local or trans-boundary. Please explain this reasoning more fully and clearly. Also, whose regional impact assessment is being referred to? This is important particularly as the chosen approach is the 'damage cost approach' which paragraph 9.3.75 says is not strictly relevant to such a development as this.	The regional impact assessment is outlined later in the Chapter (paragraphs 9.5.170 - 176 onward). The assessment includes a calculation of the reduction in tonnes of NOx and PM10 emissions as a result of the proposed development over a period of time. However, as this reduction is spread over a very large area (i.e. the strategic road network towards the UK's key ports), it is difficult to assign significance. When assessing this change at individual receptors the impact would be considered negligible.

ExQ1	Question to:	Question:	Applicant's Response
			However, there will be a small reduction along the length of the UKs strategic road network (towards Key Ports) and this fits in with the UKs Air Quality Action Plan for roadside NO_2 and the aims of the NPS for reducing pollution. However, please see also response to ExQ1.9.5.
1.1.22.	The Applicant	Paragraph 9.3.75 comments that in this case the damage cost approach is not strictly relevant. Please explain why.	The Northampton Low Emission Strategy requires a damage costs calculation (DCC) approach to provide a way of quantifying the impact of a development on health. These are frequently used to value impacts on a local scale (e.g. an urban area/ a district) and then this figure is used to inform the cost of potential mitigation of potential emissions. The DCC is not strictly relevant as it is not used within an air quality assessment for an EIA as it only provides an estimate of emissions but do not assess the direct effect of those emissions on human health or the environment.
1.1.23.	The Applicant	Paragraph 9.4.12 states that the data from the local diffusion tube within AQMA 5 along the A45 are 16% above the AQS (Air Quality Standard). It then continues and states that the AQS does not apply in this location due to the diffusion tube being located along a roadside and not where people spend long periods of time.	The diffusion tube used to measure along the A45 is located at a roadside location adjacent to the traffic. This location does not measure NO_2 at a location of relevant exposure i.e. where people live or are exposed to pollutants over a year long period, such as a residential property, school or hospital. Defra guidance (LAQM.TG (16)) shows that NO2 pollution levels drop off exponentially with distance from the road

ExQ1	Question to:	Question:	Applicant's Response
		Could the Applicant explain why the AQS limit for AQMA 5 is not considered relevant even though it would appear residential dwellings are shown on Figure 9.7 (incorrectly labelled 9.6) to be within 10 metres of diffusion tubes W1, W3 and W5 and the data received from AQMA 5 is 16% above the AQS?	(Laxen and Marner, 2008) and NBC undertook calculations which identified that the concentration of NO2 at the nearest residential dwelling , being 34.85µg.m-3, was below the annual mean AQS. NBC's Air Quality Annual Status report 2017, upon which the baseline assessment in Northampton is largely based states that the diffusion tube 'A45' tube recorded concentrations of 46.5µg.m^{-3} in 2016 within AQMA 5. This tube is located 20m from a location of relevant exposure (i.e. a residential receptor). Members of the public would not be expected to regularly exposed at this diffusion tube over an averaging period of a year (exposure would be more transient) therefore the long-term AQS does not apply here. W1, W3 and W5 are not diffusion tubes – these are modelled receptor locations and represent the facades of residential dwellings nearest the A45. These receptors only show predicted model concentrations This paragraph (9.4.12) is designed to highlight that despite a monitored roadside exceedance, explained above, the residential dwelling are not in an area of exceedance as they are set further away from the road, i.e. the source of pollutants.
1.1.24.	The Applicant	Paragraph 9.4.12 refers at the end to para 9.2.1410. Please explain as the ExA cannot find such a paragraph.	This reference should be to 9.2.15.

ExQ1	Question to:	Question:	Applicant's Response
		If it is intended to refer to para 9.2.14, please elaborate as the relevance is not obvious.	
1.1.25.	The Applicant	Paragraph 9.4.13 refers to *"predicted"* annual mean concentrations. Please state for which year they are predicted, and with or without the Proposed Development? How is the prediction made from the data in Table 9.5?	The wording is incorrect and should read: "The monitored SNC annual mean concentrations of NO_2 were consistently below the AQS in South Northamptonshire, within 3km of the site."
1.1.26.	The Applicant	The heading of paragraph 9.4.25 reads *"Summary of Data Used in the Assessment"*. However, it appears to be a conclusion about the testing of the UK-AIR predictions, leading the author to decide the assessment of environmental effects on air quality can be done by reference to the UK-AIR data alone. The ExA is keen to understand this properly. Is this the correct interpretation?	A key part of the assessment process is the baseline assessment. Background air quality (away from any major sources of pollution that could result in spikes in pollution (e.g. roadside locations)) is seen as an appropriate source of data for describing baseline air quality. UK-AIR (a Defra resource) provides predictions of background air quality at the centre of $1km^2$ National Grid square locations across the UK. There is limited monitoring at background locations in Northampton and as such representative monitored background locations for each of our modelled study areas are not available. Where monitored background concentration exists, there was good agreement with predicted UK-AIR concentrations and as such, we have considered the use of UK-AIR

ExQ1	Question to:	Question:	Applicant's Response
			background data to be appropriate for describing baseline air quality in our modelling assessment. The phrase 'summary of data used in the assessment' is indeed misleading as far more data than UK-AIR background predictions has been used in the assessment. The phrase should read 'summary of background/baseline data used in the assessment'.
1.1.27.	NBC, SNDC	Please see the ExA's question 1.1.26 on paragraph 9.4.25. Is that also the Council's interpretation? And do the Councils agree this is an appropriate way for the Applicant to proceed?	N/A
1.1.28.	The Applicant, NBC, SNDC	Paragraph 9.4.26 states *"A gradual improvement in background concentrations has also been assumed, in line with predictions made by Defra."* (i) Is this a reasonable assumption? Please will the Applicant explain what evidence supports that assumption and conclusion?	(i) Yes this is certainly a reasonable assumption. UK-AIR (Defra resource) provides predictions for future background air quality. These are regularly updated with the most recent update occurring in November 2017. These have been produced to provide background maps in line with the baseline projections used in the 2017 national air quality plan for nitrogen dioxide. Background concentrations are predicted to fall, partly due to roll-out of cleaner engine vehicles (as

ExQ1	Question to:	Question:	Applicant's Response
		(ii) What are the implications of the Volkswagen emission case for the Defra predictions, and does that make any difference to the outcome of this assessment? If so, please explain.	predicted in the EFT). The UK has also stated that they will not permit the sale of new diesel and petrol cars by 2040. (ii) The background maps and EFT have been updated since the Volkswagen emission scandal.
1.1.29.	The Applicant	Paragraph 9.5.43; could the Applicant provide evidence that GRS's current aggregate terminal has had no dust issues and that the new aggregate terminal predicted dust emission will be similar to GRS's current aggregate terminal? Furthermore, can the Applicant explain how it intends to monitor the effect of dust during operation?	The NBC's Senior Environmental Health Officer, Gavin Smith, checked the Environmental Health complaints records which go back 10 years and confirmed that there have been no complaints made against the current GRS aggregates site on record. GRS confirmed that no complaints about dust on the site in the last 10 years despite being right in the middle of town. Current dust management includes; monitoring both weather and site conditions to use the dust suppression system on site and all materials off loaded by train are also 'damped down' at source. The current terminal is situated within the urban conurbation of Northampton on St Andrews road adjacent to just north of the Northampton station and adjacent to residential properties to the east. The closest residential properties are across the road within 20m of the site boundary downwind of the site.

ExQ1	Question to:	Question:	Applicant's Response
			Moving the aggregates terminal to the NGSRFI will increase the distance to the terminal to the closest residential receptors, situated more than 250m. These receptors will also be upwind of the site as well. The new site will have dust suppression systems, monitor site and weather conditions, keep a daily log and respond to any issues quickly. The potential dust emission magnitude from the new aggregate terminal should be similar to current values as: • The number of vehicles on-site will be similar, with a potential 5% maximum increase; • The quantity of aggregate being processed on site will be similar, with a potential 5% maximum increase; • The type of aggregate being processed will remain the same; and • No conveyor system will be in place that will result in higher stockpiles (higher stockpiles have a higher potential for dust release).
1.1.30.	The Applicant	Paragraph 9.5.14 states that there is a high risk of dust impacts to human receptors within 20m of the Proposed Development. The ExA notes that there are residential dwellings within 20m of the Proposed Development main site northern boundary which have not been included within the dust assessment and are therefore omitted.	Resolution of Figure 9.1 is low and exaggerates number of receptors in close proximity to construction works. There are two residential dwellings within 20m of the main site's northern boundary (as a result of the inclusion of the small area to the North of the motorway, in Collingtree).

ExQ1	Question to:	Question:	Applicant's Response
		Could the Applicant explain why the residential dwellings adjacent to the northern boundary of the Proposed Development have not been included in the dust impact assessment?	These were incorrectly considered in the <50m boundary, as opposed to the <20m boundary. They were, however, considered. The overall sensitivity of the area is based on the number of highly sensitive receptors within these distance bands. As there are 1-10 highly sensitive receptors within 20m of the works, IAQM guidance states that overall sensitivity should be 'medium'. The overall sensitivity of the area to demolition, earthworks and construction was adjudged to 'Medium' in paragraph 9.5.17. This has, therefore, had no bearing on our assessment.
1.1.31.	The Applicant	Could the Applicant please provide a figure which depicts the Proposed Development in relation to the UK Air Quality Plan East Midlands Zone?	Attached at **Appendix 11** is 'East Midlands Non-Agglomeration Zone' which is based on a figure from the UK Air Quality Action Plan for tackling NO_2.
1.1.32.	The Applicant	Throughout the air quality ES chapter [APP-095], the magnitude of impacts arising from demolition work is determined to be small and the sensitivity of receptor is determined to be medium. Following the Institute of Air Quality Management (IAQM) guidance this should result in a small risk of significant effects but the ES air quality chapter states that there is a negligible risk of significant effects. No explanation for this divergence from the IAQM guidance has been provided within the ES.	We have adhered to IAQM Guidance on the assessment of dust from demolition and construction. The guidance recognises that "every site is different and therefore this guidance cannot be too prescriptive and professional judgment is required [to make a judgment of significance]" 350m is stated as general screening criterion for the potential of dust impacting the IAQM guidance. The guidance, however, recognises this to be a deliberately conservative criterion.

ExQ1	Question to:	Question:	Applicant's Response
		Could the Applicant explain why the significance of effect arising from demolition works on the main site is concluded to be 'negligible' rather than 'small' as might be expected if the IAQM guidance on the assessment of dust from construction and demolition has been followed?	Paragraph 9.5.3 states: "some demolition will be required for scattered farm buildings and other structures, plus the breakup of existing road surfaces around Junction 15" The breakup of road surfaces is more akin to the earthworks, which is assigned a Large dust emission magnitude in the assessment, as demolition refers only to buildings and structures in this guidance. Using professional judgment, we have considered the impact of demolition to be negligible as there are no sensitive receptors within 350m of locations where demolition will take place (i.e. the scattered farm buildings on the main site). It is accepted that this line of reasoning may not be adequately explained in the ES. Regardless of whether the impact of demolition is considered to be low risk or negligible risk, demolition mitigation measures have been recommended for 'medium risk' sites as best practice at all locations. This has fed into the CEMP and will feed into the P-CEMP. There is no difference in the mitigation measures for low risk sites and medium risk sites (for demolition). As such, the recommendations are robust and appropriate.

ExQ1	Question to:	Question:	Applicant's Response
1.1.33.	The Applicant	The Applicant is in consultation with Northampton Borough Council regarding contributing to the delivery of new electric vehicle charging points and the potential introduction of cleaner EURO IV class buses for the dedicated bus service to the Proposed Development. The ExA notes that no draft plan detailing how and when these measures will be undertaken has been provided. Furthermore, these measures do not appear to have been secured through the DCO. (i) Could the Applicant describe the mitigation measures which have been discussed with NBC to reduce the adverse impacts on AQMA 4? (ii) How and when would these measures be delivered? (iii) How is their delivery secured through the draft DCO?	The Applicant has been in discussion with Northampton Borough Council and provide an Air Quality mitigation proposal in line with the Northampton Low Emission Strategy (LES) guidance (2018). The mitigations required under the LES to be provided by the SRFI separately from the DCO include: - 5% of the total car parking spaces provided will include electric charging points, with passive provision provided for a further 5% of the total provision. - Framework Travel Plan; o The FTP includes the appointment of a Travel Plan Co-ordinator (TPC) and a Sustainable Transport Working Group. o The FTP is supporting objectives and SMART targets are put in place to help achieve this aim with a specific target of achieving a 20% reduction in single occupancy car journeys, from 92% in the baseline to 74% by 2031. - Public Transport Strategy; - Measures to support cycling and walking infrastructure; o The proposed development will provide new walking and cycling infrastructure connecting the SRFI site with the existing networks in Collingtree, Northampton and Roade. - Construction Environmental Management Plan (CEMP); and

ExQ1	Question to:	Question:	Applicant's Response

			- Car sharing scheme;
			  o As part of the FTP, car sharing will be actively promoted and to encourage this 8% of the total car parking spaces would be marked for those car sharing.
			- Minimum Euro VI shuttle bus service;
			  o Phased Express bus service as the development grows
			  o Bus infrastructure
			  o Stops and laybys on routes into NGSRFI
			- S106 contributions (approx. £250,000) will be provided for:
			  o Northampton Electric Vehicle Plan; and
			  o Low emission infrastructure
			
			Mitigation measures proposed during the construction phase such as the J15 improvements will support reductions in traffic emissions within the AQMAs due to the re-direction of traffic away from the AQMAs. The combined effect of mitigation measures will help reduce emissions through modal shift, lessening congestion at major junctions and encourage the early uptake of Ultra Low Emission Vehicles (ULEVs). These measures will support NBC in delivering improvements in air quality at the current AQMAs including AQMA 4.
			
			The J15 improvements will be in place before 2021 with other mitigation measures proposed to be phased in during the

ExQ1	Question to:	Question:	Applicant's Response
			post construction phase from opening of the SRFI as the development grows from 2021. The delivery of measures will be secured through conditions and s106 agreement.
1.1.34.	The Applicant	No monitoring arrangements have been proposed during the construction and operation phases, and post-completion of the Proposed Development to ensure the mitigation measures have been successful. Could the Applicant explain the extent to which monitoring measures are required to demonstrate the efficacy of the mitigation measures proposed and how such monitoring measures would be secured?	The update to the 'Commitments Tracker' referred to in the response to ExQ1.0.3 will incorporate information regarding any ongoing monitoring proposed across the Application documents.
1.1.35.	The Applicant	The ES chapter on air quality [APP-095] has not included any information regarding the potential air quality effects that the increase in the number of train movements may have on the environment. Could the Applicant explain why the assessment of local air quality effects does not include any reference to the effects from any potential increase in train movements?	The local air quality management (LAQM) regime, which is a requirement of the Environment Act (1995) provides policy and technical guidance on assessing rail related sources of pollutants. Box 5.1, from the technical guidance (LAQM TG(16)) provides a summary of emission sources and relevant pollutants to be considered as part of LAQM Updating and Screening Assessments (for Box 5.1 see answer to Q1.1.4). It states that only emissions of NO_2 and SO_2 need to be considered from diesel and steam trains. Defra's LAQM.TG(16) also provides a list of screening criteria for assessment, split for stationary diesel and moving

ExQ1	Question to:	Question:	Applicant's Response
			diesel locomotives. The air quality impacts of increased numbers of train movements were screened out of the assessment using these criteria. *"Stationary* - *Identify locations where diesel or steam locomotives are regularly (at least 3 times a day) stationary for periods of 15 minutes or more; and* - *Determine relevant exposure [public exposure] within 15m of the locomotives.* *Moving diesel locomotives:* - *Determine relevant exposure [public exposure] within 30m of the relevant railway tracks (Table 7.2 provides information on which lines should be considered); and* - *Identify whether the background annual mean NO_2 concentration is above 25µg/m3 in these areas"*

ExQ1	Question to:	Question:	Applicant's Response
			Table 7.2 – Rail Lines with a Heavy Traffic of Diesel Passenger Trains Relevant Rail Lines Paddington to Swansea Swindon to Taunton Bristol Temple Meads to Bristol Parkway Rugby to Birmingham New Street Manchester Piccadilly to Wigan Crewe to Gretna Manchester to Crewe Liverpool Lime Street to Allerton (Liverpool Urban area) Sheffield to Wincobank Junction Leeds to Bradford only for about 1 mile to west of Leeds station Glasgow to Edinburgh With regard to stationary trains, there is no location where members of the public would be reasonably expected to spend 15 minutes or more. Therefore the impact of stationary trains can be screened out. With regard to moving diesel locomotives, the WCML passing Northampton is not one of the relevant lines. In addition, background levels of NO_2 in the local area are below 25µg/m3. In 2018, background concentrations at the main site are predicted to be 16.6µg/m3 (see table 9.3)

ExQ1	Question to:	Question:	Applicant's Response
			Therefore the impact of moving trains is screened out of the assessment. The overall impact of rail was, therefore, screened out of the assessment. In addition, DfT's Rail freight Strategy published in 2016 states that it expects the train fleets of Freight Operating Companies to become increasingly electrically hauled or potentially bi-fuel hybrid locomotives. Electric trains do not release NO_2 or SO_2. Northampton gateway is located on Network Rail's West Coast Main Line which runs from London to the West Midlands, the North West and Scotland. It is electrified throughout. Freight trains run using either diesel or electric traction. The SRFI Reception Sidings will be electrified, and will be able to handle electrically hauled freight trains from the opening of the SRFI.
1.1.36.	The Applicant	Paragraph 9.5.46 says "*Rathvilly and Lodge Farms are the only human receptors currently located within 350m of the Proposed Aggregate Terminal; however, the Proposed Development will introduce a number of additional human receptors within this boundary. These*	Guidance on the sensitivity of receptors to nuisance dust soiling is provided in IAQM's 'Guidance on the assessment of dust from demolition and construction'. Places of work are considered to be medium sensitivity to dust soiling impacts as workers would expect to enjoy a

ExQ1	Question to:	Question:	Applicant's Response
		receptors are, however, not considered highly sensitive to nuisance dust impacts." Please explain why they are not highly sensitive. What is their sensitivity and why? The following sentence states that the human receptors have low sensitivity to dust soiling, enabling the conclusion that the overall sensitivity is considered low. Please explain how the human receptors can be said to have low sensitivity.	reasonable level of amenity but not the same level of amenity as in their homes. The judgment of overall sensitivity is based on the number of sensitive receptors within distance bands. The number of highly sensitive human receptors within 350m meets the criteria for an area of low sensitivity. The number of medium sensitivity receptors within 350m meets the criteria for low sensitivity.
1.1.37.	The Applicant	Paragraph 9.5.57 refers to *"the following equation"* but does not give it. It is also used in the following paragraph. Please provide the equation. Are there other equations for this purpose? If so, please explain – if it is the case –why is this formula is to be preferred.	No. 24-hour mean exceedances = -18.5 + 0.00145 × annual mean3 + (206/annual mean) This is the only equation – outlined in para 7.92 of LAQM TG (16) below: "As for NO2, using a dispersion model to predict exceedances of the PM10 short-term (24hour mean) objective may be challenging. Therefore, to estimate potential exceedances of the PM10 24-hour mean objective, local authorities should use the following relationship, provided in previous Technical Guidance, but still considered adequate:

<table>
<tr><th>ExQ1</th><th>Question to:</th><th>Question:</th><th>Applicant's Response</th></tr>
<tr><td></td><td></td><td></td><td>No. 24-hour mean exceedances = -18.5 + 0.00145 × annual mean3 + (206/annual mean)"</td></tr>
<tr><td>1.1.38.</td><td>The Applicant</td><td>Paragraph 9.5.58; PM_{10} exceedance, or number of days permitted. Please explain what is actually permitted in terms of amount and days.</td><td>This means 50µg/m3 not to be exceeded more than 35 times a year.</td></tr>
<tr><td>1.1.39.</td><td>The Applicant</td><td>Paragraph 9.5.60; NO_2 exceedance. Again, the limits are not explained. Please can they be set out clearly in a reply?</td><td>
<table>
<tr><th>Pollutant</th><th>Objective</th><th>Averaging period</th></tr>
<tr><td rowspan="2">Nitrogen dioxide (NO_2)</td><td>200µg/m3 not to be exceeded more than 18 times a year</td><td>1-hour mean</td></tr>
<tr><td>40µg/m^3</td><td>Annual mean</td></tr>
<tr><td rowspan="2">Particulate Matter (PM_{10})</td><td>50µg/m^3 not to be exceeded more than 35 times a year 24</td><td>24-hour mean</td></tr>
<tr><td>40µg/m3</td><td>Annual mean</td></tr>
</table>

1-hour mean concentrations refer to the average concentration of a pollutant over a 1-hour period. (1-hour mean objectives apply at locations where members of the public may be reasonably expected to spend 1-hour or more (e.g. bus stations & railway stations))</td></tr>
</table>

ExQ1	Question to:	Question:	Applicant's Response
			24-hour mean concentrations refer to the average concentration of a pollutant over a 24-hour period. (24-hour mean objectives apply at locations where members of the public may be reasonably expected to spend 24 hours or more (e.g. hotels)) Annual mean concentrations refer to the average concentration of a pollutant over a year. (annual mean objectives apply at locations where members of the public may be regularly exposed (e.g. residential dwellings))
1.1.40.	The Applicant	Paragraph 9.5.68 refers to "*the formula in 9.3.58*…" but there is no formula at 9.3.58. Please explain and provide the correct cross-reference/formula.	No. 24-hour mean exceedances = -18.5 + 0.00145 × annual mean3 + (206/annual mean) This is the only equation – outlined in para 7.92 of LAQM TG (16)
1.1.41.	The Applicant	Paragraphs 9.5.73 and 9.5.74; please explain and unpack this reasoning. For example, is 9.5.73 saying that there will be more traffic on the A45 as a result of the J15A improvements and that that has greater significance than the additional HGV traffic generated by the proposed development in 2021? In that case, what is the result, and how is paragraph 9.5.74 justified?	Mention of J15a improvements in this Paragraph 9.5.73 is incorrect. It is meant to refer to J15 improvements which are due to be completed by first occupation. By 2021, traffic flows on the A45 are predicted to increase due to: - Traffic redistribution caused by J15 improvements; and

ExQ1	Question to:	Question:	Applicant's Response
			- Vehicles travelling to and from the proposed development. In 2021, traffic redistribution on the A45 is predicted to result in a far greater increase in flows than the effect of vehicles travelling to and from the proposed development. The effect of the redistribution and development traffic increase on air quality is predicted to be negligible in 2021. Following completion of the improvement works at J15, there would be no further significant redistribution effects and the increases in traffic between the reference case and the development case would be largely due to development traffic. The air quality impact due to this increase is predicted to be more than offset by improvements to the vehicle fleet, which mean that every vehicle on average is less polluting. As such, the impact on AQMA5 (centred on the A45) in the interim period is predicted to remain overall Negligible.
1.1.42.	The Applicant	Local Study Area, AQMA No 4 (i) Paragraph 9.5.75 states: *"Modelled receptors in the Northampton AQMA No.4 study area are detailed in Appendix 9.2, and*	i) Figure 9.8 shows receptors R1-R13. This figure should be labelled K1-K13.

ExQ1	Question to:	Question:	Applicant's Response
		displayed on Figure 9.8". However, Appendix 9.2 lists receptors K1 –K13 but Figure 9.8 shows receptors R1-R11. Please will the Applicant clarify? (ii) Please will the Applicant also check the other tables and figures for this chapter to ensure they all correspond correctly, and give the result? (iii) Paragraph 9.5.81 says "*Of the receptors where likely significant impacts are expected (K4, K7, K10 and K12), all were located on Harborough Road, within proximity of junctions and slowed traffic, where long term concentrations of NO2 are predicted to be within 5% of the AQS*". Is this 5% above or 5% below the AQS? Paragraph 9.5.85 states "*In this sensitivity test, the largest increase in annual mean NO2 occurs at K10, where a 0.7 µg.m-3 increase is predicted"*,	ii) Figure 9.9 shows R1-R6 – this refers to VP1-VP6 iii) Figure 9.10 Shows R10-R13. This refers to labelled CS1-CS4. Figure 9.11 shows R7-R9 – this refers to SM1-SM3 Figure 9.12 shows R1-R16 – this refers to SJ1-SJ16 Figure 9.13 shows R1- R11 – this refers to RO1-RO11 Figure 9.15 shows R1-R3 – this refers to TW1-TW3 Figure 9.16 shows R1-R4 – this refers to H1-H4 Figure 9.17 shows R1-R4 – this refers to GF1-GF2 (in Grafton Regis) and P1-P2 (In Potterspury) They are all within 5% below the AQS. The change due to the proposed development is incorrectly labelled. - 2021 with development = column C

ExQ1	Question to:	Question:	Applicant's Response
		When one looks at Appendix 9.4, which contains the sensitivity test, it is seen that the Change due to Development is said to be columns B minus A. That, however, gives the result for K10 of minus 3.3. The explanation seems to be that the Change due to Development is B minus the centre column, which has no letter. Please can the Applicant confirm this is the right interpretation?	- "The explanation seems to be that the Change due to Development is B minus the centre column, which has no letter". This is not the correct interpretation – the change due to the development is the centre column (C) – B.
		(iv) What is the other sensitivity test referred to in para 9.5,86?	iv) There are two sensitivity tests in the air quality ES Chapter. The results based on the 2016 (worst-case) monitoring data, which are included in the main body of the assessment and the results based on 2015 monitoring data which are included in Appendix 9.4.
		(v) Paragraph 9.5.86 goes on to say that *"The discrepancy in significance between the two sensitivity tests is due to the 'long term average concentration' at each receptor, with concentrations in the 2016 sensitivity on average 3.5µg.m-3 higher at each receptor"*. How does the 3.5µg.m-3 increase relate to the AQS (or other relevant standard used in this section of the chapter)?	v) The predicted concentrations with the development in the main body of the chapter are on average 3.5µg.m-3 higher than the predicted concentrations with the development in Appendix 9.4. This is not an increase due to the development, but due to the use of a different year for verification purposes. Both results have been used to judge the overall significance of impacts in each study area.

ExQ1	Question to:	Question:	Applicant's Response
		(vi) Does this affect the conclusion at paragraph 9.5.7? Could the Applicant please explain the conclusion more fully and clearly?	vi) Is 9.5.7 the correct reference? Assumed 9.5.87 – the impact of the development in terms of % increase is similar in both tests, adding weight to the results of our conclusion. Both tests have been used in judgment of overall significance.
1.1.43.	The Applicant	The second sentence of paragraph 9.5.93 appears to contradict the first. Could the Applicant please explain this apparent contradiction?	There is no contradiction. Concentrations at CS1 are predicted to be in exceedance of the Air quality standard with and without the proposed development; the development is not, therefore, going to cause the exceedance.
1.1.44.	The Applicant	Could the Applicant please explain the apparent contradiction between the first and second sentences of paragraph 9.5.109?	There is no contradiction. Concentrations at SJ4, SJ9 and SJ2 are predicted to be in exceedance of the Air quality standard with and without the proposed development; the development is not, therefore, going to cause the exceedance.
1.1.45.	The Applicant	Paragraph 9.5.167 states: "*In the interim period between 2021 and 2031, improvements to the vehicle fleet will lessen the impact of changes to traffic flows. As such, it is considered unlikely that overall impacts will become more significant, i.e. changes from Slight Beneficial to Moderate Beneficial or from Slight Adverse to Moderate Adverse in this period*."	No, that is not correct. The impact of fleet emission improvements are modelled in both with and without scenarios and so the impact predicted is solely due to the proposed development. The positive impact of fleet improvements vastly outweighs the adverse impact of the proposed development. As such, even with more SFRI traffic in the interim period between

ExQ1	Question to:	Question:	Applicant's Response
		Does this not mean that the air quality benefit of the national vehicle fleet improvements are partially absorbed by the traffic generated and diverted by the Proposed Development? If so, what is the significance of that effect which is a loss of the benefit of the improvements? What is the meaning of the second part of the second sentence? Is it that changes from slight to moderate (or above) are unlikely? Should "i.e." have been "e.g."?	2021 and 2031, pollution levels are predicted to fall year on year. In the interim period impacts are unlikely to become more significant (i.e. worse) as a) baseline air quality will be improving b) vehicles associated with the proposed development will be on average less polluting. e.g. in place of i.e.
1.1.46.	The Applicant	Paragraph 9.6.13 states: "*Notwithstanding the above, it is not considered that there is a need for extensive, off-setting measures associated with total emissions as the Proposed Development is anticipated to be air quality positive, in that total emissions nationwide, as a result of the Proposed Development, will be negative*." Would "reduced" be a better word than "negative"? If not, please explain.	Yes, 'reduced' is probably a better word here.
1.1.47.	The Applicant	Paragraph 9.7.1 says that by adopting "appropriate" mitigation measures in the Construction Environmental Management Plan (CEMP) there are not expected to be significant nuisance effects. (i)What are the appropriate measures?	(i) These are listed in the CEMP (paragraph 7.6). Each P-CEMP will be required to set out the details of a dust

ExQ1	Question to:	Question:	Applicant's Response
			management plan setting out the methods to be used to control dust and other emissions to air.
		(ii) How will it be known that they are appropriate?	(ii) The mitigation measures listed in the CEMP are based on the recommendations that are laid out in Appendix 9.8. These were recommended following the construction phase dust assessment and are site specific.
		(iii)Where have they been assessed?	(iii) These measures have been taken into account in the assessment of residual effects, see Section 9.7.
1.1.48.	The Applicant	Paragraph 9.8.1 looks at cumulative effects in the construction phase, but only cumulates with Rail Central. Could the Applicant explain why there are no other developments which could lead to cumulative effects with the Proposed Development, for example development at Northampton South SUE?	IAQM best practice guidance states that "only highly sensitive receptors within 350m of both sites should be considered for cumulative dust impacts". There are residential dwellings in Collingtree that are within 350m of both the proposed development and the Northampton South SUE Phase 1 and there is, therefore, the potential for cumulative impacts. It is not considered that there will be any significant cumulative dust impacts, in the absence of mitigation as: - The 350m screening criteria is a deliberately conservative criterion as there is an exponential decline in both airborne concentrations of dust and the rate of deposition with distance.

ExQ1	Question to:	Question:	Applicant's Response
			- The risks at over 100m are only potentially significant in certain weather conditions, e.g. downwind of the source during dry periods. - There are no receptors within 100m of both site boundaries. - As the main site is directly to the south of Northampton South SUE Phase 1 development, there is no wind direction that would result in dust from both developments blowing towards any receptors within 350m. This negates the potential for any dust blown from the site to cause a cumulative impact. - The site entrance to the Northampton SUE Phase 1 development (North-east of site) is located more than 1000m from any route potentially used by construction vehicles from the proposed development. Negating any potential cumulative trackout impacts. Furthermore, each site should mitigate the risk from construction dust to negligible levels. The cumulative impact should, therefore, also be negligible. Dust monitoring should be secured through the P-CEMP to ensure that no significant dust impacts are experienced off-site.

ExQ1	Question to:	Question:	Applicant's Response
1.1.49.	The Applicant	Paragraph 9.8.2 refers to Figure 9.18. However, there does not appear to be a Figure 9.18. Please supply it, or give the correct reference.	This is attached as **Appendix 9** (as mentioned in the response to ExQ1.1.11).
1.1.50.	The Applicant	Paragraph 9.8.4, referring to Rail Central states: "*However, assumptions can be made about a possible combined package of highways improvements (as in this assessment using the March 2018 emerging information about the developing Rail Central proposals)*." Please explain what those assumptions are and whether they are considered to be reasonable and likely in the event of the two developments going ahead.	As detailed at Technical Note 12, which forms Appendix 12.2 of the Environmental Statement, the Transport Working Group supported the view that the absence of final information from Rail Central was not an acceptable reason to delay the Northampton Gateway DCO application. Therefore, to ensure the submission of the Northampton Gateway DCO application was not unduly delayed, preparations were made to assess the cumulative impact of the Northampton Gateway and Rail Central schemes based on the most up to date publicly available information regarding the Rail Central proposals, which was the information contained within their 'Transport and Access' 24 May 2017 Local Liaison Group Meeting presentation. It was agreed with the Transport Working Group that the cumulative impact scenario J3 model should include the following highway mitigation: - The proposed Rail Central grade-separated site access junction onto the A43, as per the Rail Central presentation of 24 May 2017; - The proposed Rail Central improvement scheme at M1 J15A, as per the Rail Central presentation of 24 May

ExQ1	Question to:	Question:	Applicant's Response
			2017. This is instead of the proposed Northampton Gateway SRFI improvement at this junction; - The proposed Rail Central improvement scheme at A43/Trove roundabout, as per the Rail Central presentation of 24 May 2017; - All Northampton Gateway highway mitigation (other than M1 J15A); - The Rail Central proposals at the A45 Queen Eleanor Interchange, as per the Rail Central presentation of 24 May 2017, were excluded as NCC are known to be preparing their own scheme at this location. After the conclusion of the above work, but prior to submission of the Northampton Gateway SRFI DCO application, Rail Central undertook their Stage 2 Statutory Consultation, releasing further information regarding the Rail Central scheme and including changes to their emerging highway mitigation proposals. Due to the timescales involved, and considering that the modelling work to support the Rail Central strategy was incomplete at that time, which could result in the proposals changing, the cumulative impact assessment was not updated. However, the potential implications of the changes to their emerging proposals were discussed in Technical Note 12. Therefore the assumptions regarding the possible combined package of highway improvements was agreed with the Transport Working Group and was considered reasonable

ExQ1	Question to:	Question:	Applicant's Response
			based on the Rail Central information that was available at the time. Based on the Rail Central Stage 2 Consultation material it is likely that any future cumulative assessment would also include the Rail Central improvement schemes at junctions along the A5076 corridor. However, we have not yet had the opportunity to consider the final Rail Central application submission so this answer is provisional.
1.1.51.	The Applicant	Paragraph 9.9.5 states: "*Standard best practice measures associated with the operation of the proposed Aggregates Terminal will also be deployed to reduce the potential for significant off-site effects from dust*." Will there be any such effects? If so, how significant will they be? (See also question Exq1.1.30). What type of "best practice" measures are proposed and what is the evidence that they would be effective?	The operation of the Aggregates Terminal is considered to present a Low Risk for nuisance dust impacts and Low Risk for PM_{10} health effects, when considering background levels of PM_{10}, the proposed dust emission magnitude and the number of sensitive receptors in proximity. With standard best practice mitigation measures there will be no significant off-site impacts. GRS have confirmed that they currently monitor both weather and site conditions to use a dust suppression system on site and all materials off loaded by trains are also 'damped down' at source. No complaints associated with dust have been lodged against the site, since recording began. This is despite the facility being a far more sensitive area. This suggests their current dust suppression system is effective. With the new site they would again put in dust suppression system (water based suppression and wheel washing), monitor site and weather conditions, keep a daily log and

ExQ1	Question to:	Question:	Applicant's Response
			respond to any issues quickly. They have BSI Accreditation for rail operations and part of the process is monitoring of any complaints including Environmental. These measures are in line, where appropriate (e.g. mitigation measures associated with demolition are not directly comparable to the processing and storage of aggregates), with the highly recommended mitigation measures for low risk sites listed in the Institute of Air Quality Management (IAQM) *Guidance on the assessment of dust from demolition and construction*. This provides further evidence that they would be effective.
1.1.52.	The Applicant	Please can the Applicant clarify the position on a travel plan? In paragraph 9.9.7 it is said that "*there has been no consideration of the potential improvements due to the Proposed Development's Travel Plan which in practice will also help reduce reliance on car travel and therefore reduce transport emissions further*". However paragraph 9.6.6 states: "*A Framework Travel Plan and Public Transport Strategy have been produced for the Proposed Development, and include a number of measures to encourage travel by a range of modes other than the private car*."	The traffic data used in our road traffic emissions assessment, did not consider the potential improvements associated with the Travel Plan. This is a worst-case assumption. The travel plan is predicted, however, to reduce total development daily vehicle trip generation, which will reduce the impact of the proposed development on air quality. Hence it has been discussed in the mitigation section.

ExQ1	Question to:	Question:	Applicant's Response
		Please clarify whether the Framework Travel Plan and Public Transport Strategy has or has not been taken into account in the assessment and, if so, how.	
1.2.	**Biodiversity, Ecology and Natural Environment**		
1.2.1.	The Applicant	Paragraph references are to those in ES Chapter 5 (Ecology and Nature Conservation) [APP-088] unless otherwise stated. Paragraph 5.4.26 refers to records of brown hare, harvest mouse and polecat occurring in the vicinity of the Proposed Development. However, detailed surveys have not been carried out for these species. Could the Applicant explain the rationale behind the decision not to carry out surveys for these species?	As part of the Extended Phase 1 Habitat surveys, sightings or evidence of protected or notable species, including habitat suitable for those species, is collected. Detailed surveys for brown hare, harvest mouse and polecat were not completed due to a lack of direct sightings or evidence to suggest use of the site or a general lack of suitable habitat. Brown hare, an often-conspicuous species and widespread species in their preferred mixed agricultural land, was not observed within the site throughout the surveys and any significant use of the site or corresponding significant environmental effect/impact was ruled out. Harvest Mouse was historically recorded from Stoke Bruerne Brickpits, a location relatively remote from the site where

ExQ1	Question to:	Question:	Applicant's Response
			suitable habitat exists, between 1996 and 2001. Recent records are not evident. Suitable habitat is largely absent from the site due to the intensive agriculture in operation and their presence considered highly unlikely. A single record of polecat made in 2006 exists to the south of the site. It is unclear from the data available whether this record was confirmed; as this species is difficult to separate from ferret/polecat-ferret hybrids and there are no accepted survey methods commonly used. Nevertheless, this is a species with an expanding range that is known to include Northamptonshire, is typically associated with a range of habitats including pastures, woodland and riparian habitats. It is known to avoid crops, which accounts for the dominant habitat type within the site, and on the basis of its transitory habit and a lack of suitable habitat, significant environmental effects were considered highly unlikely.
1.2.2.	The Applicant	It is noted that the list of Local Wildlife Sites (LWS) and proposed Local Wildlife Sites (pLWS) in the vicinity of the Proposed Development presented in Table 5.12 of ES Chapter 5 does not match the list of LWS/pLWS in Table 1 of Appendix 5.1 [APP-136]. Could the Applicant explain this apparent discrepancy? If necessary, the Applicant is requested to report any impacts on LWS/pLWS that may have been overlooked.	A number of sites were omitted from Appendix 5.1 baseline document by error. However, a full list was included in ES chapter 5 (paragraph 5.12), which was used as the basis for evaluation and impact assessment. Any site omitted from Appendix 5.1 are either remote from the site, isolated from it or unlikely to be affected due to the nature of the proposals. A revised Appendix 5.1 is attached as **Appendix 12**.

ExQ1	Question to:	Question:	Applicant's Response
1.2.3.	The Applicant	Could the Applicant provide a justification for the search areas specified in Table 5.2 of ES Chapter 5? How do these relate to the zone of influence established for the Proposed Development?	The search areas indicated in Table 5.2 are based on ecological judgment and an understanding of the site, its context and the nature of designated sites, habitats and species likely to be affected by the development of this nature. The zone of influence will vary for different ecological features depending on their sensitivity to an environmental change and it is therefore appropriate to identify different zones of influence for different features.
1.2.4.	Natural England	Could Natural England confirm that it is satisfied that there would be no significant adverse effects to the Upper Nene Valley Gravel Pits Site of Special Scientific Interest from the construction and operation of the Proposed Development?	N/A
1.2.5.	The Applicant	Could the Applicant explain the evidence that supports the statement in paragraph 5.5.15 relating to the Junction 15 grassland pLWS that the zone of influence in terms of ecological impacts from an unmitigated increase in airborne dust is typically 100m from the anticipated source?	This is a precautionary approach. The Institute of Air Quality Management's Guidance on the Assessment of Dust from Demolition and Construction Version 1.1 (http://www.iaqm.co.uk/text/guidance/construction-dust-2014.pdf) Table 4 identifies a maximum <50m zone considered for ecological Impacts. In defining the risk of impacts this guidance indicates a low/negligible risk of construction dust impacts related to the type and nature of works proposed.

ExQ1	Question to:	Question:	Applicant's Response
1.2.6.	The Applicant	Paragraph 5.6.44 states that mature trees will be removed according to a precautionary method statement. However, this method statement is not referred to in either the CEMP or the Landscape Environmental Management Plan. Could the Applicant explain how the delivery of the method statement would be secured?	As indicated in the CEMP at Paragraph 15.32, it is the intention that each P-CEMP be informed by pre-commencement bat surveys that will ascertain whether potential bat roost habitat is present (with regard to trees or buildings). Based on up to date understanding of the context for specific works any required mitigation where bats or suitable features for bats are present, such as sensitive felling measures, would be detailed within the P-CEMP. The CEMP will be amended to refer explicitly to the potential use of a precautionary method statement where bats, or a high potential for bats, is identified. It is proposed to submit a revised CEMP for **Deadline 3**.
1.2.7.	The Applicant	Could the Applicant explain, in relation to the description of residual effects on ecological receptors, how reporting an effect of 'adverse significance at a local level' is equivalent to a minor adverse effect of local significance?	The use of minor, moderate, major has been used in the description of impacts as part of the impact assessment. The CIEEM Guidelines for Ecological Impact Assessment (2016) acknowledges in Section 5.28 that the scale of significance of an effect may not be the same as the geographic context in which the feature is considered important. For example, an effect on a species which is on a national list of species of principal importance for biodiversity may not have a significant effect on its national population. This approach has been applied where relevant within the assessment. The description of residual effects identifies the spatial scale to which an effect on an ecological receptor might be considered significant.

ExQ1	Question to:	Question:	Applicant's Response
1.2.8.	The Applicant	Could the Applicant explain why impacts on sensitive ecological features from increased dust emissions during operation have not been assessed?	Significant environmental effects would not be anticipated based on the low sensitivity of potential receptors identified as part of the baseline and on review of the works proposed.
1.2.9.	The Applicant	Could the Applicant explain why the measures to protect great crested newts described in paragraphs 5.6.51 – 5.6.52 are not also referred to in the CEMP?	Detailed matters such as those in 5.6.51 – 5.6.52 would be included in the appropriate P-CEMP to ensure that there is no future conflict with detailed proposals, programme or subsequent EPS method statement. An updated CEMP identifying specifically the measures relating to newts is proposed to be submitted for **Deadline 3**.
1.2.10.	The Applicant	Could the Applicant respond to the concerns expressed in Natural England's relevant representation about the lack of measures designed to protect the Roade Valley Site of Special Scientific Interest in the CEMP? How will measures to protect the SSSI during construction be delivered?	Natural England (NE) has confirmed that it is satisfied that the project is unlikely to have a significant impact on Roade Cutting SSSI. NE's relevant representations confirm no objections are raised on the basis that it is able to have input to the CEMP regarding safeguarding measures for the Roade Cutting SSSI. A Statement of Common Ground has been agreed with Natural England in relation to the Geological SSSI and Roade Cutting (**Document 7.15**)
1.2.11.		The Applicant is requested to provide a version of the Landscape and Ecological Management Plan which depicts the areas where habitats would be created and	A version of the LEMP with plans containing the requested information is in the course of production and it is proposed to provide it by **Deadline 3**.

ExQ1	Question to:	Question:	Applicant's Response
		the areas covered by other ecological mitigation measures.	
1.3.	**Compulsory Acquisition, Temporary Possession and Other Land or Rights Considerations**		
1.3.1.	The Applicant	Paragraph 1.11 of the Book of Reference (BoR) [APP-075] indicates that there are parcels of land shown on the Land Plans which are not proposed to be subject to powers of compulsory acquisition but which are included in Part 1 of the BoR. These include land which is existing adopted public highway over which the Applicant proposes to carry out highway works or "street works" under the DCO. Interests are included because there are interests in the subsoil and the land will be "subject to rights to use the land". It is stated that these rights will not be affected. Please explain.	The subsoil interests of these highway parcels will not be affected by compulsory acquisition since there are no such powers sought over these parcels. The Undertaker will exercise powers to carry out the highway works on the existing highway pursuant to the Order (as opposed to under a s.278 Agreement under the Highways Act 1980 which would be the usual course of events outside of a DCO). As explained in paragraph 1.11 of the Book of Reference (**Document 4.2**, APP-075) and paragraph 3.13 of the Statement of Reasons (**Document 4.1**, APP-073), the only reason those parties are noted in the Book of Reference is due to the requirement of the APFP Regulations to list those with an interest in the Order limits.
1.3.2.	The Applicant	Paragraph 3.10 of the Statement of Reasons notes that there are some third party rights registered on land adjacent to the Northampton Loop Line (parcels 1/10, 1/11a, 1/11b, 1/30 and 1/30b) which may be inconsistent with the Proposed Development and the Applicant requires the ability to extinguish, suspend or interfere with these rights in the event that they are inconsistent.	It is not possible to identify with certainty what the third party rights are. The parcels listed in paragraph 3.10 of the Statement of Reasons (**Document 4.1**, APP-073) are given as an example and there are other parcels to which this power is intended to apply. However, as an example, on parcel 1/10 there are personal covenants in favour of Gordon and Jane Treharne and on parcels 1/11a and 1/11b there are rights reserved in a conveyance. It is therefore necessary to

ExQ1	Question to:	Question:	Applicant's Response
		Can the Applicant please explain what these rights are and how or why they may be inconsistent with the Proposed Development?	protect the ability to extinguish, suspend or interfere with these rights in the event that they are inconsistent with the authorised development. It is not intended to do so unless the person with the benefit of such right seeks to restrict the development.
1.3.3.	The Applicant	Can the Applicant please explain the rationale for the location and quantum of land for which temporary use is sought in relation to the construction of the Roade bypass (Plots 4/2a, 5/2 and 5/3)?	The purpose of plots 4/2a and 5/2 are for contractor's compounds and site offices for the construction of the Roade Bypass and the other works along and associated with the A508 (Works nos. 12 to 17). The principal compound is plot 5/2 and the size is based on experience from other similar projects. Plot 4/2a is a secondary compound primarily related to the construction of the bridge over the west coast main line. It will also function as the compound for the works to the east of the west coast mainline as access over the railway will not be possible until the bridge is substantially complete. Plot 5/3 is required for different reasons to the above. The access into Hill View Farm is located at a low point on the A508 south of Roade. This section of the A508 will be realigned horizontally and vertically as part of the Roade Bypass works as shown on the Highway Plans (**Documents 2.4E**, APP-031 and **2.4P**, APP-040). To overcome the resulting level difference between the realigned road and the farm access we need to raise the level of the farm access.

ExQ1	Question to:	Question:	Applicant's Response
			We therefore need temporary possession to do this work within the area shown as Plot 5/3. However, once the works are completed, the farm access will remain private and we will no longer need possession of the Plot 5/3 and hence we show that only temporary possession is required.
1.3.4.	The Applicant, Ashfield Land and Gazeley GLP	Please fully explain the circumstances surrounding Plots 1/7 and 1/12 within the Proposed Development Main Site where compulsory acquisition is sought. This is in light of the owners' agreement in respect of the potential neighbouring Rail Central proposal and for which it is understood this land would be required for landscape mitigation purposes and the diversion of a Public Right of Way in connection with that project?	The Applicant requires compulsory acquisition powers over these parcels since the owners are unable to enter into a voluntary agreement with the Applicant due to their existing agreement with the promoters of Rail Central. Please refer to paragraph 3.17.2 of the Statement of Reasons (**Document 4.1**, APP-073).
1.3.5.	The Applicant	Please provide an update, ideally in tabular form, of negotiations with parties in respect of which voluntary agreements are being sought in terms of acquisition of land and rights. This should list all extant objections.	Please refer to **Appendix 13**.
1.3.6.	The Applicant	Please provide details of the rationale for the width of the corridor for the Roade bypass over which compulsory acquisition and rights are sought given that, in certain sections, the areas of land for which compulsory acquisition is sought appear to be far greater than the area of land needed for the road, junctions and any associated ecological mitigation.	There are two principal considerations that have governed the overall with of the corridor for the bypass: 1) The need to allow an element of flexibility on the extent of the highway works that will result from the detailed design process. The detailed design will cover many aspects such as road signs, landscaping, fencing and drainage. Any of these could result in a need to use land outside of the main

ExQ1	Question to:	Question:	Applicant's Response
			extent of physical works shown on the highway plans. Typical examples being a road sign needing additional width, provision of drainage swales and having sufficient width for landscaping planting. 2) Allowance for temporary works. The additional land either side of the permanent highway works will be required for temporary use such as haul roads. Notwithstanding the above, as explained in paragraph 3.21 of the Statement of Reasons (**Document 4.1**, APP-073), it is the Applicant's clear intention to only take the minimum land required for the permanent works and any land that is only required temporarily would be returned to the landowner. The approach outlined above is precisely the same as that adopted for the East Midlands Gateway development in relation to the Kegworth Bypass, currently under construction.
1.4.	**Draft Development Consent Order (DCO)**		
	Annex E to the Rule 6 Letter of 10 September 2018 provided notice of an Issue Specific Hearing (ISH) on the dDCO which was held on 9 October (ISH1). Table 1 to Annex G to that letter set out a schedule of issues and questions for examination at ISH1. The Applicant responded to those questions in writing prior to ISH1 and their response document has since then been accepted by the ExA as		

ExQ1	Question to:	Question:	Applicant's Response
	an examination document. Many of those questions were addressed to persons other than the Applicant. To be quite clear, the answers from those other persons are required by **Deadline 1 (6 November).** Without setting the questions out again in full, and so as to ensure that they have the same status as First Written Questions, they are incorporated into these First Written Questions by reference. Further questions on the dDCO are set out below.		
1.4.1.	The Applicant	There are many items and commitments made in the application documentation (or which need to be made) which need to be secured by a Requirement, s.106 agreement or other mechanism. Please will the Applicant prepare and submit a comprehensive list which states the item or commitment, where the item or commitment is to be found and which Requirement, provision of the s.106 agreement or other mechanism secures each of them? It would be helpful to the ExA if the list could be updated by the Applicant during the course of the Examination.	The Applicant provided as part of the Application a Commitments Tracker (**Document 6.11**, APP-381) which is intended to fulfil this request. The Applicant will update this throughout the Examination, and as indicated in the response to ExQ1.0.2, an updated version will be submitted for **Deadline 3**.
1.4.2.	The Applicant, IPs and local authorities	Please comment on whether existing Requirements within the dDCO sufficiently secure the 'future-proofing' of the Proposed Development in terms of sustainability having regards to matters such as building design and energy efficiency, power consumption, and transportation including factors such as charging facilities for electric-powered cars.	Requirement 8 (1) requires, amongst other things, that each component of the authorised development on the main site must be in general accordance with the Design and Access Statement (**Document 6.9**, APP-379). The Design and Access Statement includes at Section 5.0, design and access requirements which includes sections on building design, sustainability (including power consumption) and accessibility (including changing facilities).

ExQ1	Question to:	Question:	Applicant's Response
			Requirement 8(2) part (e) requires details of the built development design including external materials and sustainable energy measures, to be submitted to and approved in writing by the planning authority. Requirement 16 building sustainability requires a BREEAM pre-Assessment Report to be submitted prior to the development of a warehouse, demonstrating that the unit is expected to achieve at least BREEAM 2018 'very good' rating. The Government's Building Regulations set standards for building construction including the Governments requirement for building sustainability and future proofing. A building constructed to BREEAM 'very good' rating and in general accordance with the design and access requirements set out in the Design and Access Statement, will greatly exceed the Building Regulation standards and therefore demonstrates a committed by the applicant to exceeding minimum standards. In relation to charging facilities for electric-powered cars, in addition to the controls described above, the S106 obligations include the requirement to establish a Sustainable Transport Working Group to discharge the functions of that Group set out in the Framework Travel Plan and Public Transport Strategy. The Framework Travel Plan

ExQ1	Question to:	Question:	Applicant's Response
			at paragraph 6.3 and Table 4, sets out the Travel Plan measures that will be implemented to achieve the aims, objectives and targets of the Travel Plan. This includes the provision of electric vehicle charging points at each B8 unit. Having regard to these matters it is considered that the requirements, together with the S106 obligations, will sufficiently secure the 'future-proofing' of the Proposed Development.
1.4.3.	The Applicant and IPs	Decommissioning, demolition and removal would be permitted under the definition of 'maintain' in the dDCO. However, decommissioning, demolition and removal do not appear to have been assessed within the ES and, in particular, Chapter 14 (Waste) notes that decommissioning is not considered as the scheme is designed to be permanent. (i) Can the Applicant please explain the implications of this? (ii) Without such assessment is it necessary to omit 'decommission', 'demolition' and 'removal' within the definition of 'maintain'?	It is proposed to remove the reference to decommissioning, demolition and remove from the definition of maintain.
1.4.4.	The Applicant	Applicant's response to ISH1:6; is it the Applicant's position that it could in, say, 40 years' time when the facilities might have become worn out *"replace"* the Proposed Development, with a new SRFI of the same	It is proposed to remove the reference to "replace" and "reconstruct" from the definition of maintain.

ExQ1	Question to:	Question:	Applicant's Response
		size without the need for a new DCO? Would any fresh environmental assessment be needed?	
1.4.5.	The Applicant	Applicants' response to ISH1:54; the proposed changes in the references to the County Council and Highways England are noted. Please will the Applicant consider using the statutory functions (e.g. "*highway authority for [given types of roads]"* rather than *"Northampton County Council or successors in function"* which, whilst comprehensible at the present, may be less so in, say, 40 years by which time other local government re-organisations may have occurred.	The dDCO to be submitted for **Deadline 2** will be amended to ensure that there is an identifiable body at all times.
1.4.6.	The Applicant, Ashfield/Gazeley, SNBC, NBC	Responses to ISH1:107A, 107B and 107C. The responses to these questions were largely dealt with by oral exchanges at the ISH. Will the Applicant please submit written answers either by way of an answer to this question or in its written submissions of oral answers specified for **Deadline 1 (6 November).** Although not mentioned in those questions, the ExA drew attention at the discussion to paragraph 13 of Schedule 2 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 and the Applicant is asked to address that provision as well. Ashfield/Gazeley also contributed to the exchanges and the ExA would be grateful if they could also submit written answers/written submissions of oral answers. Submissions from the County and District Councils would also be welcomed.	Please refer to the Applicant's responses to ISH1:107A,107B and 107C in **Document 8.1.**

ExQ1	Question to:	Question:	Applicant's Response
1.5.	**Geology, soil and groundwater**		
1.5.1.	The Applicant	All paragraph and section numbers relate to ES Chapter 6 (Geology, soil and groundwater) [APP-092] unless otherwise stated. Paragraph 6.5.28 indicates that in relation to soil excavation, if any unforeseen made deposits are encountered than a Materials Management Plan would be required. What are the implications of this?	The desk based studies and ground investigations undertaken to date do not suggest there is any likelihood of encountering any significant made ground materials of concern. However, there will always be a limited risk for encountering unknown deposits. Where deposits are considered to be Made Ground then their reuse has to be controlled within earthworks specification which will define geotechnical and chemical acceptability properties. Additionally, there is a requirement (13), where if made ground materials are encountered, to use the CL:AIRE DoW CoP. This requires the development of a Materials Management Plan (MMP) which defines how the made ground materials may legitimately and safely be reused as part of the development earthworks. The MMP must be based upon suitable risk assessment that underpins the remediation strategy or/and Design Statement concluding that the objectives of preventing harm to human health and pollution of the environment will be met if materials are reused in the proposed manner and positions. It will also define the method of verification. This has to be reviewed and agreed by an independent Qualified Person registered with CI:AIRE not involved in the project. Thus safeguarding

ExQ1	Question to:	Question:	Applicant's Response
			the integrity of the Materials Management Plan and its use in practice. This is standard practice in the development of large sites and has no particular implications for the project other than facilitating the sustainable and safe use of any made ground materials identified when the project is constructed and confirms a commitment to manage materials responsibly and in a manner that will not result in detrimental future risks to Human Health or the environment. The CEMP will be amended to specifically include reference to the potential need for a Materials Management Plan. It is intended to submit a revised CEMP for **Deadline 3**.
1.5.2.	The Applicant	Paragraph 6.2.13 states on the issue of local policies that the policies of South Northamptonshire Council have been considered. However, the Proposed Development is in the areas of two district or borough councils). What consideration has been given to the policies of Northampton Borough Council?	The Applicant has only considered the SNC policies as the areas where the development will require significant adjustment of the ground levels through earthworks likely to impact upon geology, soils and groundwater only lie within the SNC. NBC boundaries are beyond these areas where significant earthworks will be necessary which could impact upon the geology, soils and groundwater. Therefore it is considered that geology, soils and groundwater within the NBC district will not be subject to any likely significant environmental effects. In addition having reviewed the policies of NBC it appears that there would not be any specific policies which would need to be addressed in addition to those already considered

ExQ1	Question to:	Question:	Applicant's Response
			and addressed within this chapter over and above those already addressed.
1.5.3.	The Applicant	Paragraph 6.2.13 – is the WNJCS relevant? If so, please explain how?	The policies in The WNJCS do not differ in context to those considered to as part of the NPPF addressed in this chapter although they do add some local context of the specific issues with respect to; Policy BN10 Ground Stability, more specifically geological conditions where instability is present. These conditions are not present at the development site. Policy BN9 Planning For Pollution Control with the aim to reduce and remediate pollution and safeguard groundwater quality. No significant sources of contamination are present and no requirements for remediation have been identified. The chapter and appended reports provide all the necessary detail in respect of these risks. These key issues with respect to geology, soils and groundwater are however fully dealt within in the supporting assessments and chapter.
1.5.4.	The Applicant	Sterilisation of minerals; in paragraph 6.3.5 it is stated: "*Based on the detailed discussions held with the Minerals and Waste Planning Authority in 2015 and updated correspondence in 2017, it has been confirmed and*	There has been an error in preparing the submission as some of the relevant email data has been inadvertently omitted from the appendices when other irrelevant emails were removed. The text was not updated accordingly and

ExQ1	Question to:	Question:	Applicant's Response
		agreed that the mineral resource beneath parts of the Main SRFI area of the development is not accessible, and not likely to be commercially viable… Correspondence appended to this Chapter (RSK letter to NCC dated 20/4/15) addresses the approach to relevant local plan policies on this matter and email correspondence between RSK and NCC (dated 13/9/15 and 15/12/16 and 4/12/17) confirms the agreement reached with the Northamptonshire County Council on this issue. Copies of the relevant correspondence are included within Appendix 6.13." The letters and emails in Appendix 6.13 [APP-181] are (i) RSK to Northamptonshire, 20 April 2015 (ii) Northamptonshire to RSK, 13 September 2016. The dates do not match with paragraph 6.3.5; please can the Applicant explain the position? The correspondence in Appendix 6.13 refers to a planning application S/2014/2468/EIA. Please can the Applicant explain what that application was for and how it relates to the Proposed Development which is the subject of this application for a DCO? There is no letter dated 13/9/15.	inadvertently an incomplete PDF was included in the appendices. Our apologies for this. The correct, relevant, correspondence is included in **Appendix 14** to this Document. Planning application S/2014/2468/EIA was an application submitted in 2014 for B8 development on part of the Application site intended to be occupied by a local company, Howdens. The application was withdrawn without determination.
1.5.5.	The Applicant	In relation to the baseline, paragraph 6.4.2 explains that the works to six outlying junctions including J15A of the	

ExQ1	Question to:	Question:	Applicant's Response
		M1 are considered to be minor, "*predominantly confined to the highway boundary*" and that "*no significant measurable disturbance or impact will be made upon the underlying geology, soils or groundwater regime*". Therefore they have been discounted from further assessment. This is based on the statements in para 6.4.2 that: *"These works <u>appear to be</u> primarily white line adjustment, kerb line adjustment, signage, signalling, the addition of street furniture and the addition of central splitter islands and lanes as required. The aim of these works is <u>understood to be</u> to increase visibility …"* (underlining added). (i) The underlined words indicate some doubt. Please can the Applicant consider this and state clearly whether or not this is an accurate description of the works in question? If it is not, please indicate how. "*Predominantly confined*" suggests that there are some works outside the highway boundary. (ii) Is this the case? If so, please can the Applicant indicate to what extent and state the significance?	i) The underlined wording is unduly tentative. It is confirmed that the wording represents an accurate description of the works in question; (ii) All of the works are confined within the Highways boundaries with the exception of the A508/Blisworth road (Courteenhall Junction) improvements where the

ExQ1	Question to:	Question:	Applicant's Response
			widening is required to encompass the safer junction do stray beyond the highway boundary but not significantly. The design drawings and sections for the works necessary at the A508/Blisworth Road Courteenhall junction whilst extending beyond the highway boundary do not require any significant earthworks that would be considered to impact upon geology, soils and groundwater.
		(iii) It is stated these works include additional *"lanes as required"*. Do those result in works outside the highway boundary?	(iii) See (ii) above.
		(iv) Is the highway boundary the right measure? Highway boundaries typically include soft verges and undisturbed land.	iv) Highways boundaries are the area required for all highway infrastructure so seems appropriate as the works are essentially minor civil engineering highways amendments and changes. The term is used to confirm that these changes are (with the exception noted above) all within the existing highways boundary and are not significant earthworks re-profiling works which could be considered to impact upon geology, soils and groundwater.
1.5.6.	The Applicant	Paragraph 6.5.15 states "*Risk assessments will be undertaken to identify main health and safety and environmental risks and indicate suitable mitigation to be put in place to reduce risks to acceptable levels."* Should not this be done now? This is not dissimilar from the	The risk assessments referred to in paragraph 6.5.15 relate to the those assessments that are carried out by the Main Contractors when preparing their construction method statements which are used to inform the construction methodology. Such documents are prepared following the

ExQ1	Question to:	Question:	Applicant's Response
		issue raised in question ISH1:107C (to be found in the Schedule of Examining Authority issues and questions relating to the dDCO, Table 1 of Annex G to the Rule 6 letter).	appointment of a contractor and immediately prior to the commencement of development when all relevant factors are known. They are governed and controlled by the Health and Safety at Work Act 1974 and The Construction (Design and Management) Regulations 2015.
1.5.7.	The Applicant	Paragraph 6.5.58 states: *"Where materials are required to be imported, the developer will endeavour to utilise recycled inert clean aggregate and soils sourced locally. This might include… ".* (i) Has this been taken into account in assessing residual effects? (ii) Why is this not a firm commitment rather than a mere endeavour? What are the implications for the conclusions of the assessment in the ES if these measures are not delivered?	(i) Yes, please see paragraphs 6.6.5 & 6.6.6 of the Chapter. (ii) It is a firm commitment but local availability will fluctuate with time and therefore the opportunities will vary depending upon the timing of when the works occur. The Applicant has a firm commitment to work with the supply chain to identify and utilise suitable recycled aggregates where they are available within suitable travelling distances to minimise the need to import clean natural aggregates which would result in a loss of natural resources. It is not anticipated that the use of imported natural rock over recycled aggregates, should they not be readily available, would be considered to be significant. The commitment involved will be included within a requirement in the dDCO to be submitted for **Deadline 2**.

ExQ1	Question to:	Question:	Applicant's Response
		(iii) Should not a specification for the materials be added rather than a statement of what they "*might"* be? What are the implications for the ES if they turn out not to be the substances listed?	(iii) Recycled aggregates may only be sold and reused if they meet strict criteria for geotechnical suitability and chemical suitability provided via the WRAP protocol and geotechnical classification systems depending the area of reuse. Therefore standard specifications for recycled materials would be utilised according to the design requirements where they may be required. It would not be legal to use and import unsuitable materials and would not be possible unless they meet the required criteria therefore adoption of a policy in accordance with these requirements represents no implication to the ES.
1.5.8.	The Applicant	Paragraphs 6.5.57 and 6.5.58; these two paragraphs are under the heading "*Sustainability*" and conclude that the re-profiling and proposals for imported materials "*represent a sustainable approach to development"*. Is not the question, however, whether the Proposed Development will have any likely significant effects on the environment? Please could the Applicant also explain how these two paragraphs fit into, and can be taken into account in, the assessment of likely significant effects?	See response to ExQ1.5.7. In terms of geology, soils and groundwater assessments there is an earthworks cut and fill balance which will achieve complete reuse of materials. This is a positive sustainable approach to development which reduces the need to export materials to landfill which would have a negative effect in terms of overall environmental impact due to lorry movement and emissions and loss of landfill void space. It also will avoid the need to import clean natural materials from off-site which would also have a negative impact by virtue of loss of natural resources and lorry movement. Therefore it is considered that there is a neutral environmental impact on the geology, soils and groundwater.

ExQ1	Question to:	Question:	Applicant's Response
1.5.9.	The Applicant	Cumulative impacts; section 6.7 asserts that there will be no cumulative impacts with the committed SUEs and Rail Central. There is, however, no explanation as to how the Applicant comes to this conclusion. Please will the Applicant comment?	The development of the site will not have any impact upon the nearby SUE or Rail Central sites geology or soils by virtue that it will not disturb them at all or impact upon their stability as there are no significant earthworks that will affect adjacent sites. With respect to groundwater no significant groundwater contamination risks or sources of pollution have been identified in the baseline studies. The new development design will comprise mainly buildings with highways, carparks, freight and service yard hard standing with managed drainage systems to control surface waters. All new proposed development and buildings will be designed in accordance with controlled by current building & pollution control regulations and requirements. Therefore the development of the site will not impact upon groundwater quality. Therefore in conclusion there are not considered to be any cumulative impacts upon the site or adjacent or nearby sites including Rail Central and the committed SUE's.
1.6.	**Historic Environment**		
1.6.1.		All paragraph numbers relate to ES Chapter 4 (Landscape and Visual Effects) [APP-083] unless otherwise stated.	

ExQ1	Question to:	Question:	Applicant's Response
	The Applicant, Historic England	The Grade II listed Courteenhall War Memorial is referred to within paragraph 10.5.12 of ES Chapter 10 (Cultural Heritage) [APP-113] where it is stated that the highway mitigation works to the A508, involving alteration to kerb-lines and provision of a new footway, are not considered to pose any material harm to this asset. (i) Can the Applicant please provide justification for this assertion?	(i) The significance of the war memorial is primarily derived from the architectural and historic interest embodied in its form and fabric as a commemorative structure intended to mark the sacrifice made by members of the local community who lost their lives during the First World War. Only very minor changes are proposed within the wider setting of the structure. The wider setting makes minimal contribution to the significance of the memorial. The changes primarily involve the construction of a cycleway/footway some distance to the rear of the memorial, which is an area of lower sensitivity, largely concealed by mature hedging. No works are proposed to the memorial itself, ensuring that its special interest will be preserved. Consequently, the proposals are not considered to pose any material harm to the significance of the war memorial.
		(ii) Can the Applicant please explain why the war memorial	(ii) The war memorial was not mentioned within the original Built Heritage Statement because the designation of this

ExQ1	Question to:	Question:	Applicant's Response
		is not mentioned within the Built Heritage Statement (ES Appendix 10.1)?	asset is relatively recent. It is accepted this is an oversight. The war memorial was however referenced within the ES Chapter and on the accompanying receptor plan.
		(iii) What are the implications of the footpath passing to the rear of the memorial when its inscriptions face the road where there would be no footpath?	(iii) A footpath will still be maintained to the front of the memorial, whilst the position of the existing bench will also remain unaltered, allowing inscriptions to be clearly read as at present. The proposed new path some distance to the rear of the memorial will be used by cycle traffic as well as pedestrians, hence its proposed location in an area of lower sensitivity, screened by existing high hedging.
1.6.2.	The Applicant, Historic England	Historic England in its letter to the Applicant of 27 November 2017 [AS-003] indicated its position that further information and assessment was required in order to fully demonstrate the impacts of the Proposed Development on designated heritage assets. Amongst other matters, Historic England stated that it wished to see additional photomontages in order to assess the full visual effect and effectiveness of mitigation in respect of certain heritage assets. The ExA notes that suggested photomontages from viewpoints 8 and 15 (within ES Chapter 4) have not been provided. (i) Can Historic England please indicate whether it is now satisfied that sufficient information has been provided	

ExQ1	Question to:	Question:	Applicant's Response
		within the ES to allow an adequate assessment of impact on the significance of heritage assets, including impact on setting and, if not, what further information does it consider is still required? (ii) Can the Applicant indicate why it has chosen not to provide additional photomontages for viewpoints 8 and 15 and how does this relate to what is said in ES Chapter 4 – that viewpoints and photomontages are agreed with Historic England (see ExQ 1.7.4 below)?	(ii) Please see **Document 7.14**: Letter and Draft SoCG with Historic England, which sets out the latest position with regard to montages. The reason for not providing montages from viewpoints 15 and 22 was because they would not show anything over and above that already demonstrated by other material.
1.6.3.	The Applicant	Paragraph 10.5.8 of ES Chapter 10 (Cultural Heritage) states that the Roade bypass corridor contains a single recorded designated heritage asset (the grade II Roade Aqueduct) and beyond this there are no other statutory protected heritage assets within the application site. However, Figure 10.1 within ES Chapter 10 shows the Roade Aqueduct lying beyond the bypass corridor, whereas the grade II Courteenhall War Memorial is situated within the application site further north along the A508. Can the Applicant confirm that ES para 10.5.8 requires correcting?	Roade Aqueduct: Paragraph 10.5.8 states that the Bypass Corridor is 'identified to contain a single recorded heritage asset'. As explained fully at Paragraph 5.11 of the Built Heritage Statement, this reflects the fact that Historic England's National Heritage List for England (NHLE) appears to incorrectly identify the Aqueduct as falling within the Bypass Corridor element of the application site. In reality, the Aqueduct lies slightly to the north of the Application site. War memorial: The war memorial does lie within the Order limits, however, no works are proposed to the memorial itself.

ExQ1	Question to:	Question:	Applicant's Response
1.7.	**Landscape and Visual**		
1.7.1.	The Applicant	Paragraph 4.4.3 of ES Chapter 4 (Landscape and Visual Effects) [APP-083] refers to an earthworks strategy and that mitigation mounding proposals for the main site of the proposed development and the Roade bypass corridor *"will generally be formed using materials and soils from the adjoining or other nearby development plots".* (i) Can the Applicant please point to where the earthworks strategy may be found? (ii) Please explain what is meant by the use of *"materials and soils from adjoining or other nearby development plots".*	(i) The Earthworks Strategy is referenced in Chapter 6 (Geology, Soils and Groundwater), with specific references at 6.5.24 - 6.5.31. As also detailed at 6.5.9 (see requirement 13), an Earthworks Strategy and specification relating to the management and reuse of strata within earthworks cut and fill works, will form one of a number of documents and plans to be provided subject to and following DCO approval. The Main Site Phasing Plan (Ref Doc 5.2 (ES) Figure 2.3) illustrates the approach to and phasing of the earthworks. (ii) This refers to the formation of the mitigation mounding and advises that this mounding will generally be constructed from the excavated materials and soils arising from the nearest development plots. Within the Main Site the majority of the material and soils needed to form the mitigation mounding will be sourced from the development plots and to limit the movement of the

ExQ1	Question to:	Question:	Applicant's Response
			mound forming material around the site, the approach to be adopted is (subject to suitability and all other construction management matters) to use the most conveniently located excavated and suitable material and soils to construct the mounding. As the reference states at 4.4.3, this will be the general approach. Further information is also included within Chapter 6 (Geology, Soils and Groundwater).
1.7.2.	The Applicant	Chapter 4 of the ES contains various drawings showing illustrative cross-sections for the main site of the Proposed Development. However, there is no cross-section through Highgate Wood (which is to be retained) and what would be Unit 7. Can the Applicant please provide such a drawing?	A landscape cross section through Highgate Wood and Unit 7 (i.e. Zone A4 on the Parameters Plan (**Document 2.10**, APP-065)) is attached at **Appendix 15**.
1.7.3.	The Applicant	The cross-section drawings in ES Chapter 4 provide approximate height measurements (AoD) for the proposed landscape screen bunds. What confidence can the ExA have in the ability of the bunds to perform their mitigation functions, without producing additional adverse effects in themselves, in the absence of maximum and minimum values for the heights of the landscape screening? Can the Applicant please explain the extent to which the assessment of effect is sensitive to the finished level of landscape screen bunds? The ExA notes that the assessment describes 'approximate' heights only and the DCO does not constrain the finished level(s) in any way.	The landscape cross sections illustrate the design principles to be adopted for the landscape mounding relative to the proposed buildings and rail terminal to be screened and mitigated. The Parameters Plan (**Document 2.10**, APP-065) includes 'Notes' confirming that the parameters established for the landscape bunds cover their height, relative to the buildings they screen and are to be in accordance with the principles shown on and established by the landscape cross sections. The landscape cross sections depict the maximum building heights (in metres Above Ordnance Datum (AOD)) as

ExQ1	Question to:	Question:	Applicant's Response
			detailed on ES Figure 2.1. The mitigation mounding depicted on the cross sections is also shown at the 'approximate' maximum heights. Consequently, should the buildings ultimately be lower than the maximum building heights, then the height of the mounding may also be reduced, subject to maintaining the design and visual screening principles illustrated on the cross sections. The ability of the 'bunds' to perform their mitigation functions is demonstrated in landscape and visual terms through the landscape cross sections and photomontages. The effects of the bunds themselves has been assessed as part of the landscape and visual impact assessment. The assessment of landscape and visual effects is sensitive to the finished level of the mounding to varying degrees for the different landscape and visual receptors. The proposed development parameters, including the principles shown on the landscape cross sections do however take account of this sensitivity and have been devised accordingly to mitigate the potential effects.
1.7.4.	NBC	ES Chapter 4 contains existing views and selected photomontages showing how the Proposed Development might appear, with viewpoints and photomontages agreed with SNDC and Historic England, but there is no	N/A

ExQ1	Question to:	Question:	Applicant's Response
		reference to agreement with NBC. Is NBC content with the selection of viewpoints and photomontages?	
1.7.5.	The Applicant	It is unclear whether the Proposed Development would be capable of being seen from Viewpoint 22 (ES figure 4.7) [AA-085] since this is simply annotated as *"General Direction of the Main Site"*. This viewpoint is within the Zone of Theoretical Visibility (ES figure 4.9) [APP-086]. Can the Applicant please indicate what degree of visibility of the Proposed Development there would be from this viewpoint, and the area of Blackymore Park more generally, providing illustrative material as necessary?	It is predicted that, at the maximum heights, the highest parts of the perimeter mounding and planting and buildings in the northern half of the site (Zones A1b & c and A2a & b) may be seen at approximately the same height as the tree line in the middle distance of Viewpoint 22. It is only predicted to be the very highest parts of any proposed buildings and the rooflines (if constructed to their maximum heights) that may be seen from this position, beyond the intervening existing trees and proposed mounding and planting. Please see montage at **Appendix 16**. The effect upon views from this general location is included at Receptor P14 within the Visual Effects Table (**Doc 5.2; Appendix 4.5**) and is assessed as Minor Adverse.
1.8.	**Noise and Vibration**		
1.8.1.	The Applicant	All paragraph numbers and Tables referred to are those in ES Chapter 8 (Noise & Vibration) [APP-094]. Can the Applicant please explain how the receptors presented in Table 8.12 have been selected, what the acoustic study area is and how it has been defined?	The receptors were selected to be representative of those noise-sensitive properties that might be affected by the noise impact from the scheme.

ExQ1	Question to:	Question:	Applicant's Response
			The majority of the receptors shown had previously been presented in the draft ES of October 2017 and following consultation, no additional receptors were requested by any respondents. The project added further receptors between the draft and final ES to address the potential impact from the highway mitigation measures (referred to as the other highway works in chapter 8 of the ES). The term acoustic study area appears only in Paragraphs 8.3.42 and 8.3.43 of the ES and refers to the area within which roads were identified where material changes in traffic flow or road alignment as a result of the project are expected and the noise impact from them determined.
1.8.2.	The Applicant	Roade Cutting SSSI and Roade Quarry Local Wildlife Site are not included in Table 8.12 but impacts on these sites have been assessed for some matters. Could the Applicant explain these discrepancies?	These locations do not appear in Table 8.12 of the ES because that table was confined to human receptors. It should be noted that the Roade Cutting SSSI and Roade Quarry Local Wildlife Site have a different and, in fact, lower sensitivity to noise and vibration than those receptors included in that table. Where relevant, comment is made about the likely noise and vibration impact on those locations within chapter 8 of the ES, e.g. at Paragraphs 8.5.41 and 8.5.58.
1.8.3.	The Applicant	It is not clear which works have been assessed as part of the 'Main Site' and which have been assessed as 'other highways works'.	

ExQ1	Question to:	Question:	Applicant's Response
		(i) Can the Applicant clarify specifically which works of the Proposed Development have been assessed within the three broad categories 'Main Site', 'Roade Bypass' and 'other highways works'? (ii) Can the Applicant also explain how these terms relate to the Works defined in the dDCO?	(i) The focus of the noise impact assessment was receptor based so that for any one receptor, all the works that could affect the noise impact at that receptor were considered. The potential sources of noise considered in the noise impact assessment are defined in Paragraph 8.3.1 of the ES. (ii) With respect to Schedule 1 Part 1 of the dDCO, the following works are associated with the Main Site: Works No. 1-7. With respect to Schedule 1 Part 2 of the dDCO, the following works are associated with the Roade Bypass: Works No. 13. With respect to Schedule 1 Part 2 of the dDCO, the following works are associated with the Other Highways Works: Works No. 8, 9, 11 and 12 & 14-17. The above is consistent with the identification of the works contained in paragraph 2.5 of the Guide to Application (**Document 1.3A**).
1.8.4.	The Applicant	Can the Applicant explain how ground-borne vibration impacts arising from construction have been modelled?	See Paragraphs 8.5.23 to 8.5.26 of Chapter 8 of the ES. For the reasons explained in those paragraphs, it was concluded

ExQ1	Question to:	Question:	Applicant's Response
			that a combination of the limited number of potential sources of vibration and the distances to the nearest receptors meant that modelling of ground borne vibration was not required. This was discussed with SNC after the publication of the draft ES last year and they agreed with this approach.
1.8.5.	The Applicant	Can the Applicant explain how the evidence on passenger and freight train activity on the Northampton Loop and West Coast Main Line used to predict operational noise levels has been derived? How has the Applicant ensured that the worst case scenario has been assessed?	The relevant data input information used in the noise and vibration assessment was supplied by the project rail consultants. As set out in Paragraph 8.3.18 of Chapter 8 of the ES, the additional freight activity associated with the Proposed Development was based on the high forecast data supplied which represented the worst-case assumptions.
1.8.6.	The Applicant	Can the Applicant explain the nature of the receptors set out in Table 8.12 and explain how the sensitivity of the receptors to road traffic noise in the operational phase of the Proposed Development (including the Roade Cutting SSSI and Roade Quarry Local Wildlife Site) has been determined?	The receptors set out in Table 8.12 of Chapter 8 of the ES are residential apart from the inclusion of one school. They have been regarded as having the same degree of noise sensitivity. As mentioned in the response to ExQ1.1.2, the Roade Cutting SSSI and the Roade Quarry Local Wildlife Site have a different, and, in fact, lower, sensitivity to noise. Current policy requires only the determination of the degree of adverse impacts and effects on affected locations. That process intrinsically takes account of the receptor sensitivity.

ExQ1	Question to:	Question:	Applicant's Response
1.8.7.	The Applicant	Can the Applicant confirm if an exceedance of the Significant Observed Adverse Effect Level (SOAEL) threshold values for construction noise at residential buildings (Table 8.1) constitutes a significant effect in EIA terms?	Yes. Where this is predicted to occur, mitigation is required to be considered in order to avoid those impacts as required by policy, but taking account of what is reasonably practical.
1.8.8.	The Applicant	Chapter 8 states that the shaded boxes with text in bold in Tables 8.4, 8.5, 8.9 and 8.10 indicate a significant adverse effect; however, bold text is not consistently used. Can the Applicant confirm that if the result for a receptor falls in the categories shown by the shaded cells in Tables 8.4, 8.5, 8.9 and 8.10, this indicates that there is a significant adverse effect in EIA terms?	All text in the shaded boxes should be bold: it would appear that this has not been carried over from the original Word document to the PDF version, for which we apologise. Yes. Where this is predicted to occur, mitigation is required to be considered in order to avoid those impacts as required by policy, but taking account of what is reasonably practical.
1.8.9.	The Applicant, EA, SNDC and NBC	Annex E.5 of BS 5228-1 states that where construction works involve long-term substantial earthmoving then the activities are more akin to surface mineral extraction than conventional construction activity, and should be treated as such with a suggested limit of 55dB LAeq,1h for daytime construction noise. The Proposed Development will entail bulk earthworks with a proposed duration of 2 years. However, the assessment instead applies the methodology described in Table E.1 of BS 5228-1. Can the Applicant explain why the approach in Annex E.5 was not followed in this respect? Can the Environment	Annex E of BS 5228-1 is an "informative" annex and does not constitute a formal part of the standard. Therefore, there is no obligation on any project to follow the guidance in Annex E. However, as set out in Paragraph 8.3.8 of Chapter 8 of the ES, guidance from Annex E.3.2 of BS 5228-1 has been used to assist in defining the threshold values for LOAEL and SOAEL.

ExQ1	Question to:	Question:	Applicant's Response
		Agency, South Northamptonshire and Northampton District Councils confirm whether they consider the approach taken by the Applicant is adequate in light of the guidance on long-term substantial earthmoving?	The Technical Guidance quoted in Annex E.5 of BS 5228-1 has now been superseded by the Planning Practice Guidance for Mineral Extraction. Similar values are quoted in that guidance. However, those values originated over 20 years ago and tend to reflect exposures which are now regarded as being at or around LOAEL. This of course means that higher levels can occur, and the relevant policy requirements still be met.
1.8.10.	The Applicant	No methodology has been described in the ES for modelling construction vibration impacts. Can the Applicant explain how ground-borne vibration impacts arising from construction have been modelled?	Please see response to ExQ1.8.4
1.8.11.	The Applicant, NCC	The Applicant has not assessed the impacts of road traffic-induced ground vibration arguing that this is mainly caused by vehicles passing over irregularities in the road surface (ES paras 8.3.54 – 55). How will the Applicant ensure that the road traffic associated with the Proposed Development will not lead to significant levels of ground vibration as the road quality deteriorates over the lifetime of the development? Is Northamptonshire County Council, in its capacity as relevant Highways Authority, satisfied with the approach taken by the Applicant in this regard, taking into consideration the likely quality of road surfaces during the lifetime of the project?	When all of the road construction and highway mitigation works have been completed, the associated road surfaces will be newer and smoother than existing, which will represent an improved position, over and above that existing for current traffic, traffic growth and the development traffic. As indicated in Paragraph 8.3.55 of Chapter 8 of the ES, it is not expected that any significant increase in road traffic induced ground borne vibration will occur.

ExQ1	Question to:	Question:	Applicant's Response
1.8.12.	The Applicant, Environment Agency, SNDC and NBC	Having regards to construction vibration at residential buildings, can the Applicant explain why a threshold level of 0.5 mm/s was chosen given that BS 5228-2 Table B1 states that vibration might be just perceptible in residential environments at a level of 0.3mm/s? Can the Environment Agency, SNDC and NBC confirm whether they consider the approach taken by the Applicant is adequate in light of the guidance?	As noted in the question, according to BS 5228-2, a level of 0.3 mm/s PPV might just be perceptible in residential environments. So even the standard acknowledges that there is some uncertainty about whether or not a level of 0.3 mm/s would be perceptible. Perceptibility itself is not an adverse effect, hence the LOAEL has been defined at a level a little above 0.3 mm/s. This approach was discussed with SNC after the publication of the draft ES and they did not disagree with it.
1.8.13.	The Applicant	Can the Applicant explain, for the assessment of effects from operational SRFI activities at the Main Site, how the difference in noise levels, the resulting absolute levels of sound, and the character of the sound source have been combined to establish the significance of the effects?	The methodology that was used is described in Paragraphs 8.3.64 to 8.3.72 of Chapter 8 of the ES. It is based on BS 4142:2014, which includes taking account of the difference in sound levels, the resulting absolute levels of the sound, and the character of the sound source.
1.8.14.	The Applicant	Paragraph 8.5.3 states that noise arising from construction activities assumes the activities are "in relatively close proximity to the receptor". Can the Applicant define what is meant by close proximity, and explain the extent to which this represents a suitable assessment of the worst case?	"In relatively close proximity to the receptor" means assuming that the works activity being considered is occurring near to the site boundary which is closest to the relevant receptor. It represents a likely worst-case as the dominant factor affecting the noise impact at a particular receptor would be the distance between the receptor and the works activity.

ExQ1	Question to:	Question:	Applicant's Response
1.8.15.	The Applicant	Can the Applicant confirm whether the potential noise effects arising from the demolition of existing farm buildings have been taken into consideration in the assessment of construction noise?	The Applicant confirms that the potential noise effects arising from the demolition of existing farm buildings have been taken into consideration in the assessment of construction noise. No specific mention of it in any text in Chapter 8 of the ES chapter. However, Paragraphs 8.3.5 and 8.5.2 signpost to Appendix 8.2 which gives a list of the plant assumptions used for the construction noise predictions. This includes the activity scenario I) Main Farm Building Demolition. Similarly, Paragraph 8.5.2 (and others) signpost to Appendix 8.12 which sets out the construction prediction results. Table 1 covers works on the SFRI site and includes a column for the activity I. Demolition of existing structures.
1.8.16.	The Applicant	Can the Applicant provide an estimate of the likely frequency of out-of-hours construction activity for all works?	The extent of out of hours construction activity will depend upon several variables including the contractor/contractors appointed and their construction methodology and the approach to the construction of the highway works agreed with the highway authorities at the time. There is also likely to be construction affecting the Northampton Loop Line which is likely to be during possessions of the track, normally out of hours. At this stage it is not possible to provide an estimate other than to say it will be a small percentage of the working hours. There are many drivers to minimising out of hours working over and above the desire to minimise

ExQ1	Question to:	Question:	Applicant's Response
			environmental impact; one of the most significant of these being cost.
1.8.17.	The Applicant	Paragraph 8.3.9 states that a qualitative approach will be taken to the assessment of construction noise effects from the "other highway works". However, paragraph 8.5.21 states that the assessment will be deferred until production of the relevant phase-specific CEMP. Accordingly, it is unclear as to whether the assessment has sufficiently addressed these matters. In the absence of such an assessment, can the Applicant please explain the extent to which it is confident that all likely significant effects have been assessed?	Paragraph 8.3.9 of Chapter 8 of the ES states that a qualitative assessment has been made of the potential noise effects of the other highway works where a sensitive receptor is located within 300 m of the works based on the information available. The conclusion of the qualitative assessment is described in Paragraph 8.5.22 of Chapter 8 where it states that these works could result in some adverse noise effects. Bearing in mind that there is a duration element to the threshold for SOAEL as described in Table 8.1 of the ES, it is felt unlikely that significant effects will occur. Both these conclusions are based on experience of similar works elsewhere and are therefore considered to be robust. Please also see the response to ExQ1.0.15.
1.8.18.	The Applicant	Can the Applicant provide justification for the conclusions reached regarding the effects of operational railway vibration on ecological receptors at the Roade Cutting SSSI?	As indicated above, the Roade Cutting SSSI is a less sensitive receptor than residential properties, particularly with respect to vibration. The potential impact of operational railway vibration has been assessed for two residential properties, both of which are located close to the railway. As can be seen from Paragraph 8.5.55 of Chapter 8 of the ES, no significant adverse effects are expected at those

ExQ1	Question to:	Question:	Applicant's Response
			properties. Furthermore, as set out in Paragraph 8.5.56 of Chapter 8, no adverse impacts are expected at those properties. Therefore, combining the lower sensitivity of the Roade Cutting SSSI to operational vibration and the above results means that it has been concluded that the impact would be negligible, and no significant adverse vibration effect is expected at ecological receptors at the Roade Cutting SSSI.
1.8.19.	The Applicant	Can the Applicant define the maximum duration of the temporary significant adverse effect to Receptor 27 Blisworth High Street (ES Appendix 8.6) arising from road traffic noise around the Main Site in the 2021 daytime scenario?	Based on the current programme, two years.
1.8.20.	The Applicant	The Applicant relies on the assumption that freight trains will be less noisy in the future to mitigate for the significant adverse effects arising from operational railway noise in the 2043 night-time scenario. Can the Applicant provide information regarding the work being undertaken to reduce train noise, and provide an indication of the certainty that is in place to enable this to be relied upon as mitigation?	For ten years, the rail sector across Europe have been establishing technical specifications for interoperability (TSI). These TSIs include expected performance levels including those associated with noise emissions. In the UK, these requirements are set out in the Railways (Interoperability) Regulations 2011. New rolling stock will have to meet these standards and, as a result will be less noisy than the current fleet.

ExQ1	Question to:	Question:	Applicant's Response
1.8.21.	The Applicant	Can the Applicant provide a level of significance for the residual effects in Table 8.21, and include a justification to support the level assigned?	Paragraph 5.186 of the NPSNN makes reference to the Government's policy on noise being set out in the Noise Policy Statement for England. Paragraph 5.193 states that due regard must be given to the relevant sections of the Noise Policy Statement for England, the National Planning Policy Framework and the Government's associated planning guidance on noise. In all those Government documents, effects are defined as being • no effect; • an adverse effect; • a significant adverse effect; or • an unacceptable adverse effect. The focus for noise management policy is on the latter three effects. Therefore, whether or not an effect is significant, depends on whether the effect is such that it is above the threshold set for it being classified as significantly adverse. In none of these Government documents is there classification of degrees of significance.

ExQ1	Question to:	Question:	Applicant's Response
			The adverse effect is either significant or not. A level of significance is not therefore relevant to the methodology used.
1.8.22.	The Applicant	In paragraphs 8.6.27 and 8.6.28 it is noted that the combined effects of road and rail noise has been assessed for two receptors but it is not clear why only these two receptors have been considered. Can the Applicant explain how the cumulative effects of road and rail noise have been addressed?	The selected receptors are the closest receptors to where the Roade Bypass would cross the existing railway line (see the drawing in Appendix 8.6 to Chapter 8). That is why they were selected. The cumulative impact has been determined by simply adding the average noise exposure expected from both the railway and the traffic on the Roade Bypass.
1.8.23.	The Applicant	The ES does not assess the cumulative noise and vibration effects of the Proposed Development and the Northampton South Sustainable Urban Extension (SUE), on the grounds that the latter is *"primarily residential and is therefore not a development that is expected to generate noise"* (paragraph 8.8.4). No quantitative data is provided to scope the construction and operation of this development out of the assessment. Can the Applicant provide further justification for not assessing the cumulative noise and vibration effects of the Proposed Development and the SUE, especially given the potential for their construction periods to overlap?	The SUE is located close to the M1 motorway which is a dominant existing noise source. The Proposed Development lies on the other side of the motorway, along with most of the receptors set out in Table 8.12. Given the expected nature of the SUE construction works, the prevailing background noise and the distances from the SUE to the various receptors, it has been concluded that the construction phase of the SUE would not be expected to cause any adverse impacts on those receptors. No cumulative impact is therefore expected.

ExQ1	Question to:	Question:	Applicant's Response
1.8.24.	The Applicant	Paragraph 8.6.5 states that the CEMP *"may include"* a noise monitoring regime. However, the draft CEMP indicates that monitoring will be undertaken. Can the Applicant confirm whether noise monitoring will be undertaken and explain what the consequences would be of a breach in acceptable noise levels?	The CEMP will govern the circumstances in which monitoring will be undertaken and requirements 23 and 24 govern the procedure in relation to complaints. A revised CEMP is to be provided by **Deadline 3**.
1.8.25.	The Applicant	The Applicant relies on the use of 'best practicable means' to mitigate the effects of construction noise. Can the Applicant define what is meant by 'best practicable means' as it applies to the assessment?	Please see paragraph 8.6.2 of Chapter 8 of the ES.
1.8.26.	The Applicant	The Applicant proposes to mitigate the significant adverse effects from road traffic noise on Receptors R30 (West Lodge Cottages) and R57 (The Lodge) through the implementation of the Noise Implementation Regulations 1975 (as amended 1988). Can the Applicant explain the mechanism by which this mitigation is secured and how it will be delivered?	Paragraph 5.199 of the NPSNN states that for most national network projects, the relevant Noise Insulation Regulations (NIR) will apply. The NIR 1975 (as amended 1988) place duties on and give powers to Highways Authorities. In the case of work undertaken pursuant to a DCO those duties are placed on the undertaker, who will be responsible for dealing with any claims made under those Regulations which are subject to a statutory regime as set out in the regulations.

ExQ1	Question to:	Question:	Applicant's Response
1.9.	**Cumulative impacts and interactions**		
1.9.1.	The Applicant	Paragraph numbers are those within ES Chapter 15 (Cumulative impacts) [APP-123] unless otherwise stated. At present, assessments of cumulative and in-combination impacts which take account of the Rail Central proposal have been based on that project's publicly-available pre-application material. There was considerable discussion at the PM of cumulative effects with the Rail Central proposal and these are due to be considered at the cumulative effects ISH4 on 12 March 2019. The SoCG requested by the ExA at Annex E of the Rule 6 letter, between the Applicant and Ashfield/Gazeley, was originally requested by Deadline 1. Following submissions by the Applicant, the ExA has decided to accept their request that the deadline for its submission should be moved to Deadline 3. Ashfield/Gazeley have requested that an SoCG between Ashfield/Gazeley, the Applicant and Network Rail should be required, to address the operational compatibility between the two schemes – see Osborne Clarke's letter of 2 October 2018 and submissions made at the PM.	The Applicant has instructed its team to review the Rail Central application, (an electronic copy of the application submitted on 29 October was received on 30 October and is being copied and distributed to the relevant consultants.) Once the application has been reviewed a comprehensive update to the cumulative impact assessment can be undertaken and presented. The Applicant intends to provide updates on the progress of this work, as requested, at **Deadlines 2 and 3**. However, the Applicant understands that transport modelling work is being undertaken by Rail Central to assess the cumulative effects of the Rail Central scheme and Northampton Gateway having regard to the mitigation measures proposed as part of both applications. The Applicant was initially informed by Rail Central that this modelling work would not be completed and made available until at least mid-November 2018. The Applicant is now being advised by Rail Central that *"this work is still ongoing and it is expected to be towards Christmas before this can be released"*.

ExQ1	Question to:	Question:	Applicant's Response
		The ExA have decided to require this, and that it should be provided by Deadline 3. Separately, please will the Applicant submit an updated cumulative impact assessment, taking into account any further available material in relation to Rail Central, by Deadline 4? The ExA will require all elements of the Applicant's assessments which incorporate cumulative and in-combination assessment involving Rail Central to be updated. Wherever possible the updated assessment should be quantitative rather than qualitative; where qualitative assessments are relied upon then a justification should be provided as to why this is the case. The assessment should clearly explain the significance of the cumulative effects and explain how the significance of effects has been determined. The ExA is aware that the timeframe for this may be short. As such, can the Applicant please indicate at Deadline 1, with updates at Deadlines 2 and 3, what mechanisms it aims to put in place by which its cumulative and in-combination impact assessments will be updated?	It is understood that the Rail Central cumulative impact assessment submitted with its application, in relation to transport, relies upon the conclusions of transport modelling work undertaken as part of the assessment of cumulative effects undertaken by the Northampton Gateway Applicant, which was based on the data available at the time of the Rail Central Stage 2 consultation in April 2018 and is now out of date. It is not known why that assessment has not already been updated and submitted as part of the Rail Central application given that the Northampton Gateway information required for the exercise has been available since June 2018. If the transport modelling is not available until Christmas then it will not be possible to complete a CIA by **Deadline 4** (8 January) as requested.
1.9.2.	The Applicant	Bearing in mind in particular Reg 5(2) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, and in relation to "impact interactions" as defined in paragraph 15.1.4:	There is no requirement to apply any specific cumulative impact assessment methodology. The text below explains the approach taken to cumulative impact assessment for this ES.

ExQ1	Question to:	Question:	Applicant's Response
		i) Can the Applicant please explain how assessment of "impact interactions" as defined in paragraph 15.1.4 of the ES [APP-123] was carried out? ii) Can the Applicant also demonstrate how the methodology has been used to reach the conclusions presented in Tables 15.1 and 15.2?	i) and ii) - The assessment of impact interactions was undertaken based on a review of the ES as a whole, and using representative receptors (as described in Section 15.2 of the ES (Chapter 15). Use of the term '*impact interactions*' is to differentiate between the consideration of wider cumulative effects from the Proposed Development with other sites and commitments – the two parts of paragraph 15.1.4. Chapter 15 seeks to identify likely overall impacts across all aspects of the ES topics on key, representative receptors. In this regard 'impacts' is the same as 'effects' which feature throughout the ES. The assessment in Chapter 15 does not seek to assess potential cumulative effects on every receptor. Topic specific chapters of the ES provide an assessment of the likely effects (including likely 'impacts' on a topic by topic basis) of the Proposed Development on a wide range of specific receptors. The methodology used in Chapter 15 is to assess the likely effects presented in each topic specific chapter on a selected number of key receptors and to arrive at a judgment, based on this cumulative review, of the effects of these receptors. An overall judgment of these interactions is reached (provided in the bottom line of Table 15.1 for the construction phase, and Table 15.2 for the operational phase).

ExQ1	Question to:	Question:	Applicant's Response
		iii) Can the Applicant explain how the receptors listed in Table 15.1 and 15.2 of the ES were identified? Why has the off-site historic environment not been included as a receptor? If necessary, please explain the impact interactions on the off-site historic environment.	iii) The representative receptors were identified based on consideration of a range of issues, but essentially with a view to identifying representative receptors which would be likely to experience a range of different effects from the Proposed Development which could cumulatively be significant. A judgment was reached that because these identified receptors are most likely to experience the most significant cumulative effects, the effects at other receptors would be less significant. The Historic Environment is not included as this receptor, although broad in its scope, is not likely to experience a range of different effects from the Proposal that are not assessed already in Chapter 10. Paragraph 15.2.2 refers to on-site heritage (archaeology) features in this context. The effects on heritage are primarily linked to landscape and visual effects (including in the context of setting), with effects tied directly to the significance of the heritage assets affected by construction and operation – those issues are dealt with in Chapter 10. There are limited other interactions between the Heritage assets and other elements of the ES.
		iv) Can the Applicant describe the methodology used to define and determine significance? The Applicant is requested to provide updated versions of Tables 15.1 and 15.2 which clearly explain how the methodology has been used to reach the conclusions presented in the tables.	iv) The methodology is a judgment following consideration of the likely residual construction and operational effects identified in each of the relevant chapters. As described in response to question i) above, having considered the residual effects of each chapter, an assessment was made of the likely overall cumulative effect based on the interaction

ExQ1	Question to:	Question:	Applicant's Response
			across ES topics. Paragraph 15.1.9 seeks to provide a simple description of this process of taking a 'balanced judgment' based on the ES chapters. In simple terms, a receptor likely to see all or mostly 'negligible' residual effects across the ES topics would be considered likely to experience negligible cumulative effects. Similarly, a receptor likely to experience mostly Moderate Beneficial effects would be assessed as likely to experience a moderate beneficial cumulative effect overall. The fact that most chapters often reach several overall conclusions regarding likely effects results in a range often being included in the Tables in Chapter 15 – such as 'Minor to Moderate Adverse', or 'Negligible to Minor Beneficial'. In view of the explanation above, the substance of the tables does not change.
		v) Paragraph 15.1.8 of the ES states that the impact interactions have been assessed in the relevant topic chapters of the ES. The Applicant is requested to identify the paragraphs in each relevant chapter of the ES that deal specifically with impact interactions.	v) Each ES Chapter incorporates any relevant impact interactions as part of the consideration of likely environmental effects. The chapters therefore consider the interaction with other topics as an integral part of the assessment process, rather than as a separate exercise. For example, the Ecology chapter considers issues associated with air quality, water/drainage, and lighting effects on relevant receptors.
		vi) Where is ecology assessed for interactive effects?	vi) Please see Chapter 5 of the ES. On-site ecology is included in the Tables (15.1 and 15.2) as one of the

ExQ1	Question to:	Question:	Applicant's Response
		vii) Please will the Applicant supply a matrix or other explanation showing and assessing the interactions between the factors in Reg 5(2)?	'representative receptors' used – this reflects the fact that Ecology can experience a range of different effects through habitat change or loss, and new habitat provision, as well as from air quality, lighting and noise effects. vii) Please see answer to v) above. Chapter 15 provides a narrative intended to help explain some of the judgments and conclusions reached in the Tables, as well as providing a wider assessment of a number cumulative effects. The narrative which follows the Tables includes headed sections on 'Human Health', and on 'Climate' which seek to provide an overview of how the Proposed Development as a whole relates to those topics which are part of Regulation 5(2).
1.9.3.	The Applicant	Paragraph 3.9.11 of Appendix 4 of the Planning Statement [APP-376] indicates that a comparative analysis table of certain aspects of the Proposed Development and the potential Rail Central scheme has been set out. This does not appear to have been included. Could the Applicant please provide this, bearing in mind the need for likely updating (see ExQ 1.9.1 above)?	Although this was missing from the Planning Statement, the table referred to is the same as that included at Appendix 2.4 of Chapter 2 of the Environmental Statement That assessment was undertaken based on the Draft (Stage 2) Rail Central proposals which are now out of date. An updated Assessment can be prepared when there has been adequate opportunity to consider the application submitted on 29 October 2018 which is awaiting acceptance. However a final assessment would need to await the outstanding assessment work - see response to ExQ1.9.1.
1.9.4.	The Applicant	ES Chapter 13 (Agricultural land) [APP-117] provides information on cumulative effects of the Proposed	Please see **Appendix 19** and the Agricultural Land Classification information contained via the hyperlink below:

ExQ1	Question to:	Question:	Applicant's Response
		Development with other committed and proposed developments nearby. Paragraph 13.7.9 suggests that agricultural land around Northampton is of relatively high quality with significant areas being of Grade 1 and 2, which means that in this wider context and scale the cumulative losses of Best and Most Versatile land as a result of the Proposed Development are not considered strategically significant. For the ExA to be able to assess this assertion, can the Applicant please provide further detail of broad agricultural land classifications within an appropriately defined area?	http://publications.naturalengland.org.uk/publication/143027?category=5954148537204736
1.9.5.	The Applicant	Reduction in HGV mileage – paragraph 15.2.35; please could the Applicant indicate how significant the reduction referred to here is judged to be and reference it in the relevant topic chapters?	The modal shift in the movements of goods from road to rail is a fundamental driver of the Government's policy support for an increased network of SRFI's and an increase in rail freight. Paragraph 2.40 of the NPSNN explains that a modal shift in the movement of goods from road to rail can help to reduce transport's carbon emissions as well as providing wider transport and economic benefits. It is for these reasons the Government is seeking to achieve an increase in rail freight. Paragraph 2.44 goes on to explain the importance of SRFI's in facilitating increased rail freight and the benefits of this in reducing trip mileage of freight movements on both national and local road network. It states;

ExQ1	Question to:	Question:	Applicant's Response
			"The aim of a strategic rail freight interchange (SRFI) is to optimise the use of rail in the freight journey by maximising rail trunk haul and minimising some elements of the secondary distribution leg by road, through co-location of other distribution and freight activities. SRFIs are a key element in reducing the cost to users of moving freight by rail and are important in facilitating the transfer of freight from road to rail, thereby reducing trip mileage of freight movements on both the national and local road networks." The Applicant's response to ExQ1.0.25 is also relevant to this matter. Given this context and given that the minimum requirement is for SRFI's to accommodate 4 trains per day, the reduction in HGV mileage outlined in Paragraph 15.2.35 is considered to be very significant. These benefits are difficult to measure because they are not an easily defined, location specific, effect. Because of this, whilst the overarching benefit of a modal shift in the movement of goods from road to rail is noted in the Environmental Statement, the topic specific potential beneficial effects are not quantified. The Environmental Statement therefore adopts a 'worst case' approach in this regard.
1.9.6.	The Applicant,	Cumulative effects with committed development; have the developments, whether committed or not, with which the application should be assessed cumulatively, been	Yes this was agreed at ES Scoping Stage and through dialogue direct between the Applicant and the LPAs.

ExQ1	Question to:	Question:	Applicant's Response
	NCC, NBC, NSDC	agreed with the two LPAs and the County Council? Please indicate within relevant SoCG.	
1.9.7.	Applicant	The ES Transport chapter [APP-116] considers the Proposed Development cumulatively with all of the planned growth in the West Northamptonshire Joint Core Strategy. This is not done for other chapters which deal only with the Northampton South and Brackmills South SUEs. Please can the Applicant explain why this approach of not dealing with all the planned growth is acceptable? The ExA notes paragraphs 15.3.3 and 15.3.8 – 15.3.10 but these explicitly appear to address only cumulative effects with committed developments – the two SUEs.	The ES deals with all developments in relation to cumulative impacts, based on proximity. The exceptions to this is Transport, which includes more wide ranging development due to the reliance on the NTMS model. This therefore also applies to Noise and Air Quality which use data from the same model.
1.9.8.	Applicant	Paragraph 15.3.8 also states that *"there are no likely cumulative effects with the South of Brackmills SUE given proximity from the Proposed Development site"*. Is this intended to mean that the South of Brackmills SUE is NOT sufficiently proximate for there to be cumulative effects?	Yes – the wording is not as clear as it could have been. The Brackmills SUE is far enough away from the site that there are no likely cumulative effects other than with transport and traffic effects – and associated air quality and noise – which are already assessed as part of the TA modelling and ES).
1.9.9.	Applicant	In the matrices at the end of Chapter 15 of the ES [APP-123], italic script is used for parts. Please can the Applicant explain the significance of the italics?	This is a drafting/formatting error, and of no significance to the content of the matrices.

ExQ1	Question to:	Question:	Applicant's Response
1.10.	**Socio-economic Effects**		
1.10.1.	The Applicant	Paragraph and section references below are to ES Chapter 3 (Socio-economic) [APP-82]. Paragraph 3.3.7 categorises effects as major, moderate and minor; it equates major with Regional scale/long-term duration. The other two are related to District/medium-term duration and Local/short to medium-term duration reflecting the geographical expressions "District" and "Local" used for scale in Table 3.1. But that table uses the words "Study area" not "Regional" for the largest area. Should paragraph 3.3.7 also use "Regional"? Are the phrases "Study area" and "Regional" used interchangeably in the chapter? (This does not always appear to be the case, see paragraph 3.3.11.) Please clarify.	Yes, paragraph 3.3.7 should also use "Study Area" instead of "Regional" for the largest area.
1.10.2.	The Applicant	Paragraph 3.3.15 refers to employment densities and uses density to estimate the number of employees. Obviously, significant numbers of workers at this development when completed will need to be on-site. (i) But will there not be some office workers who work wholly or partly from elsewhere or home and are those numbers significant? How does the chapter address them?	(i) The employment densities used to estimate the number of jobs created by the Proposed Development are taken from Employment Density Matrix contained in the Homes and Community Agency's (now Homes England) Employment

ExQ1	Question to:	Question:	Applicant's Response
			Density Guide 2015. The guide outlines key factors influencing employment density, including the evolution of new forms of workspace, which has led to an increase in the number of people working from home, and quotes a figure from the ONS suggesting that 14% of the UK's working population worked from home in 2014 (paragraph 3.36). It is stated, in the guide, that '*the influence and effect of these factors*' on employment densities were considered '*in terms of broad effects and classified as having no discernible influence, an "upward" influence (i.e. they enable people to use space more densely) or a "downward" influence (i.e. they result in a "less dense" use) (paragraph 3.9)*.' However, this assessment of broad effects is not detailed in the guide. Trends towards more efficient workspaces (agile working, hot-desking, home-working etc.) are further discussed in the final section of the guide, in which the following caveat is offered: '*Essentially, these efficiencies mean that employment generation may be significantly higher than a simple density calculation may suggest. However, this is not uniform within, let alone between, occupier sectors and whilst the Matrix seeks to make allowances for increased efficiencies as best it can further research is required*

ExQ1	Question to:	Question:		Applicant's Response	
					on a case by case basis, particularly where co-working spaces are proposed' (paragraph 5.13). If the 14% (ONS figure) is applied to the 969 office/support staff worked from home, then this would represent approximately 136 people.
		(ii)	Similarly, in a rail freight interchange there will be some whose place of work whilst on site is not indoors. How does the chapter address that?	(ii)	The number of people that would work at the rail terminal is estimated to be 87 FTE jobs. This number is in addition to the distribution floor space jobs estimated using the Employment Density Guide (paragraph 3.6.4).
		(iii)	Could the Applicant please explain what difference the answers to (i) and (ii) make to the number of employees and to the conclusions of this chapter?	(iii)	The number of employees in the report is based on assumptions (employment densities) outlined in the HCA Employment Density Matrix. Allowances to take into account of key factors influencing these densities, such as home-working, have been made to a certain extent. A more accurate estimate the effect of home-working associated with the Proposed Development would need to be based on the future occupiers of the scheme. As these are not known at this stage, it is not possible to address the effect of home-working in further detail. It is not considered that home working would represent a significant proportion of the overall number of employees and the number of staff required in the rail freight interchange is included in the assessment of effects,

ExQ1	Question to:	Question:	Applicant's Response
			hence the conclusions of the chapter are not altered by these aspects.
1.10.3.	The Applicant	Paragraph 3.4.30; please identify clearly the "*wider indicators*" referred to in this paragraph.	The "wider indicators" are employment/unemployment and the Indicators of Deprivation as they relate to the categories of health shown in Figure 3.9.
1.10.4.	The Applicant	Paragraph 3.5.4 states *"If it is assumed that the average permanent job lasts for 10 years, then 10 worker years equate to one permanent job."* How safe is this assumption? Is it "likely"? On what is it based? The assumption appears to underpin much of this chapter of the ES.	This relates to construction jobs only. The assumption that 10 person-years of employment represents 1 permanent Full Time Equivalent construction job is widely used in socio-economic impact assessment, based on HM Treasure guidance, but the specific reference is not now available. It is used as a means of representing construction work, which by its nature is site-based and has fluctuations over time. The key indicator is that according to the HCA publication - *Calculating Cost Per Job. Best Practice Note (3rd edition)* - a £400 million investment would require circa. 6,000 construction worker years overall to deliver the project.
1.10.5.	The Applicant	Section 3.5;please explain what will be the effect on the supply of construction workers? Is there an adequate pool, particularly when other developments are considered?	It is estimated that the Proposed Development would support 120 FTE jobs over the construction period. Within the Study Area (6 x LPAs) , the 2011 Census recorded some 28,000 skilled construction workers, including 3,600 in South Northamptonshire and 7,800 in the Borough of Northampton (3.5.5). There is considered to be an adequate pool of construction workers.

ExQ1	Question to:	Question:	Applicant's Response
1.10.6.	The Applicant	Paragraphs 3.6.6 and 3.6.7 conclude there will be a major significant economic effect of about £348 million pa (or 7,544 full-time equivalent jobs) from the completed development. (i) Is this the net effect? (ii) Please explain the derivation of the annual GVA of £46,200 per filled job. (iii) Are there enough available employees, at the right levels of qualification?	(i) No, £348 million is not the net effect: it represents the contribution of 7,544 jobs to the economy, based on an GVA of £46,200 per filled job. This figure of £348 million does not take into account displacement, leakage, multiplier effect. The Additionality calculation in Table 3.10 sets out the net effect (£338 million). (ii) The annual GVA of £46,200 per filled job is derived from statistics on regional productivity (GVA per filled job) published by the ONS for West Northamptonshire (NUTS Code UKF24). The GVA used is for the year 2015 as published by the ONS in January 2017. The GVA figure for the year 2016, released by the ONS in February 2018, is £47,148 GVA per filled job. (iii) Across the six categories of job type listed in Table 3.9 the new positions would be taken by people changing jobs (see displacement effects below), people that are new to the area (housing delivery forming some 4,000 to 7,000 new households in the Study Area each year through to 2026), others that

ExQ1	Question to:	Question:	Applicant's Response
			will be new to the job market because they have reached working age, and some that will undergo re-training. There will be a progressive increase in the number of employees supported in the new premises as they are completed over time (3.6.17). As at February 2018, within the Study Area there was a total of some 8,800 people claiming benefits and in theory available to work. Most significantly, NOMIS official labour market statistics show c.2,750 claiming in Northampton and c.2,755 in Milton Keynes. In respect of recruiting people at the right level of qualification, the Applicant is committed to engagement with local colleges and training providers and focussing recruitment within the local area.
		(iv) Will some workers come from other businesses?	(iv) Yes, some workers will come from other businesses. This displacement effect is taken into account in the assessment with the movement of staff from other businesses within the Study Area set at 25% of the staff numbers (3.6.11 & Table 3.10).
		(v) Will other businesses suffer a shortage of labour?	(v) There are many influences on labour demands and the aspects set out in (iii) and (iv) above and in the assessment indicate that the change in the character of the labour force will apply equally to other businesses operating in the Study Area. Census data shows (3.4.36) that the net commuting flows for

ExQ1	Question to:	Question:	Applicant's Response
			South Northamptonshire are predominantly out of the area (c.11,000). The introduction of additional job openings provides opportunities to redress this in part. For these reasons, it is not considered that the Proposed Development will directly result in a shortage of labour to other businesses.
		(vi) Will labour costs rise?	(vi) The influences on the labour market are constantly evolving and the costs of employment are clearly related to supply and demand. As noted above in (v) if the Proposed Development does not result in a significant competition for staff, labour costs would not be unduly affected. If an increase in wages were to occur, this would be to the benefit of the employees with the particular skills required.
		(vii) Is any element of the £348 million already in the economy?	(vii) The total net additional effect of the Proposed Development is estimated to be £338 million, after having taken into effect leakage, displacement and multiplier effects (so the £338 million is <u>not</u> already in the economy). '*Additionality is the extent to which something happens as a result to which something happens as a result of an intervention that would not have occurred in the absence of the intervention*' (HCA Additionality Guide 4th Edition 2014, page 1).
1.10.7.	The Applicant	How do the answers to question 1.10.6 modify the section in Chapter 3 on Additionality? In addition to	The clarification provided in 1.10.6 does not change the conclusions in paragraphs 3.6.6 and 3.6.7.

ExQ1	Question to:	Question:	Applicant's Response
		answering the direct questions above, please also indicate how the conclusion in paragraphs 3.6.6 and 3.6.7 change or should be moderated.	
1.10.8.	The Applicant	Please indicate also where the section headed "Additionality" ends. The latter paragraphs up to 3.7 appear to have a significant stand-alone element.	The section on Additionality ends with Table 3.10, below paragraph 3.6.14.
1.10.9.	The Applicant	Paragraph 3.7.7 states *"Furthermore, the enhanced [bus] services would connect to areas where a greater concentration of deprivation has been identified (see paragraph 3.6.29 and Figure 3.10)."* Does this benefit anyone other than those working at the Proposed Development?	The proposed express bus service will be a registered bus service, and so will be open to use by the public. To minimise travel times, it is a limited stop service between the site and Northampton Town Centre, however, it will serve stops on London Road (A508). Although the principle purpose of the service is to provide for people traveling between the site and Northampton Town Centre – the stops on London Road mean that residents of the estates in Delapre can use the service to access the town centre, as well as the site.
1.10.10.	The Applicant	Employment and labour market; what are *"the barriers … identified above*" to which the chapter refers at para 3.7.10? Is it the last sentence of paragraph 3.7.8?	This refers to the past situation where training and learning in the logistics sector has been low, but now is improving (3.7.8).
1.10.11.	The Applicant	The effect on housing is stated to be negligible given the future increase in supply – see paragraph 3.7.11. Given, however, that (as the ExA understands from other application documents in this case) the Proposed Development was not in the development plan, will there	The forecast growth of the population used in the JCS for Northampton is 48,580, and for South Northamptonshire an additional 15,890 people (paragraph 3.4.6). Overall housing delivery projections in the Study Area indicate some 28,000 new households in the period from 2021 through to 2026.

ExQ1	Question to:	Question:	Applicant's Response
		be adequate capacity if the Proposed Development is added in? What will be the likely significant effect? The same points apply to paragraph 3.8.5. Please could the Applicant deal with both?	The employment-based commitments, cumulatively with the Proposed SRFI Development, could generate some 28,500 jobs in total over the period to 2026 and beyond. The residents that would be formed in these households will add to the potential workforce available in the Study Area. The number of new positions would arise progressively over a five to ten year period alongside the population increase associated with the new housing delivery, indicating that the growth in the workforce can be expected to match the job creation. There is also a potential to grow the workforce resource – the current unemployment estimate (NOMIS 1st November) shows that there are some 17,000 people unemployed in the Study Area, and that the greater proportion of these are in Northampton and Milton Keynes (4,900 and 6,300 respectively).
1.10.12.	The Applicant	Paragraph 3.8.1; please indicate the residual effects in the construction period at Study Area and Local scale.	Residual effects in the construction period: Study Area – negligible beneficial (due to the scale of the receptor); District - minor beneficial; Local Scale – negligible beneficial (due to the limited population).
1.10.13.	The Applicant	Paragraph 3.8.3; Could the Applicant provide a net GVA figure? With what should the GVA be compared?	The net GVA figure is provided in Table 3.10 which sets out the Additionality calculation.
1.10.14.	IPs, the Applicant	Many relevant representations refer to increased crime statistics in the vicinity of the DIRFT SRFI though the source of these is not stated, with concerns that there	

ExQ1	Question to:	Question:	Applicant's Response
		could be an increase in crime associated with the Proposed Development. (i) Is it possible to provide the factual evidence in relation to crime in the vicinity of DIRFT and linkage with that facility? (ii) What are the implications in respect of what would be a similar facility at the Proposed Development?	(i) The Applicant has no information in relation to crime in the vicinity of DIRFT and linkage with that facility. (ii) In the absence of information as to cause and effect the Applicant is unable to assess the implications.
1.10.15.	The Applicant	Please could the Applicant revise the conclusions as appropriate in the light of the answers to the above questions on this chapter? It would be helpful to have the conclusions section with changes tracked as a result.	The information above does not change the conclusions to the socio-economic assessment other than the net figure for GVA, which in accordance with the updated figure in 1.10.6 (ii) would change to a value of £345 million overall.
1.11.	**Transportation, Traffic and Rail**		
1.11.1.	The Applicant/NCC	Paragraph references below are to ES Chapter 12 (Transport) [APP-116]. Chapter 12 refers to the A45/M1 Northampton Growth Management Scheme (NGMS) and a Memorandum of Understanding. Please explain the status of this document and how the Proposed Development relates to the schemes within the NGMS.	In terms of status, the A45/M1 NGMS Memorandum of Understanding provides an agreed basis between Northamptonshire County Council, Highways England (then Highways Agency) and the local planning authorities for supporting the funding and delivery of the NGMS.

ExQ1	Question to:	Question:	Applicant's Response
			Northamptonshire County Council and Highways England confirmed that, except for the M1 J15 NGMS improvement, all NGMS schemes are committed and they are therefore included in the Reference Case NSTM2 modelling as committed infrastructure. As agreed with Highways England and Northamptonshire County Council, because the M1 J15 NGMS scheme is not committed, it was excluded from all NSTM2 modelling. The committed NGMS schemes are listed in the NSTM specification that sets out the committed and allocated development and infrastructure assumptions associated with the NSTM2. A copy of the NSTM specification is given in Appendix 36 to the Transport Assessment. The committed NGMS schemes are listed on page 14 of that document and are referred to as schemes N19 to N25. The NSTM specification provided at TA Appendix 36 also sets out whether each committed NGMS scheme would be in place by 2021 or not. Hence it describes the different assumptions used for the different assessment scenarios examined in the TA. For example, only the A45 Brackmills NGMS scheme, identified as N21 in the NSTM specification would be in place prior to 2021. Therefore, the Opening Year scenarios B1, E1 and H1 include only the A45 Brackmills NGMS. The DfT 02/2013 Circular compliant C1, F1 and I1 scenarios are required to include all committed development and infrastructure schemes and therefore those scenarios

ExQ1	Question to:	Question:	Applicant's Response
			include all of the committed NGMS schemes. All of the committed NGMS schemes would be in place by 2031 and therefore the D1, G1 and J1 (2031) Future Year scenarios include all of the committed NGMS schemes identified at N19 to N25 of the NSTM specification. There is no relationship between the committed NGMS schemes and the Proposed Development, other than the NGMS infrastructure schemes are included as appropriate in the NSTM2 transport modelling scenarios as described above. However, as detailed at paragraph 8.164 of the TA, and illustrated on Drawing ADC1475/SK03 Rev D (provided at Appendix 57 of the TA), an improvement scheme was developed at the A45 Queen Eleanor Interchange to mitigate the impact of the Proposed Development at this junction. The scheme shown on Drawing ADC1475/SK03 Rev D would be compatible with the NGMS improvements works that are already committed at the junction. Nevertheless, and as explained at paragraph 8.165 of the TA, Northamptonshire County Council are developing a comprehensive improvement scheme at this junction. Therefore to provide Northamptonshire County Council with flexibility regarding the timing and scope of further improvement works at the A45 Queen Eleanor Interchange, it has been agreed that the Proposed Development make a financial contribution equivalent to the cost of implementing the proposed improvement works shown on Drawing ADC1475/SK03 Rev D, to be used by Northamptonshire

ExQ1	Question to:	Question:	Applicant's Response
			County Council to implement the proposed works, or to be used by Northamptonshire County as part of a wider package of improvements at the junction to be developed by them. The works shown on Drawing ADC1475/SK03 Rev D are not works included in the NGMS but are additional and specifically related to Northampton Gateway.
1.11.2.	Highways England (HE), NCC	Highways England has identified an improvement scheme for the M1 Junction 15 (J15) that could potentially provide increased capacity, but that this would still leave the junction over capacity in certain conditions, with there being no certainty whether an improvement would be delivered (paragraph 12.4.7). Improvements to J15 within the Smart Motorway Project (SMP) have also been excluded (paragraph 12.4.12). Is it therefore the view of HE and the local highway authority that appropriate capacity improvements to J15 are only likely if led and funded by the Proposed Development?	
1.11.3.	HE	Is there any update on the proposed phasing of work on the SMP which would provide an indication whether work within 1.5km of M1 J15 is unlikely to commence within six months of the Proposed Development work at J15, and therefore trigger the alternative arrangement for the junction improvements as shown on Application Plans 2.4T [AA-044] and 2.4U [APP-045]?	

ExQ1	Question to:	Question:	Applicant's Response
1.11.4.	Applicant, HE	The SoCG with HE (3 May 2018) indicates the following documents are not yet complete: Final Transport Assessment; Final ES Transport Chapter; and Stage 1 Road Safety Audit Response Report. The SoCG also lists various plans that were not complete at the date of the SoCG. Please provide an update on progress towards finalisation of the above documents and plans, with submission into the Examination of these when finalised. Please provide an updated SoCG when all the above documentation and plans have been finalised which sets out the position relating to this documentation and these plans.	The documents listed at the tables at paragraph 5.1 and 5.3 of the SoCG with Highways England (3 May 2018) (**Document 7.1**, APP-382) were completed, finalised and submitted as part of the Application. An Addendum to that SoCG has been agreed with Highways England and is submitted as part of the documentation for **Deadline 1**, being **Document 7.1A**.
1.11.5.	The Applicant, HE	How would work on the M1 J15 junction improvements relate to and be coordinated with work on the SMP to minimise disruption during construction? Is work capable of being simultaneously carried out and how would this be secured?	The Applicant has held extensive discussions with Highways England's team who are responsible for delivering the Smart Motorway Project (SMP) between M1 Junctions 13 and 16. If the Northampton Gateway scheme is approved then it is very likely that both the Applicant and the SMP will be undertaking works at and within the vicinity of Junction 15 at the same time, that being from around Summer 2020 to Spring 2021. The Applicant's view is that these works are capable of being carried out simultaneously. The Applicant has entered into a Statement of Common Ground with the Highways England ("HE") SMP team which

ExQ1	Question to:	Question:	Applicant's Response
			addresses this issue in Section 2. This SoCG has been submitted for **Deadline 1** as **Document 7.1B**.
1.11.6.	The Applicant, NCC	The proposed access to the Main Site would be configured to require all departing HGV traffic to travel north, supported by Automatic Number Plate Recognition, and an enforcement regime to deter U-turning movements at the M1 J15. (i) Please provide details of the envisaged latter enforcement regime and how this would be secured and maintained. (ii) What sanctions would there be against transgressors?	(i) Section 8 of Schedule 2 of the draft Section 106 Agreement (S106) (a draft of which is submitted as part of the **Deadline 1** documentation (**Document 6.4A**)) sets out the obligations in relation to the monitoring of HGV traffic departing the Proposed Development. Paragraph 8.1 of Schedule 2 of the S106 requires the HGV Monitoring Scheme be agreed with Northamptonshire County Council and installed in advance of any occupation. (ii) The enforcement regime will comprise fines levied against occupiers found to have HGV drivers in breach of the HGV Route Restriction. Paragraph 8.2 of Schedule 2 of the S106 details the requirements to maintain the HGV Monitoring System.
1.11.7.	The Applicant	Paragraph 12.6.10; the height barrier is clearly an important traffic control item. Please will the Applicant confirm that its maintenance and prompt repair is or will be controlled by a requirement or other suitable	It is proposed to deal with this by a requirement, which will be included in the dDCO to be submitted for **Deadline 2.**

ExQ1	Question to:	Question:	Applicant's Response
		mechanism, and state where this is to be found? If yet to be drafted, please could the Applicant supply a proposal?	
1.11.8.	The Applicant	The Public Transport Strategy [APP-233] within the Transport Assessment seeks to introduce a new bus service specifically for the Proposed Development. It states that funding for public transport improvements will be secured through the DCO. Can the Applicant please indicate where in the current version of the dDCO this is secured?	This is secured by the Section 106 Agreement. Please see paragraph 1.1 of Schedule 2 of the S106 Agreement (**Document 6.4A**).
1.11.9.	The Applicant	The Framework Travel Plan [APP-232] within the Transport Assessment refers (section 9) to funding for travel plans and specific incentives to promote sustainable travel, with specific annual costs enumerated. What is the mechanism for the provision of the indicated funding?	The funding comes within the jurisdiction of the Sustainable Transport Working Group, the details of which are set out in Schedule 7 of the S106 Agreement (**Document 6.4A**). Please see also response to ExQ1.11.26.
1.11.10.	The Applicant	Please explain the rationale behind the proposed quantum of dedicated parking for early-arrival lorries within the main site.	Secure HGV loading and waiting spaces at the Proposed Development would be provided at each warehouse unit in accordance with NCC's adopted parking standards (Northamptonshire Parking Standard, September 2016). The illustrative masterplan shows a total of 1,223 loading and waiting HGV spaces at the Proposed Development. This is sufficient to accommodate the needs of the Development.

ExQ1	Question to:	Question:	Applicant's Response
			The additional early-arrival HGV parking was proposed following consultation with the Police, who were concerned that the originally proposed unsecured HGV parking at laybys along the Proposed Development spine road for early-arrival HGV could be a target for organised crime. No standards are provided for early-arrival spaces. However, the proposed 120 HGV additional parking spaces would equate to approximately 10% of the overall HGV parking provision at the Proposed Development. This would be provided in the form of a secure dedicated HGV parking area with welfare facilities. This is felt to be a proportionate response to the concerns of the Police.
1.11.11.	The Applicant	Network Rail has stated that its position on the DCO application is neutral until further detailed rail capacity studies have been carried out. Can the Applicant please set out what further studies are being undertaken and indicate when these would be made available to the Examination?	The Rail Reports submitted with the Application (**Document 6.7**, APP-377) set out work undertaken on behalf of the Applicant to explain the existence of capacity. These reports corroborate each other and establish that there is ample capacity for freight trains to arrive and depart Northampton Gateway over a 24-hour period. Since the submission of the Application further work has been submitted to and considered by Network Rail and this work is referred to, and explained, in the SoCG completed and submitted at **Deadline1** (**Document 7.13**).
1.11.12.	The Applicant,	The Applicant's Rail Reports [APP-377] suggests rail freight capacity will be boosted by the opening of HS2.	The Department for Transport's document "Supplement to the October 2013 Strategic Case for HS2 – Technical Annex:

ExQ1	Question to:	Question:	Applicant's Response
	Network Rail	Against the background of projected rail freight traffic growth, what are the implications if HS2 is subsequently extended as phase 2 to the north-west and to Yorkshire?	Demand and Capacity Pressures on the West Coast Main Line" contains detailed information on this topic. Upon the opening of HS2 Phase 1, from London to Birmingham in 2026, it is expected that between 20 and 40 additional freight paths will become available between London and the West Midlands and back, over a 24-hour period, (Ref. The Department for Transport Publication "Supplement to the October 2013 Strategic Case for HS2 – Technical Annex: Demand and Capacity Pressures on the West Coast Main Line"). Were HS2 to be extended as Phase 2 to the North-West and Yorkshire, the key benefit for freight services would be the released capacity from the Rugby area and the West Midlands through Stafford to Crewe. This would mainly assist freight services from the Port of Southampton and the West Midlands conurbations through to the North-West and Scotland. HS2 Phase 1 is the greater enabler for additional West Coast Main Line freight capacity out of London and through Northamptonshire to Rugby. Please also see paragraphs 32 and 33 of the SoCG entered into with Network Rail and submitted for **Deadline 1** (**Document 7.13**)

ExQ1	Question to:	Question:	Applicant's Response
1.11.13.	The Applicant	Requirement 3 of the dDCO provides that a rail terminal capable of handling at least 4 goods trains per day must be constructed and available for use prior to the occupation of any of the rail-served warehousing. However, there is no compulsion for rail to be used. (i) What certainty/guarantee is there that, despite the construction of rail facilities within the Main Site and the requirement for them to be operational, the Proposed Development wouldn't primarily become a road-served warehousing facility?	(i) Requirement 3 has been drafted in light of the criteria for SRFI's set out in section 26 (4) of the Planning Act 2018 and the NPSNN at paragraph 4.89 and has had careful regard to the Panel's Report and Secretary of State's decision on the East Midlands Gateway SRFI application. This specific point was considered by the SoS at paragraph 24 of his decision letter, where he concluded that: '*While he accepts that in a commercial project of this sort there can be no absolute certainty that the rail facilities will be used to their fullest extent, he is reassured that the strong and growing demand for rail freight facilities including SRFIs recognised by the Examining Authority, and as expressed in the NPSNN (paragraph 2.45), means that there are reasonable prospects that as this SRFI is developed it will fulfil its potential for contributing to modal transfer in the freight sector, which is the clear purpose of the application.*' The commitment set out at Requirement 3 goes further than was proposed at East Midlands Gateway and indeed further than any other previously approved SRFI scheme in terms of the timing of delivery of an operational terminal. Specifically,

ExQ1	Question to:	Question:	Applicant's Response
			it requires the provision of the rail terminal prior to any occupation of the warehouses. This is in response to the concerns raised by the Examining Authority when reporting on EMG and to give confidence that rail will be integral to the development. The two SRFI which are the subject of approved DCO (DIRFT III and EMG) both allowed for the occupation of a substantial amount of warehousing in advance of the rail terminal being provided (DIRFT – 153,290 sq.m; EMG – 260,000 sq.m.).
		(ii) Is the Applicant able to provide examples from other SRFIs of the actual levels of rail use in relation to the amount of warehousing provided that would point to likely level of use that might be expected?	(ii) Given that SRFI's are commercial schemes with occupiers and operators of the terminal to be determined through commercial arrangements following the approval and (in all likelihood) commencement of construction of the scheme, there can be no absolute certainty or guarantees in relation to the scale of operations that will take place at the terminal. However, this is no different from other SRFI's and is reflected in the wording of the NPSNN. Paragraph 4.83 states that: *'Rail Freight Interchanges are not only locations for freight access to the railway but also locations for businesses, capable now or in the future, of supporting their commercial activities by rail. Therefore, from the outset, a rail freight interchange (RFI) should be developed in a form that can accommodated both rail and non-rail activities.' (our emphasis)*

ExQ1	Question to:	Question:	Applicant's Response
			All other existing SRFI's have been successful in attracting warehousing and have seen the start-up and growth of operations at their rail freight terminal. Having regard to the conclusions set out in the Market Analysis Report (**Document 6.8**, APP-378) it is the Applicant's view that there will be strong demand for rail freight services at Northampton Gateway and the commitment to significant investment in rail and terminal infrastructure will provide the basis for the commencement of and growth in rail freight operations on the site. By way of comparison it is understood that existing SRFI's currently have the following floorspace and number of daily freight trains. DIRFT: approximately 7.5million sq ft (700,000sqm) of floorspace and around 9-10 trains per day HAMS HALL: approximately 5.5million sq ft (510,000sqm) of floorspace and around 4/5 trains per day BIFT: approximately 4.5 million sq ft of floorspace (420,000 sqm) and around 4 trains per day. (It should be noted that the rail terminal at BIFT is now running at about full capacity due to the constraints of their terminal sidings and container storage areas)
		(iii) Can the Applicant provide any information at this stage as to a possible operator of the rail terminal?	(iii) It would not be commercially appropriate at this stage in the development process to seek to agree terms with a terminal operator. At the present time there is no consent in

ExQ1	Question to:	Question:	Applicant's Response
			place and therefore no certainty nor fixed timescales for delivery of the scheme and therefore insufficient commercial detail and confidence to finalise arrangements with an operator. It is anticipated that the process will follow that which has been undertaken at EMG, whereby the process of appointing a terminal operator commenced once the DCO had been made. At East Midlands Gateway the process began with information exchange with 14 potential Operators. That narrowed to detailed expressions of interest from 6 Operators and then negotiations with a shortlist of 3. Maritime Transport Ltd are now the preferred Operator at East Midlands Gateway. They are a major logistics business operating both road and rail functions including terminals at Tilbury and Birch Coppice. They have written to Roxhill setting out details of their business, the operation of their terminal at BIFT and explaining their reasons for investing in East Midlands Gateway. They have also expressed a very keen interest in operating the Northampton Gateway terminal
1.11.14.	The Applicant	The Rail Reports [APP-377] state that Rapid Railfreight is an untested new market, is in its infancy and its future development is not yet clear. (i) Could the Applicant please fully explain what is meant by "Rapid Railfreight"?	(i) Please see paragraphs 9.3 – 9.6 of the Market Analysis Report (**Document 6.8**, APP-378)

ExQ1	Question to:	Question:	Applicant's Response
		(ii) Does the Applicant have any update as to the demand for, and the likelihood of, the suggested Rapid Railfreight component being provided? (iii) What are the advantages of such a facility?	(ii) The provision made for a 'rapid rail freight' terminal forms part of the longer-term future-proofing of the site to ensure it is able to meet a wide range of rail market requirements as the site is developed and occupied. This 'future-proofing' within the design of the Northampton Gateway scheme responds directly to the need for flexibility which is explicitly recognised by the NPS. Rooted in the market led nature of SRFIs, the NPS says: *"some degree of flexibility is needed when schemes are being developed in order to allow the development to respond to market requirements as they arise"* (NPS, paragraph 2.45). (iii) Therefore, the advantages are related to flexibility and an ability to respond to changing market conditions over-time. Many of the advantages are similar to those associated with rail freight in general terms – reducing the road 'leg' of freight distribution, and delivering environmental and congestion benefits as a result.
1.11.15.	The Applicant and Network Rail	In certain relevant representations concern has been expressed as to the relationship between increased rail freight use associated with the Proposed Development and existing and projected future growth in passenger traffic (and station improvements) and how the latter elements may be adversely impacted in terms of function, capacity and speed. At the PM the Northampton Rail	Please see response to ExQ1.11.11. The Rail Reports referred to in that response (**Document 6.7** – APP-377) explain why the proposed development will not impact the function, speed and capacity for passenger services, as they operate now or in future growth scenarios.

ExQ1	Question to:	Question:	Applicant's Response
		Users Group suggested that the ES does not address the effects of the Proposed Development on rail passengers. Please comment and can the Applicant indicate where in the ES the relevant information can be found and f not provided indicate what the effects would be, or explain why this has not been fully addressed?	The ES is explicit in considering the likely effects on people in all relevant chapters – this explicitly includes rail passengers in Chapter 4 (landscape and visual). The Rail Reports (**Document 6.7**, APP-377) explicitly consider the impact on rail services and passengers, and are cross-referred to in the assessment in ES Chapter 12 (Transport). The analysis undertaken, and submitted, provides no basis for any concerns regarding the ability for other bodies to deliver maintained or improved passenger services via the Northampton Loop line, nor for a new Parkway Station close to Rugby. A Statement of Common Ground has been agreed with Warwickshire County Council on this issue (**Document 7.9**). The Rail Reports explain how additional freight services can be accommodated and how this would not result in a reduction in passenger services. They concluded: a) there is spare capacity in the current timetable for freight trains on Monday to Saturday, working around all other passenger and freight services already in the timetable. b) in addition, there are also already validated Strategic Capacity paths in the timetable for traffic such as new freight services – these paths exist to help prevent tensions and conflicts between freight and passenger services.

ExQ1	Question to:	Question:	Applicant's Response
			The Application therefore includes due consideration to the potential for effects on passenger rail services, and users of such services.
1.11.16.	Network Rail, the Applicant	The ExA understands that the current maximum length of a freight train is 775m and the Proposed Development would be capable of accommodating trains of this length. Is the permitted maximum length of train likely to increase in the future and, if so, what would be the implications for the design and operation of the Proposed Development?	The NPSNN states at paragraph 4.89 "*SRFIs should, where possible, have the capability to handle 775 metre trains….*" There are currently no intermodal freight trains of 775m operating in the UK. The 775m length trains are an aspiration for the strategic freight network (SFN). Typical train lengths are in the order of 600 – 680 m for intermodal services and 330 – 380 m for heavier aggregates traffic. In reality there is still some way to go before the SFN is considered fully capable of accommodating 775m length trains and routine operation of 775 m trains is feasible on the network in the future (Freight Network Study 2017, Section 4.1). Northampton Gateway is designed to handle trains up to a maximum of 775m in length.
1.11.17.	The Applicant	A45/M1 Northampton Growth Management Scheme (NGMS); at what date was/were the study/ies described in paragraph 12.3.48 and following carried out?	The NGMS Memorandum of Understanding is dated 26 March 2012. Annex 1 to the Memorandum is the Aecom study that unpins the Memorandum. The Aecom study states that it was prepared between August 2010 and February 2012.

ExQ1	Question to:	Question:	Applicant's Response
1.11.18.	The Applicant, HE, NCC	Regulation 123(3) of the Community Infrastructure Levy Regulations 2010, which restricts the number of planning obligations allowed to pool funds, appears to apply. Please comment on how it interacts with the A45/M1 NGMS Memorandum of Understanding and any s.106 or similar agreements proposed in relation to this application.	The schemes referred to in the A45/M1 NGMS Memorandum of Understanding are not the subject of any section 106 contribution for Northampton Gateway. See response to ExQ1.11.1. There are no issues in relation to pooled contributions which apply to any of the monies payable pursuant to the S106 Agreement.
1.11.19.	The Applicant	Up to paragraph 12.3.63 the chapter reviews and highlights many policies. Paragraph 12.3.63 then concludes that all the relevant policy guidelines and specific requirements for transport are met. The ExA would be helped if the Applicant could please list by each policy the parts of the chapter which address each policy, or provide a table to do that.	Please refer to **Appendix 17** of this Document.
1.11.20.	The Applicant	Transport modelling, paragraph 12.5.3; this states no allowance for modal shift has been made. Please will the Applicant explain how this applies in relation to the freight to be transported into and out of the Proposed Development which of course aims to remove some freight from road to rail?	Paragraph 12.5.3 relates to modal shift associated with single occupancy car trips to and from the Proposed Development. It does not relate to modal shift of freight from road to rail, which is dealt with directly by the trip generation calculations and is discussed at paragraphs 12.7.39 to 12.7.46 of Chapter 12 of the ES.
1.11.21.	The Applicant	Paragraph 12.5.7 – "*difference assessment scenarios*" – please confirm (or otherwise explain) that this is a misprint for "*different assessment scenarios".*	Correct, paragraph 12.5.7 should read *"different assessment scenarios"*.

ExQ1	Question to:	Question:	Applicant's Response
1.11.22.	The Applicant	Table 12.3 – Reference case C1 is 2021 DfT 02/2013 Circular compliant (and so on for F1 and I1. According to paragraph 12.3.27 Circular 02/2013 says highway improvements are only considered after travel plan and demand management has been used, which means that to be 02/2013 compliant it is necessary to model those. However, paragraph 12.5.5 notes NSMT2 modelling has been done without the Framework Travel Plan and Public Transport Strategy. Please could the Applicant comment on what is meant therefore in this table by being 02/2013 Circular Compliant? Will that explanation hold good for all other references to 02/2013 compliance?	The DfT 02/2013 Circular compliant assessment scenarios were developed in consultation with Highways England in accordance with their requirements. Highways England specifically required that no account of the Travel Plan be made in calculating the light vehicle trip generation of the Proposed Development. Therefore, the DfT 02/2013 Circular compliant scenarios do not include for a reduction in light vehicle trips that would be expected to be realised once the effects of the Travel Plan and Public Transport Strategy for the Proposed Development are realised. Nevertheless, it should be recognised that M1 Junction 15 and M1 Junction 15A, where the DfT 02/2013 Circular applies, are forecast to be significantly over capacity in the C1 Reference Case scenario, i.e. these junctions are forecast to be over capacity without the addition of traffic from the Proposed Development. Therefore, highway mitigation works would be required regardless of whether the impact of the Travel Plan on Proposed Development traffic is considered. There are, however, other requirements that are specific to the DfT 02/2013 Circular. These are that: • the DfT 02/2013 Circular requires that the assessment of the requirement for highway mitigation on the strategic road network be assessed in the year of opening of the development, assuming that 100% of the development is in place in the opening year.

ExQ1	Question to:	Question:	Applicant's Response
			• the DfT 02/2013 Circular requires that only committed development and infrastructure schemes are taken into account. Allocated development is not taken into account. Tables 6.1, 6.2 and 6.3 of the TA summarise the parameters used in each of the assessment scenarios. They include the scenarios C1, F1 and I1, which are the DfT 02/2013 Circular compliant scenarios. As shown, all of the DfT 02/2013 Circular compliant scenarios include the requirements given at the two bullet points above, which differentiate them from the other scenarios. This explanation therefore applies to all references to 02/2013 compliance.
1.11.23.	The Applicant	Paragraph 12.5.19 states that erosion of capacity where a junction or link continues to perform within capacity is not relevant. Please could the Applicant comment on the relevance and significance of the erosion of that capacity which would otherwise be available for the benefit of other developments or result in a less pleasant and easy driving experience?	For a junction to be operating within capacity, the ratio of traffic volume to junction capacity is typically required to be below 0.85 (i.e. the junction is at 85% of its maximum capacity) for a priority-controlled junction, or 0.9 (i.e. the junction is at 90% of its maximum capacity) for a signal-controlled junction. Junctions operating below these ratios are said to be operating 'within capacity' and therefore by default the junction can accommodate the traffic demand and drivers are not subject to undue delay or queuing. Therefore, any erosion of capacity due to Proposed Development traffic where a junction or link continues to perform within capacity would not have a significant impact on the pleasantness or ease of driving experience, and therefore does not require

ExQ1	Question to:	Question:	Applicant's Response
			further assessment as part of the transportation effects assessed in the ES. The impact of the Proposed Development traffic on the study area has been undertaken using traffic data from the NSTM2. One of the reasons the NSTM2 is used is that it accounts for traffic growth associated with other committed and planned development to be considered as part of the assessment. As summarised at paragraphs 8.11 to 8.15 of the TA, the NSTM2 traffic flows used in the assessment of traffic impact of the Proposed Development includes for housing growth associated with the construction of 78,927 new dwellings in the Northamptonshire area up to 2031, and the provision of 17,826 new jobs over the same time period. The traffic impact of the Proposed Development therefore already considers the cumulative traffic impact of the committed and planned growth in Northamptonshire. Beyond accounting for committed and planned growth 'spare' highway capacity is available on a first come, first served basis, and therefore erosion of capacity due to Proposed Development traffic where a junction or link continues to perform within capacity does not require further assessment as part of the transportation effects assessed in the ES.
1.11.24.	The Applicant, NCC,	Paragraph 12.6.8: Please confirm that the financial contribution to NCC will not infringe the Community Infrastructure Regulations 2010, Regulation 123. Please address this issue also in relation to paragraph 12.7.86	Please see response to ExQ1.11.1. The contribution being made to NCC in relation to the Queen Eleanor junction is not the subject of any other contributions. Neither is the Knock Lane contribution.

ExQ1	Question to:	Question:	Applicant's Response
	SNDC and NBC	and any other contributions to be made by planning obligations or provisions to which Regulation 123 applies.	The Draft Section 106 Confirmation and Compliance Document (an outline of which was submitted for **Deadline 1** (**Document 8.5**)) will confirm the position, when the table in Appendix 1 is populated.
1.11.25.	The Applicant	Paragraph 12.6.24; is the aim that HGV traffic leaving the SRFI site must take one of three routes; north up the M1, south down the M1, or east on the A45, but in no circumstances west down the A508, even after negotiating Junction 15 (except when an official diversion route was in force)?	Correct. Technical Note 3 (TA Appendix 7) details the assessment of the forecast HGV traffic distribution for the SRFI. This identifies that the majority of HGV traffic (91%) is forecast to arrive and depart the SRFI from the north, via M1 Junction 15, which provides access to the M1 north and south, and the A45. Nevertheless, it is recognised that a local concern is the perceived view that the Proposed Development will increase HGV movements on local roads surrounding the SRFI site. Therefore, whilst it is considered that the proposed Roade Bypass, A508 corridor route upgrade, and the proposed environmental weight restrictions would mean that the A508 could satisfactorily accommodate the additional HGV traffic should Development HGV traffic be allowed to both arrive and depart using the A508 south, the Applicant has been prepared to restrict departing HGVs to accessing the Proposed Development to and from the north only. Alternative routes for HGV drivers with destinations to the south of the SRFI would be available able via the A43, accessible by the improved Junction 15A, or via the M1 south.

ExQ1	Question to:	Question:	Applicant's Response
1.11.26.	The Applicant	How is it envisaged that the Sustainable Transport Working Group will be secured, funded and staffed?	The Sustainable Transport Working Group is to be secured as part of the S106 Agreement, as set out in the draft document submitted for **Deadline 1** (**Document 6.4A**). The membership of the Sustainable Transport Working Group will comprise key stakeholders as set out at paragraph 2 of Schedule 7 of the draft S106. The Area-wide Travel Plan Co-ordinator, who would be funded through the Framework Travel Plan, would have responsibility for administering the Sustainable Transport Working Group, arranging meetings, minuting meetings, co-ordinating actions and generally coordinating the group and being an active resource. This proposed arrangement, in particular the role of the Sustainable Transport Working Group is similar to the arrangements in place at DIRFT III and East Midlands Gateway.
1.11.27.	The Applicant	Is it envisaged that the test in paragraph 12.6.55 be operated and a new bus journey provided every single time that the 100 employee/time window is met? Please could the Applicant also explain how this will interact with the commitment to provide public transport from the outset, described in paragraphs 12.6.60 and 12.6.61?	It is envisaged that a bus journey will be provided between the site and Northampton Town Centre every time 100 employees or more start or finish work within a 15 minute window - unless an existing journey is available within 30 minutes before the start of work, or within 30 minutes of the end of work. This caveat means that a service operating with a 30 minute frequency would not require any further journey provision. The size of the development means that it is likely that staffing levels at first occupation will be enough to trigger a

ExQ1	Question to:	Question:	Applicant's Response
			bus journey to/from the site at key shift changes – however, if there is not enough employees, there is still a commitment to begin operating a service at the key shift times at first occupation (for example 0600-1400-2200) so that public transport is a visible, attractive and realistic alternative to the private car from the outset. The site will also provide new bus stops on the A508 adjacent and opposite the site entrance which will give access from first occupation to bus services 33/33a, X4 and X7 which operate along this road between Northampton and Milton Keynes.
1.11.28.	The Applicant	Please will the Applicant explain how the bus service provision described in paragraph 12.6.60 is to be secured and funded?	The Section 106 Agreement (S106) (a draft of which is submitted as part of the **Deadline 1** documentation) (**Document 6.4A**) outlines the provision of bus services to the Development in accordance with the public transport obligations in Public Transport Strategy and will be funded from a Bus Services Fund which is also defined within the S106. The bus service will be procured though competitive tender under the guidance of the Sustainable Transport Working Group and managed by the Travel Plan Co-ordinator (TPC). Please also see response to ExA1.11.26.

ExQ1	Question to:	Question:	Applicant's Response
1.11.29.	The Applicant	Residual effects are dependent on certain assumptions being true – see paragraph 12.7.18. Are these realistic and likely? The answer should include a justification as to why the residual effects are realistic and likely.	The construction period given at 12.7.18 is consistent with the Indicative Master Programme for the scheme that is provided at Appendix 1 of the CEMP (Appendix 2.1 of the ES, Doc 5.2). The Indicative Master Programme was prepared by the Applicant using their considerable experience in the development and construction of large-scale warehousing developments. This includes recent experience at East Midlands Gateway SRFI, which provides a good comparison being of similar scale development, including significant off-site highway works at M1 J24A and J24, the construction of a new site access junction on the A453, and construction of an off-line bypass to the south of Kegworth. The 5.5 year construction period reflects the typical build rate for large scale warehousing, which is approximately 1 million sqft of development per year. The construction period is therefore realistic and likely. The 10-hour working day is based on typical contractor working practices, with a working day of 7am to 7pm Monday to Friday. Some seasonal variation in this would be expected and certain construction operations are weather dependent and therefore assessment is made of the basis of 49 working weeks. In addition, and as noted at paragraph 12.7.20 of the ES, assessment of the daily construction traffic movements has been estimated based on a 5 day working work week. Contractors would be able, and do, also work on Saturday mornings, between 7am and 1pm. However, assessing the construction traffic movements over a shorter 5 day period,

ExQ1	Question to:	Question:	Applicant's Response
			rather than a 5.5 day period, adds additional robustness to the assessment, as it results in a slightly higher figure of daily construction traffic movements. The assumptions regarding the working periods are therefore also considered realistic and likely within the context of the assessment undertaken. In should be noted that the impacts during construction are temporary and therefore residual effects associated with disruption due to construction are none/negligible.
1.11.30.	The Applicant	Paragraph 12.7.27; construction phase impact is indicated to be temporary adverse moderate significance. This appears to be a greater impact than indicated in paragraphs 12.7.25 - 26. (i) Please can the Applicant explain how this conclusion has been reached?	(i) Paragraphs 12.7.25 to 12.7.26 relate to the transport impact of traffic associated with construction staff, HGVs and LGVs arriving and departing the SRFI site, which alone would generate a temporary impact of minor significance on the operation of the highway network. However, the overall assessment of the impact of the construction phase of the development on the operation of the highway network that is reached at paragraph 12.7.27 also considers the likely disruption associated with the construction of the off-site highway works, including the likelihood that at least some of the off-site highway works would occur in parallel with the highway works on the M1 mainline associated with the M1J13 to J16 SMP scheme.

ExQ1	Question to:	Question:		Applicant's Response	
					Whilst the impact of the off-site highway works would be managed and reduced via the processes described at paragraphs 12.7.7 to 12.7.12 of the ES, it is considered that a temporary adverse impact of moderate significance on journey times at and through M1J15 would be experience by some road users.
		(ii)	Will the Applicant also please set out the numbers and compare them with the current and predicted no-scheme world.	(ii)	A comparison of the daily development construction traffic with the background traffic (without the Proposed Development) is provided at the table at **Appendix 18**. Comparisons are provided to the background traffic flows in the 2015 Base Year, taken to represent the *current* highway conditions, and the 2021 Reference Case (scenario B1), representing the *predicted* highway conditions in the future without the Proposed Development or highway mitigation. The background traffic flows are the Annual Average Daily Traffic (AADT) flows extracted from the NSTM2. As shown the construction traffic would account for less than 1% of the daily traffic carried by the main routes to and from the site.
		(iii)	Where are the results of B1 to J1 in Table 12.3 set out for this issue?	(iii)	No assessment of the construction traffic impact is provided in the 2031 scenarios (D1, G1 and J1d scenarios) given in Table 12.3 because the development would be complete by then with no construction taking place.

ExQ1	Question to:	Question:	Applicant's Response
			No assessment of the construction traffic impact is provided for the DfT 02/2013 Circular modelling scenarios (C1, F1 and I1) in Table 12.3 because these scenarios are theoretical. For example, they are based in the 2021 opening year, but due to the requirements of the DfT 02/2013 Circular (see response to Q1.11.22), they include for all committed development and infrastructure schemes that are programmed up until 2031 being full built out and in place by 2021. The Development Case scenarios F1 and I1 also include for 100% of the development being operational in the opening year. These scenarios do not therefore represent actual background traffic conditions that would be present during the construction of the development, nor do they relate to the phased build out of the development. Paragraphs 12.7.21 to 12.7.23 of the ES explain that Year 2 of the construction programme would be the busiest in terms of construction traffic movements. As discussed below, this is prior to the opening of the development and therefore the assessment of the impact of the daily construction traffic included within the ES is based comparison to the highway network conditions without the Proposed Development or any of the highway mitigation works in place. The

ExQ1	Question to:	Question:	Applicant's Response
			corresponding background traffic numbers for this comparison are set out in the response to (ii) above. The Indicative Master Programme provided at Appendix 1 of the CEMP (Appendix 2.1 of the ES), shows that first occupation of the Proposed Development would not occur until part way into year 3 after the start of the construction. This is because first occupation cannot occur until the works listed at paragraph 12.7.6 of the ES are completed. These works include: • the A508 SRFI access; • dualling of the A508 between the site access and M1 Junction 15; and • the M1 Junction 15 and A45 major upgrade. Following the completion and opening to traffic of the above highway works, the operation of Junction 15 and the highway network in the vicinity of the development site would be significantly improved. This is demonstrated by the junction capacity assessment results presented at Table 11.1 of the TA (ES Appendix 12.1). Table 11.1 shows that in the opening year, with the first phase of the Proposed Development and above highway mitigation in place (scenario H1), M1 Junction 15 would operate within capacity. This contrasts with the reference case scenario without the

ExQ1	Question to:	Question:	Applicant's Response
			highway mitigation works in place, when the junction would operate significantly over capacity (B1 scenario in Table 11.1). The construction traffic impacts from year 3 onwards would therefore be more than off-set by the above highway improvements and significant improvement in performance of M1 Junction 15. Therefore, no assessment of the B1, E1 or H1 assessment are provided.
1.11.31.	The Applicant	Paragraph 12.7.37 assumes a maximum capacity of 16 trains per day. (i) Is this a reasonable, realistic and likely assumption? What evidence supports this assumption?	(i) The maximum capacity of the terminal is based on the rationale described in the Rail Report (**Document 6.7**, APP-377): Northampton Gateway: Operation of the Internal Rail Layout, dated 10 May 2018. The report describes the proposed facility including the key facilities affecting capacity which consist of 3 Reception Lines and 3 Intermodal Lines, linked by headshunt facilities. The principles of operation define the principal uses of these facilities as follows: **Reception Line 1** Reception Line for incoming trains from the rail network **Reception Line 3** Departure line for outgoing trains to the rail network

ExQ1	Question to:	Question:	Applicant's Response
			Reception Line 2 Run Round line to enable forming of trains and additional reception/departure line if required. **Intermodal lines 1-3** Loading and unloading of containers Trains are received in to the Reception Line, marshalled into the Intermodal Lines where they are unloaded/loaded and then marshalled back into the Departure Line for dispatch to the network. All transfers between Reception Lines and Intermodal Lines are via the headshunt. Trains will be unloaded/loaded typically within 3 hours in the Intermodal Lines. Train formation and marshalling will be required on top of this and total cycle time for a train is estimated to be approx. 4 hours. The predominant time component of the total cycle time is the time in the intermodal lines and consequently the number of Intermodal lines is a key factor in determining terminal capacity. Theoretically each intermodal road can handle 6 trains per day based on a train cycle time of 4 hours. There are three roads and theoretical capacity of the terminal is therefore 18 trains per day. In reality, various factors in day to day operation that will reduce the theoretical

ExQ1	Question to:	Question:	Applicant's Response
			capacity including possible routing conflicts over the connections between the Reception Lines and the Intermodal Roads, method of loading/unloading, problems in forming trains, etc. 16 trains per day is seen as a reasonable assumption on terminal capacity recognising that there will be some variation in cycle time arising from day to day operational issues. Operation at this capacity assumes gantry crane loading when all three intermodal lines are occupied.
		(ii) Is that assumption made for all purposes of the ES (note please, the ES as a whole, not just this chapter)?	(ii) The assumption of 16 trains is made for all purposes in the ES.
1.11.32.	The Applicant	Paragraph 12.7.56; in the sentence "*The highway mitigation proposals release existing constraints that allow the A508 to accommodate additional traffic and function as intended*", should "*that*" read "*and so*"?	Yes, correct. It is the highway mitigation proposals which release existing constraints and so allow the A508 to accommodate additional traffic.
1.11.33.	The Applicant	Paragraph 12.7.107 refers to flows being consistent with a high level of driver stress. (i) Is this paragraph describing flows in 2031 with the Proposed Development in place and highway mitigation? Is that what is meant?	(i) The traffic flows referred to in paragraph 12.7.107 are the traffic flows on the proposed Roade Bypass in 2031 with the Proposed Development and highway mitigation in place.

ExQ1	Question to:	Question:	Applicant's Response
		(ii) In the following paragraphs mitigation is described which it is said reduces driver stress and fear. Is it meant that even with those in place stress is high, albeit less than it would be without them?	(ii) The locations described in the paragraphs following 12.7.107 are distinct from the Roade Bypass location described at paragraph 12.7.107 and therefore drivers may be subject to different levels of stress. However, your assessment is essentially correct. For example, traffic volumes on the A45 are such that drivers would be subject to high levels of stress as defined by Table 2 of the DMRB (Volume 11, Section 3, Part 9) both with and without the development in place. Whilst the alteration of the speed limit on the A45 near M1J15 that is proposed as part of the highway mitigation works will bring traffic speeds in line within prevailing road conditions leading to a reduction in driver fear, the overall level of driver stress as defined by the DMRB would remain high with the Proposed Development traffic and highway mitigation in place.
1.11.34.	The Applicant	Paragraph 12.8.27 says the respective strategies for public right of way (PRoW) KX17 are incompatible. In the event that both schemes came to fruition, what would the Applicant propose for PRoW KX17, and what would be its effect, and the residual effects of the Proposed Development with the resulting footpath scheme in place?	This question is answered in advance of the opportunity to review the detail of the Rail Central proposal, which was re-submitted to the Planning Inspectorate on 29 October 2018. The last sentence of paragraph 12.8.7 should have referred to KX13. not KX 17. It is thought therefore that this question is directed at KX13 rather than KX17. The incompatibility

ExQ1	Question to:	Question:	Applicant's Response
			arises from the inclusion of part of the main site of Northampton Gateway within the Rail Central Order limits for the purposes of landscaping and a public right of way. In the event of the Northampton Gateway Order being approved, and then Rail Central then being approved, then it will be for Rail Central to adjust its proposals accordingly. There would be no effect on the Northampton Gateway proposals.
1.11.35.	Network Rail	Please will Network Rail explain the capacity of the rail system to serve the Proposed Development and provide the data underpinning its explanation? Please answer this question taking into account not only the West Coast Main Line (including the Northampton Loop) but also other parts, such as for example the alleged bottleneck at Ely to which a number of interested parties have referred in their relevant representations. Please take into account other SRFIs whether in operation now, under construction, or proposed, and other demands on the system, such as rail passengers. On a separate but related point, Network Rail asked for guidance at the PM as to whether it should be providing information to the Applicant and Ashfield/Gazeley on the basis of only one development going ahead or both. In the ExA's view the information should be on the basis of (i) the Proposed Development alone, (ii) and both. Whilst a case might be made that the Rail Central alone position is not relevant to consideration of the Northampton	

ExQ1	Question to:	Question:	Applicant's Response
		Gateway Application, that information will no doubt be produced to Ashfield/Gazeley and it would be pedantry to exclude it from this examination. Accordingly the ExA suggests that information is also supplied to both applicants who can then decide what information they wish to submit to the Examination. It may also be relevant to the tripartite SoCG requested by Ashfield/Gazeley to which we have referred elsewhere in our Procedural Decisions.	
1.12.	**Water Environment**		
1.12.1.	The Applicant	Paragraph, Table and Section references are to ES Chapter 7 (Drainage & Water Resources) [APP-093]. Despite some information provided elsewhere (ES Appendices 6.7, 6.8 and 6.9), no information is provided in ES Chapter 7 on the water quality status of the water resources. Could the Applicant explain how it has defined the baseline for water quality of the surface water resources?	The water quality status of the water resources are found at ES Appendix 7.2. The water quality status of the Wootton Brook (the nearest classified waterbody) is defined by the Environment Agency (EA) as Moderate based on ecological and chemical parameters.
1.12.2.	The Applicant	Can the Applicant please explain the methodology used to assess the effects to the bedrock aquifer from changes to rates of infiltration during construction?	<u>Main Site</u> The bedrock is Lias Clay strata, which is a non-aquifer, so there is technically no aquifer designation.

ExQ1	Question to:	Question:	Applicant's Response
			There is a perched water table in the granular glaciofluvials above the lias where present but this is trapped beneath the cohesive glacial till which would be cut into. There may be a slight effect from compaction of cohesive soils but could be a consequential opposing effect if glaaciofluvials deposits are uncovered. Monitoring of groundwater seems to suggest a groundwater table is present above the lias in the glaciofluvials but is highly variable due to the topography of the surface of the lias beneath. Therefore the potential for any change is considered to be minor. <u>Bypass Corridor</u> Limestone is present under the route but as it is linear and relatively narrow there will be little measurable impact particularly as large areas are overlain by cohesive glacial till drift which would impede downward migration. Therefore the potential for any change is considered to be minor.
1.12.3.	The Applicant	Can the Applicant confirm whether, in the assessment of water resources and drainage, effects assessed as 'moderate' and above are considered 'significant' in EIA terms?	In the assessment of water resources and drainage effects with a 'moderate' significance are not considered 'significant' in EIA terms as they are 'not likely to be key decision-making factors'.

ExQ1	Question to:	Question:	Applicant's Response
			'Major' effects are likely to be considered 'significant' in EIA terms, but nothing has been assessed as such.
1.12.4.	The Applicant	The assessment in the ES refers to the duration of some effects as being short-term. However, this has not been quantified and is relevant to understanding the overall significance. Can the Applicant please provide a description of the timescales that equate to short-term (as opposed to medium and long) used in the assessment of effects?	The duration of short-term has been assessed as being the construction phase of the Proposed Development. Hence for this assessment it does not include the operational phase. Relevant short-term mitigation measures are detailed in the CEMP (ES Appendix 2.1).
1.12.5.	The Applicant	Paragraph 7.5.3 states that construction activity will involve *"the stripping of topsoil on parts of the Proposed Development*". This appears to understate the scale of works which the Project Description refers to as 'substantial earthworks', lowering the level of the site and creating bunds. Table 7.3.5 assigns a sensitivity value to each of the relevant receptors. Can the Applicant provide a justification for the level of sensitivity assigned (explaining how the generic descriptions set out in Table 7.3.1 have been applied)?	Taking each receptor in turn the level of sensitivity has been assigned as follows: *Pluvial flow routes, Courteenhall/Wootton Brook (Medium Sensitivity)* Surface water runoff should be considered in conjunction with the local watercourses. Whilst the watercourse within the Main Site is relatively small, it forms part of the Wootton Brook Main River catchment which has widespread identified flood risk, contributing on a regional scale. *Public sewer network (Medium Sensitivity)* Anglian Water provide sewerage services on a regional scale. There is limited potential for an alternative solution for disposal of foul water and (prior to mitigation) there would be

ExQ1	Question to:	Question:	Applicant's Response
			capacity issues in the network. As such the receptor sensitivity has been assessed as 'Medium'. *Bedrock Aquifer (Low Sensitivity)* The works may impact on discrete areas above underlying aquifers which are considered to be of low sensitivity in so much as there are no special designations associated with them and they are classified as Unproductive Strata *Water Supply (Low Sensitivity)* Anglian Water supply potable water on a regional scale however sensitivity is considered 'Low' as the impact of the Proposed Development in the wider context is not significant and there is sufficient flow availability in the wider network to serve the development.
1.12.6.	The Applicant	Section 7.5 (assessment of likely significant effects) and Section 7.6 (mitigation) have assigned a level of magnitude to the impacts assessed. Can the Applicant provide a justification, with reference to the technical appendices where relevant, for the levels of impact magnitude assigned (explaining how the generic descriptions set out in Table 7.3.2 have been applied)?	Taking each impact in turn the level of magnitude has been assessed as follows: Construction Phase *Short term reduction in infiltration (low)* Compaction of underlying ground by plant may lead to some change in infiltration characteristics, deemed as a minor loss in context of the size of the Proposed Development and 'Low' magnitude

ExQ1	Question to:	Question:	Applicant's Response
			Suspended solids (medium) Construction activity has the potential to damage key characteristics of watercourses (channel capacity, conveyance) and theoretical loss of smaller channels if not controlled. This would however not materially change the wider hydraulic performance (integrity) of the catchment. *Demand on receiving sewerage network during construction (low)* Before a formal connection is made, foul sewerage may have to be tankered off site which may place an additional burden on the receiving network at the point of discharge, however this would be at a treatment works deemed to have sufficient capacity to accept flow. <u>Operational Phase</u> *Increase in flood risk (medium)* Potential for unmitigated runoff to cause detriment/damage (by virtue of increased flow rate and volume) to downstream characteristics of watercourses (such as channel form/capacity) through an increase in post development flow. *Water quality (medium)* Potential for unmitigated runoff to cause detriment/damage (by virtue of increased potential for contaminants to enter

ExQ1	Question to:	Question:	Applicant's Response
			waterbodies) which would impact on the Water Framework Directive objectives for the catchment (ES Appendix 7.2).
1.12.7.	The Applicant	Having regards to the 'Rochdale envelope' approach, the ES does not specify a worst case scenario for this aspect. Can the Applicant specify what parameters and scenarios have been applied to assess the likely significant effects from the Proposed Development and justify why these would constitute a worst case? How have the limits of deviation described in Article 4 of Part 2 of the dDCO been incorporated into the flood risk modelling?	Taking each receptor in turn the Rochdale Envelope approach is as follows: ***Pluvial flow routes*** *– entire scheme* All proposed areas assessed within Order limits as if the entire development area were constructed at once. ***Public sewer network****: Foul Water Drainage* The solution is based on Anglian Water's assessment of the impact of the development. Any additional area in excess of that anticipated by Anglian Water could (if necessary) be stored on site as flow is pumped at a controlled rate to the existing public sewer network and this therefore represents a practical worst case. **Courteenhall/Wootton Brook** *Main Site Surface Water Drainage* Zones A, B and the rail corridor on the Parameters Plan total 131.1ha. To achieve the levels stated on the parameter plan it is necessary to provide embankments to transition between zones, around the attenuation basin to the north and into Zone B. In addition there will be landscaping corridors along the main spine road. Therefore it is not feasible for the entire 131.1ha to be impermeable and an allowance of 109.1ha (83%) has been made when assessing surface water

ExQ1	Question to:	Question:	Applicant's Response
			attenuation requirements, with an additional allowance for 20% runoff from strategic landscape bunds used to determine site wide runoff rates. Any additional area/volume would (if necessary) be stored underground, including in upstream structures, pipes and manholes. Hence the assessment is considered robust. *Fluvial Flood Risk* Hydraulic modelling includes for surface water runoff from the proposed development in the manner described above and the remainder of the catchment, including appropriate 'Upper End' climate change allowances as advised by the Environment Agency **Bedrock Aquifer** The assessment reflects the areas as shown on the Parameters Plan (**Document 2.10,** APP-065). In respect of Article 4, changes to the vertical and horizontal alignment of the highway or railway works will have a negligible impact on the run off from these works. This is because even if, for example, the road alignment moved vertically or horizontally, the carriageway and footway cross sections would remain the same and therefore the drained area would remain the same. Hence there would be no increase in surface water run-off and we can confirm that the flood risk assessment is robust.

ExQ1	Question to:	Question:	Applicant's Response
1.12.8.	The Applicant	It is noted the Applicant is relying on the Northampton South and South of Brackmills SUEs to adhere to national planning policy and best practice to conclude that no cumulative effects are likely to occur with the Proposed Development. Could the Applicant explain if mitigation measures have been identified for these two projects and, if so, what are they?	There is clear national and local policy, as well as regulations and legislation which require all major applications to consider drainage and flood-risk issues. The use of Sustainable Drainage Systems (SuDS) is required and expected wherever practical and suitable, and an underlying principle of the regulatory and policy framework is that new developments do not exacerbate existing or create new flood risk issues for offsite areas. Key to this is limiting runoff rates and volumes, ensuring that water leaving the site does so in a predictable and managed way. This ensures some consistency and predictability, and provides a context within which there can be high-levels of confidence that there will be no adverse cumulative effects with all sites reaching this same standard. The Northampton South SUE planning application (in 2013), the closest of the two SUEs to the Proposed Development, was supported by an FRA which set out how the proposals would deliver betterment with regard to local surface water and other local drainage flooding issues. Mitigation and design measures proposed and approved at that SUE include but are not limited to the following (as described in the revised FRA report for application N/2013/1035): • Surface water runoff limited to the existing greenfield run-off rates for up to and including the 200 year return period rainfall event (including a 30% allowance for climate change);

ExQ1	Question to:	Question:	Applicant's Response

			• SuDS will be integrated within the development proposals to replicate the existing greenfield conditions in terms of quantity (rate and volume) and quality of surface water runoff;
			• Considerable betterment will be provided over and above the existing hydrological conditions within the development area which will contribute towards providing some protection to the existing residents through the following improvements:
			  • A new swale connecting the ponds in phase 1 and ensuring that overland flows from Phase 1 development (that currently drain northwards towards the existing residential properties) are fully contained within the development site hence reducing its impact on downstream catchments.
			  • A new swale to control the overland flows from the remaining Golf Course (that currently drain northwards towards the existing residential properties), directing these away from the existing residential properties.
			  • Localised channel improvements to Wootton Brook. Floodplain compensation/betterment storage by providing further storage for the shorter return periods rainfall events (return periods less than 200 years).
			  • Maintenance betterment of existing storage drainage features along Wootton Brook and parts of

ExQ1	Question to:	Question:	Applicant's Response
			the network as part of the maintenance regime for the on-site SuDS. As indicated above, the mitigation strategy at the SUE contains a range of standard and best practice measures geared around the specific issues and characteristics of that site. The Brackmills SUE is too remote from the Proposed Development for there to be any relevance in relation to drainage.
1.12.9.	The Applicant, Anglian Water	The SoCG with Anglian Water of May 2018 notes at paragraph 4.7 that a mains infrastructure design was still being progressed. Please provide an update on progress.	A mains requisition application was sent to Anglian Water in December 2017. Anglian Water initially responded and inferred that they would make efforts to provide a design and quotation by February 2018. However, Anglian Water were only able to provide a budget cost for the works envisaged in February 2018 with the design then due by July 2018. Anglian Water has confirmed that its Integrated Mains Works Team is currently in the process of preparing a detailed design for the required off-site water main that would cross the M1 Motorway, and that it is expected that a detailed design will be complete by 30 March 2019.

ExQ1	Question to:	Question:	Applicant's Response
1.13.	**Agricultural land**		
1.13.1.	The Applicant	All paragraph numbers relate to ES Chapter 13 (Agricultural Land) [APP-117] unless stated otherwise. Paragraph 13.3.13; is the point being made that provided there is enough topsoil retained to complete all on-site landscaping/greenspace requirements – normally 50% of the current topsoil – the fate of the remainder (normally also 50% of course) is irrelevant? So that if less than 50% is lost that is a minor environmental effect? Could the Applicant clarify this point?	The point being made (see para 13.3.10) is that enough topsoil of suitable quality should be retained for re-use (i.e. use as topsoil in greenspaces). The origin of the 50% figure is unknown, (requirements vary between the type of development). Paragraph 13.3.10 seeks to explain that the objective is to protect sufficient topsoil to complete all on-site landscaping, and that a loss of topsoil below 50% would be considered a minor environmental effect. Section 13.7 of the ES Chapter confirms that the residual effect after implementation of mitigation would be minor adverse with regard to the soil resource.
1.13.2.	The Applicant	Table 13.1 refers to effects on three receptors. Paragraph 13.3.1 says the assessment addresses effects on two receptors. Please clarify.	This is an error. Table 13.1 should state that the assessment addresses effects on two receptors, as identified in paragraph 13.3.1.
1.13.3.	The Applicant, Natural England	The Proposed Development would result in the loss of some 33.3ha of Best and Most Versatile agricultural land (12% of the Proposed Development area). Given this quantum, has Natural England been consulted?	Natural England were a consultee and have been consulted at every stage of the pre-app consultation process and on submission.
1.13.4.	The Applicant	Whilst ES Chapter 13 (Agricultural land) provides an analysis of soil type and land quality, no information is provided on the impact of the Proposed Development on	The vast majority of the main site comprises land in the ownership of the Courteenhall Estate which includes a very significant estate beyond the site which will continue to be

ExQ1	Question to:	Question:	Applicant's Response
		the integrity of existing agricultural businesses, land holdings or the current environmental stewardship of the land to be affected, including in relation to the southern part of the Main Site where agricultural use is to be maintained. Can the Applicant please provide information on these factors?	farmed, and the loss of the land on the main site will not affect that as an agricultural business or any environmental stewardship of the land to be retained. The bypass corridor has implications for relatively small parts of a number of different land holdings and ownerships, but is not of such a scale as to affect significantly the viability or profitability of any agricultural businesses.
1.13.5.	The Applicant	Paragraphs 13.5.1 and 13.5.2 refer to "section 3.0". Presumably this is to the table at 13.3, but please could the Applicant confirm (or otherwise)?	This is an error. The reference should be to section 13.3.
1.13.6.	The Applicant	Paragraph 13.5.1 concludes there will be a major permanent adverse effect by soil loss, but that there are sufficient soils for all proposed landscaping. Please explain this by reference to section 13.3 and the tables in that section. Or is it meant that there would be a major permanent adverse effect without the mitigation later described?	The last sentence of the ExA question is correct.
1.13.7.	The Applicant	Paragraph 13.5.2 says approximately 80% of the Proposed Development Site is proposed to accommodate built development and therefore around	Having regard to the Parameters Plan (**Document 2.10**, APP-065), 20% is estimated to be the area of the site, where earthworks will be undertaken, that is not under buildings,

ExQ1	Question to:	Question:	Applicant's Response
		20% of the area intended for greenspace, or to be returned to agricultural use post-development, could be compacted if not protected and well managed during construction – described as a moderate adverse effect. Please could the Applicant explain why 20% of the greenspace/agricultural area is "therefore" at risk of compaction? Where does the figure of 20% come from?	roads, car parks and other infrastructure post-development. Standard construction practice is to strip topoils (and some subsoils) across the site at the start of development. If not done sensitively this can cause compaction and sealing. Subsequent vehicle movements on the exposed surface can cause further compaction. When topsoil is restored to greenspace areas (not an issue for built areas) the drainage can be worse than the baseline. Paragraph 13.5.2 was seeking to identify this risk. Mitigation through the CEMP and associated Soil Management Plan, will minimise this risk. Also see the response below to ExQ1.13.8 – ii).
1.13.8.	The Applicant	Paragraph 13.7.3 states "*Soil functions will be severely compromised over much of the application area through sealing by roads and buildings*". (i) Please could the Applicant explain the relevance of this given that the footnote to Table 13.1 says compaction under buildings is covered by the flood risk and drainage chapter, thus the compaction percentage thresholds in Table 13.1 only relate to greenspace? (ii) Could the Applicant also address and explain the relationship with the statements in paragraph 13.5.1 raised in the earlier question	(i) Having regard to the footnote to Table 13.1 it is correct to say that there is no particular relevance to the first sentence in paragraph 13.7.3. (ii) It is a potential effect (prior to the proposed mitigation) i.e. what will happen in the long term if soils are damaged during construction and mitigation is not implemented.

ExQ1	Question to:	Question:	Applicant's Response
		1.13.6 and with the conclusion in paragraph 13.5.4?	
1.13.9.	The Applicant	ES Chapter 13 provides information on cumulative effects of the Proposed Development with other committed and proposed developments nearby. Paragraph 13.7.9 suggests that agricultural land around Northampton is of relatively high quality with significant areas of Grade 1 and 2 land, which means that in this wider context and scale the cumulative losses of Best and Most Versatile land as a result of the Proposed Development are not considered strategically significant. For the ExA to be able to assess this assertion, can the Applicant please provide further detail of broad agricultural land classifications within an appropriately defined area?	Please see **Appendix 19** and the Agricultural Land Classification information contained via the hyperlink below: http://publications.naturalengland.org.uk/publication/143027?category=5954148537204736
1.13.10.	The Applicant	Paragraph 13.7.9 refers to the adoption of the WNJCS having addressed soil resources. It did not, however, take the Proposed Development into account according to other examination material. Please could the Applicant explain whether in that light the comment is still relevant and valid?	The text in paragraph 13,7.9 is in the Cumulative Effects section of the Chapter – the main point which it is considered remains relevant and valid is that the presence of high-quality agricultural land was a consideration in preparing and adopting a Core Strategy based around a strategy of urban extensions onto rural and farmland around Northampton. Earlier paragraphs (13.7.6 and 13.7.7) quantify the areas of best and most versatile land to be lost at the two SUEs considered in the ES as committed developments. The Applicant accepts that the Proposed Development site was not allocated in the Core Strategy, and in this regard the

ExQ1	Question to:	Question:	Applicant's Response
			Ex-A may take its own view on the relevance and validity of the above observation and that contained in paragraph 13.7.9.
1.13.11.	The Applicant	In the summary and conclusions it is said at paragraph 13.8.3 that "*This is considered a moderate adverse effect, which should be weighed against other sustainability criteria, and considered in the context of the availability of any viable alternatives of lower land quality*". The Applicant is referred to question 1.13.9 where the ExA has asked for assistance in understanding the amount of best and most versatile agricultural land available elsewhere around Northampton. (i) Please can the Applicant explain what are the "other sustainability criteria" referred to in this paragraph? (ii) How is it suggested that they affect the assessment of likely significant effects?	(i) The Planning Statement (**Document 6.6**, APP-376) refers to the planning balance (paragraphs 4.151 – 4.163) and includes consideration of all relevant sustainability criteria. (ii) the likely significant effects are the loss of agricultural land alone

ExQ1	Question to:	Question:	Applicant's Response
1.14	**External lighting**		
1.14.1	The Applicant	All paragraph numbers and Tables relate to the ES Chapter 11 (External Lighting) [APP-115] unless stated otherwise. Table 11.4; the examples of a receptor seem to include both what is being observed (eg views over large unlit spaces) and the observer's location (eg astronomical observatories). Please can the Applicant comment and clarify the table, making any comments on the conclusions about the nature and significance of effects reported in the remainder of the chapter?	Table 11.4 lists both environments and actual receptor types. The sensitivity of a given receptor is determined by looking for the best fit with the examples given in the table. For example, the sensitivity of residential properties would be High in a dark rural setting, Medium in a larger village, and Low in an urban location, whereas astronomical observatories would be High irrespective of their environment. These sensitivities have been carried across into the assessment tables in Appendix 11.4. Referring to Table 11.2, different types of lighting impact can affect different types of receptor. Some are related to what can be seen from a receptor location while others are related to the direct effects of light reaching the receptor location. The receptor types (A, B etc) and the lighting impacts to which they are potentially sensitive (1, 2 etc) are used in the assessment tables in Appendix 11.4, along with the sensitivity determined from Table 11.4.
1.14.2	The Applicant	At paragraph 11.5.5 it is said "*This is a visual effect, not an intrusive effect*…". Please could the Applicant explain the difference?	This should state: "*This is a Visual effect, not a Nuisance or Loss of amenity effect*…". This then correlates to the light pollution categories set out in Table A11.1 in Appendix 11.1.

ExQ1	Question to:	Question:	Applicant's Response
1.14.3	The Applicant	Paragraph 11.6.3 states that Chapter 4 (Landscape and visual) provides fuller details of the visual mitigation measures and residual effects. Please could the Applicant specify the relevant parts of that chapter relied on in relation to lighting effects?	We have relied on the LVIA plans and sections (doc. ref. "TR050006-000268-Doc 5.2 - ES Chp 4 LVIA - Plans and Sections") and the description of the construction of earthworks/mounding given in 4.4.1-4.4.6 of the main text of the Chapter.
1.14.4	The Applicant	Paragraph 11.6.5 states that whilst the lighting effects of the Roade Bypass can be mitigated by baffles and shields "*the design and specification of adoptable lighting on the proposed Roade Bypass would need to be in accordance with Northamptonshire Highways' street lighting policy current at the time of design*". See also Table A11.4.2 – residual effects during operation, properties Hyde Farm, Northwest of Dovecote Rd, and White House Farm where there is reference to and reliance on industry standards. The provision, level and efficacy of the mitigation are therefore not certain and it is difficult to see how mitigation can be taken into account. (i) Please can the Applicant explain how this can be overcome?	(i) The assessment given in Table A11.4.2 for Hyde Farm, Northwest of Dovecote Rd, and White House Farm is based on Northamptonshire Highways' current street lighting policy and does not take into account any additional mitigation through the fitting of baffles/shields to any road lighting unit. Lighting standards have continually improved and it is therefore

ExQ1	Question to:	Question:	Applicant's Response
			highly unlikely that future changes to the policy will affect the assessment in an adverse way.
		(ii) Please explain what the effects would be without the baffles and shields described in the first part of paragraph 11.6.5.	(ii) The effects are as assessed in Table A11.4.2, i.e. without mitigation through the use of baffles/shields.
		(iii) Could the Applicant provide a description of the mitigation that has been taken into account in the assessment of lighting effects? When 'industry standards' are referred to, explain what these standards are and what outcomes they are expected to achieve.	(iii) No mitigation by baffles/shields has been taken into account in the assessment of lighting effects. Detailed design of road lighting will be in accordance with BS5489-1:2013 "Code of practice for the design of road lighting, Part 1: Lighting of roads and public amenity areas" as implemented by Northamptonshire Highways. Compliance with this standard will ensure the lighting effects are as already assessed and stated in Table A11.4.2.
1.14.5	The Applicant	The issue referred to in question 1.14.4 also arises in relation to Appendix 11.3, para A11.3.24 of the lighting strategy – lighting of the M1/A508/A45 grade separated junction. Please would the Applicant address the same questions?	(i) It is not proposed that there will be any specific mitigation for the lighting of the M1/A504/A45 junction. The junction is already lit. New lighting on the improved junction will approximate to a "no change" situation for all receptors. (ii) The effects would be as assessed in Table A11.4.2, i.e. without mitigation.

ExQ1	Question to:	Question:	Applicant's Response
			(iii) No mitigation has been taken into account in the assessment of lighting effects, and therefore the assessment is robust. Detailed design of road lighting will be in accordance with TD34/07 "Design of road lighting for the strategic motorway and all purpose trunk road network" (DMRB Vol.8 Sec.3, Highways England). This requires all lighting units to be "luminous intensity class G6". This is the most highly controlled luminous intensity class, limiting the potential for all light pollution effects to the maximum degree.
1.14.6	The Applicant	Please could a clear statement of the likely residual effects on the receptors potentially affected by the roundabouts on the Roade Bypass be given?	A receptor who is potentially affected by lighting of the Road Bypass roundabouts will experience no adverse lighting effects at all unless they look out from their property. All other relevant lighting effects (light falling onto bedroom windows; glare; and light falling within the property boundary) will be negligible. For those within 100 m, the change from the existing situation for views from the property is as given in Table A11.4.2, i.e.: • Medium in terms of what will be seen of the lighting itself, resulting in a Moderate Adverse significance for this particular effect • Small in terms of the local sky glow above the lighting, resulting in a Minor Adverse significance for this particular effect.

ExQ1	Question to:	Question:	Applicant's Response
1.14.7	The Applicant	Table A11.4.1 – residual effects during construction; for lighting effects on ecology, the ExA is referred to Chapter 6. Please could the Applicant specify the relevant parts of that chapter relied on in relation to lighting effects?	This entry in Table A11.4.1 should have referred to Chapter 5 and not Chapter 6. The relevant part of Chapter 5 is Section 5.7, see for example, paragraph 5.7.61.
1.14.8	The Applicant	Cumulative effects with Rail Central. Paragraph 11.8.5. states that cumulative effects with Rail Central are likely to be moderate adverse for many receptors. Please: (i) specify which receptors and explain which of the effects of the Proposed Development are engaged; and (ii) explain what is meant when it is said the likely effects "will be visual" (see also the question 1.14.3 above relating to para 11.5.5).	This question is answered in advance of the opportunity to review the detail of the Rail Central proposal, which was re-submitted to the Planning Inspectorate on 29 October 2018 (i) We consider the receptors most likely to be adversely affected are those listed in the first six rows of Table A11.4.2, i.e. residential properties in the vicinity of Blisworth and Milton Malsor (with the exception of those properties that would be demolished). The scale and proximity of the Rail Central proposals mean that we expect the Rail Central effects to be dominant. (ii) Please refer to Appendix 11.1, which describes types of light pollution, and Table 11.2, which sets out receptor types in relation to the types of light pollution to which they are potentially sensitive. With regard to the cumulative case, the receptors mentioned in (i) above are in category (B) and therefore potentially sensitive to light pollution types (4) and (5), which are in the Visual category. Lighting visual effects are akin to daytime visual effects, that is they affect views from the

ExQ1	Question to:	Question:	Applicant's Response
			receptor's location. However, they do not harm the receptor nor affect the receptor's amenity.
1.14.9	The Applicant	Paragraph 11.8.6 states that "*It is assumed that other types of effect … would be eliminated … but even so cumulative effects are likely to be significant …".* Please: (i) explain the basis of the assumption; (ii) explain the result if the assumption turns out to be wrong or unwarranted; and (iii) state what cumulative effects not already dealt with in section 11.8 are being referred to.	This question is answered in advance of the opportunity to review the detail of the Rail Central proposal, which was re-submitted to the Planning Inspectorate on 29 October 2018 (i) The assumption is based on the Rail Central scheme being designed in a responsible manner in respect of minimising environmental effects, for example, by using directional lighting wherever possible. (ii) The cumulative effects will be more severe. (iii) The other types of effect listed in 11.8.6 are described in Appendix 11.1.
1.14.10	The Applicant	Paragraph 11.9.7 states that a detailed lighting strategy will be agreed later in the DCO process. Please state: (i) at what stage the lighting strategy will be agreed; (ii) is it anticipated that this will be as a SoCG?; and	(i) – (iii) The lighting strategy is contained in Appendix11.3 of the ES. Requirement 15 in the dDCO requires that lighting details be approved and such details must accord with the principles set out in the lighting strategy.

ExQ1	Question to:	Question:	Applicant's Response
		(iii) at which deadline the strategy will be submitted to the ExA. If outside the timeframe for the decision on the DCO sought, please will the Applicant indicate how this is consistent with the case law on staged consents.	Please see the response to ExQ1.0.15 in relation to staged consents.
1.15	**Waste and resource management**		
1.15.1	The Applicant	Paragraph references below are to ES Chapter 14 (Waste) [APP-122]. Paragraph 14.2.24; this states that decommissioning is not considered as the scheme is designed to be permanent. However the description of the project in the dDCO includes "maintenance" which includes decommissioning and replacement. Please will the Applicant consider this also in the light particularly of Reg 14(2)(f) and Sch 4 of the Infrastructure Planning Environmental Assessment Regulations 2017 (which require, amongst other things, assessment of significant effects resulting from "the construction and existence of the development, including, where relevant, demolition works") and respond?	As confirmed in the Applicant's response to ISH1:7 (see **Document 8.1**), it is proposed to delete 'decommission' and 'replace' from the definition of 'maintain' within the dDCO. This will be updated in the next version of the dDCO to be submitted for **Deadline 2**.

ExQ1	Question to:	Question:	Applicant's Response
[1.15.1 A]	The Applicant	Paragraph 14.3.2; waste from the highways and infrastructure site appears not to be assessed. Is it really the case that there will be no waste from those works?	As noted in para 14.3.2 "highways and infrastructure related sites" comprise all of the works that are not the Main Site. The Main Site is works nos. 1 to 6, and hence the "highways and infrastructure related sites" are Works nos. 7 to 17. All of these are highway works except for Works no. 10 which is the foul drainage outfall. The highway works and foul drainage outfall would produce negligible waste during the operational phase. Therefore, these are only considered in relation to the construction phase. Waste from the construction phase of highway works has been assessed as per paragraphs 14.5.11-13 and is considered negligible. The foul drainage outfall (works no. 10) is a relatively small element of the scheme and the waste produced would be the same as that for highway works i.e. excavated material, which would be reused within the wider scheme. Hence construction waste from this would also be negligible.
1.15.2	The Applicant	Paragraph 14.3.12; please could the Applicant explain how the first bullet point works given that the site at present is in agricultural use; does that produce waste?	The current agricultural land does not result in any waste arisings and is therefore given a score of 1 for type and quantity of waste, a score of 1 for the distance waste has to be transported (given that there is no waste to transport), and a 1 for method of disposal as no waste is being disposed of.

ExQ1	Question to:	Question:	Applicant's Response
			Therefore, the impact of waste arising from current baseline conditions (agricultural land) is considered negligible.
1.15.3	The Applicant, EA	Is Table 14.2 agreed with the Environment Agency? Could a SoCG be submitted please?	The Environment Agency have declined to comment on waste which they believe is a matter for the relevant planning authority. Please see paragraph 3.4 of the SoCG with the EA submitted for **Deadline 1** (**Document 7.12**).
1.15.4	The Applicant	Paragraph 14.4.7: (i) Is it realistic to expect this decrease to have continued and to continue? (ii) What evidence supports the assumption that the decrease will continue?	The assumption is based on available national and regional statistics relating specifically to commercial and industrial waste arisings which show a decrease from 2012 to 2015. As specified in the statistics used, on average a 5% decrease per year in commercial & industrial (C&I) waste generation in the UK can be seen between 2012 and 2014. Therefore, this 5% decrease year on year will be applied to the 2014/15 Northampton baseline for C&I arisings, (1.065Mt). Therefore, it is considered robust to expect the decrease to have continued and to continue. Equally it is also worth noting the commercial incentive driven by annually increasing landfill taxes. This encourages site operators to reduce the amount of waste being sent to landfill, further aiding in reducing commercial and industrial waste.

ExQ1	Question to:	Question:	Applicant's Response
1.15.5	The Applicant	Paragraph 14.4.13; please can the Applicant consider whether this is appropriate in the light of ex parte Hardy – see also ISH1:107C? If it is, how will the waste management options be assessed so as to comply with the law on environmental assessment?	During construction, the principal contractor for each element or component will undertake the detailed review referred to in para 14.4.13 and this will be set out within the construction waste management as part the phase specific construction environmental management plan (P-CEMP). See ES Appendix 2.1 Chapter 9 (paragraph 9.2) for further information. At the operational stage, for each component the detailed review referred to in para 14.4.13 would be contained within the scheme for waste management that is to be submitted for Requirement 27. The waste assessment recorded within the Environmental Statement, including the assessment of local waste facilities, is comprehensive so as to capture the likely significant environmental impacts relevant to waste and resource efficiency at this stage. The assessment undertaken is based on the information with regard to waste available at the time of assessment and in the absence of any knowledge with regard to the identity of occupiers therefore the assessment is not final complete information at this stage. The EIA 2017 Regs acknowledge that there may be a lack of knowledge at assessment stage (see paragraph 6 of Schedule 4). This does not invalidate the exercise of carrying out an assessment on the basis of best information available.

ExQ1	Question to:	Question:	Applicant's Response
1.15.6	The Applicant	Paragraph 14.5.10 - waste arisings from construction of warehousing, offices and mezzanine; please can the Applicant specify the actual predicted waste arising from these three elements?	The figures presented in Table 14.3 are the predicted waste arisings for the construction of the warehousing including mezzanine, and the offices. The mezzanines are part and parcel of the warehouse buildings and hence a separate figure is not provided for them.
1.15.7	The Applicant	Paragraph 14.5.11 - bypass and highway improvements – the point is understood, but should there not be some quantification now of the waste quantum, and assessment of the effect?	As noted in our response to (previously unnumbered) ExQ1.15.1A above, there is considered to be a negligible quantum of waste arisings from the construction of the highway works. This is on the basis of the following: • The highway works will be undertaken such that there is a cut and fill balance of earthworks, and the Roade Bypass and works at the A508 / Rookery Lane junction have been assessed to confirm that this will be the case; • Vegetation and timber will be incorporated into the landscaping proposal, for example by producing chippings; • Bituminous planings will be recycled and reused within the works as sub-base or capping material; • Any existing concrete or hard-core materials will be crushed and reused within the works as earthworks fill material or capping; and

ExQ1	Question to:	Question:	Applicant's Response
			• There will be incidental arisings from above ground assets to be removed such as signs and lighting columns, and that any such items would be recycled.
1.15.8	The Applicant	Paragraph 14.5.12; could the Applicant confirm that there will be no road shavings, nor any removal of existing road structure(s)?	There will be a need to excavate areas of existing roads and plane out existing bituminous construction. However, all material excavated will be reincorporated into the works as follows: • Bituminous planings will be recycled and reused within the works as sub-base or capping material; and • Concrete and hard core materials will be crushed and reused within the works as fill material or capping
1.15.9	The Applicant	Paragraph 14.5.15 states there will be no waste arisings from the on-site excavation activities. Please: (i) consider this against the agricultural land chapter, especially but not only paragraph 13.5.1 thereof (which should be read with para 13.3.10 and Table 13.1 which contemplate losses of >80% of topsoil) and comment, and	(i) The point regarding the top soil is noted. However, it is not relevant in consideration of waste. While productive topsoil is being lost from an agricultural context, it is not being lost/disposed of in a waste sense as any topsoil excavated will be incorporated into the construction and/or landscaping elements of the proposals. There is therefore no requirement for disposal.

ExQ1	Question to:	Question:	Applicant's Response
		(ii) indicate where the commitment to secure re-use is to be found.	(ii) The re-use of excavation materials is standard practice as it does not make commercial sense to export materials from site and then pay landfill tax. the commitment referred to will be contained in a revised requirement in the dDCO to be submitted for **Deadline 2**.
1.15.10	The Applicant	Table 14.3; could the Applicant explain what facilities are available for the recycling of these quantities of waste and whether there is capacity, also taking other demands on those facilities into account?	Paragraphs 14.4.9- 14.4.13 detail the available capacity at a local and regional level. Each vehicle taking waste for treatment or disposal to a permitted facility will have to adhere to the treatment and/or disposal sites booking conditions and provide a waste transfer note detailing quantity and type of waste.
1.15.11	The Applicant	Paragraph 14.5.17 relies on 89% re-use/recycling but casts doubt ("*if 89% are reused* …") on whether that will be achieved. Please can the Applicant clarify and if necessary assess a more realistic figure?	89% has been used as a robust recycling rate based on national statistics (UK statistics on waste as referenced at ES paragraph 14.5.9). In reality, based on our experience from other similar schemes, the recycling rate is likely to be higher and an example of a Contractor's policy for a similar development completed by the Applicant has been included at **Appendix 20.** It can be seen on page 4 that "Waste to landfill max 5% of total waste (i.e. 95% diverted from landfill)" and hence our view that the 89% rate will be exceeded in practice.

ExQ1	Question to:	Question:	Applicant's Response
1.15.12	The Applicant	Paragraph 14.5.20 – "*A recycling rate has been assumed*…". (i) Please can the Applicant state the basis for the assumption and is it likely? (ii) What would be the case if the assumption does not hold good? (iii) 2009 has been chosen as the source – why that year; is it a valid comparison?	A national recycling rate has been applied as per Reference 14.14 of the ES Chapter relevant to the specific waste stream on the basis that the end user of the development is not yet known. (i) Therefore, this recycling rate being achieved can be considered likely as this information comprises the best available data from which to base the assessment. (ii) If the assumption did not hold, the worst-case scenario would be that all waste arisings would not be recycled and some would be sent to landfill. This scenario is considered highly unlikely due to the prohibitive commercial costs of treating waste in this way. (iii) 2009 is a valid comparison year as it is the latest national statistics for commercial and industrial (C&I) recycling rates, in the absence of regional data.
1.15.13	The Applicant	Paragraph 14.5.22; office workers have been chosen as the representative for the purpose of calculating employee-derived waste. This is on the basis that they are the "most representative and robust category available under the metric provided within BS5906:2005".	

ExQ1	Question to:	Question:		Applicant's Response
		(i)	Could the Applicant please explain what the disadvantages of the other categories are?	(i) The other categories listed under BS5906:2005 Table 1 are: • Domestic • Shopping centre • Fast food outlet • Department store • Restaurant • Hotels (of varying standard) • Supermarkets (of varying size) • Industrial unit (which has been used for the assessment of the process derived waste) • Entertainment complex / leisure centre, The categories listed above would not produce a representative assessment of the employee derived waste as these uses are not present within the SRFI, except for industrial and this has been used for the assessment of the process derived waste.
		(ii)	Does the use of office workers represent the worst case scenario? If it does not, the Applicant is requested to present an assessment which is based on the worst case scenario?	(ii) BS5906:2005 is the best available data source for waste from different uses and as noted above the use of the "office" category provides the best correlation for the employee derived waste. Furthermore, the predicted maximum number of employees has been used to calculate the total waste arisings. The

ExQ1	Question to:	Question:	Applicant's Response
			assessment considered a worst-case scenario with all employees office located and none of the process waste being from employees, and on this basis is robust. However, in reality, many of the employees would be located in the warehousing rather than the offices, and employee generated waste arisings within the warehouse are accounted for within the process waste (the figures in BS5906:2005 for industrial use includes for employees).
1.15.14	The Applicant	Paragraph 14.5.26 appears to doubt that 52% recycling of C&I waste will be achieved as indicated by the words "*If* this were achieved …". The ExA would appreciate clarity on this issue as the doubt raises questions such as whether 52% recycling is realistic, and whether it is likely? And what, if 52% is not achieved, will be the result?	A national recycling rate has been applied as per reference 14.14 of the ES Chapter relevant to the specific waste stream on the basis that the end user of the development is not yet known. • Therefore, this recycling rate being achieved can be considered likely as this information comprises the best available data from which to base the assessment. • If the assumption did not hold then the worst-case scenario would be that all waste arisings would not be recycled and would be sent to landfill. This scenario is considered highly unlikely due to the prohibitive commercial costs of treating waste in this way.
1.15.15	The Applicant	Paragraphs 14.5.27, 14.5.28 and 14.5.29 are all predicated on achieving 52% recycling. In particular, paragraph 14.5.28 states that the amount being sent to landfill "*represents the worst case*". Yet there appears to	A national recycling rate has been applied as per reference 14.14 of the ES Chapter relevant to the specific waste stream on the basis that the end user of the development is not yet known. Therefore, this recycling rate being achieved can be

ExQ1	Question to:	Question:	Applicant's Response
		be doubt over whether 52% will be achieved. In which case, the conclusion in paragraph 14.5.29 is undermined. Please will the Applicant revisit these paragraphs and comment?	considered likely as this information comprises the best available data from which to base the assessment, and hence the conclusion in 14.5.29 is correct.
1.15.16	The Applicant	Paragraph 14.5.20 opens the section on operational phase waste impact and states that operational waste "*has the potential to increase the levels of commercial and industrial waste generated in the region beyond the capacity of the local waste management facilities*". The assessment relies on recycling of 52% of operational waste. (i) The Applicant is asked how this will be achieved given the statement that there is insufficient local waste management capacity, which apparently refers also to a lack of recycling capacity? (ii) Please clarify the available waste management capacity, in each of its relevant aspects (recycling, landfill, energy recovery and so on).	In response to the specific points raised: (i) Where "potential for increase beyond local capacity" in para 14.5.20 is specified this is not an assessment conclusion and should be treated as introductory text only. Therefore, we are only commenting on a potential risk ahead of the assessment being completed to allow the reader to understand the risk being assessed. We are not stating that the waste arising will generate arisings beyond regional capacity. (ii) The figures below show the available waste management/disposal capacity Northampton has available. The below figures come from the "Northamptonshire Minerals and Waste Local Plan for Adoption- May 2017" which states the below

ExQ1	Question to:	Question:	Applicant's Response
		(iii) Please comment on and explain the apparent contradiction between paragraph 14.5.20 and paragraph 14.5.27 which states that "*local and regional landfill capacity is adequate*".	capacity per waste management option (million tonnes per annum): • Materials Recycling Facilities- 3.04mtpa • WEEE recycling- 0.33 mtpa. • Inert recycling- 0.78mtpa • Composting- 0.23mtpa • Hazardous treatment- 0.22mtpa • Inert landfill- 0.87mtpa • Non-Inert Landfill- 0.11mtpa • Hazardous Landfill- 0.11mtpa (iii) Para 14.5.20 says that there is a risk that the capacity of local waste management facilities may be exceeded. This is then assessed with the conclusion being in para 14.5.27 that there is sufficient capacity available. Hence there is no contradiction.
1.15.17	The Applicant	Paragraph 14.5.28: Please will the Applicant explain the significance of the observation "*although this is not representative of the whole waste stream*" and how it affects the assessment and conclusions, the phrase occurring again in paragraphs 14.8.4 and 14.8.10?	This is referring to the fact that the assessment methodology has specified a score that works on the basis that all waste is sent to landfill. While only a proportion of these arisings will be sent to landfill, it is considered a robust worst-case assessment and the higher risk score of 4 is applied accordingly.
1.15.18	The Applicant	Paragraph 14.6.4 states that opportunities for re-use of on-site structures such as walls etc will be considered. Please could the Applicant say whether this is really likely	One example of re-use would be the hardstanding within the contractor's compound. However, for clarity existing

ExQ1	Question to:	Question:	Applicant's Response
		and realistic and say what will be the difference to the conclusions of the ES if this cannot be achieved?	structures on the site will be demolished and recycled rather than re-used. This would not affect the conclusions of the Waste Assessment.
1.15.19	The Applicant	Paragraph 14.6.6 refers to off-site construction being undertaken "where practicable". (i) Please could the Applicant say if this is practicable or not, and if it is, then to what extent and to what effect? It is difficult to take this into account without quantification. (ii) Could the Applicant please also comment whether this will result in a reduction in waste, or simply a displacement of the waste generated, from the application site to the place of off-site construction; and assess the environmental effect in the latter scenario?	The practicalities of this off-site construction will depend on the nature of the construction materials to be sourced. This will be determined by the Contractor at the construction stage. In the context of this waste assessment, which comprises the site red line (paragraph 14.3.2) waste generation is only assessed within the extent of the application boundary. Considering the assessment scope, the use of offsite construction would result in reduction in waste generated by the construction phase within the application boundary.
1.15.20	The Applicant	The *conditionality behind paragraphs 14.6.5, 14.6.7, 14.6.8 and 14.6.9 ("where possible"; "would*") makes it difficult to take these into account, or at least to give them much weight in the EIA process. (i) Please can the Applicant comment on this?	(i) As specifics regarding how waste was to be segregated on site is not known, this language was used to ensure flexibility of approach.

ExQ1	Question to:	Question:	Applicant's Response
		(ii) It would be useful to know whether and how it is intended to secure these matters (by requirements and so on) and to what extent. (iii) Please can the Applicant also comment on how the *"broader sustainability issues"* referred to in paragraph 14.6.8 should be taken into account in assessing the environmental effects in the topic of waste, if at all, and specifically how that has been done in this chapter (if that is the case)?	(ii) It is the intention of the Applicant that a Site Waste Management Plan (SWMP) be implemented at the site and enforced by inclusion of the obligation in the CEMP. The CEMP is governed by Requirement 12. Health and Safety Regulations will dictate the legally required treatment of any asbestos containing wastes. (iii) Specifically, the broader sustainability issues surrounding waste management relates to consumption. Globally it is important to try and reduce consumption and adhere to the waste hierarchy to ensure products remain in use for as long as possible. I.e. the principles of the circular economy are applied. However, the overall planning balance in relation to all sustainability issues, and all other relevant issues, is dealt with in the Planning Statement (**Document 6.6**, APP-376).
1.15.21	The Applicant	Paragraphs 14.6.10 to 14.6.14; the mitigation measures described in the section appear to rely on the goodwill of the ultimate occupiers or the Proposed Development. For example "*Many occupants would as a matter of course* …" have separation systems. This also suggests that unknown numbers, potentially the majority, will not. And commercial waste storage "*will be for the individual occupiers to arrange and manage, geared around their own requirements*…". Please can the Applicant explain	It can be seen from Table 14.5 that the scoring and therefore the assessment of residual effects does not rely on the mitigation measures at paras 14.6.10 to 14.6.14, as the score of 16 in this table is the same as that given at para 14.5.28. It is within the future operators' commercial interests to ensure that waste arisings are reduced during the operational phase so as to avoid high landfill tax payments.

ExQ1	Question to:	Question:	Applicant's Response
		how these have been taken into account in the assessment of effects given the lack of certainty as to what the measures will be, what they will achieve and whether or not they will actually be provided?	Requirement 27 requires a scheme for waste management to be approved prior to a component being brought into use.
1.15.22	The Applicant	Residual effects – section 14.7; the ExA would draw to the Applicant's attention that the conclusions on residual effects rely on assumptions made earlier in the chapter (especially but not exclusively in Tables 14.3 and 14.4) and apparently uncertain mitigation on which the ExA has raised questions above. Please will the Applicant consider the effect of its answers and comments on the residual effects section?	Based on the data used to inform the waste assessment and recycling rates being considered a robust assessment scenario, the conclusions specified within the residual effects section still stand.
1.15.23	The Applicant	Cumulative assessment, paragraph 14.8.4. A. Please could the Applicant: (i) explain how the construction waste arisings of >1% (sic) have been calculated; (ii) state by how much they will be greater than 1% and whether the rest of the	A. Taking each point in turn: (i) An assumption has been made based on the likely dwelling numbers associated with the Sustainable Urban Extensions and assumed to be greater than 1% baseline for purpose of being robust. No calculations have been completed as there is no more precise information available for the SUE to undertake this exercise. (ii) It is not possible to determine exact figures at this stage.

ExQ1	Question to:	Question:	Applicant's Response
		paragraph holds good in the light of that answer; (iii) explain whether there is sufficient waste management capacity (especially given the statement at paragraph 14.5.20 that the waste from the Proposed Development alone has the potential to increase levels beyond local waste management facilities' capacity); and (iv) explain the significance of the observation that construction wastes would be disposed of locally and some would be subject to landfilling *"although this is not representative of the whole waste stream"* and how it affects the assessment. B. The ExA would also be helped if it could be explained which part of the sentence is qualified by the words in inverted commas as there is some ambiguity.	(iii) This cannot be answered at this stage as we do not know the total waste arisings from the SUE sites or what recycling rates they will use. It is likely that once recycling rates are applied to the SUE proposals that there will be adequate cumulative waste management capacity available at regional level. This is the assumption used within the ES Chapter. Where waste capacity is not available in local facilities it would be processed regionally or at the nearest facility with capacity. (iv) This observation impacts the scoring used within the assessment. For robustness a score of 4 has been applied to the entire waste stream. This does not impact the assessment conclusions. B. The inverted commas should be ignored.
1.15.24	The Applicant	Paragraph 14.8.7 on cumulative effects with Rail Central.	This question is answered in advance of the opportunity to review the detail of the Rail Central proposal, which was re-submitted to the Planning Inspectorate on 29 October 2018

ExQ1	Question to:	Question:	Applicant's Response
		(i) On what basis is it estimated that Rail Central will send <1000m^3 of excavated material off site and whether it will all be for recycling? (ii) The para also states that all excavation material from Northampton Gateway will be used on site. Please will the Applicant see the ExA's questions above on para 14.5.15 (ExQ 1.0.11 and 1.15.11) and comment?	(i) The figure of less than 1000m3 of excavated material being sent off site has been sourced directly from the Rail Central proposals as put forward at their Stage 2 Consultation, namely "Chapter 22- Waste and Resource Efficiency" of their draft ES. (ii) Given that the excavation waste arising from the Northampton Gateway site is realistically assessed as being re-used on site and the excavation arisings from the rail central site are predicted to result in <1000m3 of excavation waste arisings. The ES chapter conclusion for excavation waste still stands at negligible.
1.15.25	The Applicant	Cumulative operational waste with Rail Central (paragraphs 14.8.8 to 14.8.11). (i) On what basis is the figure of 3,380 cubic metres of waste for RC arrived at in paragraph 14.8.8?	Taking each point in turn, the following are provided based on the Rail Central proposals as put forward at their Stage 2 Consultation: (i) 3,380m3 of commercial and industrial waste arisings during the operational phase has been taken directly from the Rail Central Figures for waste arisings sourced from the available Rail Central submission documentation. Namely "Chapter 22- Waste and Resource Efficiency" of their draft ES.

ExQ1	Question to:	Question:	Applicant's Response
		(ii) The assessment of minor cumulative impact is underpinned by mitigation and recycling measures which are in turn underpinned by assumptions, mitigation and the delivery of mitigation on which the ExA has asked questions and raised issues above. Please will the Applicant address those same questions in relation to this cumulative assessment? (iii) At paragraph 14.8.11 an assumption is again made about the delivery of mitigation and recycling. If the assumption is not fulfilled then there will be a major cumulative impact (see para 14.8.10). Please will the Applicant comment?	(ii) These total arisings have then been assessed utilising the methodology used for this application. The assumptions used have been justified in answers above and therefore the assessment conclusions presented for the cumulative elements of the waste assessment stand. (iii) If no mitigation measures are implemented at either site to ensure recycling is undertaken a major cumulative impact on waste and resource would be the conclusion. This is considered highly unlikely.
1.15.26	The Applicant	The following paragraph references are to those in the Framework Waste Management Strategy [APP-302]. Paragraph 3.5 – Principal Contractor; is this intended to be the principal contractor for the construction of the entire project or only in relation waste?	The Principal Contractor refers to the contractor for the relevant element or component of the development.
1.15.27	The Applicant	Paragraph 3.11 "*Waste hierarchy preferential system*": Can the Applicant confirm whether this is a reference to	Yes. This is in reference to the Waste Hierarchy set out in Article 4 of the Waste Framework Directive.

ExQ1	Question to:	Question:	Applicant's Response
		the 'waste hierarchy' set out in Article 4 of the revised Waste Framework Directive referenced in Table 1?	
1.15.28	The Applicant	Paragraph 5.6 - estimation of construction waste; how does the Applicant propose to ensure that this is consistent with the figures and statements in the ES waste chapter, and how to deal with any excesses?	The ES Chapter has been based on worst case robust assessment criteria which will ensure the actual waste arisings applicable to the Site Waste Management Plan are within these assessment conclusions. Targets derived from the ES would normally be incorporated in the tenders for the work concerned.
1.15.29	The Applicant	Paragraph 5.9: Please will the Applicant explain when and how often the Site Waste Management Plan will be updated?	Each phase of the development will set out details of construction waste management as part the phase specific construction environmental management plan (P-CEMP). See ES Appendix 2.1 Chapter 9 (paragraph 9.2) for further information.
1.15.30	The Applicant	Paragraph 7.5 – approval of bins and bin storage; please will the Applicant submit a requirement to address this. There would appear to be a need for Requirements to address similar issues at paras 7.9 – 7.11. Please could the Applicant supply drafts?	The next dDCO to be submitted (for **Deadline 2**) will contain draft requirements in this regard.

Abbreviations used

PA2008	*The Planning Act 2008*	***NBC***	*Northampton Borough Council*
APFP Regulations	*The Infrastructure Planning (Prescribed Forms and Procedure) Regulations 2009 (as amended)*	***NCC***	*Northamptonshire County Council*
Ashfield/Gazeley	*Ashfield Land and Gazeley GLP (Rail Central)*	***NPPF***	*National Planning Policy Framework*
BoR	*Book of Reference*		
CEMP	*Construction Environmental Management Plan*	***NPSNN***	*National Policy Statement for National Networks*
CA	*Compulsory Acquisition*	***PM***	*Preliminary Meeting*
dDCO	*Draft DCO*	***R***	*Requirement*
EA	*Environment Agency*	***s.***	*section*
EIA	*Environmental Impact Assessment*	***SL-PCM***	*Streamlined Pollution Climate Model*
ES	*Environmental Statement*	***SMP***	*Smart Motorway Project*
ExA	*Examining authority*	***SNC***	*South Northamptonshire Council*
HE	*Highways England*	***SoS***	*Secretary of State*
IPs	*Interested Parties*	***SUE***	*Sustainable Urban Extension*
LIR	*Local Impact Report*	***TP***	*Temporary Possession*
LPA	*Local planning authority*	***WNJCS***	*West Northamptonshire Joint Core Strategy*

Appendix 1: Applicant's Response to ExQ1.0.1 – National Planning Policy Framework Comparison Table

The table below presents the references made to the NPPF in the Application documents – it highlights the new text included in the 2018 NPPF, and includes some **comments (in red text)** to help identify the nature of changes made between the 2012 NPPF and the updated 2018 NPPF.

In the final column of the table is the Applicant's view on whether the changes made are relevant to the content of the Application, and whether any revision is necessary. In summary it is the Applicant's view that any revisions would only be to amend cross-references to NPPF paragraph numbers or Section, and therefore would be inconsequential to the consideration of the Application. Therefore, no revisions or updates to Application documents are proposed.

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
Scoping Opinion			
Doc 5.1 – Scoping Opinion (APP-076)	**Paragraph 109** – part of Section 11 *Conserving and enhancing the natural environment*	**Paragraph 170 –** part of Section 15 *Conserving and enhancing the natural environment:* "Planning policies and decisions should contribute to and enhance the natural and local environment by: a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan); b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland; c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate; d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological	The change is not relevant with regard to the meaning and emphasis of the NPPF, and so requires no change to the content of the Application. The references in this part of the Scoping Opinion to an aim of the planning system being to 'conserve and enhance biodiversity' remain unaffected by the changes to the NPPF.

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
		networks that are more resilient to current and future pressures; e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affect by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air quality and water quality, taking into account relevant information such as river basin management plans; and f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate."	
	Paragraph 118 – part of Section 11 *Conserving and enhancing the natural environment*	**Paragraph 175 -** part of Section 15 *Conserving and enhancing the natural environment:* "When determining planning applications, local planning authorities should apply the following principles: a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused; b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national	The change is not relevant with regard to the meaning and emphasis of the NPPF, with most of the 2012 text carried forward, albeit with some minor expansions of the policy content in the 2018 version.

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
		network of Sites of Special Scientific Interest [***the last sentence has been reworded but contains the same content as para 118 NPPF 2012***]; c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists [***this sub-para replaces the fifth bullet of paragraph 118 of NPPF 2012***]; and d) development whose primary objective is to conserve or enhance biodiversity should be supported [***reworded third bullet of paragraph 118 of NPPF 2012***]; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity [***reworded fourth bullet of paragraph 118 of NPPF 2012***]." **Paragraph 176 -** part of Section 15 *Conserving and enhancing the natural environment,* and almost identical to the sixth bullet of paragraph 118 of NPPF 2012: "The following should be give the same protection as habitat sites: a) potential Special Protection Areas and possible Special Areas of Conservation; b) listed or proposed Ramsar sites; and c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites."	

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
	Paragraph 124 - part of Section 11 *Conserving and enhancing the natural environment*	**Paragraph 181 -** part of Section 15 *Conserving and enhancing the natural environment*, under a new heading referring to 'ground conditions and pollution': "Planning policies and decisions should sustain and contribute towards compliance with relevant [***the 2018 NPPF has removed the word "EU"***] limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications. Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan."	The change does not affect the meaning and emphasis of the NPPF with regard to air quality – the need for decisions to contribute towards compliance with air quality standards remains, with additional references to the types of mitigation which might be considered. The Application already responds in full to the need to minimise effects on air quality through design and mitigation.
	Paragraph 128 – part of Section 12 *Conserving and enhancing the historic environment*	**Paragraph 189 –**part of Section 16 *Conserving and enhancing the historic environment*: "In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of details should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which	The change is not relevant with regard to the meaning and emphasis of the NPPF. Apart from the highlighted commas, there is no change. There are no implications for the content of the Application.

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
		development is proposed includes, or has the potential to include, heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation."	
ENVIRONMENTAL STATEMENT			
Chapter 3 Socio-Economic			
Doc 5.2 – Environmental Statement, Chapter 3 (APP-082) Paragraphs 3.2.3 and 3.2.4	Paragraph 17 – core planning principles	There is no direct replacement paragraph for these '*core principles*', but much of the same content is now found within Section 3 of the 2018 NPPF regarding plan-making and the need for a positive approach to planning, and in several other thematic sections of the 2018 NPPF, many of which now contain similar or identical references to key planning issues and policy requirements. Key examples of core principles carried forward from NPPF 2012 paragraph 17, with identical or very similar wording, include: • "support economic growth" – 2018 NPPF paragraph 80. • "taking into account both local business needs and wider opportunities for development" - 2018 NPPF paragraph 80. • "take account of market signals" – 2018 NPPF paragraph 31, and paragraph 60.	The change is not relevant with regard to the meaning and emphasis of the NPPF – the NPPF no longer refers to 'core principles', but the same issues remain clearly apparent within the NPPF. For example, with regard to the need to "support economic growth", and planning to meet "business needs".
	Paragraph 18 - – within Section 1 '*Building a strong, competitive economy*'	**Paragraph 80** – new paragraph within Section 6 '*Building a strong, competitive economy'* – this combines part of paragraphs 18, 19 and 20:	The change is not relevant with regard to the meaning and emphasis of the NPPF – the need to support economic growth by building on inherent

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
		"Planning policies and decisions should help create the conditions in which businesses can invest, expand and adapt. Significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development. The approach taken should allow each area to build on its strengths, counter any weaknesses and address the challenges of the future. This is particularly important where Britain can be a global leader in driving innovation, and in areas with high levels of productivity which should be able to capitalise on their performance and potential."	economic strengths and opportunities has been carried through into the 2018 NPPF, and strengthened in some regards.
	Paragraph 19 – within Section 1 '*Building a strong, competitive economy*'	**Paragraph 80** – new paragraph within Section 6 '*Building a strong, competitive economy*' "Significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development." **Paragraph 81**, criteria a): "set out a clear economic vision and strategy which positively and proactively encourages sustainable economic growth, having regard to Local Industrial Strategies and other local policies for economic development and regeneration;"	The change is not relevant with regard to the meaning and emphasis of the NPPF – the NPPF retains the clear emphasis on the "significant weight" placed on the need to support economic growth through planning.
Chapter 4 Landscape & Visual			
Chapter 4 (APP-083) See paragraphs	Paragraph 17	There is no direct replacement paragraph for these '*core principles*', but much of the same content is now found within Section 3 of the 2018 NPPF regarding plan-making and the need for a positive approach to planning, and in several other thematic sections of the 2018 NPPF, many of which now contain similar or	

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
4.3.11 – 4.3.13		identical references to key planning issues and policy requirements.	
	Section 11 is concerned with "*Conserving and enhancing the natural environment*". ES chapter 4 refers to NPPF policy in Section 11 in general terms regarding 'landscape' issues.	**Section 11 has now been replaced by Section 15 which remains the key part of the NPPF for policy regarding landscape issues.** Paragraph 109 has been replaced by paragraph 170. **See above.** **Paragraph 171** [**This appears to be a new paragraph**]**.** "Plans Should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintain and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries."	The changes are not relevant with regard to the meaning and emphasis of the NPPF between Section 11 in the 2012 NPPF, and Section 15 in the 2018 NPPF. The references to the importance of 'contributing to and enhancing' the natural and local environment through decision-making, including landscape, remains, and is fully reflected in the ES and other application documents. Additional text in the new NPPF (e.g. para 171) has some implications for plan-making – i.e. for the local authorities next local plans - as opposed to decision-taking on applications.
	Reference is made to Section 7 '*Requiring Good Design*'	**Section 7 is replaced by Section 12 "*Achieving well-designed places*".** **Paragraph 56 is expanded and replaced by paragraph 124. "**The creation of high quality buildings and places is fundamental to what the planning and development process should achieve. Good design is a key aspect of sustainable development, creates better places in which to live and work and helps make development acceptable to communities. Being clear about	The changes are not of relevance to the Application documents – the main changes to the NPPF regarding design relate to plan-making and local policy preparation. The new NPPF retains the emphasis on early engagement

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
		design expectations, and how these will be tested, is essential for achieving this. So too is effective engagement between applicants, communities, local planning authorities and other interests throughout the process." **Paragraph 125 appears to be a new paragraph regarding design issues in plan-making and local policies.** **Paragraph 57 is replaced by a number of different references to 'inclusive places' – including paragraphs 91 and 127 (below).** **Paragraph 126 appears to be a new paragraph regarding design policies and design codes in plan-making.** **Paragraph 58 is replaced by paragraph 127.** "Planning policies and decisions should ensure that developments: a) will function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development; b) are visually attractive as a result of good architecture, layout and appropriate and effective landscaping; c) are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change (such as increased densities); d) establish or maintain a strong sense of place, using the arrangement of streets, spaces, building types and	with the community, and others affected by development proposals. Design details of the proposed buildings, and a detailed layout of the SRFI site, are to be submitted for approval by the local planning authority in due course and in accordance with the DCO Parameters and Requirements. There is a requirement to broadly accord with the Design and Access Statement which was formulated having regard to the engagement of stakeholders and the application of principles of high quality design.

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
		materials to create attractive, welcoming and distinctive places to live, work and visit; e) optimise the potential of the site to accommodate and sustain an appropriate amount and mix of development (including green and other public space) and support local facilities and transport networks [**slightly reworded**]; and f) create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users; [**first part reworded**] and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion and resilience." **Paragraph 66 is replaced by paragraph 128.** "Design quality should be considered throughout the evolution and assessment of individual proposals. Early discussion between applicants, the local planning authority and local community about the design and style of emerging schemes is important for clarifying expectations and reconciling local and commercial interests. Applicants should work closely with those affected by their proposals to evolve designs that take account of views of the community. Applications that can demonstrate early, proactive and effective engagement with the community should be looked on more favourably than those that cannot." **Paragraphs 64 and 65 are replaced by paragraph 130.** "Permission should be refused for development of poor design that fails to take the opportunities available for improving the character and quality of an area and the way it functions, taking into account any local design standards or style guides in plans or	

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
		supplementary planning documents. Conversely, where the design of a development accords with clear expectations in plan policies, design should not be used by the decision-maker as a valid reason to object to development. Local development is not materially diminished between permission and completion, as a result of changes being made to the permitted scheme (for example through changes to approved details such as the materials used)." **Paragraph 63 is replaced by paragraph 131 regarding innovative designs.** "In determining applications, great weight should be given to outstanding or innovative designs which promote high levels of sustainability, or help raise the standard of design more generally in an area, so long as they fit in with the overall form and layout of their surroundings." **Paragraph 67 is replaced by paragraph 132 regarding advertisements and not relevant to the Application.**	
Appendix 4.3 Aboricultural Assessments (APP-132) Paragraph 2.12	ES references the NPPF guidance on Veteran Trees – found in paragraph 118	**Paragraph 175(c)** "development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists"	The guidance is consistent and not significant.

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
Chapter 5 Ecology & Nature Conservation			
Chapter 5 (APP-088) Page 4 – references to NPPF paragraphs 14, 109, 110, 118,119	Paragraph 14 – the '*presumption in favour of development'*	**Paragraph 11** provides that "Plans and decisions should apply a presumption in favour of sustainable development." [***A redraft and shortening of paragraph 14***].	The change is not relevant to the application documents – the 2018 NPPF retains the 'presumption in favour of development'.
	Section 11 "*Conserving and enhancing the natural environment*".	**Section 11 has now been replaced by Section 15** "*Conserving and enhancing the natural environment*". See above. The Chapter quotes paragraph 109 – **please see paragraph 170 above**. Paragraph 110 has been replaced by **paragraph 171** with reference to Plans allocating "land with the least amenity value". **Please see paragraph 175 above.**	The changes are not relevant to the Application documents, with the new NPPF retaining an emphasis on the need to protect and enhance biodiversity, and with many elements of the NPPF unchanged from the 2012 version.
		Habitats and Biodiversity **Paragraph 117 is replaced by paragraph 174:** "To protect and enhance biodiversity and geodiversity, plans should: a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified	

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
		by national and local partnerships for habitat management, enhancement, restoration or creation and b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery or priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity [**reworded**]." **First bullet of 2012 NPPF paragraph 117 is replaced by part of paragraph 171; fourth bullet replaced by para 170a), and fifth bullet deleted.** **Paragraph 118 is replaced by Paragraph 175 regarding principles for conserving and enhancing biodiversity:** "When determining planning applications, local planning authorities should apply the following principles: e) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused; f) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national	

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
		network of Sites of Special Scientific Interest [**the last sentence has been reworded but says the same**]; g) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists [**this sub-para replaces fifth bullet of paragraph 118 of NPPF 2012**]; and h) development whose primary objective is to conserve or enhance biodiversity should be supported [**reworded third bullet of paragraph 118 of NPPF 2012**]; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity [**reworded fourth bullet of paragraph 118 of NPPF 2012**]." **Paragraph 176** – [**replaces the sixth bullet of paragraph 118**] "The following should be give the same protection as habitat sites: d) potential Special Protection Areas and possible Special Areas of Conservation; e) listed or proposed Ramsar sites; and f) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites." **Paragraph 119 is replaced by paragraph 177.** "The presumption in favour of sustainable development does not apply where development requiring appropriate assessment because of its	

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
		potential impact on a habitats site is being planned or determined."	
Chapter 6 Geology, Soils and Groundwater			
Chapter 6 (APP-092) Paragraph 6.2.4	The ES Chapter quotes text from Section 11 "*Conserving and enhancing the natural environment*" - paragraphs 120 and 121 with regard to ground conditions and pollution issues.	**Paragraphs 120 and 121 are replaced by Paragraph 178** (with some minor rewording and updating (with reference to the relevant regulations), **Paragraph 179, and Paragraph 180**: **Paragraph 178** "Planning policies and decisions should ensure that: a) a site is suitable for its proposed use taking account of ground conditions and any risks arising from land instability and contamination. This includes risks arising from natural hazards or former activities such as mining, and any proposals for mitigation including land remediation (as well as potential impacts on the natural environment arising from that remediation) [**last half is a redraft of the first bullet of paragraph 121**]; b) after remediation, as a minimum, land should not be capable of being determined as contaminated land under Part IIA Environmental Protection Act 1990; and c) adequate site investigation information, prepared by a competent person, is available to inform these assessments."	The changes are not relevant to the Application documents, with a similar emphasis on the need to assess and consider ground conditions, stability, and pollution issues as part of decision-taking, with key elements of the NPPF unchanged.

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
		Paragraph 179 "Where a site is affected by contamination or land stability issues, responsibility for securing a safe development rests with the developer and/or landowner." **Paragraph 180** "Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. Paragraphs 181 and 182 refer to air quality and noise respectively and are referred to elsewhere.	
Paragraph 6.2.16	The ES Chapter quotes text from Section 13 *Facilitating the sustainable use of minerals* - paragraph 145	**Paragraph 145 is replaced by Paragraph 207 in Section 17 regarding** *Facilitating the sustainable use of minerals*.	
ES Appendices: 6.4 6.5 6.6 6.11 6.12	References to paragraph 121, as above	**Please see references to paragraph 170 above.**	

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
Chapter 7 – Water & Drainage			
Chapter 7 (APP-093) Paragraph 7.2.7	The ES Chapter refers to Section 10 *Meeting the challenge of climate change, flooding and coastal change*.	**Section 10 is replaced by Section 14** *Meeting the challenge of climate change, flooding and coastal change.* Section 14 has been restructured as compared to the original Section 10, but many of the same policy content has been retained, albeit with some merging and moving of text: **Paragraph 93 is replaced by paragraph 148**: "The planning system should support the transition to a low carbon future in changing climate, taking full account of flood risk and coastal change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure." **Paragraph 94 and the first half of paragraph 99 are replaced by paragraph 149.** "Plans should take a proactive approach to mitigating and adapting to climate change, taking into account the long-term implications for flood risk, coastal change, water supply, biodiversity and landscapes, and the risk of overheating from rising temperatures. Policies should support appropriate measures to ensure the future resilience of communities and infrastructure to climate change impacts, such as providing space for physical protection measures, or making provision for the possible future relocation of vulnerable development and infrastructure." **Paragraph 95 and the second half of paragraph 99 are replaced by paragraph 150.** "New development should be planned for in ways that:	The changes are not relevant to the Application documents, with a similar emphasis on the need to assess and consider flood-risk, including in the context of climate change. The updated NPPF retains the ethos of steering new development to be located in areas at lowest risk of flooding. The new NPPF retains the emphasis on the importance of incorporating appropriate drainage infrastructure to prevent on-site and off-site flood-risk, with expanded references to the importance of using SuDS unless there is evidence this would be inappropriate. The Application includes a drainage strategy which incorporates SuDS.

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
		a) avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure; [**this was the second half of paragraph 99**] and b) can help to reduce greenhouse gas emissions, such as through its location, orientation and design. Any local requirements for the sustainability of buildings should reflect the Government's policy for national technical standards. [**the three bullets in paragraph 95 merged into a single criteria**]" **Paragraph 100 is replaced by paragraphs 155, 156, 157, and 165. [Slight rewording in some areas]** "Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk (whether existing or future). Where development is necessary in such areas, the development should be made safe for its lifetime without increasing flood risk elsewhere." "Strategic policies should be informed by a strategic flood risk assessment, and should manage flood risk from all sources. They should consider cumulative impacts in, or affecting, local areas susceptible to flooding, and take account of advice from the Environment Agency and other relevant flood risk management authorities, such as lead local flood authorities and internal drainage boards."	

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
		"All plans should apply a sequential, risk-based approach to the location of development – taking into account the current and future impacts of climate change – so as to avoid, where possible, flood risk to people and property. They should do this, and manage any residual risk, by: a) applying the sequential test and then, if necessary, the exception test as set out below; b) safeguarding land from development that is required, or likely to be required, for current or future flood management; c) using opportunities provided by new development to reduce the causes and impacts of flooding (where appropriate through the use of natural flood management techniques); and d) where climate change is expected to increase flood risk so that some existing development may not be sustainable to the long-term, seeking opportunities to relocate development, including housing, to more sustainable locations." **Paragraph 101 is replaced by paragraph 158 with minimal change – but refers to the sequential test which is not relevant to the Application.** **Paragraph 102 is replaced by paragraphs 159, 160 and 161 with minimal change– but refers to the exception test which is not relevant to the Application.**	

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
		Paragraph 104 is replaced by paragraphs 162 and 164 and also relates to the exception test. **Paragraph 103 is replaced by Paragraph 163:** "When determining any planning applications, local planning authorities should ensure that flood risk is not increased elsewhere. Where appropriate, applications should be supported by a site-specific flood-risk assessment. Development should only be allowed in areas at risk of flooding where, in light of this assessment (and the sequential and exception tests, as applicable) it can be demonstrated that: a) Within the site, the most vulnerable development is located in areas of lowest flood risk, unless there are overriding reasons to prefer a different location; b) The development is appropriately flood resistant and resilient; c) It incorporates sustainable drainage systems, unless there is clear evidence that this would be inappropriate; d) Any residual risk can be safely managed; and e) Safe access and escape routes are included where appropriate, as part of an agreed emergency plan." **New paragraph 165 is a mixture of part of the old Paragraph 100, plus some new text:** "Major developments should incorporate sustainable drainage systems unless there is clear evidence that this would be inappropriate. The systems used should: a) Take account of advice from the lead local flood authority; b) Have appropriate proposed minimum operation standards;	

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
		c) Have maintenance arrangements in place to ensure an acceptable standard of operation for the lifetime of the development; and d) Where possible, provide multifunctional benefits." **Paragraph 105 is replaced by paragraph 166 and refers to coastal areas.** **Paragraph 106 is replaced by paragraph 167 and refers to coastal areas.** **Paragraph 107 is replaced by paragraph 168 and refers to coastal areas.** **Paragraph 108 is replaced by paragraph 169 and refers to coastal areas.**	
Paragraph 7.4.3	The ES Chapter refers to NPPF as a source of guidance for how 'Flood Zone 1 (Low Probability) is defined.	The 2012 NPPF does not define how Flood Zone 1 is defined – similarly, the 2018 NPPF does not contain this definition, but cross-refers (at **Paragraph 159**) to the flood-risk vulnerability classification set out in national planning guidance (the NPPG).	
Appendix 7.1 Part 1	The Flood Risk Assessment report appended to the ES refers to the NPPF as the source of policy regarding flood-risk.	**Section 14 of the 2018 NPPF replaces Section 10 – see above.**	
Chapter 8 – Noise & Vibration			
Chapter 8 (APP-094)	The ES Chapter refers to NPPF paragraph 123, which is part of	**Paragraph 123 (and relevant parts of Paragraph 109) is replaced by both Paragraph 170e, and Paragraph 180 which include similar references to noise issues**.	The changes are not relevant to the Application documents, with a retained emphasis in the

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
Paragraph 8.2.16	Section 11 "*Conserving and enhancing the natural environment*".	**Bullets one and two of paragraph 123 seem to have been merged into one; Bullet three has been carried forward into new Paragraph 182. And bullet four is reworded in sub-bullet (b) of paragraph 180.** **Paragraph 180 (c) refers to light pollution issues – see Lighting below.** **Paragraph 170:** "Planning policies and decisions should contribute to and enhance the natural and local environment by: e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and **Paragraph 180:** "Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should: a) mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life;	NPPF on the need to mitigate and reduce to a minimum any potential adverse noise impacts as one element of 'pollution', with reference to wider health and amenity or quality of life issues.

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
		b) identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason; and c) limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation."	
Chapter 9 – Air Quality			
Chapter 9 (APP-095) Paragraphs 9.2.10 – 9.2.12	Paragraph 17 'Core Principles' regarding reducing pollution.	There is no direct replacement paragraph for these '*core principles*', but much of the same content is now found within Section 3 of the 2018 NPPF regarding plan-making and the need for a positive approach to planning, and in several other thematic sections of the 2018 NPPF, many of which now contain similar or identical references to key planning issues and policy requirements. The 'core principle' from Paragraph 17 of "contribute to conserving and enhancing the natural environment and reduce pollution" has been carried forward into **Section 11 of the 2018 NPPF** – including new Paragraph 170. **Paragraph 170e:** "Planning policies and decisions should contribute to and enhance the natural and local environment by: e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve	The changes are not relevant to the Application documents, with a retained emphasis in the NPPF on the need to minimise and reduce 'pollution', with reference to wider health and amenity or quality of life issues.

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
		local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and	
	Paragraph 109	**Paragraph 170e incorporates the relevant part of Paragraph 109 – quoted above.**	
	Paragraph 120	**Paragraph 120 is replaced by Paragraph 170 and 180 regarding pollution issues:** **Paragraph 180:** "Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development.	
Chapter 10 – Cultural Heritage			
Chapter 10 (APP-113) Paragraph 10.4.2	The ES Chapter refers to Section 12 *Conserving and enhancing the historic environment* - paragraphs 126 – 141	**Section 12 has been replaced by Section 16 of the 2018 NPPF *Conserving and enhancing the historic environment.*** **Paragraph 184 is a new introduction referring to the range covered by the definition of heritage assets**. **Paragraph 126 is replaced by paragraph 185 with reference to plan-making by local authorities:** "Plans should set out a positive strategy for the conservation and enjoyment of the historic environment, including heritage assets most at risk through neglect, decay or other threats. This strategy should take into account [**abbreviated last sentence from paragraph 126**]:	The changes are minor and not relevant to the Application documents, with a retained emphasis in the NPPF on the need to assess and mitigate effects on heritage assets. The NPPF retains a focus on the protection of designated heritage assets.

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
		a) The desirability of sustaining and enhancing the significance of heritage assets, and putting them to viable uses consistent with their conservation; b) The wider social, cultural, economic and environmental benefits that conservation of the historic environment can bring; c) The desirability of new development making a positive contribution to local character and distinctiveness; and d) Opportunities to draw on the contribution made by the historic environment to the character of a place." **Paragraph 127 is replaced by paragraph 186 with no change regarding designation of Conservation Areas.** **Paragraphs 187 and 188 have been added –** they refer to use by Local Authorities of the historic environment record**.** **Paragraph 128 is replaced by paragraph 189 with no change –** in a new sub-section headed 'Proposals affecting heritage assets'**.** **Paragraph 129 is replaced by paragraph 190 with minor changes.** [**insertion of the word 'any' to read "*to avoid or minimise any conflict*"**] **Paragraph 130 is replaced by paragraph 191 with no text changes.** [**only additional commas added**] **Paragraph 131 is replaced by paragraph 192 with minor changes.** [**Insertion of the word "planning" to "*In determining planning applications*"**].	The NPPF retains (unchanged) the emphasis on the need for a 'balanced judgement' regarding the scale of any harm, and the significance of non-designated assets.

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
		Paragraph 132 is replaced by paragraphs 193 and 194 regarding designated heritage assets in a new section headed 'Considering potential impacts'**:** "When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation (and the most important the asset, the greater the weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance." "Any harm to, or loss of, the significance of a designated heritage asset (from its alteration or destruction, or from development within its setting), should require clear and convincing justification. [**the sentence has been reworded**] Substantial harm to or loss of: a) Grade II listed buildings, or grade II registered parks or gardens, should be exceptional; b) Assets of the highest significance, notably scheduled monuments, protected wreck sites, registered battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional." **Paragraph 133 is replaced by paragraph 195 with no change.** **Paragraph 134 is replaced by paragraph 196 with a minor change** [**replacement of the word "*including*" in paragraph 134 with "*where appropriate*" in paragraph 196**]. **Paragraph 135 is replaced by paragraph 197 with no change regarding non-designated assets.**	

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
		Paragraph 136 is replaced by paragraph 198 with no change regarding non-designated assets. **Paragraph 137 regarding development in Conservation Areas or World Heritage sites is replaced by paragraph 200 with minor changes – this is not of direct relevance to the Application.** **Paragraph 138 is replaced by paragraph 201 with no change regarding development in Conservation Areas or World Heritage sites.** **Paragraph 139 regarding non-designated heritage assets is reflected in footnote 63 in Paragraph 194 with no change.** **Paragraph 140 is replaced by paragraph 202 with no change regarding enabling development.** **Paragraph 141 is replaced by paragraph 199.** [**Start of paragraph 141 has been deleted**]: "Local planning authorities should require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible. However, the ability to record evidence of our past should not be a factor in deciding whether such loss should be permitted."	
Appendix 10.1 (APP-219)	Paragraph 128	**Paragraph 128 is replaced by paragraph 189 with no change –** in a new sub-section headed 'Proposals affecting heritage assets'**.**	

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
Paragraph 1.2			
Paragraph 2.10	Paragraph 14	**Paragraph 14 is replaced by Paragraph 11 regarding the presumption in favour of sustainable development:** "Plans and decisions should apply a presumption in favour of sustainable development. [**sentence has been reworded**] For plan-making this means that: a) Plans should positively seek opportunities to meet the development needs of their area, and be sufficiently flexible to adapt to rapid change; b) Strategic policies should, as a minimum, provide for objectively assessed needs for housing and other uses, as well as any needs that cannot be met within neighbouring areas, unless: i. The application of policies in this Framework that protect areas or assets of particular importance provides a strong reason for restricting the overall scale, type or distribution of development in the plan area [**reworded**]; or ii. Any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole. For decision-taking this means: c) Approving development proposals that accord with an up-to-date development plan without delay; or d) Where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless:	

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
		i. The application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or ii. Any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole."	
Paragraph 2.12	Section 7 Good Design Paragraph 58	**This has been replaced by Section 12.** See above at Chapter 4.	
Paragraph 2.13 onwards	Refers to NPPF Section 12 (paragraphs 126 – 141)	**See paragraphs 184 to 202 above at Chapter 10.**	
Appendix 10.2 (APP-220) Paragraph 1.3	Section 12 (paragraphs 126 – 141)	**See paragraphs 184 to 202 above at Chapter 10.**	
Chapter 11 - Lighting			
Chapter 11 (APP-115) Paragraph 11.2.2	Chapter 11 of the ES refers only to the consistency between the NPSNN and the NPPF regarding lighting issues. Paragraph 125 of the 2012 NPPF refers to 'light pollution'.	**Paragraph 125 of the 2012 NPPF is replaced by Paragraph 180 c)** with unchanged text, but presented as a criteria within a wider paragraph: c) "limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation."	There is **no change** between the two versions of the NPPF with regard to lighting issues.

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
Chapter 12 - Transportation			
Chapter 12 (APP-116) Paragraph 12.3.8	Chapter 12 of the ES refers to the NPPF's guidance that it "*does not contain specific policies for nationally significant infrastructure projects"* (NPPF paragraph 3), and to the consistency between the NPSNN and NPPF with regard to promoting '*sustainable development'*.	**Paragraph 3 is replaced by Paragraph 5 which contains the same guidance that the NPPF does not contain specific policies for NSIPs.**	The changes are minor and not relevant to the Application documents, with a retained emphasis in the NPPF on the need to assess and mitigate transport effects. The NPPF retains a focus on encouraging and enabling use of 'sustainable modes'. The additional text which links transport to wider environmental gains is embedded in the ES process with outputs from the Transport Assessment used as input to the Air Quality and Noise & Vibration assessments.
Paragraph 12.3.19	Paragraph 32 of the 2012 NPPF in Section 4 *Promoting sustainable transport.*	**Paragraph 32 refers to the need for Transport Assessments, and to take account of specific issues – this is replaced by parts of Paragraph 102, Paragraph 108, and Paragraph 111 in Section 9** *Promoting sustainable transport* which cover some of the same issues with amended wording and presentation used*:* **Paragraph 102,:** "Transport issues should be considered from the earliest stages of plan-making and development proposals, so that: a) the potential impacts of development on transport networks can be addressed [**amended wording of third bullet of paragraph 32**];	

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
		b) opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated; c) opportunities to promote walking, cycling and public transport use are identified and pursued [**amended wording of first bullet of paragraph 32**]; d) the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and e) patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places. **Paragraph 108:** "In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that: f) Appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location [**wording from first bullet of paragraph 32**]; g) Safe and suitable access to the site can be achieved for all users; and [**wording from second bullet of paragraph 32**] h) Any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree."	

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
		Paragraph 111 "All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed."	
Appendix 12.1 (APP-231) Paragraph 2.20	Paragraph 32	**Please see reference to paragraph 108 above at Chapter 12.**	As above – these changes have no implications for the content of the Application.
Appendix 12.1 – Appendix 2 (APP-233) Public Transport Strategy- Paragraph 3.4	Paragraph 35 regarding use of 'sustainable modes'.	**Paragraph 35 is replaced by Paragraphs 108a and 110a:** **Paragraph 108:** In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that: a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location; **Paragraph 110a:** **"**Within this context, applications for development should: a) Give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport with layouts that maximise the catchment area for bus or other public transport services,	

Application Document	NPPF 2012	NPPF 2018	Relevance of Change to the submitted application
		and appropriate facilities that encourage public transport use;"	
Chapter 13 – Agricultural Land			
Chapter 13 (APP-117) Paragraph 13.2.3	The ES refers to paragraph 112 – part of Section 11 *Conserving and enhancing the natural environment*	**Paragraph 112 is replaced by paragraph 170(b), and footnote 53 – Section 15** *Conserving and enhancing the natural environment.* Paragraph 170b reflects one of the 2012 NPPF 'core principles' regarding the intrinsic character and beauty of the countryside*:* "recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland" [53] Where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality.	Change is of no relevance to NPPF policy content, nor to the Application content.

Other Application Documents:

Planning Statement			
	NPPF 2012	**NPPF 2018**	**Relevance of Change to the submitted application**
(APP-376) Paragraph 3.21	Reference to the NPPF "presumption in favour of sustainable development" – found in paragraph 14.	**The presumption in favour of development is now presented in Paragraph 11.**	N/A

Planning Statement			
(APP-376) Paragraph 3.22	Paragraph 19 regarding the role of planning to "support sustainable economic growth".	**Please see above regarding ES Chapter 3.**	The changes are not relevant with regard to the meaning and emphasis of the NPPF – the NPPF retains the clear emphasis on the "significant weight" placed on the need to support economic growth through planning.
(APP-376) Paragraphs 3.23 and 3.24	Paragraph 7 – regarding the 'three dimensions' of sustainable development	**Paragraph 8** refers to the 'three overarching objectives' in achieving sustainable development, with wording changed slightly.	Changes are very minor and not relevant to the Application documents.
(APP-376) Paragraph 3.60	This refers to the 1997 Local Plan pre-dating the NPPF by some 15 years – based on 2012 NPPF publication date.		The 1997 Local Plan remains a document prepared in the context of former RPG/RSS and County Structure Plan, and pre-dates the NPPF. The point made remains relevant, but the increasing age of the 1997 local plan policies is not irrelevant.
(APP-376) Paragraph 4.84	Reference made to the general NPPF guidance to minimise harm to designated ecological sites or features.	**Section 11 "Conserving and enhancing the natural environment" provides very similar policy content.** **Please see references to ES Chapter 5 above.**	
(APP-376) Paragraph 4.107	References to the general NPPF guidance	**Section 16 "Conserving and enhancing the historic environment" provides very similar policy content.**	

Planning Statement			
	regarding the historic environment.	**Please see references to ES Chapter 10 above.**	
(APP-376) Paragraph 4.135	References to the NPPF guidance regarding the need to plan for infrastructure to support sustainable development including rail freight interchanges – at Paragraph 31 of the NPPF.	**Section 9 "Promoting sustainable transport" provides very similar policy content.** **Paragraph 104, and associated footnote 42 provide almost identical content to paragraph 31.** **Also please see references to ES Chapter 12 above.**	
(APP-376) Paragraph 4.144	Section 7 Good Design	**This has been replaced by Section 12. Please see above at ES Chapter 4.**	

Appendix 2: ExQ1.0.2: Table Summary of Residual Effects

Around half of the topic specific chapters as submitted include tables which summarise the potential effects and/or the significance of the likely residual effects, with some of those tables also referring in brief to the proposed mitigation measures.

The Table below reproduces the information already provided in table for (for Chapters 4 Landscape & Visual, 8 Noise & Vibration, 9 Air Quality, 10 Heritage, 11 Lighting, and 13 Agricultural Land), with additions made where required to also include reference to the proposed mitigation measures.

The Landscape & Visual Assessment includes extensive summary tables (at Appendices 4.4 and 4.5) with reference to a comprehensive list of receptors – in the interest of brevity, the table below includes a summary with reference to a selection of representative groups or categories of receptors, and refers to the range of likely effects covering receptors in each.

For the other chapters (3 Socio-Economic, 5 Ecology, 6 Geology, Soil & Groundwater, 7 Drainage & Water Resources, and 12 Transportation) information has been added to the table below to provide a consolidated summary table. For Transportation this also involves summarising residual effects with reference to groups or categories of receptors (similar to the approach taken with regard to Landscape & Visual effects).

CHAPTER/TOPIC	Potential Significant Effect	Significance (pre-mitigation)	Mitigation Measure(s) – where relevant	Significance of likely residual effect
3. Socio-Economic	**CONSTRUCTION Phase:**			
	Potential construction phase effects on employment.	Minor beneficial effect (short-term) – based on a construction period of 5 years, and a capital expenditure of around £400m.	Enhancement measures identified to maximise the benefits and positive effects, including: • use of local sourcing where possible to maximise the proportion of local employment; • a recruitment/training programme with a focus on the South Northamptonshire Jobs Club; • advertising jobs using Universal Jobmatch, and liaison with Jobcentre Plus in locations where deprivation has been identified.	Minor beneficial (short-term) - based on a construction period of 5 years, and a capital expenditure of around £400m.

CHAPTER/TOPIC	Potential Significant Effect	Significance (pre-mitigation)	Mitigation Measure(s) – where relevant	Significance of likely residual effect
	OPERATIONAL Phase:			
	Effects and impacts on employment.	Major beneficial impact (long-term) at the regional level.	Enhancement measures identified to maximise the benefits and positive effects, including: • use of local sourcing where possible to maximise the proportion of local employment; • a recruitment/training programme with a focus on the South Northamptonshire Jobs Club; • advertising jobs using Universal Jobmatch, and liaison with Jobcentre Plus in locations where deprivation has been identified.	Major beneficial.
	Effects and impacts on housing.	Negligible	n/a	Negligible
	Effects and impacts on commuting patterns.	Opportunities for reduced net outward commuting from South Northamptonshire into Northampton and Milton Keynes. Potential reductions in the length and type of net outward commuting from Northampton.	A Framework Travel Plan and Public Transport Strategy form part of the proposals, as well as new road, walking and cycling infrastructure to enable access by a range of modes of transport.	Minor beneficial effects.
	Effects and impacts on health and wellbeing.	Indirect beneficial effects for the medium/long-term on the health and wellbeing of those taking	Enhancement measures identified to maximise the benefits and positive effects, including:	Indirect minor beneficial effects.

CHAPTER/TOPIC	Potential Significant Effect	Significance (pre-mitigation)	Mitigation Measure(s) – where relevant	Significance of likely residual effect
		up new local employment, representing a moderate/minor benefical effect.	• employee access and use of the foot and cycle links; • local community/recreational access and use of the new foot and cycle links enabled and encouraged; • advertising jobs using Universal Jobmatch, and liaison with Jobcentre Plus in locations where deprivation has been identified.	
	Business rate retention		No mitigation	Substantial additional local government revenue stream – difficult to express benefits in standard ES terms.
4. Landscape & Visual (summary of Appendices 4.5, and 5.5). *See explanatory text at the introduction to this Table.*	Potential effects on landscape character at various spatial scales: **National** Northamptonshire Vales (NCA 89) and *Yardley Whittlewood Ridge* (NCA 91)	The landscape and visual assessment incorporates primary mitigation measures and considerations as an integral (or 'embedded') part of the design and layout of the Proposed Development. This has included attention to the siting, layout and heights of the Proposed Development and consideration of the	Comprehensive package of Green Infrastructure proposals; including perimeter mounding and extensive habitats and planting. Proposals have taken existing landscape character and features into account.	<u>Construction:</u> Minor Adverse/ Negligible to Minor Adverse <u>Operational:</u> Minor Adverse/ Negligible
	Potential effects on landscape character at various spatial scales:		Comprehensive package of Green Infrastructure proposals; including perimeter mounding and extensive habitats and planting. Proposals have	<u>Construction:</u> Minor Adverse <u>Operational:</u>

CHAPTER/TOPIC	Potential Significant Effect	Significance (pre-mitigation)	Mitigation Measure(s) – where relevant	Significance of likely residual effect
	Regional *Undulating Mixed Farmlands* (LCT 5c)	earthworks and ground modelling proposals. All of these aspects and features have been taken into account in the design of the Proposed Development and the development parameters and have therefore been assessed as part of the construction and operational stages. Thus, it is not appropriate to consider a pre-mitigation scenario in landscape and visual terms. The Assessment includes the operational effects (which includes all the embedded mitigation) and then the residual effects (which demonstrates the effectiveness of the planting mitigation) – so that you do effectively have the 2 stages of assessment.	taken existing landscape character and features into account.	Minor Adverse/ Negligible
	Potential effects on landscape character at various spatial scales: **County** *The Tove Catchment* (LCA 6a); *Hackleton Claylands* (LCA 6b); and *Bugbrooke and Daventry* (LCA 13b)		Comprehensive package of Green Infrastructure proposals; including perimeter mounding and extensive habitats and planting. Proposals have taken existing landscape character and features into account.	<u>Construction:</u> Minor Adverse/ Negligible to Minor/ Moderate Adverse <u>Operational:</u> Minor Adverse/ Negligible to Minor Adverse
	Potential effects on landscape character at various spatial scales: **Site and Immediate Context - SRFI Site ('Main Site')**		Comprehensive package of Green Infrastructure proposals; including perimeter mounding and extensive habitats and planting. Proposals have taken existing landscape character and features into account. Existing woodlands conserved.	<u>Construction:</u> Major Adverse <u>Operational:</u> Moderate Adverse
	Potential effects on landscape character at various spatial scales: **Site and Immediate Context - Bypass Site**		Comprehensive package of Green Infrastructure proposals; including perimeter mounding and extensive habitats and planting. Proposals have taken existing landscape character and features into account.	<u>Construction:</u> Moderate/ Major Adverse <u>Operational:</u> Minor/ Moderate Adverse

CHAPTER/TOPIC	Potential Significant Effect	Significance (pre-mitigation)	Mitigation Measure(s) – where relevant	Significance of likely residual effect
	VISUAL			
	Potential visual effects on settlement and residential properties: **Milton Malsor** (receptor P1)	As above regarding embedded mitigation and design.	Perimeter mounding and associated woodland planting. Development height parameters considered and restricted.	<u>Construction:</u> Moderate Adverse <u>Operational:</u> Minor/ Moderate Adverse
	Potential visual effects on settlement and residential properties: **Collingtree** (receptor P4).		Perimeter mounding and associated woodland planting. Development height parameters considered and restricted.	<u>Construction:</u> Minor/ Moderate Adverse <u>Operational:</u> Minor Adverse
	Potential visual effects on settlement and residential properties: **West Lodge Cottages and Courteenhall West Lodge Farm** (receptors P5 & P6)		Perimeter mounding and associated woodland planting. Development height parameters considered and restricted.	<u>Construction:</u> Moderate / Major Adverse <u>Operational:</u> Minor/ Moderate Adverse
	Potential visual effects on settlement and residential properties: **Courteenhall House** and associated buildings (Grade II listed) (receptor P7)		No direct views from the House and associated buildings have been identified. Perimeter planting and associated woodland planting included to north of A508.	<u>Construction:</u> Minor Adverse/ Negligible <u>Operational:</u> Minor Adverse/ Negligible
	Potential visual effects on settlement and residential		Perimeter mounding and associated woodland planting.	<u>Construction:</u>

CHAPTER/TOPIC	Potential Significant Effect	Significance (pre-mitigation)	Mitigation Measure(s) – where relevant	Significance of likely residual effect
	properties: **Blisworth** (north east edge) (receptors P9 & P10)		Development height parameters considered and restricted.	Moderate Adverse <u>Operational:</u> Minor Adverse
	Potential visual effects on settlement and residential properties: **Northampton Road** (receptor P11)		Perimeter mounding and associated woodland planting. Development height parameters considered and restricted.	<u>Construction:</u> Minor/ Moderate Adverse <u>Operational:</u> Minor Adverse/ Negligible
	Potential visual effects on settlement and residential properties: **Northampton (south)** (receptors P13 – P15)		Perimeter mounding and associated woodland planting. Development height parameters considered and restricted.	<u>Construction:</u> Minor Adverse <u>Operational:</u> Minor Adverse/ Negligible
	Potential visual effects on settlement and residential properties: **Roade** (receptors P17 – P23)		Mounding and associated woodland planting, plus some conserved hedgerows and trees. Noise attenuation fencing will also screen vehicles.	<u>Construction:</u> Minor Adverse to Moderate/ Major Adverse <u>Operational:</u> Negligible/ Minor Adverse to Moderate Adverse
	Potential visual effects on users of Public Rights of Way		Realigned PROW within site largely positioned within the perimeter Green Infrastructure (GI) areas and on the outer	<u>Construction:</u>

CHAPTER/TOPIC	Potential Significant Effect	Significance (pre-mitigation)	Mitigation Measure(s) – where relevant	Significance of likely residual effect
	(PROW): **On Main Site and Near Views** (receptors F1-F5)		mounding slopes where practicable, limiting some close views of the proposals.	Moderate/ Major Adverse to Major Adverse <u>Operational:</u> Minor/ Moderate Adverse to Moderate Adverse
	Potential visual effects on users of Public Rights of Way (PROW): **Middle Distance and Distant Views** (receptors F6-F15)		Perimeter mounding and associated woodland planting. Development height parameters considered and restricted.	<u>Construction:</u> Minor Adverse to Major Adverse <u>Operational:</u> Minor Adverse/ Negligible to Minor Adverse
	Potential visual effects on users of Public Rights of Way (PROW): **Bypass** (receptors F16-F20)		Mounding and associated woodland planting, plus some conserved hedgerows and trees. Noise attenuation fencing will also screen vehicles on the bypass.	<u>Construction:</u> Minor Adverse to Major Adverse <u>Operation:</u> Minor Adverse to Moderate Adverse
	Potential visual effects on road users (receptors R1 – R12)		Perimeter mounding and associated woodland planting. Development height parameters considered and restricted.	<u>Construction:</u> Minor Adverse to Major Adverse <u>Operation:</u>

CHAPTER/TOPIC	Potential Significant Effect	Significance (pre-mitigation)	Mitigation Measure(s) – where relevant	Significance of likely residual effect
				Negligible to Minor/ Moderate Adverse
	Potential visual effects on road users (receptors R1 – R12)		Perimeter mounding and associated woodland planting. Development height parameters considered and restricted.	<u>Construction:</u> Minor Adverse to Moderate Adverse <u>Operational:</u> Minor Adverse to Moderate Adverse
	Potential visual effects on other visual receptors, including rail passengers (receptors O1- O7)		Perimeter mounding and associated woodland planting. Development height parameters considered and restricted.	<u>Construction:</u> Minor Adverse to Moderate/ Major Adverse <u>Operation:</u> Negligible to Minor Adverse
5. Ecology & Nature	**CONSTRUCTION phase:**			
	Potential effects on statutory sites of nature conservation Interest – Upper Nene Valley Gravel Pits SPA/Ramsar; or other European sites, SSSIs, Local Nature Reserves.	Negligible re: the SPA due to absence of direct effects or loss of relevant habitat, with no impact on 'supporting habitat'. No Ecological SSSIs or LNRs affected.		Negligible

CHAPTER/TOPIC	Potential Significant Effect	Significance (pre-mitigation)	Mitigation Measure(s) – where relevant	Significance of likely residual effect
	Potential construction effects on non-statutory sites of nature conservation interest - Local Wildlife Sites and potential or candidate sites.	No more than Minor Adverse on LWSs and p-LWS from potential dust effects.	CEMP measures re: dust and accidental spillage prevention.	Negligible
	Potential construction effects on retained habitats: • Woodland and trees • grassland • ponds • running water and ditches • field margins • hedgerows. Also potential disturbance effects as result of: • accidental pollution • dust deposition • physical damage to retained vegetation	Negligible effects on: • Woodland and trees; semi-improved grassland; running water and ditches; field margins; Minor adverse effects on: • Ponds (until new ponds created/developed); Moderate adverse effects on • Hedgerows. Potential habitat disturbance on ecological receptors as a result of pollution up to Minor Adverse on wetland features; dust deposition likely to be of negligible significance; damage to vegetation of Minor Adverse significance.	Use of CEMP measures to ensure best working practices are adopted, including with regard to: • Protection of trees and retained hedgerows throughout construction; • Dust management measures; • Measures to prevent accidental spillages.	Negligible – but with beneficial local effects on ponds through new replacements (at ratio of 2 to 1).

CHAPTER/TOPIC	Potential Significant Effect	Significance (pre-mitigation)	Mitigation Measure(s) – where relevant	Significance of likely residual effect
	Construction effects on fauna.	Potential negligible effects on: • Badgers on the bypass site; • Birds (assemblage) in general, and over-wintering golden plover on main site; • Great Crested Newts on the bypass site; • Otters. Potential minor effects on: • Bat roosts, and foraging/commuting; • Breeding birds and wintering birds; • Great Crested Newts (GCN) on the main site; • Invertebrates. • Reptiles • Water Vole Potential major effects on • Badgers on main site.	Use of CEMP measures to ensure best working practices are adopted, including with regard to: • Protection of trees and retained hedgerows throughout construction; • Dust management measures; • Measures to prevent accidental spillages; • Use of barriers and other techniques to prevent animals falling into groundworks; • Timing of tree or hedgerow clearance to avoid nesting and other sensitive periods for birds and bats; • GCN safely removed where present in working areas, under Natural England license – use of receptors ponds and habitat to protect GCN.	Negligible, but with local benefits for badgers over the mid-longer term; Short-term adverse effects on birds will reverse to include some beneficial effects on a range of species over the mid-term. Local adverse effect on wintering birds as a result of loss of habitat. Local benefits to invertebrates.
	OPERATION:			
	Potential effects on statutory sites of nature conservation	Negligible – due to a range of factors,		No significant residual effects –

CHAPTER/TOPIC	Potential Significant Effect	Significance (pre-mitigation)	Mitigation Measure(s) – where relevant	Significance of likely residual effect
	Interest – Upper Nene Valley Gravel Pits SPA/Ramsar; or other European sites, SSSIs, Local Nature Reserves.	including the nature of the Proposed Development, and the intervening distance to these receptors.		due to extent of the intervening distances.
	Potential effects on non-statutory sites of nature conservation interest – Local Wildlife Sites and potential or candidate sites	Collingtree Golf Course LWS – up to Moderate Adverse without appropriate drainage strategy; Unnamed pLWS Highgate – up to Minor/Moderate Adverse.	Drainage strategy to ensure quality and rates of water run-off are not significantly altered. Marking of footpaths and other routes to protect sensitive habitats.	Negligible effects from altered hydrology, or from increased recreational pressure.
	Potential effects on retained habitats: • Woodland and trees • grassland • ponds • running water and ditches • field margins • hedgerows.	Localised effects of no more than Minor adverse significance on woodland, trees and grassland.	Mitigation measures include: Dust suppression using best practice measures at the aggregates terminal; Drainage strategy to ensure water quality and run-off rates are similar to greenfield rates. Green Infrastructure proposed will include substantial informal space and semi-natural habitats which will provide mitigation for losses – including: • New ponds to replace those lost – created at a ratio of two new ponds for every one lost. • Approx 29ha of new woodland planting, as well as retained Churchills and Highgate woodlands.	Negligible, but with at least Local scale benefits over the longer-term.

CHAPTER/TOPIC	Potential Significant Effect	Significance (pre-mitigation)	Mitigation Measure(s) – where relevant	Significance of likely residual effect
			• Approx. 26ha of new grassland habitat, with peripheral woodland and scrub habitats. Landscape & Ecological Management Plan (LEMP) to secure regime of management and maintenance.	
	Potential effects on fauna.	Potential negligible effects on: • Barn owl roosting on the bypass site; • Otters; Potential minor effects on: • Badgers • Bats • Birds, including breeding birds (including the Barn Owl on the bypass corridor); Potential moderate effects on: • Great Crested Newts (GCN).	Embedded mitigation through site layout and other design or embedded features to minimise or eliminate potential effects – e.g. minimising area lost from LWS and pLWS sites. Other avoidance measures built in to the proposals include: • Retaining woodland, hedges and mature trees wherever possible; • Retention of pond P1 and riparian habitats at the main site; Examples of mitigation measures include: • Badger mitigation measures under license with Natural England – badger tunnels and fencing as required; • Lighting Strategy to minimise light-spill onto bat foraging or commuting routes, with reference to best practice guidelines; • Hedgerow translocation to retain mature examples and to provide connectivity; • Nest boxes for birds, including Barn Owl, and bat boxes within retained woodland;	Negligible, but with Local significant benefits to the bat population and breeding birds in the mid-term.

CHAPTER/TOPIC	Potential Significant Effect	Significance (pre-mitigation)	Mitigation Measure(s) – where relevant	Significance of likely residual effect
			Landscape & Ecological Management Plan to provide context for management and maintenance of site to maximise ecological benefits and enhancement opportunities.	
6. Geology, Soil & Groundwater	**CONSTRUCTION:**			
	Impacts from contaminated soils: potential effects on construction workers; adjacent site users; surface water features; groundwater resources.	Very Low hazard rating – Moderate to Minor. Greenfield Site with no contamination identified within soil or Groundwater.	Construction would utilise only clean natural site won soils. Appropriate plant and methods of working, and other mitigation of risks through CEMP and p-CEMPs. Including: • detailed risk assessment and provision of training and PPE. Monitoring of personnel and works. Provision of suitable welfare, hygiene. • Dust control dampeners to be used where necessary. • Any minor areas of potential contamination isolated and investigated and appropriate strategy adopted. • Main works areas to be fenced and access limited to operatives only. • Phasing designed to minimise effects on local population, haul roads and plant routes to be sited away from nearby property and footways. Footpaths to be redirected and stopped up while works take place. • Suitable controls to manage and control surface water generation as works progress. This will include	Very low to Negligible. Greenfield Site with no contamination identified within soil or Groundwater.

CHAPTER/TOPIC	Potential Significant Effect	Significance (pre-mitigation)	Mitigation Measure(s) – where relevant	Significance of likely residual effect
			temporary cut off drains together with silt interceptors and treatment areas with sufficient lagoons storage prior to licensed tested discharge to sewer/rivers. • Works to be undertaken in stages to minimise the areas opened and disturbed which are likely to result in an increase of infiltration.	
	Contaminated Groundwater: Potential effects on construction workers from ingestion or contact; Surface water features at risk from run-off or groundwater; Contamination of principal/secondary aquifer.	Very Low hazard rating – Moderate to Minor. Greenfield Site with no contamination identified within soil or Groundwater.	Construction would utilise only clean natural site won soils. Appropriate plant and methods of working, and other mitigation of risks through CEMP and p-CEMPs. Including: • detailed risk assessment and provision of training and PPE. Monitoring of personnel and works. Provision of suitable welfare, hygiene. • Dust control dampeners to be used where necessary. • Any minor areas of potential contamination isolated and investigated and appropriate strategy adopted. Main risk is fines and silts entering water course. Suitable site controls to be in place to manage and control surface water generation as works progress. This will include temporary cut off drains together with silt interceptors and treatment areas	Very low to Negligible. Greenfield Site. No contamination identified within soil or Groundwater.

CHAPTER/TOPIC	Potential Significant Effect	Significance (pre-mitigation)	Mitigation Measure(s) – where relevant	Significance of likely residual effect
			with sufficient lagoons storage prior to licensed tested discharge to sewer/rivers.	
	Contaminated dusts: Potential effects on construction workers and adjacent site users from inhalation of contaminated dusts.	Very Low hazard rating – Moderate to Minor. Greenfield Site with no significant sources of contamination identified.	Construction would utilise only clean natural site won soils. Appropriate plant and methods of working, and other mitigation of risks through CEMP and p-CEMPs. Including: • detailed risk assessment and provision of training and PPE. Monitoring of personnel and works. Provision of suitable welfare, hygiene. • Dust control dampeners to be used where necessary. • Any minor areas of potential contamination isolated and investigated and appropriate strategy adopted.	Very low to Negligible. Greenfield Site. No contamination identified within soil or Groundwater.
	Ground gases and odours: Potential effects on construction workers, and adjacent site users, from inhalation of ground gases, explosive risks.	Very Low hazard rating - Moderate to Minor. Greenfield Site with no significant sources of gas identified or recorded.	No abnormal or significant soil gas detected. Construction would utilise only clean natural site won soils. Precautionary confined space protocols to be used via the CEMP and p-CEMPs for all works particularly where entry of excavations below ground are required. Where necessary personal gas alarms and atmosphere testing to be used.	Negligible
	OPERATION:			
	Impacts from contaminated soils: potential effects site workers/users, and adjacent site users; surface water	Negligible effects on site workers/users; Moderate/Minor effect on adjacent site users;	Greenfield Site, with no contamination identified within soil or Groundwater. Construction would utilise only clean natural site won soils.	Negligible

CHAPTER/TOPIC	Potential Significant Effect	Significance (pre-mitigation)	Mitigation Measure(s) – where relevant	Significance of likely residual effect
	features; groundwater resources.	Moderate/Minor effects on surface water features and on groundwater.	Majority of site will be hard standing, buildings and roads where no direct pathway to soils is present. Landscape areas will be covered with clean topsoils and habitat landscape planting created which will lock in soils and reduce dust risks. Any contamination identified will be very small volume and localised and will be treated appropriately as agreed with the regulators and will not present any risk to end users, adjacent site users or controlled waters. Operations on the sites will be controlled by suitable design standards and existing regulatory controls and licensing by the regulatory authorities depending upon exact end uses and any processes, chemicals or fuels used (if any) as well as the operators own environmental policies. Operational sites will be fenced and secure. A site wide drainage and flood risk strategy and measures will be designed and constructed such that there will be no risk to controlled waters. Scheme design will be subject to planning authority's approvals, regulators approvals and design and building control checks and approvals. Regulator consultation has and will be carried out throughout the entire process	
	Contaminated Groundwater: Potential effects on site workers, or adjacent site users from ingestion or contact; Surface water features at risk from run-off or groundwater; Contamination of principal/secondary aquifer.	Negligible effects on site workers; Moderate/Minor effects on surface water features, run-off or groundwater, and principal or secondary aquifer.		Negligible
	Contaminated dusts: Potential effects on site workers, and adjacent site users from inhalation of contaminated dusts.	Negligible effects on site workers; Moderate/Minor effects on adjacent site users.		Negligible
	Ground gases and odours: Potential effects on site workers or users and adjacent site users from inhalation of ground gases, explosive risks.	Negligible effects on site workers; Moderate/Minor effects on adjacent site users.		Negligible

CHAPTER/TOPIC	Potential Significant Effect	Significance (pre-mitigation)	Mitigation Measure(s) – where relevant	Significance of likely residual effect
			to ensure suitably robust design and construction methodology is in place.	
7. Drainage & Water Resources	**CONSTRUCTION phase:**			
	Potential effects on surface water/groundwater drainage regime	Negligible	Measures to reduce the potential for soil compaction which can result in increased surface run-off through designated routes and storage areas - via the CEMP, and p-CEMPs.	Negligible
	Potential spillage of pollutants/contamination of water resources	Moderate Adverse	The CEMP will govern mitigation to both prevent, and respond to, any accidental spillages (e.g. of fuels and other contaminants). The CEMP includes such mitigation measures as: • Stockpiles of soil and exposed soils will be covered or contained, and haul roads kept clear of deposits. • Vehicle wash-down areas will be bunded with interceptors. • Waste water disposed of without risk to surface or ground water resources.	Negligible
	Potential effects on the sewerage infrastructure	Minor Adverse		Minor Adverse
	OPERATIONAL phase:			
	Potential effects on surface water/groundwater drainage regime.	Moderate Adverse	Appropriate surface water drainage strategy, including SuDS) has been identified to reduce surface water runoff rates and to direct flows towards a positive drainage system. Runoff rates restricted to greenfield rates, with climate change allowances of 100 year plus 20%. A	Moderate Beneficial regarding local flood-risk;

CHAPTER/TOPIC	Potential Significant Effect	Significance (pre-mitigation)	Mitigation Measure(s) – where relevant	Significance of likely residual effect
			series of basins is proposed with appropriate storage volumes, and with regard to topography.	
	Potential spillage of pollutants/contamination of water resources.	Moderate Adverse	Drainage system proposed will ensure treatment of water runoff from highway and car park areas before discharge to local watercourses – with pollution control methods (separators and interceptors).	Negligible.
	Potential effects on the sewerage infrastructure.		A solution has been proposed in dialogue with Anglian Water – this will involve a length of sewer being increased in size to mitigate risk of flooding.	Negligible.
8. Noise & Vibration	Construction noise effects from the Roade bypass at 2 receptors (R38 Hyde Farm, and R41 Blisworth Road north façade) during initial enabling works, and the first phase of road construction.	Potential impact such that threshold for significant adverse effects as defined in ES Table 8.1 is exceeded.	Use of best practicable means (BPM), i.e. all reasonable measures to minimise construction noise. This is likely to include local screening as well as other measures detailed in the CEMP (Document 5.2 Appendix 2.1) and component or phase specific 'p-CEMPs'.	Significant adverse effects avoided.
	Railway noise at 3 locations adjacent to the railway (R01 Woodpecker Way, R18 Collingtree Rd North, R54 Ashton Rd West).	Potential impact such that threshold for significant adverse effect of one additional noise induced awakening in the night-time is expected in 2043.	Introduction of quieter rolling-stock by 2043, resulting from implementation of the Railways (Interoperability) Regulations 2011.	Significant adverse effects avoided.
	Road traffic noise at 2 receptors (R30 West Lodge Cottages east façade and R57 The Lodge).	Potential impact such that thresholds for significant adverse effect as defined in ES Tables 8.4 & 8.5 are exceeded.	Implementation of Noise Insulation Regulations (NIR) to provide improved sound insulation at properties.	Significant adverse effects avoided.

CHAPTER/TOPIC	Potential Significant Effect	Significance (pre-mitigation)	Mitigation Measure(s) – where relevant	Significance of likely residual effect
9. Air Quality	Construction – dust soiling effects.	Medium Risk (with Trackout phase a High Risk). Negligible risk to ecological receptors.	CEMP measures to minimise and manage dust soiling (Document 5.2 Appendix 2.1).	No significant nuisance effects.
	Overall likely effects on air quality in 2021 negligible at all receptors for PM_{10}, and negligible for NO_2 with two exceptions.	Negligible, with exceptions of Slight Adverse impact on annual mean NO_2 at AQMA 4; Slight Beneficial impact on annual mean NO_2 in AQMA3.	Low Emissions Strategy measures.	Negligible overall effects, but slight adverse impact may persist at AQMA 4 in 2021.
	Overall likely effects on air quality in 2031 negligible for all receptors for PM_{10} , and for NO_2 with the exception of one receptor.	Negligible, with exception of Slight Beneficial impact on annual mean NO_2 Roade & West Lodge Cottages receptor.	Low Emissions Strategy measures.	Positive air quality effects at the national level. Negligible overall effects by 2031.
10. Cultural Heritage	Removal of Archaeological Resources at identified receptors during construction and/or demolition on the Bypass site – receptors AR9, AR12, AR14-17	High	Record through archaeological excavation.	Minor Adverse
	Removal of Archaeological Resources at identified receptors during construction and/or demolition on the Main	High (moderate adverse for AR4)	Record through archaeological excavation.	Minor Adverse

CHAPTER/TOPIC	Potential Significant Effect	Significance (pre-mitigation)	Mitigation Measure(s) – where relevant	Significance of likely residual effect
	Site – receptors AR1-8, AR10-11.			
	Removal or partial removal of some historic hedgerows.	Minor – Moderate Adverse	Translocation of existing hedgerows, and new hedgerow planting (5.1km total gain in length of new hedgerows).	Negligible[1]
11. Lighting	**CONSTRUCTION phase:**			
	Lighting effects on Milton Malsor properties at east and south-east with full or partial views; within 500m of the site.		The CEMP will ensure that effects are minimised or eliminated. Phased construction of landscaped bunding will increasingly reduce any lighting effects on off-site receptors.	Moderate/ Minor Adverse
	Lighting effects on Milton Malsor – other residential properties (beyond 500m from site).		The CEMP will ensure that effects are minimised or eliminated. Phased construction of landscaped bunding will increasingly reduce any lighting effects on off-site receptors.	Negligible
	Lighting effects on Lodge Farm and nearby properties along Barn Lane, Milton Malsor		The CEMP will ensure that effects are minimised or eliminated. Phased construction of landscaped bunding will increasingly reduce any lighting effects on off-site receptors.	Moderate/ Minor Adverse
	Lighting effects on 63 Collingtree Road (Manor Farm Bungalow)		The CEMP will ensure that effects are minimised or eliminated. Phased construction of landscaped bunding will increasingly reduce any lighting effects on off-site receptors.	Moderate/ Minor Adverse
	Lighting effects on Blisworth – residential properties at northeast fringe with full or		The CEMP will ensure that effects are minimised or eliminated. Phased construction of landscaped bunding and planting will increasingly	Minor Adverse

[1] Conclusion reached in Chapter 5 Ecology & Nature Conservation.

CHAPTER/TOPIC	Potential Significant Effect	Significance (pre-mitigation)	Mitigation Measure(s) – where relevant	Significance of likely residual effect
	partial direct views towards the Site (1200m from site)		reduce any lighting effects on off-site receptors.	
	Lighting effects on Blisworth – other residential properties (beyond 1200m from site); Courteenhall village; Courteenhall parkland; Collingtree		The CEMP will ensure that effects are minimised or eliminated. Phased construction of landscaped bunding and planting will increasingly reduce any lighting effects on off-site receptors.	Negligible
	Lighting effects on Hyde Farm, Blisworth Road, Roade (30m to bypass construction lighting)		The CEMP will ensure that effects are minimised or eliminated, including (1 nuisance effects from excessive lighting on bedroom windows), (2 nuisance from glare) and (3 loss of amenity at properties and gardens) will be nil and that the change in (4 visual light presence visual effects) is limited to small. Changes to (5 visual local sky glow effects) will be negligible. [2]	Negligible nuisance effects or loss of amenity, and local visual 'sky glow' effects. Minor Adverse light presence effects.
	Lighting effects on properties in Roade on north-west side of Dovecote Road, numbers 24-54		The CEMP will ensure that effects are minimised or eliminated, including (1 nuisance effects from excessive lighting on bedroom windows), (2 nuisance from glare) and (3 loss of amenity at properties	Negligible nuisance effects or loss of amenity, and

[2] Numbered references to potential lighting effects are summarised in this table in brief, but refer to the categories of potential effect described in Appendix 11.4 of the Lighting Chapter.

CHAPTER/TOPIC	Potential Significant Effect	Significance (pre-mitigation)	Mitigation Measure(s) – where relevant	Significance of likely residual effect
			and gardens) will be nil and that the change in (4 visual light presence visual effects) is limited to small. Changes to (5 visual local sky glow effects) will be negligible.	local visual 'sky glow' effects. Minor Adverse light presence effects.
	Lighting effects on White House Farm, Northampton Road, Roade		The CEMP will ensure that effects (1), (2) and (3) will be nil and that the change in (4) is limited to small. Changes to (5) will be negligible.	Negligible nuisance effects or loss of amenity, and local visual 'sky glow' effects. Minor Adverse light presence effects.
	Lighting effects on other residential properties close to proposed bypass in Roade.		The CEMP will ensure that effects are minimised or eliminated.	Minor Adverse
	Lighting effects on road users on the M1 motorway, A508 and M1/A508/A45 junction		The CEMP will ensure that effects are minimised or eliminated. Phased construction of landscaped bunding and planting will increasingly reduce any lighting effects on off-site receptors.	Negligible, with no hazard effects.
	Potential lighting effects on Transport and dark non-residential areas - Railways; Grand Union Canal;		Visual effects will be imperceptible from the Grand Union Canal (over 2000m away) due to distance, topography, but also existing screening.	Negligible

CHAPTER/TOPIC	Potential Significant Effect	Significance (pre-mitigation)	Mitigation Measure(s) – where relevant	Significance of likely residual effect
	Night sky views from dark locations.		Phased construction of landscaped bunding and planting will increasingly reduce any lighting effects on off-site receptors.	
	Lighting effects on ecology – woodland, hedgerows and water margins		CEMP measures – also relevant to Chapter 5 Ecology and Nature.	Disturbance effects fully preventable.
	OPERATIONAL phase:			
	Milton Malsor – properties at east and south-east with full or partial views; within 500m of the site.		Lighting Strategy in conjunction with the proposed earthworks (bunding) and landscaping will limit any lighting effects on off-site receptors from the main site. Any high mast lighting used at the remodelled junction 15 is very unlikely to be seen from these locations due to the intervening topography and the formation of the proposed landscaped bunding.	Minor Adverse
	Milton Malsor – other residential properties (beyond 500m from site).		Lighting Strategy in conjunction with the proposed earthworks (bunding) and landscaping will limit any lighting effects on off-site receptors from the main site.	Negligible
	Lodge Farm and nearby properties along Barn Lane, Milton Malsor		Lighting Strategy in conjunction with the proposed earthworks (bunding) and landscaping will limit any lighting effects on off-site receptors from the main site.	Minor Adverse
	63 Collingtree Road (Manor Farm Bungalow)		Lighting Strategy in conjunction with the proposed earthworks (bunding) and	Minor Adverse

CHAPTER/TOPIC	Potential Significant Effect	Significance (pre-mitigation)	Mitigation Measure(s) – where relevant	Significance of likely residual effect
			landscaping will limit any lighting effects on off-site receptors from the main site.	
	Blisworth – residential properties at northeast fringe with full or partial direct views towards the Site (1200m from site)		Lighting Strategy in conjunction with the proposed earthworks (bunding) and landscaping will limit any lighting effects on off-site receptors from the main site. Effects mitigated by distance, but also by site location and topography (in a depression). Any high mast lighting used at the remodelled junction 15 is very unlikely to be seen from these locations due to the intervening topography and the formation of the proposed bunding.	Negligible
	Lighting effects on Blisworth – other residential properties (beyond 1200m from site); Courteenhall village; Courteenhall parkland; Collingtree		Changes to visual light presence effects will be imperceptible due to distance, and due to the Lighting Strategy in conjunction with the proposed earthworks (bunding) and landscaping will limit any lighting effects on off-site receptors from the main site.	Negligible
	Lighting effects on Hyde Farm, Blisworth Road, Roade (30m to bypass construction lighting)		The Lighting Strategy for the proposed Roade Bypass roundabouts and their approaches will comply with industry standards for highway lighting in rural locations.	Nuisance effects and loss of amenity will be nil. New road lighting units will be visible from this property, where the change in light

CHAPTER/TOPIC	Potential Significant Effect	Significance (pre-mitigation)	Mitigation Measure(s) – where relevant	Significance of likely residual effect
				presence effects (4) is assessed as medium. Changes to local sky glow (5) will be noticeable but less significant than medium.
	Lighting effects on properties in Roade on north-west side of Dovecote Road, numbers 24-54		The Lighting Strategy for the proposed Roade Bypass roundabouts and their approaches will comply with industry standards for highway lighting in rural locations.	Nuisance effects and loss of amenity will be nil. New road lighting units will be visible from this property, where the change in light presence effects (4) is assessed as medium. Changes to local sky glow (5) will be noticeable but less significant than medium.
	Lighting effects on White House Farm, Northampton Road, Roade		The Lighting Strategy for the proposed Roade Bypass roundabouts and their approaches will comply with industry standards for highway lighting in rural locations.	Nuisance effects and loss of amenity will be nil. New road lighting units will

CHAPTER/TOPIC	Potential Significant Effect	Significance (pre-mitigation)	Mitigation Measure(s) – where relevant	Significance of likely residual effect
				be visible from this property, where the change in light presence effects (4) is assessed as medium. Changes to local sky glow (5) will be noticeable but less significant than medium.
	Lighting effects on other residential properties close to proposed bypass in Roade.		The Lighting Strategy for the proposed Roade Bypass roundabouts and their approaches will comply with industry standards for highway lighting in rural locations.	Minor Adverse, with small changes to visual light presence and local sky glow effects.
	Lighting effects on road users on the M1 motorway, A508 and M1/A508/A45 junction		Lighting Strategy in conjunction with the proposed earthworks (bunding) and landscaping will limit any lighting effects on off-site receptors from the main site.	Negligible, with no hazard effects.
	Potential lighting effects on Transport and dark non-residential areas - Railways; Grand Union Canal; Night sky views from dark locations.		The Lighting Strategy will ensure no upward light is emitted directly (indirect reflection effects only).	Negligible

CHAPTER/TOPIC	Potential Significant Effect	Significance (pre-mitigation)	Mitigation Measure(s) – where relevant	Significance of likely residual effect
	Lighting effects on ecology – woodland, hedgerows and water margins	Minor Adverse	Lighting Strategy to be based upon guidelines presented in the Bat Conservation Trust & Institute of Lighting Engineers *'Bats and Lighting in the UK - Bats and Built Environment Series'* and the Bat Conservation Trust *'Statement on the impact and design of artificial light on bats'*.[3]	Negligible. Disturbance effects are fully preventable.
12.Transportation				
	Disruption due to construction	Major Adverse	Phase specific Construction Environmental Management Plans (P-CEMP) for main components of the scheme. Phasing of the works to mitigate delays and disruption on the existing highway network. Diverting traffic onto new alignments away from works under construction and controlling the level of interference on the networks at any time. Restricted working hours and construction traffic routing to be agreed with Police, NCC, Highway England and Project Manager for each P-CEMP. Delivery vehicles routed via the principal and strategic road network.	Negligible (as effects are temporary)

[3] Referred to at paragraph 5.6.45 of the Ecology Chapter.

CHAPTER/TOPIC	Potential Significant Effect	Significance (pre-mitigation)	Mitigation Measure(s) – where relevant	Significance of likely residual effect
			No heavy construction traffic to use the A508 south of the site.	
	Operational impact – modal shift from road freight to rail freight	Major beneficial	n/a	Major beneficial
	Operational impact on pedestrians, cyclists, equestrians and the community – journey length and local travel patterns	Moderate adverse	A range of measures are incorporated, such as: PRoWs KX17 and KX13 diverted and extended to form a loop around the main site within the landscape bunding. Suitable crossing points provided on the Roade Bypass for public footpaths KZ30, KZ19, KZ2a and RZ3, and an underpass provided for public bridleway KZ10/RZ1. On the western side of the A508 a new footway/cycleway is proposed linking the southern Bypass roundabout with bridleway RZ6. Improved facility for pedestrians using public footpath KX2 and LA13 to cross the A43 at M1 Junction 15A. New footway/cycleway along western side of Roade linking the SRFI site access and Roade and the proposed	Negligible

CHAPTER/TOPIC	Potential Significant Effect	Significance (pre-mitigation)	Mitigation Measure(s) – where relevant	Significance of likely residual effect
			footway/cycleway alongside the western side of the Roade bypass. Refuge on the A508 at the unnamed road to Quinton to assist cyclist wishing to cross to and from the unnamed road to the new cycleway on the A508. New footway/cycleway provided on the western side of the A508 connecting the SRFI site access with M1 Junction 15. M1 Junction 15 provided with signal control pedestrian/cycle crossings. New footway/cycleway on the A45 between M1 Junction 15 and Watering Lane. New signal controlled crossing on Watering Lane at the junction with the A45. New uncontrolled crossing on Watering Lane between the Hilton Hotel and footway on the northern side of the road. New cycle track (for use by pedestrians and cyclist) linking between the A508 and High Street in Collingtree using the Collingtree bridge over the M1. Improved pedestrian and cyclist facilities at the A508/Rookery Lane/Ashton Road junction	

CHAPTER/TOPIC	Potential Significant Effect	Significance (pre-mitigation)	Mitigation Measure(s) – where relevant	Significance of likely residual effect
			New pedestrian refuge on the A508 in Grafton Regis.	
	Operational impact on pedestrians, cyclists, equestrians and the community – amenity	Moderate Adverse	Roade Bypass. HGV routing strategy and proposed 7.5T environmental weight restrictions.	Minor Adverse
	Operational impact on pedestrians, cyclists, equestrians and the community – severance	Minor Adverse	Suitable crossing points provided on the Roade Bypass for public footpaths KZ30, KZ19, KZ2a and RZ3, and an underpass provided for public bridleway KZ10/RZ1. Improved facility for pedestrians using public footpath KX2 and LA13 to cross the A43 at M1 Junction 15A. Refuge on the A508 at the unnamed road to Quinton to assist cyclist wishing to cross to and from the unnamed road to the new cycleway on the A508. M1 Junction 15 provided with signal control pedestrian/cycle crossings. New footway/cycleway on the A45 between M1 Junction 15 and Watering Lane. New signal controlled crossing on Watering Lane at the junction with the A45. New uncontrolled crossing on Watering Lane between the Hilton Hotel	Negligible

CHAPTER/TOPIC	Potential Significant Effect	Significance (pre-mitigation)	Mitigation Measure(s) – where relevant	Significance of likely residual effect
			and footway on the northern side of the road. Improved pedestrian and cyclist facilities at the A508/Rookery Lane/Ashton Road junction New pedestrian refuge on the A508 in Grafton Regis.	
	Operational impact on vehicle travellers – driver stress	Moderate Adverse	SRFI site access and A508 dualling. M1 Junction 15 and A45 major upgrade. M1 Junction 15A improvement. A508 Roade Bypass. A508 corridor route upgrade.	Moderate beneficial
	Operational impact on vehicle travellers – view from the road	Negligible	Embankments and landscaping screening of development	Negligible
13. Agricultural Land	Loss of soil resource	Major Adverse	Implementation of a Soil Management Plan (within framework of the CEMP).	Minor Adverse
	Progressive loss of best and most versatile land	Moderate Adverse	No mitigation possible.	Moderate Adverse

Appendix 3: Regulation 14 and Schedule 4 EIA Regulations – ES Compliance

Table 1: Information Required in Environmental Statements (Regulation 14 of Infrastructure Planning EIA Regulations 2017)

Required Information		Chapter Section of the ES
1	An application for an order granting development consent for EIA development must be accompanied by an environmental statement.	Environmental Statement – Document 5.2
2	An environmental statement is a statement which includes at least:	ES Chapter 2 – *Description of Development and Alternatives;* ES Chapters 3 – 14 on specific environmental topics.
	(a) a description of the proposed development comprising information on the site, design, size and other relevant features of the development;	
	(b) a description of the likely significant effects of the proposed development on the environment;	
	(c) a description of any features of the proposed development, or measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment;	
	(d) a description of the reasonable alternatives studied by the applicant, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment;	ES Chapter 2 – *Description of Development and Alternatives*
	(e) a non-technical summary of the information referred to in sub-paragraphs (a) to (d); and	Non-Technical Summary (Document 5.3)
	f) any additional information specified in **Schedule 4** relevant to the specific characteristics of the particular development or type of development and to the environmental features likely to be significantly affected.	See Table 2 below.
3	The environmental statement referred to in paragraph (1) must	ES Chapter 1 – – *Introduction.* Scoping Opinion – Document 5.1.
	(a) where a scoping opinion has been adopted, be based on the most recent scoping opinion adopted (so far as the proposed development remains materially the same as the proposed development which was subject to that opinion);	
	(b) include the information reasonably required for reaching a reasoned conclusion on the significant effects of the development on the environment, taking into account current knowledge and methods of assessment; and	ES Chapters 3 – 14 on specific environmental topics.
	(c) be prepared, taking into account the results of any relevant UK environmental assessment, which is reasonably available to the applicant with a view to avoiding duplication of assessment.	ES Chapters 3 – 14 on specific environmental topics.
4	In order to ensure the completeness and quality of the environmental statement	ES Chapter 1 – *Introduction.*
	(a) the applicant must ensure that the environmental statement is prepared by competent experts; and	

Required Information		Chapter Section of the ES
	(b) the environmental statement must be accompanied by a statement from the applicant outlining the relevant expertise or qualifications of such experts.	

Table 2: Information Required in an Environmental Statement (Schedule 4 of Infrastructure Planning EIA Regulations 2017)

Required Information		Chapter Section of the ES
1	Description of the development, including in particular: • A description of the location of the development; • A description of the physical characteristics of the whole development, including, where relevant, requisite demolition works, and the land-use requirements during the construction and operational phases; • A description of the main characteristics of the operational phase of the development (in particular any production process), for instance, energy demand and energy used, nature and quantity of the materials and natural resources (including water, land, soil and biodiversity) used; and • An estimate, by type and quantity, of expected residues and emissions (such as water, air, soil and subsoil pollution, noise, vibration, light, heat, radiation and quantities and types of waste produced during the construction and operation phases.	ES Chapter 2 – *Description of Development and Alternatives;* ES Chapters 3 – 14 on specific environmental topics.
2	A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.	ES Chapter 2 – *Description of Development and Alternatives;*
3	A description of the relevant aspects of the current state of the environment (baseline scenario) and an outline of the likely evolution thereof without implementation of the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge.	ES Chapters 3 – 14 on specific environmental topics.

Required Information		Chapter Section of the ES
4	A description of the factors specified in regulation 5(2) likely to be significantly affected by the development: population, human health, biodiversity (for example fauna and flora), land (for example land take), soil (for example organic matter, erosion, compaction, sealing), water (for example hydromorphological changes, quantity and quality), air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage, including architectural and archaeological aspects, and landscape.	ES Chapters 3 – 14 on specific environmental topics.
5	A description of the likely significant effects of the development on the environment resulting from, inter alia - (a) the construction and existence of the development, including, where relevant, demolition works; (b) the use of natural resources, in particular land, soil, water and biodiversity, considering as far as possible the sustainable availability of these resources; (c) the emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances, and the disposal and recovery of waste; (d) the risks to human health, cultural heritage or the environment (for example due to accidents or disasters); (e) the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources; (f) the impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change; (g) the technologies and the substances used.	ES Chapter 1 – *Introduction.* ES Chapters 3 – 14 on specific environmental topics. ES Chapter 15 – *Cumulative Impacts*
6	A description of the forecasting methods or evidence, used to identify and assess the significant effects on the environment, including details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved.	ES Chapter 1 – *Introduction.* ES Chapters 3 – 14 on specific environmental topics.
7	A description of the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements (for example the preparation of a post-project analysis). That description should explain the extent, to which significant adverse	ES Chapters 3 – 14 on specific environmental topics.

Required Information		Chapter Section of the ES
	effects on the environment are avoided, prevented, reduced or offset, and should cover both the construction and operational phase.	
8	A description of the expected significant adverse effects of the development on the environment deriving from the vulnerability of the development to risks of major accidents and/or disasters which are relevant to the project concerned. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies.	ES Chapter 1 – *Introduction.* ES Chapters 3 – 14 on specific environmental topics.
9	A non-technical summary of the information provided.	Non-Technical Summary (Document 5.3)
10	A reference list detailing the sources used for the descriptions and assessments included in the environmental statement.	ES Chapters 3 – 14 on specific environmental topics.

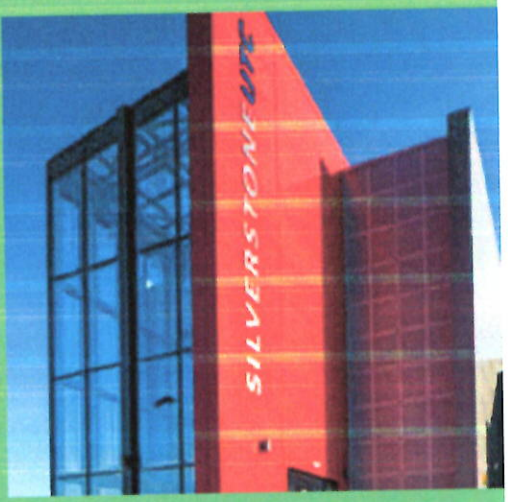
Appendix 4: ExQ1.0.6

Current GRS Site Location


EXISTING GRS SITE
TOWN CENTRE
NORTHAMPTON LOOP LINE
M1 MOTORWAY
PROPOSED
RAIL FREIGHT
INTERCHANGE
WCML

Appendix 5: ExQ1.0.7: Northampton South SUE Information

West Northamptonshire Joint Core Strategy Local Plan (Part 1)



West Northamptonshire Joint Planning Unit

Adopted - December 2014

POLICY S4 - NORTHAMPTON RELATED DEVELOPMENT AREA

PROVISION WILL BE MADE FOR ABOUT 28,470 NET ADDITIONAL DWELLINGS WITHIN THE NORTHAMPTON RELATED DEVELOPMENT AREA IN THE PERIOD 2011 to 2029.

NORTHAMPTON'S NEEDS, BOTH HOUSING AND EMPLOYMENT, WILL BE MET PRIMARILY WITHIN NORTHAMPTON'S EXISTING URBAN AREA AND AT THE SUSTAINABLE URBAN EXTENSIONS WITHIN THE NORTHAMPTON RELATED DEVELOPMENT AREA BOUNDARY. ADDITIONAL DEVELOPMENT TO MEET NORTHAMPTON'S NEEDS WILL BE SUPPORTED ONLY IF IT MEETS THE VISION, OBJECTIVES AND POLICIES OF THIS PLAN.

THE NORTHAMPTON RELATED DEVELOPMENT AREA BOUNDARY WILL BE REVIEWED AS PART OF ANY REVIEW OF THE HOUSING REQUIREMENT FOR WEST NORTHAMPTONSHIRE OR ANY OF ITS CONSTITUENT ADMINISTRATIVE AREAS.

THE NORTHAMPTON RELATED DEVELOPMENT AREA BOUNDARY IS SHOWN ON THE POLICIES MAP (FIGURE 5).

Sustainable Urban Extensions

5.39 It is not physically possible or appropriate to accommodate all of West Northamptonshire's needs within the existing urban areas of the four towns of Northampton, Daventry, Towcester and Brackley. Dispersing significant development to the rural areas would also not be appropriate as it would increase pressure on the rural environment overall and particularly as a result of the increased need to travel, usually by car, without addressing the needs of the towns themselves. Consequently the JCS focuses development that cannot be accommodated within the existing urban areas or towns in sustainable urban extensions. Sustainable urban extensions are defined as planned expansion of a city or town that can contribute to creating more sustainable patterns of development when located in the right place, with well-planned infrastructure including access to a range of facilities and when developed at appropriate densities. Full details of the locations, form and requirements for the 12 Sustainable Urban Extensions allocated in this Plan are set out in the Places section of this JCS. The full list of the 12 Sustainable Urban Extensions is set out in Policy S5 below. The planned amount of housing and employment provision in the plan period to 2029 is also set out in Policy S5.

POLICY S5 - SUSTAINABLE URBAN EXTENSIONS

OUTSIDE THE EXISTING URBAN AREAS DEVELOPMENT WILL BE FOCUSED ON SUSTAINABLE URBAN EXTENSIONS TO THE URBAN AREAS.

SUSTAINABLE URBAN EXTENSIONS WILL BE PROVIDED AT:

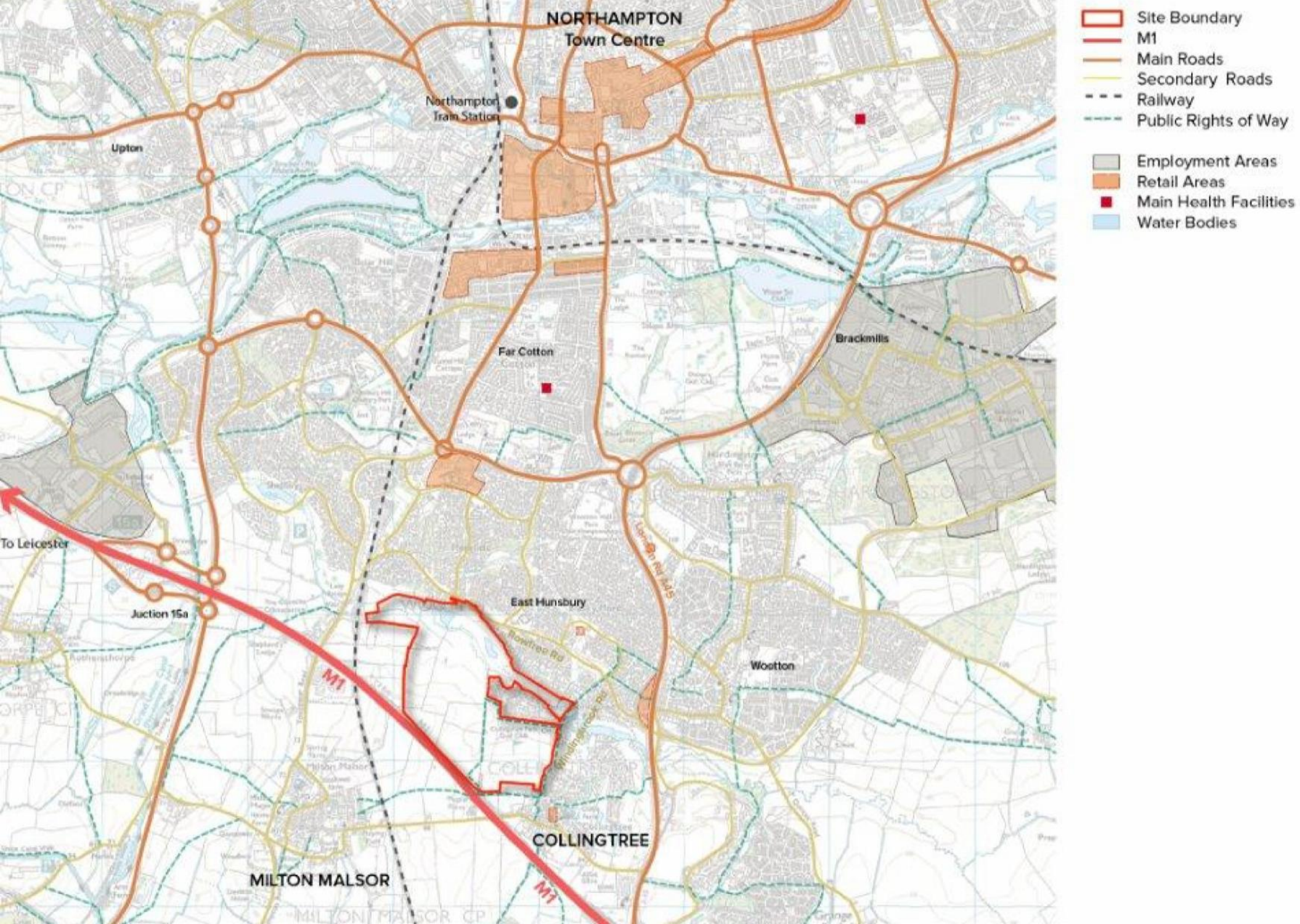
1. NORTHAMPTON
   a) NORTHAMPTON KINGS HEATH (3,000 DWELLINGS, 10 HA EMPLOYMENT)
   b) NORTHAMPTON NORTH (3,500 DWELLINGS, 10 HA EMPLOYMENT)
   c) NORTHAMPTON NORTH OF WHITEHILLS (1,000 DWELLINGS, LOCAL EMPLOYMENT OPPORTUNITIES)
   d) NORTHAMPTON SOUTH (1,000 DWELLINGS, LOCAL EMPLOYMENT OPPORTUNITIES)
   e) NORTHAMPTON SOUTH OF BRACKMILLS (1,300 DWELLINGS, LOCAL EMPLOYMENT OPPORTUNITIES)
   f) NORTHAMPTON UPTON PARK (1,000 DWELLINGS, LOCAL EMPLOYMENT OPPORTUNITIES)
   g) NORTHAMPTON WEST (2,550 DWELLINGS, LOCAL EMPLOYMENT OPPORTUNITIES)
   h) NORTHAMPTON NORWOOD FARM/ UPTON LODGE (3,500 DWELLINGS, LOCAL EMPLOYMENT OPPORTUNITIES)

2. DAVENTRY
   a) DAVENTRY NORTH EAST (2,600 DWELLINGS, LOCAL EMPLOYMENT OPPORTUNITIES)

3. TOWCESTER
   a) TOWCESTER SOUTH (2,100 DWELLINGS 10.8 HA EMPLOYMENT)

4. BRACKLEY
   a) BRACKLEY EAST (350 DWELLINGS, 9.4 HA EMPLOYMENT)
   b) BRACKLEY NORTH (1,380 DWELLINGS, LOCAL EMPLOYMENT OPPORTUNITIES)

THE BROAD LOCATION OF EACH SUSTAINABLE URBAN EXTENSION IS SHOWN ON THE KEY DIAGRAM (FIGURES 2 AND 3). THE BOUNDARY OF EACH SUSTAINABLE URBAN EXTENSION IS SHOWN ON THE POLICIES MAP (FIGURE 5).


NORTHAMPTON
Town Centre
Northampton
Tram Station
Upton
Far Cotton
Brackmills
To Leicester
Juction 15a
East Hunsbury
Wootton
M1
COLLINGTREE
MILTON MALSOR
Site Boundary
M1
Main Roads
Secondary Roads
Railway
Public Rights of Way
Employment Areas
Retail Areas
Main Health Facilities
Water Bodies

DEFINE

LEGEND

- Site Boundary
- Primary Route
- Secondary Route
- Primary Access Point
- Existing Public Footpath
- Existing Public Bridleway
- Existing Permissive Route
- Proposed Footpath/Cycleway
- Proposed Permisive Route
- Residential
- Local Centre
- Community Pavilion
- 2 Form Entry Primary School
- Parkland
- Natural/Semi Natural Open Space
- Amenity Space (Including Local Landscaped Area for Play - LLAP)
- Retained Tree/Hedgerow
- Allotments / Community Orchard
- Proposed Water Course / Water Body following Golf Course Re-Configuration
- Existing Water Courses / Water Body
- Proposed Surface Water Attenuation Feature
- Local Equipped Area for Play LEAP (400 m^2)
- Neighbourhood Equipped Area for Play - NEAP (1000 m^2)

Golf Course

- Existing Golf Course to be Retained
- Proposed Golf Course Extension
- Proposed Flood Plain Compensation associated with golf course re-configuration
- Proposed Flood Plain Compensation associated with highway crossing
- Tee Box
- Green
- Existing Practice Putting Green to be Retained
- Existing Golf Buggy Route
- Proposed Golf Buggy Route

SCALE 1:2,500

0m 10 20 30 50 100

N

Rev	Description	Date
B		25/09/2017

Rev	B
Drg No	DE 271 - 001
Client	Bovis Homes
Project	Rowtree Park
Title	Masterplan
Scale	1:2500@A1

Department for Communities and Local Government

Mr Gavin Gallagher
Barton Willmore
Regent House
Princes Gate Buildings
4 Homer Road
SOLIHULL
West Midlands
B91 3QQ

Our Ref: APP/V2825/W/15/3028151
APP/V2825/W/15/3028155
Your Ref:

09 August 2016

Dear Sir,

TOWN AND COUNTRY PLANNING ACT 1990 – SECTION 78
APPLICATIONS BY BOVIS HOMES LTD
PROPOSED DEVELOPMENT ON LAND SOUTH OF ROWTREE ROAD AND WEST OF WINDINGBROOK LANE, NORTHAMPTON
APPLICATION REFERENCES: N/2013/1035 AND N/2013/1063

1. I am directed by the Secretary of State to say that consideration has been given to the report of the Inspector, Mr C J Ball, DArch DCons RIBA IHBC, who held a public local inquiry which sat for 9 days between 1 and 18 December 2015, into your client's appeals against the refusal of Northampton Borough Council ("the Council") to grant:

   Appeal A: outline planning permission for the Northampton South Sustainable Urban Extension to be comprised of up to 1000 dwellings, a mixed use local centre, a site for a primary school, green infrastructure including formal and informal open space, reconfiguration and extension of Collingtree Park Golf Course, demolition of all existing buildings and structures within the site, new vehicular accesses off Windingbrook Lane and Rowtree Road, car parking, sustainable drainage systems (including flood risk betterment) and infrastructure (including highway improvements) in accordance with application number N/2013/1035, dated 2 October 2013; and

   Appeal B: full planning permission for 380 dwellings served by a new access from Windingbrook Lane and the reconfiguration of part of the Collingtree Park Golf Course, including a new temporary hole 17, demolition of all existing buildings and structures within the site, green infrastructure including formal and informal open space, car parking, sustainable drainage systems

Department for Communities and Local Government
Jean Nowak, Decision Officer
Planning Central Casework Division,
SE Quarter
3rd Floor Fry Building
2 Marsham Street
London SW1D 4DF

Tel: 0303 44 41626
Email: PCC@communities.gsi.gov.uk

(including flood risk betterment) and infrastructure (including highway improvements) in accordance with application number N/2013/1063, dated 16 October 2013.

2. The appeals were recovered for the Secretary of State's determination on 22 May 2015 in pursuance of section 79 of, and paragraph 3 of Schedule 6 to, the Town and Country Planning Act 1990 because they involve proposals for residential development of over 150 units which would significantly impact on the Government's objective to secure a better balance between housing demand and supply and to create high quality, sustainable, mixed and inclusive communities.

Inspector's recommendation and summary of the decision

3. The Inspector recommended that Appeal A should be allowed and planning permission granted subject to conditions, but that Appeal B should be dismissed. For the reasons given below, the Secretary of State agrees with the Inspector's conclusions and recommendations. A copy of the Inspector's report (IR) is enclosed. All references to paragraph numbers, unless otherwise stated, are to that report.

Procedural Matters

4. Your client's application for an award of costs is the subject of a separate decision letter which is also being issued today.

Environmental Statement

5. In reaching this position, the Secretary of State has taken into account the Environmental Statement which was submitted under the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 2011 (IR18). The Secretary of State agrees with the Inspector (IR19) that the information provided in the Environmental Statement is adequate for the purposes of these appeal decisions.

Policy and Statutory Considerations

6. In deciding these appeals, the Secretary of State has had regard to section 38(6) of the Planning and Compulsory Purchase Act 2004 which requires that proposals be determined in accordance with the development plan unless material considerations indicate otherwise. In this case, the development plan comprises the West Northamptonshire Joint Core Strategy Local Plan (Part 1) (JCS). The Secretary of State agrees with the Inspector at IR22 that JCS Policy N5: Northampton South Sustainable Urban Extension (SUE) is the key consideration and that the other JCS policies central to the appeals include policy S10: Sustainable Development Principles; Policy BN5: The Historic Environment; and Landscape and Policy BN9: Planning for Pollution Control.

7. Other material considerations which the Secretary of State has taken into account include the National Planning Policy Framework 2012 (the Framework); the planning practice guidance first published in March 2014; DEFRA's *Noise Policy Statement for England* (NPSE); BS8233:2014 *Guidance on sound insulation and noise reduction for buildings*; Historic England's Historic

Environment Good Practice Advice in Planning: 3 *the setting of heritage assets* and the Collingtree Village Conservation Area Appraisal and Management Plan.

8. In accordance with section 66(1) of the Planning (Listed Buildings and Conservation Areas) Act 1990 (the LBCA Act), the Secretary of State has paid special regard to the desirability of preserving those listed buildings potentially affected by the appeal scheme or their settings or any features of special architectural or historic interest which they may possess. Furthermore, as required by section 72(1) of the LBCA Act, the Secretary of State has also paid special attention to the desirability of preserving or enhancing the character or appearance of conservation areas.

Main issues

9. The Secretary of State considers that the main issues in these appeals are those identified by the Inspector at IR233. The Secretary of State also agrees that the additional matters referred to at IR234 should be taken into account.

Five year supply of housing land

10. Having regard to the Inspector's findings at IR235-239, the Secretary of State agrees with him that, as the Council cannot currently demonstrate a 5-year supply of housing land, paragraph 49 of the Framework makes it clear that relevant policies for the supply of housing should not be considered up-to-date so that, in accordance with paragraph 14 of the Framework, planning permission should be granted unless the adverse impacts of doing so would significantly and demonstrably outweigh the benefits (IR235). Furthermore, in the case of these two appeals, the Secretary of State agrees with the Inspector that the most relevant policy for the supply of housing is JCS policy N5 (IR236), which allocates the Appeal A site as the Northampton South SUE to include up to 1000 dwellings. The Secretary of State agrees that, as a key policy of the recently adopted JCS, policy N5 carries very significant weight and that the Appeal A scheme would be entirely consistent with it. He also agrees that, for the reasons given at IR239, JCS policies S10, BN5 and BN9 carry the full weight of the up-to-date development plan.

Whether satisfactory living conditions would be created - with particular regard to noise levels

11. Having carefully considered the Inspector's arguments at IR240-252, the Secretary of State agrees with his conclusion at IR253 that, although the appeal proposals as they stand would not create satisfactory living conditions for the residents of the proposed development, it would be entirely possible to design a layout of 1,000 houses which would meet the requirements of JCS policy N5 by mitigating the noise impact on dwellings by distance and landscape provision. He agrees with the Inspector at IR253 that, in the two appeal schemes as illustrated and designed, reasonable steps have not been taken to minimise the adverse impact of noise on the health and quality of life of future occupiers of the development. He also agrees that the proposals would not meet the requirement of JCS policy N5 to make provision for the structural greenspace in accordance with the inset map and that both appeal schemes would conflict with policies

S10(k) and BN9(e) of the JCS, the relevant guidance in Framework paragraphs 109 and 123, NPSE and BS 8233:2014.

The effect of the proposed development on adjacent heritage assets

12. The Secretary of State notes that the parties agree that the adjacent heritage assets consist of Collingtree Village Conservation Area and the Grade II* listed St. Columba's Church at its heart (IR254). For the reasons given by the Inspector (IR255-258), the Secretary of State agrees that the distinctive rural quality of the setting of the heritage assets would be lost, harming the significance of the listed church and the conservation area. The Secretary of State therefore agrees with the Inspector at IR259 that, in terms of paragraph 134 of the Framework, this would amount to less than substantial harm to the significance of the heritage assets and that that harm has to be weighed against the public benefits of the proposal, including securing its optimum viable use.

Highways

13. For the reasons given at IR261-264, the Secretary of State agrees with the Inspector's conclusion at IR265 that the appellant's traffic assessment is robust and shows that the highway improvements and sustainable travel measures, within an integrated transport network, would cost-effectively limit the significant impacts of the development. He therefore also agrees that the residual cumulative impact of the appeal schemes would not be severe so the proposals would accord with paragraph 32 of the Framework.

Flooding

14. For the reasons given at IR266-269, the Secretary of State agrees with the Inspector that, overall, the flood-risk situation would be improved.

Air Quality

15. For the reasons given at IR270-272, the Secretary of State agrees with the Inspector that, although the site is located immediately beside the M1 motorway and designated an Air Quality Management Area because of high levels of air pollution from road traffic, provided an effective landscape buffer is in place as indicated on the JCS policy N5 inset map, air pollution would be unlikely to be a particular danger.

Local Infrastructure

16. For the reasons given at IR273-274, the Secretary of State agrees with the Inspector that, although the facilities proposed by the applicant are intended to meet the needs of the new residents, they would also be open to use by existing residents of the surrounding area and that this would be a local benefit (IR274).

Compliance with the local development plan and the Framework

Appeal A

17. The Secretary of State agrees with the Inspector that the allocation of the Appeal A site in the Local Plan as a SUE effectively amounts to an 'in principle' mandate for development (IR282-283). However, he also agrees with the Inspector that the illustrative layout would not meet the requirement of JCS policy N5 to make satisfactory provision for structural greenspace in terms of resolving design issues; it would conflict with JCS policies S10 and BN9 with regard to external noise levels; it would not preserve the setting of the listed church; and it would not sustain or enhance the heritage and landscape features which contribute to the character and setting of the conservation area, in conflict with JCS policy BN5 (IR284). The Secretary of State therefore agrees with the Inspector (IR285) that, as accepted by the Council, the imposition of an agreed condition requiring an appropriately detailed masterplan to be submitted prior to submission of any reserved matters application would provide a realistic and straightforward approach to securing the overall control over land use elements required by policy N5. Taking that into account, the Secretary of State agrees with the Inspector that, for the reasons given at IR287, the Appeal A scheme would represent sustainable development.

Appeal B

18. However, for the reasons given at IR288-295, the Secretary of State agrees with the Inspector that, while the early delivery of new housing on the Appeal B site would be a major public benefit, that would be clearly outweighed by the harm the development would cause to important heritage assets and by its failure to properly mitigate the impact of noise on the living conditions of future occupiers. He agrees that there is no clear and convincing justification for this harm and that, taken as a whole, there are no material considerations sufficient to outweigh the conflict of the Appeal B proposal with the local development plan (IR294). For the reasons given by the Inspector at IR295, the Secretary of State agrees that the Appeal B scheme as proposed would not create a high quality built environment which would support the health and wellbeing of the local community. Nor would it protect the historic environment from irreversible harm. It would therefore fail to perform the social and environmental roles of sustainable development and, since all three roles are mutually dependent, the Secretary of State agrees that the Appeal B scheme as a whole cannot be considered to be sustainable development.

Conditions and Obligations

19. The Secretary of State has considered the recommended conditions set out at Annex A to the IR (in relation to Appeal A) and at Annex B (in relation to Appeal B), along with the Inspector's comments on them at IR299-304. He is satisfied that the proposed conditions are reasonable and necessary and meet the tests of the Framework and the guidance. He has therefore incorporated the conditions applicable to Appeal A in his decision as set out at Annex A to this letter. However, he does not consider that the conditions proposed by the Inspector in respect of Appeal B overcome his reasons for refusing that appeal.

20. The Secretary of State has also considered the Inspector's comments on the two s106 Agreements at IR296-298. The version drafted to cover the pre-CIL Charging Schedule situation has now fallen away, and the Secretary of State is satisfied that the terms of the extant Agreement meet the tests in the CIL Regulations.

Overall conclusions and planning balance

Appeal A

21. The Secretary of State has had regard to the fact that the Appeal A site is allocated in the JCS as a sustainable urban extension of some 1000 houses and associated infrastructure. He agrees that it represents part of the planned expansion of the town and is a key element in the provision of new housing to meet a pressing need. While acknowledging that some aspects of the illustrative layout are unacceptable, the Secretary of State is satisfied that these can be addressed through conditions requiring the approval of reserved matters, resulting in the delivery of up to 1000 new houses and representing a major planning benefit.

Appeal B

22. The Secretary of State concludes that the detailed scheme for the Appeal B part of the overall site would result in harm to the historic environment and, through the shortfall in noise mitigation measures, would not provide acceptable living conditions for future residents. It would therefore conflict with the development plan and would not preserve the setting of significant heritage assets. Thus, while accepting that the delivery of 378 houses, including 15% affordable homes, would be a major public benefit, he concludes that, on balance there are no material considerations sufficient to outweigh the conflict and justify the grant of permission.

Public Sector Equality Duty

23. In making this decision, the Secretary of State has had due regard to the requirements of Section 149 of the Public Sector Equality Act 2010, which introduced a public sector equality duty that public bodies must, in the exercise of their functions, have due regard to the need to (a) eliminate discrimination, harassment, victimisation; (b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it; and (c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it. In this regard, and in coming to his decision, the Secretary of State acknowledges that the Appeal A scheme will have some positive impact on protected persons arising from the provision of affordable housing, but he does not consider this benefit to be sufficient to outweigh his reasons for dismissing Appeal B.

Formal Decision

24. Accordingly, for the reasons given above, the Secretary of State agrees with the Inspector's recommendation. He hereby:

    - allows **Appeal A** and grants outline planning permission for the Northampton South Sustainable Urban Extension to be comprised of up to 1000 dwellings, a mixed use local centre, a site for a primary school, green infrastructure including formal and informal open space, reconfiguration and extension of Collingtree Park Golf Course, demolition of all existing buildings and structures within the site, new vehicular accesses off Windingbrook Lane and Rowtree Road, car parking, sustainable drainage systems (including flood risk betterment) and infrastructure (including highway improvements) in accordance with application number N/2013/1035, dated 2 October 2013, subject to conditions at Annex A to this letter; and

    - dismisses **Appeal B** and refuses full planning permission for 380 dwellings served by a new access from Windingbrook Lane and the reconfiguration of part of the Collingtree Park Golf Course, including a new temporary hole 17, demolition of all existing buildings and structures within the site, green infrastructure including formal and informal open space, car parking, sustainable drainage systems (including flood risk betterment) and infrastructure (including highway improvements) in accordance with application number N/2013/1063, dated 16 October 2013.

25. An applicant for any consent, agreement or approval required by a condition of the Appeal A permission for agreement of reserved matters has a statutory right of appeal to the Secretary of State if consent, agreement or approval is refused or granted conditionally or if the Local Planning Authority fail to give notice of their decision within the prescribed period.

26. This letter does not convey any approval or consent which may be required under any enactment, bye-law, order or regulation other than section 57 of the Town and Country Planning Act 1990.

Right to challenge the decisions

27. A separate note is attached setting out the circumstances in which the validity of the Secretary of State's decisions may be challenged. This must be done by making an application to the High Court within six weeks from the day after the date of this letter for leave to bring a statutory review under section 288 of the Town and Country Planning Act 1990.

28. A copy of this letter has been sent to the Council. A notification email/letter has been sent to all other parties who asked to be informed of the decision.

Yours faithfully

Jean Nowak
Authorised by Secretary of State to sign in that behalf

Annex A: Conditions relating to Appeal A

1) Prior to the submission of any reserved matters application, a Masterplan and Design Code covering the whole of the site shall be submitted to and approved in writing by the Local Planning Authority. The Masterplan and Design Code shall be formulated having regard to the submitted Design and Access Statement and respond to the recommendations of Building for Life 12, and shall include the following details:

- A phasing plan for the development, including an affordable housing phasing plan.

- The proposed movement network delineating the primary, secondary and tertiary streets and pedestrian and cycleway connections, setting out the approach to estate design, treatment of non-vehicular routes and car and cycle parking.

- The proposed layout, use and function of all open space within the development.

- The approach to and design principles applied to car parking (on street and off-street).

- Phased layout principles to include urban structure, form and layout of the built environment, building heights, densities, legibility, means of enclosure, key gateways, landmark buildings and key groups.

- The design approach for areas within the public realm including landscaping and hard surface treatments, lighting, street trees, boundary treatments, street furniture and play equipment.

- Servicing, including utilities, design for the storage and collection of waste and recyclable materials.

- External materials, to include a palette of wall and roof finishes, windows, doors, porches, heads, cills, chimneys, eaves and verges and rainwater goods.

- The design principles that will be applied to the development to encourage security and community safety.

- The specific design principles that will be applied to the Local Centre.

- The design principles for the incorporation of a Sustainable Urban Drainage System (SUDS) throughout the development.

Thereafter, any reserved matters application for any phase of development shall comply with the principles established within the approved Design Code.

2) Prior to the submission of any reserved matters application, a detailed phasing plan for the development that identifies stages at which each element of the proposed development (including the local centre, community hall, open space, sports provision, play equipment, primary school, housing, highway infrastructure and SUDs) shall be commenced, completed and made available for occupation, shall be submitted to and approved in writing by the Local Planning Authority. The development shall be carried out in full accordance with the approved details.

3) For each phase of the development details of the layout and scale of the buildings, their appearance and landscaping, and the means of access other than that approved, (hereinafter called "the reserved matters") shall be submitted to and approved in writing by the local planning authority before any development of that phase begins and the development of that phase shall be carried out as approved.

4) Application for approval of the first phase reserved matters shall be made to the local planning authority not later than 3 years from the date of this permission. All other applications for the approval of reserved matters shall be made to the local planning authority within 10 years from the date of this permission

5) Each phase of the development hereby permitted shall begin not later than 2 years from the date of approval of that phase's reserved matters.

6) The number of residential units to be constructed on the site shall not exceed 1,000.

7) The development and all reserved matters applications submitted pursuant to this permission shall not materially depart from the following plans and parameters:

- Proposed Windingbrook Lane Priority Junction (28015/001F)

- Proposed Rowtree Road Compact Roundabout (28015/002F)

- Up to 2.03 hectares for the provision of a primary school

- A minimum of 29.43 hectares of strategic open space

- A local centre comprising of 450 sq m of convenience retail floorspace (Use Class A1), 360 sq m of flexible commercial floorspace to accommodate uses within use Classes A1(shops), A2 (financial & professional services), A3 (restaurants/cafes), A4 (Drinking Establishments), A5 (Hot Food Takeaways) B1 (Business) and D1 (non-residential institutions) and 725 sq m for a community facility incorporating meeting rooms (Class D1).

8) Contemporaneously with the submission of reserved matters applications for each phase of development, a Sustainability Strategy indicating compliance with Part L of the Building Regulations shall be submitted to and approved in writing by the Local Planning Authority. The development shall be carried out in full accordance with the approved Sustainability Strategy.

9) Concurrently with the submission of reserved matters applications for each phase of development, full details of the proposed surface treatment of all roads, access and parking areas, footpaths, cycleways and private drives including their gradients within that phase shall be submitted to and approved in writing by the Local Planning Authority and shall be provided in full prior to that development phase being first brought into use.

10) Development shall not commence on any phase of development until a Construction Environmental Management Plan (CEMP) has been submitted to and approved in writing by the Local Planning Authority relating to that phase. The CEMP shall include the following:-

a) the management of traffic and routing during construction: to address site access, routes within site kept free from obstruction, wheel washing, travel plan for construction workers, loading and unloading, vehicle parking and turning areas, a scheme for prevention of surface water discharges onto the highway;

b) The location of access points for site traffic for that phase of development;

c) detailed measures for the control of dust during the construction phase of development;

d) the location and size of compounds;

e) the location and form of temporary buildings, adverts and hoardings;

f) details for the safe storage of any fuels, oils and lubricants;

g) construction of exclusion zones to prevent soil compaction for large scale planting areas, public and school playing fields, and remediation of any soil compaction;

h) a scheme for the handling and storage of topsoil;

i) details of the methods of protection of trees, hedgerows and water features in accordance with Condition 20;

j) a scheme for the protection of areas of ecological interest and for the mitigation of any possible harm to such areas;

k) details of any temporary lighting;

l) procedures for maintaining good public relations including complaint management, public consultation and liaison;

m) measures for the control of noise emanating from the site during the construction period;

n) Construction Plant Directional signage (on and off site);

o) provision for all site operatives, visitors and construction vehicles, loading and unloading of plant and materials;

p) waste audit and scheme for waste minimisation and recycling/disposing of waste resulting from construction works including confirmation of any material exports, routing and deposition sites.

The approved CEMP and measures contained therein shall be adhered to throughout the construction period.

11) No construction work (including use of machinery and/or plant maintenance) shall be carried out on the site outside the hours of 0800 to 1800 Mondays to Fridays and 0800 to 1300 on Saturdays or at any time on Sundays, Bank Holidays or other statutory holidays. No construction traffic shall enter or leave the site before 0700 Mondays to Saturday or at any time on Sundays, Bank Holidays or other statutory holidays.

12) Prior to the commencement of development, engineering and construction details of the two access junctions to the site as shown indicatively upon approved drawings 28015/001 Rev F (Windingbrook Lane) and 28015/002 Rev F (Rowtree Road) shall be submitted to and approved in writing by the Local Planning Authority. The Windingbrook Lane junction shall be provided prior to the commencement of any other works on site and in accordance with the approved details. The Rowtree Road junction shall be provided at the start of Phase 2 in accordance with the approved details.

13) No dwelling shall be occupied until details of the precise location and engineering and construction details of the following walking and cycling measures have been submitted to and approved in writing by the Local

Planning Authority and the works have been carried out in accordance with the approved details:

- 2no. pedestrian / cycle connections to existing bridleway KG2

- Provision of on-road advisory cycle lane on Hilldrop Road (to be delivered at the start of Phase 2) and Penvale Road

- Upgrade of existing footway in the southern verge of Mereway between the junction with Penvale Road and the A451 Queen Eleanor Roundabout

- 2no. controlled pedestrian crossings on Rowtree Road (the second of which is to be delivered at the start of Phase 2).

14) No dwelling shall be occupied until engineering and construction details of the following highway improvements have been submitted to and approved in writing by the Local Planning Authority and the works have been carried out in accordance with the approved details:

- Improvement to Rowtree Road / London Road / Wooldale Road roundabout (TA Figure 15.2)

- Improvement to Rowtree Road/Butts Road Roundabout (TA Figure 15.3) (to be delivered prior to the occupation of 379 dwellings on site)

- Improvements to Rowtree Road/Penvale Road junction (TA Figure 15.4) (to be delivered prior to the occupation of 379 dwellings on site)

- Improvements to A45/Queen Eleanor Interchange (TA Figure 15.6)

- Improvements to Towcester Road/Mereway/Tesco/Danes Camp Way roundabout (TA Figure 15.7)

15) Three peak hour part classified junction turning and queue count surveys shall be undertaken at the Berry Lane / Wooldale Road junction:

- The first one being undertaken in the last neutral month before works commence to the Rowtree Road / London Road / Wooldale Road Roundabout;

- The second one being undertaken in the first neutral month after works are completed to the Rowtree Road / London Road / Wooldale Road Roundabout;

- The third one being undertaken in a neutral month one year afterwards.

Should both the latter two surveys demonstrate that the conditions at the Berry Lane / Wooldale Road junction have not improved, the improvements shown on Figure 15.5 of the Transport Assessment shall be implemented.

16) Prior to the first occupation of any dwelling a full Residential Travel Plan shall be submitted to and approved in writing by the Local Planning Authority. The measures contained in the agreed Residential Travel Plan shall be carried out in accordance with the approved details.

17) Prior to the commencement of any works affecting any existing public right of way, full details of any enhancement, improvement, diversion or closure shall be submitted for approval in writing by the Local Planning Authority. The works shall be carried out in accordance with the approved details and in accordance with a timetable to be agreed in writing with the Local Planning Authority.

18) No development shall take place in each phase of development until an Arboricultural Method Statement, in accordance with BS 5837:2012 “Trees in Relation to Design, Demolition and Construction – Recommendations”, including details and proposed timing of all proposed tree works to any tree or hedge on, or, if consent obtained, adjacent to, the site and replacement tree planting, has been submitted to and approved in writing by the Local Planning Authority. Thereafter, the development of each phase of development shall be carried out in accordance with the approved details.

19) No equipment, machinery or materials shall be brought onto the site for the purposes of the development until details of the proposed type, and a plan of the proposed position of, measures for the protection of trees and hedges that are to be retained on the site, in accordance with BS 5837:2012 “Trees in Relation to Design, Demolition and Construction – Recommendations", have been submitted to, and approved in writing by, the Local Planning Authority. The measures identified, including tree protection barriers, shall be implemented in accordance with these details and shall remain in place until all equipment, machinery and surplus materials have been removed from the site. Nothing shall be stored, disposed of, or placed, nor fires lit, in any area fenced in accordance with this condition and the ground levels within these areas shall not be driven across by vehicles, altered, nor any excavation made (including addition/removal of topsoil/subsoil) without prior written consent of the Local Planning Authority.

20) No development shall take place until a surface water drainage scheme for the site, based on sustainable drainage principles and an assessment of the hydrological and hydro geological context of the development, has been submitted to and approved in writing by the local planning authority. The drainage strategy should demonstrate the surface water run-off generated up to and including the 0.5% (1 in 200) probability critical storm with climate change allowance will not exceed the run-off from the undeveloped site following the corresponding rainfall event. The scheme shall subsequently be implemented in accordance with the approved details before the development is completed. The scheme shall comply with the parameters set out in the agreed FRA (Peter Brett Associates, 28015/012 Rev4, February 2014) and shall also include:

- Full calculations and detailed drawings with levels to Ordnance Datum, including flow control structures.

- Designing for exceedance and consideration of overland flows.

- Accommodation of the existing spring on site.

- Details of how the scheme shall be maintained and managed after completion to support the Section 106 Agreement

21) Prior to the submission of any reserved matters application for that part of the golf course within the flood plain, a scheme for flood plain compensation must be submitted to, and approved in writing by, the local planning authority. The scheme shall also include:

- Flood plain compensation on a level for level, volume for volume basis up to the 0.5% (1 in 200) probability flood with climate change.

- Additional storage as set out in section 9 of the agreed FRA, (Peter Brett Associates, 28015/012 Rev4, February 2014).

- Evidence that flood risk is not increased elsewhere as a result of the re-profiling of ground levels.

The scheme shall be fully implemented and subsequently maintained, in accordance with the timing / phasing arrangements embodied within the scheme.

22) No development approved by this planning permission shall take place until such time as a scheme for works to Wootton Brook has been submitted to, and approved in writing by, the local planning authority. The scheme shall comply with the parameters set out in the agreed Flood Risk Assessment, (Peter Brett Associates, 28015/012 Rev4, February 2014) and shall also include:

- Full detailed design of the Wootton Brook Crossing and any associated mitigation.

- Details of localised channel improvements to improve conveyance.

- Details of the long term management and maintenance of the Wootton Brook and associated flood plain.

- Evidence that flood risk is not increased elsewhere as a result of the crossing or other works to the Wootton Brook.

The scheme shall be fully implemented and subsequently maintained, in accordance with the timing / phasing arrangements embodied within the scheme.

23) No building works which comprise the erection of a building required to be served by water services shall be undertaken in connection with any phase of the development hereby permitted until full details of a scheme including phasing, for the provision of mains foul sewage infrastructure on and off site has been submitted to and approved in writing by the Local Planning Authority. No building shall be occupied until the works have been carried out in accordance with the approved scheme.

24) Prior to the commencement of development details of a suitable fence adjacent to the boundary with the railway, to prevent golf balls from entering railway land, shall be submitted to and approved in writing by the Local Planning Authority. The fence shall be erected before the proposed new golf holes 4 and 5 adjacent to the railway line are brought into use.

25) No development shall take place until a phased programme of further archaeological work (in accordance with the details outlined in the ES accompanying the application) shall be submitted to and approved in writing by the Local Planning Authority. The further archaeological work shall be undertaken prior to the commencement of any infrastructure phase, landscaping phase or development parcel (as identified in the phasing plan to be agreed under Condition 7) where such further archaeological work is required.

26) Prior to the commencement of the demolition of buildings on site a Mitigation Strategy detailing the measures to be put in place to ensure that the risk of harm to bats during demolition is minimised shall be submitted to and approved in writing by the Local Planning Authority; demolition shall be implemented in accordance with the approved details. The Mitigation Strategy shall include details of replacement bat boxes to be sited on retained features to provide alternative roosting opportunities and details of an appropriate Natural England European Protected Species Derogation Licence to undertake the Mitigation Strategy.

27) Prior to the commencement of development a Mitigation Strategy detailing the measures to be put in place to ensure that the risk of harm to otters during construction work is minimised shall be submitted to and approved in writing by the Local Planning Authority; development shall be implemented in accordance with the approved details.

28) Prior to the submission of any reserved matters application an Ecological Construction Method Statement (ECMS) setting out in detail the measures to be implemented to protect ecological resources (as specified in paragraph 9.6.37 of the approved Environmental Statement) shall be submitted to and approved in writing by the Local Planning Authority; development shall be implemented in accordance with the approved Statement.

29) Prior to the submission of any reserved matters application a Landscaping and Ecological Management Plan (LEMP) setting out in detail the long-term management measures to be implemented (as specified in paragraph 9.6.40 of the approved Environmental Statement) shall be submitted to and approved in writing by the Local Planning Authority; development shall be implemented in accordance with the approved Plan.

30) Before any non-residential development commences as part of the overall development a Noise Assessment shall be submitted for approval in writing to the Local Planning Authority specifying the sources of internal and external noise and the provisions to be made for its control. The approved scheme shall be implemented prior to the occupation of the non-residential unit in accordance with the approved details.

31) Before any non-residential development commences as part of the overall development a scheme shall be submitted for approval in writing by the Local Planning Authority which specifies the arrangements to be made for deliveries to the premises concerned. The scheme shall be carried out in accordance with the approved details.

32) Concurrently with the Reserved Matters submission for each phase, a Noise Assessment of the exposure of proposed residential premises, with particular reference to bedrooms, based on the final building and estate layout, due to transportation noise shall be submitted for approval in writing to the Local Planning Authority. In particular the assessment shall identify the dwellings where the LAeq, night 55 dB noise level is exceeded at bedroom window height. The assessment shall take into account the likely growth of traffic over the next 15 years. Where any bedroom is exposed to noise levels in excess of LAeq night 55 dB, the submitted Noise Assessment shall include a scheme to protect those rooms. This will include provision for additional ventilation and / or heat control that will allow the occupant to keep the windows closed, independent of weather conditions.

33) Prior to the first occupation of the development, full details (including the precise alignment and the construction materials) of any acoustic barrier proposed shall be submitted to and approved in writing by the Local Planning Authority and the barrier shall subsequently be installed in accordance with the approved details.

34) Prior to the commencement of Phase 2 of the development, an area of land measuring at least 1.01ha will be identified within the proposed Strategic Open Space for the provision of community food production. The nature of this provision will be agreed in prior consultation with the local resident population. Full details of the provision including timing of

implementation shall be submitted to and approved in writing by the Local Planning Authority and thereafter implemented in accordance with the agreed timing.

35) Prior to the commencement of development, an intrusive investigation in respect of possible contaminants and ground gas generation within the site shall be completed – the scope and methodology of which shall be submitted to and approved in writing by the Local Planning Authority. The results of any such investigation shall be used to produce a method statement for any remedial work, which, if required, shall be submitted to and approved in writing by the Local Planning Authority. All remedial works found to be required shall be fully implemented in accordance with the approved details and a validation report shall be submitted to and approved in writing by the Local Planning Authority within 2 weeks of the completion of the development hereby approved. In the event that contamination that was not previously identified is found at any time when carrying out the approved development, it must be reported immediately in writing to the Local Planning Authority and subsequently investigated, remediated and validated in accordance with the full requirements of this condition.

36) The residential units hereby approved shall be designed to provide accessible and adaptable accommodation that meets the optional requirement M4(2) of Part M of the Building Regulations.

37) Notwithstanding the provisions of Article 3(1) of the Town and Country Planning (Use Classes) Order 1987 (as amended) (or any provision equivalent to that Class in any statutory instrument revoking and re-enacting that Order with or without modification), the commercial premises hereby approved shall not be used for any purposes other than those in use classes A1, A2, A3, A4, A5, B1 and D1 of the aforementioned order.

38) Notwithstanding the provisions of Article 3(1) of the Town and Country Planning (Use Classes) Order 1987 (as amended) (or any provision equivalent to that Class in any statutory instrument revoking and re-enacting that Order with or without modification), at no time shall the total gross retail floor area of the development hereby approved exceed 810 sq m and any individual unit exceed 500 sq m gross floor area.

39) Prior to the commencement of each phase, details of the provision for the storage and collection of refuse and materials for recycling shall be submitted for approval in writing by the Local Planning Authority. The development shall be carried out in accordance with the approved details and retained thereafter.

40) Locally Equipped and Neighbourhood Equipped Areas of Play shall be provided across the site in accordance with the indicative positions depicted upon the Parameter Plan (BHL001- 015 J); full details (including for their management and maintenance) shall be submitted contemporaneously with subsequent reserved matters applications and be approved in writing by the Local Planning Authority, development shall be implemented in accordance with the approved details.

41) No development shall commence on phases 2 and 3 (as defined by drawing number BHL0001/019/d – Indicative Phasing) until a ‘Deed of Adherence’ in the form set out in the Ninth Schedule to the Section 106 Agreement dated 22 December 2015 relating to this permission has been executed by all the landowners of the land comprising phases 2 and 3 to secure necessary on- and off-site contributions.

The Planning Inspectorate

Report to the Secretary of State for Communities and Local Government

by C J Ball DArch DCons RIBA IHBC

an Inspector appointed by the Secretary of State for Communities and Local Government

Date: 31 May 2016

TOWN AND COUNTRY PLANNING ACT 1990

Proposed development on
Land south of Rowtree Road and West of Windingbrook Lane, Northampton

Appeals by Bovis Homes Ltd

Northampton Borough Council

Inquiry opened on 1 December 2015

File Refs: APP/V2825/W/15/3028151 & APP/V2825/W/15/3028155

TABLE OF CONTENTS

ACRONYMS and ABBREVIATIONS USED IN THE REPORT

APS	Agreed position statement
AQMA	Air Quality Management Area
Ax	Appendix
BHL	Bovis Homes Ltd, the appellant
BS	British Standard
CA	Conservation Area
CAAMP	Conservation Area Appraisal and Management Plan
CD	Core Document
CEMP	Construction Environmental Management Plan
CIL	Community Infrastructure Levy
CPC	Collingtree Parish Council
CPRA	Collingtree Park Residents Association
ECMS	Ecological Construction Method Statement
EIA	Environmental Impact Assessment
EHO	Environmental Health Officer
EHPC	East Hunsbury Parish Council
EiP	Examination in Public
ES	Environmental Statement
Framework	National Planning Policy Framework
FRA	Flood Risk Assessment
GPA3	Good Practice Advice Planning Note 3: The setting of heritage assets
HCRA	Hunsbury and Collingtree Residents Alliance
HE	Historic England (formerly English Heritage)
JCS	The West Northamptonshire Joint Core Strategy Local Plan 2014
JSPC	The West Northamptonshire Joint Strategic Planning Committee
LEAP	Local Equipped Area for Play
LEMP	Landscaping and Ecology Management Plan
LOAEL	Lowest Observable Adverse Effect Level
NEAP	Neighbourhood Equipped Area for Play
NBC	Northampton Borough Council
NCC	Northamptonshire County Council
NOEL	No Observed Effect Level
NPSE	Noise Policy Statement for England
NRDA	Northampton Related Development Area
NSSUE	Northampton South Sustainable Urban Extension
PCPA	Planning and Compulsory Purchases Act 2004
PIM	Pre-inquiry meeting
PLBCA	Planning (Listed Buildings and Conservation Areas) Act 1990
PPG	National Planning Policy Guidance
PROW	Public Right of Way
SOAEL	Significant Observed Adverse Effect Level
SOCG	Statement of Common Ground
SPD	Supplementary Planning Document
SSCLG	Secretary of State for Communities and Local Government
SUDS	Sustainable Urban Drainage Scheme
TCPA	Town and Country Planning Act 1990
WBAG	Wootton Brook Action Group
WHO	World Health Organisation

Land south of Rowtree Road and west of Windingbrook Lane, Northampton

The appeals are made by Bovis Homes Ltd Central Region against the decisions of Northampton Borough Council.

Appeal A: APP/V2825/W/15/3028151

- The appeal is made under section 78 of the Town and Country Planning Act 1990 against a refusal to grant outline planning permission.
- The application Ref N/2013/1035, dated 2 October 2013, was refused by notice dated 2 February 2015.
- The development proposed is for the Northampton South Sustainable Urban Extension to be comprised of up to 1,000 dwellings, a mixed use local centre, a site for a primary school, green infrastructure including formal and informal open space, reconfiguration and extension of Collingtree Park Golf Course, demolition of all existing buildings and structures within the site, new vehicular accesses off Windingbrook Lane and Rowtree Road, car parking, sustainable drainage systems (including flood risk betterment) and infrastructure (including highway improvements).

Summary of Recommendation: The appeal be allowed and planning permission granted subject to conditions.

Appeal B: APP/V2825/W/15/3028155

- The appeal is made under section 78 of the Town and Country Planning Act 1990 against a refusal to grant planning permission.
- The application Ref N/2013/1063, dated 16 October 2013, was refused by notice dated 2 February 2015.
- The development proposed is 380 dwellings served by a new access from Windingbrook Lane and the reconfiguration of part of the Collingtree Park Golf Course, including a new temporary hole 17, demolition of all existing buildings and structures within the site, green infrastructure including formal and informal open space, car parking, sustainable drainage systems (including flood risk betterment) and infrastructure (including highway improvements).

Summary of Recommendation: The appeal be dismissed.

Procedural matters

1. The appeals were recovered by the Secretary of State for Communities and Local Government to determine himself because they involve proposals for residential development of over 150 units which would significantly impact on the Government's objective to secure a better balance between housing demand and supply and create high quality, sustainable, mixed and inclusive communities *(IN1).*

2. I held a pre-inquiry meeting (PIM) on 23 September 2015 and a PIM Note was circulated to all parties on 25 September *(IN2).* A Supplementary PIM Note, clarifying the matters at issue, was circulated on 28 October *(IN3).*

3. The inquiry sat for 9 days between 1 and 18 December. I made pre-inquiry unaccompanied visits to the area on 22 September and 30 November. During the inquiry, on 8 December I made an accompanied visit to the site and its immediate surroundings, following an itinerary agreed by the parties *(SV1).* Later that day, and on 9 December, I made unaccompanied visits to the wider surroundings, including Collingtree village, the roads adjacent to 2 local schools and key points on the highway network *(SV2).*

4. On 18 December, having heard all the evidence, I adjourned the inquiry to 4 January 2016 to allow signature of the s106 Agreements by all the necessary parties, with the intention of closing the inquiry in writing. Electronic versions of the executed Agreements were received on 4 January and hard copies on 18 January *(PA8, PA9).* I closed the inquiry in writing on 18 January *(IN5).*

5. At the inquiry an application for costs was made by Bovis Homes Ltd (BHL) against Northampton Borough Council (NBC). That application is the subject of a separate Report.

6. The appeals relate to land allocated in the recently adopted West Northamptonshire Joint Core Strategy (JCS) as a Sustainable Urban Extension (SUE) to Northampton. The planning applications were both refused against officer advice for 5 similar reasons. Following submission of the appeals the Council reviewed its reasons for refusal of both applications and decided in each case to withdraw reason 1, (an objection in principle), to delete objections on air quality grounds and to clarify policy and heritage references.

7. Subsequently, following further technical information submitted by the appellant, the Council withdrew in each case reasons for refusal 2 and 3 relating to highways matters. The inquiry therefore concentrated on the matters raised by the remaining reasons for refusal 4 and 5, which relate to noise and heritage assets. Nonetheless, because of local objectors' concerns about highways, air quality and flooding, I asked the appellant to call witnesses to explain how these matters had been so recently resolved with the Council and to answer questions raised by local objectors. NBC circulated its Air Quality Assessment *(CDH.3).*

8. A number of objections relate to the allocation of the site, and the manner in which it was allocated, in the JCS. In opening the inquiry I made it clear that that was not something I could address and that such objections were a matter for the Local Plan process. I explained that the inquiry was not an opportunity to re-run the local plan allocation arguments and that evidence given to the inquiry on those matters would not be relevant to the issues before me. Nonetheless several speakers, including MPs and local councillors, raised these objections. While I have reported them, I have not taken them into account in coming to my conclusions. Cllr Larratt particularly insisted that I bring his objections in this regard to the attention of the Secretary of State. His statement is at *CBC/2.*

9. The parties submitted a vast array of core documents to the inquiry, seemingly every document associated with the applications. This is an unnecessary burden on the decision maker and indicates a fundamental misunderstanding of the purpose of core documents at a s78 inquiry. Some of the core documents, for example consultee responses, had already been submitted with the appeal documentation. Many others are superfluous for the purposes of the inquiry and its defined issues, for example it is not necessary for the Secretary of State to see every version of a series of revised application plans. In fact only a limited number of key core documents were referred to in written and oral evidence. So, while all the documents will be forwarded to the Secretary of State, indexed by the full Core Document List *(IN4)*, I have listed only those core documents referred to at the inquiry or in this report.

10. After the inquiry had been closed judgement was issued by the Court of Appeal in the case of *Suffolk Coastal DC v Hopkins Homes Ltd & SSCLG/Richborough Estates Partnership LLP v Cheshire East BC & SSCLG [2016] Civ 168.* Since both

parties had referred in evidence to the impending judgement I invited them to submit comments on the implications it might have for their cases presented at the inquiry. I have taken these comments into account (*NBC/8,BHL/17*).

11. The reporting of the parties' cases is based on summarised evidence given at the inquiry, both oral and written, and edited closing submissions. References in italic brackets, *(CDA.1),* are to the documents listed at the end of this report.

The site and surroundings

12. The allocated Northampton South SUE site lies between the existing southern urban edge of Northampton and the M1 motorway. The Appeal A site, which is wholly within Northampton Borough, is about 4.5 km south of the town centre and about 2.5 km from junction 15 of the M1. It is bordered by Rowtree Road and the residential suburb of East Hunsbury to the north; Windingbrook Lane and the residential areas of Collingtree Park and Collingtree village to the east; the M1, largely on embankment, to the south; and agricultural land to the west. The West Coast Main Line Railway is located in a cutting just beyond the western boundary of Site A. Rowtree Road connects with the Towcester Road and the A45 Trunk Road. The A45 is a strategic highway link of regional significance serving the town of Northampton, and linking the M1 with the A14 Trunk Road *(CDA.6).* The M1 between Junctions 15 and 16 and adjacent to the site is designated as an Air Quality Management Area (AQMA).

13. The site, of about 96 Ha, consists primarily of agricultural land but includes part of Collingtree Golf Course. Public footpaths cross the site and a bridleway, connecting Windingbrook Lane with Collingtree forms part of its eastern boundary. The Wootton Brook flows through the northern part of the site in a westerly direction, with the site generally sloping down to the flood plain of this watercourse from a high point in the south west corner. The majority of the site lies within Flood Zone 1 (above the 1 in 1000 year flood extent), with a narrow corridor alongside Wootton Brook lying within Flood Zone 2 (between the 1 in 100 and 1 in 1000 year flood extents) and Flood Zone 3 (below the 1 in 100 year flood extent). Wootton Brook and its associated water bodies are designated as a County Wildlife Site. Most of the site is also designated as part of the Nene Valley Nature Improvement Area which aims to create more and better connected habitats over large areas for wildlife.

14. The Appeal B site occupies the south east corner of the overall site, bordered by the residential suburb of Collingtree Park, Collingtree village and the M1, at this point in a cutting *(CDD.17).* This more level site, of about 27 Ha, includes part of the golf course and agricultural land to its south. A public footpath between Collingtree village and Milton Malsor crosses the southern part of the site. The centre of the village is designated as the Collingtree Conservation Area and includes 10 listed buildings, notably the grade II* listed St Columba's Church.

The proposals

15. **Appeal A** relates to an application for outline planning permission with all matters except access reserved for future consideration. Details of the scale and appearance of the buildings, landscaping and site layout would be the subject of a subsequent reserved matters application. The proposal is for a mixed use development of up to 1,000 new houses, including about 150 affordable homes, with a community hall, local centre and site for a new primary school. There

would be a number of open spaces, including the reconfigured golf course. Highway access would be by a T junction on Windingbrook Lane and a new roundabout on Rowtree Road.

16. The outline application was accompanied by a Parameters Plan *(CDB.2)*, intended to illustrate the policy requirements and constraints of the site, and an illustrative Master Plan *(CDA.6),* indicating how the site might be developed in the light of the Parameter Plan. Neither plan is part of the application and I have considered them on the basis that they have been submitted as an illustration of the appellant's approach rather than a fixed site layout design.

17. **Appeal B** concerns an application for full planning permission, originally for 380 houses, on the eastern part of the allocated land. During the course of the application, minor modifications to the scheme resulted in the number of dwellings proposed being reduced to 378 *(SOCG1,CDD.17).* Highway access would be by a T junction on Windingbrook Lane. The Appeal B scheme does not include the community hall, local centre or school site and is seen as Phase 1 of the overall development. Should the Appeal A proposal not be approved, the Appeal B scheme is put forward as a stand-alone development.

Environmental impact assessment

18. The proposals are EIA development for the purposes of the Town and Country Planning (Environmental Impact Assessment) Regulations 2011. An Environmental Impact Assessment was carried out by the appellant and an Environmental Statement (ES) submitted *(CDA.18)*. The ES has assessed the main environmental effects of the development and, with respect to this and the other requirements of Schedule 4 of the EIA Regulations, the ES is considered to be adequate. There is some concern about the overall adequacy of mitigation works in Phase 1 if the rest of the development does not go ahead. I consider that, as a stand-alone scheme the subject of a full application, this could be addressed by reference to the submitted plans and, if necessary, the imposition of appropriate conditions.

19. I heard further evidence on environmental matters at the inquiry and I have taken all the environmental information into account. I am satisfied that the requirements of the EIA Regulations have been met and that sufficient information has been provided to enable a proper assessment of the environmental impact of the proposals.

Planning policy background

20. It has long been recognised that Northampton Borough is unable to physically accommodate its own housing needs. The Council, in cooperation with its neighbouring authorities, designated the Northampton Related Development Area (NRDA) to address those needs. The NRDA consists of Northampton Borough and land within the neighbouring districts either committed to or allocated for development related to the growth of Northampton *(CDG.4 Fig4).* The West Northamptonshire Joint Strategic Planning Committee (JSPC) was set up to act as the local planning authority for the NRDA, with members from all the constituent authorities.

21. Despite objections by Northampton councillors *en bloc* to the inclusion of the Northampton South SUE, the West Northamptonshire Joint Core Strategy Local

Plan (Part 1) was adopted by the JSPC in December 2014 after being found sound following Examination in Public *(SOCG1, CDG.5).* Thus the local development plan for Northampton Borough now consists of the West Northamptonshire Joint Core Strategy (December 2014) (JCS), the saved policies of the Northampton Local Plan (June 1997) (NLP), and the Northamptonshire Minerals and Waste Local Plan (October 2014) (NMWLP). There was no meaningful reference to NLP or NMWLP policies in the reasons for refusal or in other objections at the inquiry.

22. The key consideration in these appeals is JCS policy N5: Northampton South SUE, which allocates the site for development. The extent of the allocated site, which more or less corresponds to the Appeal A site, is shown on Fig 5 and Inset 12 of the JCS *(CDG.4).* Policy N5 requires the development of the site to make provision for:

    (a) in the region of 1,000 dwellings;

    (b) a primary school;

    (c) a Local Centre, to include local retail facilities of an appropriate scale(including a small convenience store), health care services and community facilities;

    (d) an integrated transport network focussed on sustainable transport modes including public transport, walking and cycling with strong links to adjoining neighbourhoods, employment areas and the town centre;

    (e) structural greenspace and wildlife corridors as indicated on the policies map (Figure 5);

    (f) open space and leisure provision;

    (g) archaeological and ecological assessment of the site and required mitigation; and

    (h) flood risk management including surface water management and from all other sources.

    Necessary infrastructure is required to be phased alongside the delivery of the development. Development proposals must be accompanied by a Masterplan.

23. Other JCS policies central to the appeals includes policy S10: Sustainable Development Principles, policy BN5: The Historic Environment and Landscape, and policy BN9: Planning for Pollution Control.

24. Other material considerations of specific relevance include the national planning policy objectives set out in the Framework; the accompanying Planning Policy Guidance (PPG); DEFRA's *Noise Policy Statement for England* (NPSE) *(CDK.1);* BS8233:2014 *Guidance on sound insulation and noise reduction for buildings (CDK.3);* Historic England's Historic Environment Good Practice Advice in Planning:3 *The Setting of Heritage Assets* (GPA3) *(CDI.2);* and the Collingtree Village Conservation Area Appraisal and Management Plan (CAAMP) *(CDI.4).*

25. In considering these appeals I am required by s66 and s72 of the PLBCA to have special regard to the desirability of preserving the setting of the listed church and to pay special attention to the desirability of preserving or enhancing the

character or appearance of the Collingtree Conservation Area. The s72 duty applies to development within a conservation area so, since the appeal site lies outside it, consideration of the impact on the setting of the conservation area is a matter for planning policy rather than statutory duty.

26. In this regard, the original heritage reason for refusal referred only to a failure to safeguard the setting of the village and the conservation area. The reference to the failure to preserve the setting of the grade II* listed church was added after the appeals were submitted, following comments from HE *(CDI.7).* This could be seen as the late introduction of an additional reason for refusal. However, my duty under the PLBCA requires me to consider the impact of the proposal on the setting of the listed church in any event and, since the appellant was able to present relevant evidence, I do not consider that his or any other party's interests were prejudiced by that alteration to the reason for refusal.

Agreed matters

27. The main parties submitted a statement of common ground and, following my request at the PIM, subsequently put in an addendum statement, 3 specific expert witness statements and a set of 3 agreed position statements.

28. **The primary statement of common ground** *(SOCG1)* sets out the details of the applications, including pre-decision changes, and the reasons for refusal, outlining the subsequent changes. A schedule of documentation is included. The statement describes the sites and their surroundings and summarises the relevant planning policy.

29. Matters not in dispute include the allocation of the site as a SUE in the JCS; the reasons for refusal; the 28 January committee note regarding the weight to be given to the JCS; no objection in principle to development of the sites; the inability of the Council to demonstrate a 5-year supply of housing land; the suitability of the location for residential development; no design objections; no objection to the reconfiguration of the golf course; no landscape objections; no objections from the Highways Authorities; no objection on flooding or drainage grounds, subject to appropriate conditions; no objection on ecology grounds; and no objection on air quality grounds. Matters in dispute at this stage included the impact on the highway network; the impact of additional traffic on residential amenity; the effectiveness of noise mitigation measures; and the impact on heritage assets.

30. **The addendum statement of common ground** *(SOCG2)* updates the position following the Council's further review of the reasons for refusal. Matters not in dispute now include housing land supply; local facilities; the provisions to be made for primary and secondary education; medical provision; and the withdrawal of all highways-related objections. The statement confirms the identified main issues relating to sustainable development, noise, heritage assets and compliance with the development plan, as set out in the supplementary PIM Note. It makes reference to agreed planning obligations and to the impending adoption of the Council's CIL Charging Schedule. The addendum statement includes suggested conditions for both appeals.

31. **The Noise statement of common ground** *(SOCG3)* identifies the matters not in dispute as: acceptable traffic noise levels at construction stage and from the development itself; the measured noise data presented in the ES as broadly

representative of the noise climate on and around the appeal sites; the site being broadly suitable for residential development, provided that the site layout is appropriately designed and includes the requisite mitigation measures; policy N5 of the JCS allocates the site shown on Figure 5 (Inset 12) of the JCS for 'in the region of 1000 dwellings' and Inset 12 identifies a strip of "Indicative Structural Green Space" which runs along the border of the allocated site with the M1 Motorway; planning permission should not be refused on the grounds of noise emanating from road traffic on the M1 motorway if the developments satisfy the requirements of JCS policies S10 and BN9 and Framework 109 and 123, having regard to the guidance in BS 8233: 2014; and an acceptable internal noise environment can be provided in all dwellings using a range of design solutions including, where appropriate, mechanical ventilation.

32. The updated noise reason for refusal says that the noise mitigation measures proposed fail to demonstrate that a satisfactory residential environment could be created for the future residents of the proposed development. The remaining matter in dispute is that of noise levels in external amenity areas of residential dwellings close to the motorway. NBC's position is that all reasonable steps should be made to avoid garden and external amenity areas experiencing noise levels exceeding 55dBA and to keep any exceedances to a minimum. NBC considers that the appellant has not taken all reasonable steps to achieve that.

33. **The Heritage statement of common ground** *(SOCG4)* identifies the relevant heritage assets as the Collingtree Village Conservation Area and the grade II* listed Church of St Columba. Both assets are outside the appeal sites so it agreed that it is only their settings under consideration. The statement sets out the relevant legislation, policy and guidance. The heritage matters in dispute relate to whether there would be any harm to the significance of the conservation area or the listed church as heritage assets and the acceptability of any identified harm measured against the requirements of JCS policy BN5, the requirements of the Framework and the provisions of s.66 of the PLBCA. The parties agree that, to the extent that the significance of either asset would be harmed, in terms of Framework 132-134, that would constitute less than substantial harm, to be weighed against the public benefits of the scheme.

34. **The Highways and Transport statement of common ground** *(SOCG5)* first gives a brief summary of transport matters, describing the withdrawal of highways reasons for refusal. It gives details of the transport assessment work, summarises the transport assessment methodology and sets out the transport strategy promoted to manage the transport impact from the development of the allocated site. It indicates the extent of liaison between the parties and confirms agreement to the appropriate planning obligations and conditions. The statement confirms that the Council's overall conclusion is that the residual cumulative transport impact of the development would not be severe and that there are no transport-related matters in dispute.

35. **The Highways agreed position statement** *(APS1)* between the appellant and Northamptonshire County Council (NCC) as local highway authority summarises the transport assessment process undertaken, and the output upon which NCC and the appellant have reached agreement such that, subject to the necessary works of mitigation, there are no areas of disagreement on highways matters.

36. **The Bus Service Strategy agreed position statement** *(APS2)* between the appellant and Stagecoach Group plc confirms the agreement, subject to initial funding, to provide a viable, long term bus service to the development. The opportunity for sustainable transport would be fully taken up, it would provide an attractive transport option for the development as well as improving the existing service for local residents and there would be the potential for a higher level of modal shift to bus than the scheme allows for. This would contribute to solving the existing traffic issues in south Northampton.

37. **The Flood Risk and Drainage agreed position statement** *(APS3)* between the appellant and the Environment Agency (EA) summarises the principal stages of work and consultation undertaken as part of the Flood Risk Assessment and the matters upon which the EA and the appellant have reached agreement, such that there are no areas of disagreement in respect of flood risk considerations. The proposed housing, school and local centre would be located in Flood Zone 1, away from the narrow corridor of land in Flood Zone 2 and 3 along Wootton Brook. The highway crossing to Rowtree Road lies within the flood plain and the proposals there would include appropriate mitigation and compensation work. There would also be betterment of the existing flood risk conditions, providing increased protection for local residents with improvement work, including new swales, directing water flows away from existing residential properties at Collingtree. It is agreed that surface water drainage from the development can be controlled by appropriate conditions.

Planning obligations

38. For each appeal proposal the parties submitted an Agreement under s106 of the Act as a planning obligation *(PA8, PA9).* The obligations are primarily intended to ensure the satisfactory mitigation of the impact of the proposals on local infrastructure. They are accompanied by a statement setting out compliance with the Community Infrastructure Levy (CIL) Regulations and national and local planning policy *(PA1).*

The case for Bovis Homes Ltd

The appellant's evidence is set out primarily in opening submissions (BHL/OS), main proofs of evidence (BHL/2, BHL/3 BHL/4, BHL/5) and closing submissions (BHL/CS)

Introduction

39. The inquiry concerns two planning applications which accord with both the general strategy and specific policy (policy N5) of the recently adopted development plan (JCS). The Appellant engaged with specialist statutory and non-statutory consultees, a suite of specialist technical experts, the local community and the Council's officers over a protracted period as part of an iterative process to ensure that the proposed developments were exactly in accordance with the development plan. Indeed, the Council's planning officers unequivocally recommended approval *(CDF.1).* The way in which this land has come forward provides a textbook example of the way the planning system is intended to operate - except that at the final stage something went badly wrong.

40. The Council tried to override the entire forward planning process upon which the modern planning system is based without having any coherent intellectual or evidential basis for so doing. When faced with the appeal it quite properly withdrew its major reasons, which could not be substantiated. The Council's

eventual resolved position has been to resist the proposed developments on the 'make weight' grounds of noise and heritage. The noise reason for refusal is simply not made out on the Council's own case. Furthermore, the heritage reason for refusal has been exposed as an overstated, outright attack on the principle of development and the allocation itself. Neither reason for refusal withstands scrutiny. However, if that is wrong, the benefits of the scheme far outweigh the harm the Council seek to identify, especially having regard to its accepted housing delivery problem. On any interpretation of statute, the Framework and the development plan, the proposed developments represent sustainable development. This is not a borderline case. The applications should never have been refused *(BHL/CS).*

The appellant's approach

41. The primary case: the development proposals accord with the development plan and thus consent should be granted without delay, per the first bullet point within Framework 14;

42. The secondary case: if conflict with the development plan is found, owing to the Council not having a 5 year supply of housing, the policies relied upon by the Council are out of date (per Framework 49) and thus consent should be granted via the second bullet point within Framework 14, owing to the benefits far outweighing the harm;

43. The tertiary case: if conflict with the development plan is found and the policies relied upon by the Council are not out of date, the benefits of the proposed developments are such that they are a material consideration which justify the grant of consent, notwithstanding any breach of the development plan, by virtue of s.38(6) of the Planning and Compulsory Purchase Act 2004.

44. Accordingly, all routes lead to the grant of planning permission, subject to conditions and s.106 obligations *(BHL/CS).*

Whether the Council can demonstrate a 5 year supply of housing land and the consequent policy implications

45. It is accepted that the Council can only demonstrate a housing supply of no more than 3.76 years *(SOCG2),* including the delivery of 250 dwellings from the appeal site. This is the Council's best case scenario: it is clear that the Council have a significant housing delivery problem. The appellant considers that the proposed developments conform with the development plan. In accordance with the appellant's primary case, consent should be granted without delay. In this context, the fact that the Council do not have a 5 year supply of housing only serves to reinforce the merits of granting planning permission.

46. If, however, it is considered that there is conflict with the development plan, the fact that the Council does not have a 5 year housing supply has policy implications which mean that consent should still be granted (the appellant's secondary case). Indeed, the policy of the Framework is to increase the supply of housing as a general objective. There is a mechanism within the policy for loosening housing restraint policies in circumstances where there has been a failure to identify a 5 year supply of deliverable housing land. This is because the policy recognises that severe adverse impacts arise to the public interest where an under provision of housing land persists. This is the situation that applies

here. Framework 49 states that where the Council are unable to demonstrate a 5 year supply of deliverable housing sites, relevant policies for the supply of housing should not be considered up-to-date. This is relevant in that the Council seek to rely on JCS policies S10, BN5 and BN9 in their reasons for refusal as a basis for refusing planning permission.

47. The appellant submits that policies S10, BN5 and BN9 are relevant policies for the supply of housing, having regard for the broad interpretation of this expression established through legal authorities, such as: *South Northamptonshire Council v SSCLG [2014] EWHC 573 (Admin);* and *Wenman v SSCLG [2015] EWHC 925 (Admin) (BHL/14).* From these authorities the following principles can be extracted:

    - whether a policy is a relevant policy for the supply of housing is a matter of planning judgment;
    - the phrase 'relevant policies for the supply of housing' should be given a broad meaning;
    - those policies that address housing or **generally** restrict development **are** relevant policies for the supply of housing;
    - those policies that are intended to protect a **specific** area (e.g. a Green Gap), and in doing so they restrict development, **are not** relevant policies for the supply of housing.

48. Accordingly, as policies S10, BN5 and BN9 do not protect a specific area, but rather serve to restrict development generally, they are relevant policies for the supply of housing.

49. The next stage is to consider what implications the lack of a 5 year housing land supply has on these policies. In *Cotswold DC v SSCLG [2013] EWHC 3719 (Admin),* Lewis J held that Framework 49 has the effect that, where the Council cannot demonstrate a 5 year housing land supply, policies relevant to the supply of housing should be considered out of date - but only to the extent that they restrict development. Thus the question of whether policies S10, BN5 and BN9 serve to restrict the proposed developments must be considered. On the Appellant's primary case the proposals conform with these policies so they do not restrict these developments – thus under these circumstances they can be afforded full weight. However, on the appellant's secondary case, the proposed developments would be in conflict with these policies and thus they would serve to restrict the developments. Consequently, under Framework 49 the policies are out of date.

50. Under these circumstances, the next stage would be to apply the second bullet point for decision taking in Framework 14, which applies where *"the development plan is absent, silent or* ***relevant policies are out-of-date****"*. In applying this policy, a planning balance must be undertaken to determine whether the proposed developments amount to sustainable development. A policy being out of date relates to the nuanced question of weight – in that it suggests that the policy (or rather the conflict with the policy) should be afforded less weight in the planning balance. This is consistent with the judgment in *Ivan Crane v SSCLG [2015] EWHC 425 (Admin). (BHL/14)* Policy S10 relates to general principles of sustainability, policy BN5 relates to the historic environment, and policy BN9

relates to pollution control, including reducing the adverse impacts of noise. If it is held that the proposed developments conflict with these policies, it follows that that conflict should be afforded less weight in the planning balance owing to the policies being out of date *(BHL/CS).*

51. Significant weight should also be attached to the fact that the proposed developments would significantly contribute to the Council's housing provision. Indeed, the Council has been unable to physically accommodate its own housing needs since 1992 *(SOCG1).* Furthermore, this housing delivery problem is compounded when one considers that the delivery of the SUEs is *"critical"* to overall delivery in the administrative area, as identified in the Inspector's report for the EiP *(CDG.5).*

52. Finally, in applying the planning balance under the second bullet point for decision taking within NPPF14, there is some uncertainty in the law as to how this should be applied. The appellant invites the Inspector to apply the two stage approach to this issue, as proposed by Lang J in *William Davis v SSCLG* [2013] EWHC 3058 (Admin)[7] [8] and *Wenman.* This involves the Inspector first applying an unweighted planning balance, whereby the benefits and harm are considered on an even basis, and then only if the Proposed Developments are found to be sustainable under this first stage, the Inspector should proceed to apply the weighted planning balance, considering the harm in the context of whether it significantly and demonstrably outweighs the benefits (*BHL/14*).

53. The recent judgement in *Suffolk Coastal DC v Hopkins Homes Ltd & SSCLG/Richborough Estates Partnership LLP v Cheshire East BC & SSCLG* [2016] EWCA Civ 168 makes no difference to the appellant's primary case but does serve to bolster the secondary case, as it cannot be argued that the policies relied on by the Council are not out of date. The judgement makes clear that the concept of 'policies for the supply of housing' should be interpreted widely and extends to policies whose effect is to influence the supply of housing land by restricting locations where new housing may go. The policies relied on by the Council – S10, BN5 and BN9 – have the effect of preventing development on a strip of land alongside the motorway such that they constrain the supply of housing land and prevent an allocated site coming forward within its allocated timescale. It cannot be sensibly concluded that they are up to date or that they carry full weight (*BHL/17*).

54. In summary, therefore, on the appellant's primary case, the Council's inability to demonstrate a 5 year housing supply only serves to reinforce the sense in granting permission. On the appellant's secondary case, the Council's lack of a 5 year supply means that the policies cited in the reasons for refusal are out of date and thus any conflict found should be afforded less weight in the planning balance. Against this, significant weight should be attached to the fact that the proposed developments would contribute to tackling the Council's acknowledged housing delivery problems. Similarly, on the appellant's tertiary case this delivery problem is a material consideration that contributes to the grant of consent. Finally, in carrying out the planning balance under Framework 14, the Inspector is invited to adopt the two-stage approach favoured by Lang J in *William Davis,* in order to avoid any complications in light of the Court of Appeal's forthcoming determination of this matter *(BHL/CS).*

Whether satisfactory living conditions would be created for the residents of the proposed development, with particular regard to noise levels

55. Noise is only a concern in the Council's case in relation to a strip that runs along the border of the allocation with the M1 motorway *(NBC/1/B Ax6).* There is no identifiable harm in noise terms for the rest of the site – the overwhelming majority of it. Furthermore, it is agreed that within the strip identified by the Council, an acceptable internal acoustic environment can be provided for all dwellings *(SOCG3).* The Council's noise objection, therefore, solely relates to the external amenity areas of residential dwellings close to the motorway *(SOCG3).*

56. NPSE *(CDK.1)* sets out the long term vision of the government's noise policy, which is to:

• avoid significant adverse impacts on health and quality of life;

• mitigate and minimise adverse impacts on health and quality of life; and

• where possible, contribute to the improvements of health and quality of life.

57. The long term policy vision and aims are designed to enable decisions to be made regarding an acceptable balance between the requirement for new development to benefit local communities and the economy, whilst providing adequate protection to society. NPSE provides further guidance on defining the effects of noise using the following concepts:

• No Observed Effect Level (NOEL) - the level below which no effect can be detected. Below this level no detectable effect on health and quality of life due to noise can be established;

• Lowest Observable Adverse Effect Level (LOAEL) - the level above which adverse effects on health and quality of life can be detected; and

• Significant Observed Adverse Effect Level (SOAEL) - the level above which significant adverse effects on health and quality of life occur.

58. NPSE 2.24 states that *"the second aim of the NPSE refers to the situation where the impact lies somewhere between LOAEL and SOAEL. It requires that all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life while also taking into account the guiding principles of sustainable development (paragraph 1.8). This does not mean that such adverse effects cannot occur."*

59. PPG *(CDG.2)* defines similar concepts and advises on mitigation measures *that "For noise sensitive developments mitigation measures can include avoiding noisy locations; designing the development to reduce the impact of noise from the local environment; including noise barriers; and, optimising the sound insulation provided by the building envelope. Care should be taken when considering mitigation to ensure the envisaged measures do not make for an unsatisfactory development."* and that *"the noise impact may be partially off-set if the residents of those dwellings have access to:….. a relatively quiet, protected, external publically accessible amenity space (e.g. a public park or a local green space designated because of its tranquillity) that is nearby (e.g. within a 5 minutes walking distance)."*

60. BS 8233:2014 *(CDK.3)* also provides advice in relation to design criteria for external noise. It states that: *"for traditional external areas that are used for amenity space, such as gardens and patios, it is desirable that the external noise level does not exceed 50 dB $L_{Aeq,T}$, with an upper guideline value of 55 dB $L_{Aeq,T}$ which would be acceptable in noisier environments.* ***However, it is also recognized that these guideline values are not achievable in all circumstances where development might be desirable****"*. This is in line with the WHO guidelines for community noise for private amenity areas *(CDK.4).*

61. The parties agree that for this site LOAEL is in the region of 50-55 dB(A) and that SOAEL is in the region of 65-70 dB(A) *(BHL/2/B Ax2).* The appellant's noise survey *(BHL/2/B Ax3)* indicates that in the Appeal A site, daytime noise levels in part of the rear gardens of up to 4 properties closest to the motorway would fall in the range 65-70dB(A). The rest of the rear gardens would experience lower noise levels, in the range 50-65 dB(A). Moving away from the motorway and into Phase 1 (Appeal B), the self-screening effect of the development results in noise levels predominantly falling in the range of 50-55dB(A), with parts of some gardens (but not all) falling in the range 55-60dB(A).

62. The development proposals include the erection of a 3 m high noise barrier along the southern boundary with the M1 *(BHL/2/B Ax 4)* and this has been included in the assessment. These mitigation measures are 'reasonably practicable', having been developed against the context of preserving the overall character of the development in this area, and set against the scale and setting of plot layouts and building configurations overall. The measures proposed will reduce incident road traffic noise levels at gardens of properties closest to the M1 motorway, and ensure that parts of the gardens of all properties are protected from the highest noise levels. They are consistent with mitigation provided in other representative locations, for example the properties in Collingtree Court *(BHL/9).*

63. It is unlikely that these measures will mean that noise levels are below the LOAEL thresholds in all gardens. However, in full accordance with national policy this is considered acceptable since NPSE 2.24 states that *"this does not mean that such adverse effects cannot occur".* Moreover, with the provision of an appropriate building envelope to protect the internal environment from excessive noise, the solutions available are consistent with both the technical guidance presented in BS8233:2014, and the discretionary guidance set out in the Framework. Occupants of these properties will be protected from 'unreasonable' impacts associated with noise through the provision of alternatives to opening windows for ventilation purposes *(BHL/2/A).*

64. Placing dwellings in Phase 2 and 3 close to the M1 motorway would be a practical design solution as these dwellings can act as noise barriers and reduce incident noise levels for dwellings away from the motorway *(CDA.6).* If this occurs, incident road traffic noise levels emanating from the M1 motorway may however exceed the SOAEL in gardens of dwellings in Phases 2 and 3 which overlook the M1 motorway. Appropriate mitigation measures can be incorporated into the masterplan as it develops for these areas. The requirement for further, more detailed assessment of these properties can be secured by a condition and would in any event be addressed through the consideration of reserved matters (*BHL/2/A).*

65. The Council's noise case is advanced on the basis that the Appellant has not taken all reasonable steps to avoid garden and external amenity areas experiencing noise levels exceeding 55dB $_{LAeq,16hrs}$. (*SOGC3*) Significantly, the Council's case is not advanced on the basis that the harm in noise terms is of such a degree that it should be avoided or prevented within the strip beside the M1 (ie. SOAEL). Accordingly, the parties are agreed that the noise issue is focused on whether the Appellant has failed to take reasonably practicable steps to reduce external noise for a strip along the M1 motorway.

66. The issue is further narrowed in regard to BS 8233:2014 *(CDK.3)* which states (with emphasis added):… *In higher noise areas, such as city centres or urban areas adjoining the strategic transport network,* ***a compromise between elevated noise levels and other factors****, such as the convenience of living in these locations or* ***making efficient use of land resources to ensure development needs can be met****, might be warranted. In such a situation, development should be designed to achieve the lowest practicable levels in these external amenity spaces, but should not be prohibited.* The Council concedes that this guidance means that noise should be balanced against all other factors in order to assess whether the appellant had taken all reasonable steps to minimise the noise impact *(BHL/CS).*

67. This is critical to the Council's case that the proposed development is *"unacceptable on noise grounds, is contrary to policies of the development plan and the Framework, and should be refused" (NBC/3/A).* A balancing exercise must be conducted to weigh the harm in noise terms against other factors. In failing to do this it is clear that the Council acted incorrectly. Accordingly, the Council's noise objection is simply not made out. The fallacy of the Council's noise objection is further emphasised having regard for the late concession made in the proof of evidence that Appeal A should be granted consent if the Council's 'preferred approach' is not accepted, as any noise concerns could therefore be resolved through conditions and/or through the reserved matters stage *(NBC/1/A).*

68. The Council's approach to noise is also flawed in asserting that the appellant has failed to demonstrate that it is *"impossible"* to deliver the policy N5 allocation in a manner which accommodates the Council's noise concerns *(NBC/3/A).* However, there is no basis in law or policy for asserting that such an impossibility test needs to be met. The planning system is not designed to discover the optimal use of land, as this would be unworkable. Rather, it is concerned with whether the proposed use is acceptable in its own right.

69. It is also noteworthy that it is agreed that Collingtree Court provides a useful (albeit worst case) representation of noise levels on the appeal site at a similar distance from the live carriageway of the motorway. It is significant, therefore, that there are no recorded complaints about motorway noise from occupants of Collingtree Court, which implicitly suggests that noise would similarly not be an issue for the proposed development *(BHL/9).*

70. In summary, therefore, the Council's noise objection is highly confined in the context of the wider proposed development. It is also not made out, as because of the failure to conduct a planning balance to reach a concluded view on the matter. Against this the appellant's case is that any noise concerns in respect to Appeal A are simply a matter for the conditions and/or reserved matters stage

(which the Council all but concedes). Furthermore, in respect to Appeal B, the noise concerns have been minimised and reduced to a minimum, when weighed against the other factors that contribute to this compromise. Accordingly, the proposed developments comply with guidance and the development plan's expectations in policies S10 and BN9. If that is wrong, however, the appellant submits that any harm in noise terms is far outweighed by the benefits of the proposed developments – in accordance with the appellant's secondary case. Thus, noise is not a legitimate basis for resisting the proposed developments *(BHL/CS).*

The effect of the proposed development on adjacent heritage assets

71. The only heritage assets relevant to the appeals are Collingtree Village Conservation Area and the grade II* listed Church of St Columba, Collingtree *(SOCG4).* Both assets are located outside the appeal site so it is only their settings under consideration *(BHL/3/B Ax4).*

72. The mainly modern urban setting of the Conservation Area makes little positive contribution to its significance, which derives primarily from individual historic structures and their coherent composition in the historic core of the village *(CDI.2, BHL/3/A).* There are some limited opportunities to view undeveloped land from within the Conservation Area, reflecting its origins as a small rural settlement, and these do make a positive, albeit limited contribution to its significance. It is also recognised that, despite the high level of change in the land surrounding the Conservation Area, Collingtree village as a whole has avoided coalescence with neighbouring settlements. This general perception of separation contributes to an understanding of the historic origins of the village and also makes a minor contribution to the significance of the Conservation Area *(BHL/3/A).*

73. The proposed development (as seen in the Appeal B site) would change part of the setting of the Conservation Area that is currently golf course and grass fields to an area of new settlement with houses, gardens, public open spaces and roads. The view west along the footpath from the edge of the Conservation Area at Barn Corner includes a short section of the line of coniferous trees 90m away that marks the eastern boundary of the Appeal Site. It is not possible to see beyond these trees into the Appeal Site from the Conservation Area. These trees would be retained and the boundary reinforced by a wider belt of screening planting with an acoustic fence in its centre. This combination of existing and additional proposed woodland screening along the Appeal Site boundary would substantially filter or even entirely block any view of new buildings beyond. There would be no material visual change in the setting of the Conservation Area when viewed from within the Conservation Area *(BHL/3/A).*

74. From the west the footpath would pass for 190m through new housing within the Appeal Site but, other than a glimpsed view of the top of the church tower, there is nothing to suggest an entrance to an historic village along this section of path. If the development was consented, the glimpsed view of the top of the church tower would still be available but above trees and houses rather than trees and fields. There would be no material change in informative views of the Conservation Area from outside its boundary *(BHL/3/A).*

75. The Council describes the field west of Barn Corner as the 'supporting pastoral hinterland' of the church and the 'western rural hinterland' of the Conservation

Area *(NBC/2/A).* Historically, the village and church would have been experienced in a rural agricultural setting but an understanding of 'setting' should be based on how an asset is experienced in the present day *(CDG.1 Ax 2, CDI.4)*. In both cases, the expansion of the village that has already occurred and the other changes in land-use in the surrounding area have resulted in a situation where the land outside the village makes very little contribution to the significance of these assets. The church and Conservation Area are no longer experienced in their 'rural hinterland.'

76. The significance of the church, and the reason for its designation as a Grade II* Listed Building, lies primarily in the architectural and artistic interest of its medieval fabric. The church also has historical interest as a focal point in the village for over 800 years. But it is not a 'landmark' church and the rare glimpsed views of the tower from outside the village make no substantive contribution to its significance. The positive contribution that setting makes to significance is therefore limited to the village of Collingtree *(BHL/3/A).*

77. There is one location where the church would be visible from within the proposed development. This is from the footpath across the field west of Barn Corner that enters Collingtree from the west *(BHL/8).* From the footpath there are glimpsed views of the top of the church tower between screening trees as the path approaches the village. This does not make them valued views. (The relevant views can be seen at *NBC/2/B Ax7 and NBC/2/C*). If the development was consented, the glimpsed views of the tower would still be available but above trees and houses rather than trees and fields. The very limited visibility of the church from outside the village makes no substantive contribution to its setting or significance. As a result the predicted change in the glimpsed views of the tower from the west would not affect the heritage significance of the church.

78. Accordingly, the heritage assets are not materially affected by the development proposals. It is agreed between the appellant and the Council that neither heritage asset would experience substantial harm and, to the extent that the significance of either asset would be harmed, this would constitute less than substantial harm *(SOCG4).* The Officer's Report recommending approval for the proposed developments indicated that the heritage assets would be conserved in accordance with the Framework *(CDF.1).*

79. The appellant makes the following 4 points in respect to the Council's heritage case:

80. Firstly, the Council's heritage objection amounts to an objection to the principle of development to the field west of Barn Corner. The Council have suggested that the advantages of providing 50 new dwellings within this field would be insufficient to counterbalance the harm caused by developing in the field *(NBC/3/A).* It is an objection to any scheme that involves development on the field. Similarly, if the Council's heritage argument is accepted, *"a further 2ha, the area of the field west of Barn Corner, will be undeveloped" (NBC/3/A).* Thus the Council's case is that this field cannot be developed at all, owing to the harm to the heritage assets.

81. This is contrary to JCS policy N5 *(CDG.4).* Indeed, paragraph 12.42 of the JCS, part of the explanatory text to this policy, makes clear that, *"there are no designated or known non-designated cultural heritage sites that are likely to place constraints on the development of the site"*. Accordingly, the Council's

suggestion that part of the allocated site should remain undeveloped, owing to the impact on heritage assets, contradicts the development plan. Furthermore, the Council has agreed that it is not opposed to the principle of development for either appeal *(SOCG1).* This agreement did not include a qualification excluding the field to the west of Barn Corner. Accordingly, for the Council to now suggest that this field should remain undeveloped is inconsistent with this agreement.

82. Secondly, it is submitted that the Council's heritage objection is based on an incorrect interpretation of the Framework. It is agreed that the harm identified by the Council should be seen in the context of Framework 134 and thus any harm should be weighed against the public benefits of the appeals *(SOCG4).* However, despite this agreement, the Council sought to suggest that where there was less than substantial harm to a heritage asset, permission should only be granted where the harm is *"impossible to avoid in the first instance"*. This clearly imposes an onerous burden on the Appellant that is not envisaged by the Framework. Having regard to *R (Pugh) v SSCLG [2015] EWHC 3 (Admin) (BHL/14),* it is clear that whilst the decision maker is required to attach considerable importance and weight in the planning balance to any material harm he identifies in respect to the heritage assets, he is not required to satisfy himself that the harm is *"impossible to avoid"* to pass the test under Framework 134. If this were correct, the sequential approach imposed by the Framework would be pointless. Indeed, there would be no distinction between Framework 133 and 134. The fact, therefore, that the Council have adopted such an approach fundamentally undermines the heritage objection.

83. Thirdly, almost as an extension to this 'impossibility test', the Council have sought to argue that the appellant has failed to properly address how it may be possible to accommodate the dwellings 'lost' by not developing the field west of Barn Corner elsewhere *(NBC/3/A).* The Council's agreement to the viability report is a sufficient answer to this point *(SOCG1).* Similarly, in suggesting that 50 dwellings could be removed entirely and the development proposals can still satisfy the policy N5 allocation, owing to it only being "in the region of 1,000 dwellings", the Council have seemingly had no regard for the viability of the proposed developments. The affordable housing provision was already reduced to 15% (against the expectation of 35% in JCS policy H2) in light of the agreed findings of the viability reports *(SOCG1).* Reducing the proposed developments by 50 dwellings would, therefore, have a further knock-on effect on this strained viability. The Council has not addressed viability in the context of Framework 134 "*securing its optimum viable use"*. Much like the noise objection, therefore, it offends against the multi-disciplinary approach to make such sweeping changes to a scheme based solely on the concerns under a single discipline. It also offends against the balancing exercise that is mandated by Framework 134 itself.

84. Fourthly, the appellant submits that the Council has sought to manifestly exaggerate the harm to the heritage assets that it alleges. Indeed, it makes the staggering suggestion that the relationship between the Church and the field west of Barn Corner should be considered in the event that the intervening line of trees is removed *(NBC/2/A).* This derives from Historic England's Guidance GPA:3 *(CDI.4),* which suggests that account must be taken of *"the possibility that setting may change as a result of the removal of impermanent landscape or townscape features"*. Accordingly, the Council suggests that the row of trees *"could in the future be removed and the relationship could be re-established"* and thus this is relevant as this would *"reinstate an even closer experiential*

connection between the church and this part of the appeal site". However, there is no evidence whatsoever to suggest that this line of trees would be removed in the future. Indeed, it is entirely theoretical and is only being raised to bolster up the harm the Council seek to identify.

85. The suggestion that the footpath in the field west of Barn Corner is a *"place from where the setting of the church can be, and is, enjoyed by many people" (NBC/3/A)* has not been substantiated. Similarly, the view expressed by Historic England *(CDI.7)* that the Conservation Area and the Church would be affected gave no justification or explanation for this position. Little, if any, weight should be attached to this view. Finally, whilst much was made of the ridge and furrow, this does not warrant much consideration, as the Council concedes: "*Even in the best of circumstances the ridge and furrow may only be a subtle part of the experience of the field, but it does not follow that it can be ignored or discounted." (NBC/3/A).* Accordingly, the emphasis on the ridge and furrow in the Council's case at the inquiry demonstrates a clear attempt to bolster up the harm to heritage assets by any means whatsoever.

86. In summary, therefore, the appellant's primary contention is that there is no material harm to any heritage assets, in accordance with paragraph 12.42 of the JCS. If this view is not accepted, however, it is agreed that the harm to the heritage assets only amounts to less than substantial harm. Accordingly, whilst significant weight and importance must be attached to this harm, it must be considered against the public benefits of the proposal, including securing its optimum viable use. On this basis, the appellant submits that the benefits associated with the development proposals far outweigh any such harm. Furthermore, the appellant makes the following points about the Council's heritage objection: (1) it amounts to disagreeing with the principle of development on the field west of Barn Corner, contrary to the JCS and the SOCG; (2) it relies on imposing a standard not envisaged by Framework 134 (i.e. the impossibility test); (3) there has been no regard for viability in advancing this objection; and (4) the Council have clearly sought to manifestly exaggerate the harm they allege, especially in relying on the removal of trees *(BHL/CS).*

Other matters

87. Air quality, flooding and highways matters were not reasons for refusal at the Inquiry. However, some third parties have raised these issues and thus the Appellant addresses them briefly here. As a general observation, it should be noted that the Appellant's evidence demonstrates that the proposed developments are acceptable having regard to these topics, even examining them on a worst case scenario basis.

88. **Air Quality** The Council's EHO confirmed that there was no objection on air quality *(SOCG1)*. An air quality assessment was conducted as part of the Environmental Statement (*CDA.18.1.6).* The receptor locations for this assessment were placed in locations where the impacts were likely to be greatest – e.g. in close proximity to the M1. The results of this assessment universally showed that air quality measurements were below the National Air Quality Strategy Objectives – meaning that the proposed developments are suitable without the need for mitigation against poor air quality. This was subsequently confirmed by independent expert advice commissioned by the Council *(CDH.3).*

89. **Flooding** It is accepted by the Council that the proposed housing, school and local centre are located in Flood Zone 1, being land at a low probability of flooding (less than 1 in 1,000 annual probability of river or sea flooding). The Environment Agency is satisfied that access, floodplain compensation and surface water drainage can be controlled by recommended conditions and there is no objection to the appeals from Anglian Water or the Canal and River Trust. Furthermore, in accordance with JCS Policies BN7 and N5, the proposed developments include the provision of a swale feature along the southern boundary of Collingtree Park – an area with a history of flooding. The proposals will, therefore, serve to provide betterment to the standard of flood protection to properties within Collingtree Park *(BHL/7/A, CDA.18.12 Ax F).* Indeed, this was recognised by the Inspector for the EiP *(CDG.5)* who said in his report (with emphasis added): *Subject to appropriate detailed design and layout, it* [ie. the policy N5 allocation] *should relate well to the existing housing nearby in visual and physical terms and* ***provide positive impacts overall****, as noted in the SA,* ***including importantly in respect of local flood risks****.*

90. **Highways** The impact of the proposed development on the A45 trunk road and associated junctions, including the local highway network, with the agreed mitigation measures, is acceptable *(CD18.1.5).* The evidence shows that the development proposals for this allocated Local Plan site are fully in compliance with national and local policy and guidance relating to transport. Furthermore, the proposed development has been assessed independently and robustly using data from a number of sources such that the traffic generated can be accommodated on the highway network with appropriate mitigation. It is concluded, on the basis of a robust technical assessment process, that there is no evidence to show that the residual cumulative impacts of development in this case would be severe *(BHL/1/A).*

91. The Council withdrew its transport-related reasons for refusal on 22 October 2015. There is no objection to the proposed developments from NCC Highways Authority or Highways England (formerly Highways Agency) *(SOCG1)*. Furthermore, the Officer's Report, in recommending approval, acknowledged the obvious point that the highway concerns were considered by the Inspector at the EiP in allocating the site *(CDF.1).* Indeed, as the Council acknowledges, irrespective of the layout or distribution of houses across the appeals site, the overall level of highways impact would be broadly the same *(BHL/1/A).* Thus, any objection on highways grounds represents an objection to the development plan. In opening, the Inspector indicated that it is not a purpose of the inquiry to question the allocation of the appeals site. There is therefore no legitimate highways case for the Appellant to meet.

92. **Third parties** The inquiry heard from a number of local residents who have applied time, care and energy to their evidence and have presented it with economy and courtesy. However, the answer to the specific content of their evidence is found in two general propositions:

    i. the effect of their evidence, viewed as a whole, is to challenge the allocation of the appeal site on the basis that development of this land should be ruled out because of issues relating to traffic, flooding, air quality and so on. However, it is not the role or function of this inquiry to reconsider the allocation of the land for residential development in the development plan, and;

ii. the main parties have agreed that all of these matters are important and that they can and should be thoroughly addressed before development commences. They have also agreed – taking into account relevant consultation responses – that these matters are capable of being addressed by obligations and conditions.

Whether, taken as a whole, the proposals comply with the local development plan and amount to sustainable development as defined in the Framework

93. Compliance with the Development Plan In *R v Rochdale Metropolitan BC [2000] WL 1151364,* it was held that in determining whether a proposal was in accordance with the development plan, one should have regard to the plan as a whole and the *"overall thrust of development plan polices"*. Indeed, owing to the numerous conflicting interests that development plans seek to reconcile, it would be untenable that a breach of any one policy would lead to the conclusion that the proposal was not in accordance with the plan. It is against this backdrop that the decision maker must consider whether the proposed developments accord with the development plan. On the appellant's primary case there is no conflict with the plan. Indeed, the appeal site is allocated in JCS policy N5 and the proposals accord with this policy *(BHL/5/A table 6).* Furthermore, the merit of the Appellant's case in this regard is strengthened having regard to the following points:

94. Firstly, for the reasons given above, the alleged conflicts with the development plan in respect to noise (JCS policies S10 and BN9) and heritage (JCS policy BN5) are misconceived. Accordingly, if the appellant's case is accepted on noise and heritage, it follows that there is no conflict with the plan.

95. Secondly, in accordance with the decision in *R v Rochdale*, the Appellant contends that even if it is found that there is conflict with policies BN5, BN9 and S10, the proposed developments are still in accordance with the general thrust of the development plan, especially having regard to policy N5. Indeed, the Council's reasons for refusal do not refer to policy N5.

96. Thirdly, policies BN9 and S10 provide for a flexible approach in respect to noise. Indeed, policy BN9 states that (with emphasis added) *"**where possible** reduce pollution issues that are a barrier to achieving sustainable development"*. Furthermore, policy S10 requires development to *"minimise pollution from noise"*. Neither of these policies seeks to impose an absolute standard. Rather, read together, they should be given a flexible interpretation, in accordance with the plan read as a whole. Indeed, the following is observed within the plan itself: *"Flexibility exists within the Plan and housing trajectory that allows for developments to be brought forward to mitigate the impact of delays on individual sites" (CDG.4) Accordingly*, the appellant submits that in the context of the Council having a significant delivery problem, these policies should be afforded greater flexibility so as to ensure the delivery of the policy N5 allocation without delay.

97. **Sustainability** If it is accepted that the proposed developments are in accordance with the development plan, then they are inherently sustainable and planning permission should be granted without delay. If, however, it is found that the proposed developments are not in accordance with the development plan, the planning balance must be considered under the second bullet point of

Framework14 to determine whether the proposed developments amount to sustainable development.

98. The issue of sustainable development is to be considered in the light of the Framework looked at as a whole. Framework 7 identifies three roles of sustainable development and Framework 8 requires all three to be pursued simultaneously, recognising implicitly that this will involve the reconciliation of internal conflicts between the three in the context of deciding on any given proposal.

99. Economic Role: The economic dimension of sustainable development should be entirely uncontroversial *(BHL/5/A)* but it is not. The Council have sought to downplay the significant economic benefits associated with the proposed developments *(BHL/4/A).* Some of these benefits are:

i. the creation of up to 350 construction jobs;

ii. an increase in GVA associated with the proposed Developments, estimated to be around £59.8m per annum for Appeal A and £22.6m for Appeal B;

iii. the generation of convenience goods expenditure of £4.5m, comparison goods expenditure of £6.4m and the expenditure of leisure goods and services of £5.5m per annum.

100. The Council suggest that the proposed developments would fail to satisfy the Northampton Economic Regeneration Strategy, in that it would not contribute to technical personnel working in Northampton.(BHL/4/B.3) However, this cannot be maintained having regard to the s.106 agreements, which do provide significant financial contributions for an apprenticeship training scheme *(PA8, PA9).*

101. Social Role: The definition of the 'social role' of sustainable development could have been written with this proposal in mind. In the first place it refers to development *"…providing the supply of housing required to meet the needs of present and future generations …".* Accordingly, the fact that the proposed developments will deliver housing (1,000 for Appeal A and, as an early first phase, 378 for Appeal B) in an administrative area with a long-running and significant housing delivery problem, below the 5 year minimum, means that significant weight should be attached to this factor. Furthermore, the provision of 15% affordable housing is also an agreed significant benefit of the development *(NBC/3/A).* Furthermore, the proposed developments would:

i. widen the choice of high quality homes;

ii. encourage the development of healthy communities through incorporating formal and informal open spaces which are within easy walking distances of the new homes;

iii. provide a site for a 2 form entry primary school (in respect to Appeal A) and financial contributions;

iv. provide an accessible location with connections to pedestrian routes and the provision of pedestrian and cycle permeability through the site;

v. improvements to public transport facilities;

vi. provide for an on-site medical facility (Class D1) (in respect to Appeal A) and contribute towards medical facilities at the Danes Camp Surgery.

102. Environmental Role: The proposed developments would provide the following environmental benefits:

i. flood risk management measures would provide betterment to properties in Collingtree Park;

ii. the retention of existing woodland and ecological assets;

iii. the provision of new green infrastructure measures to enhance biodiversity;

iv. a net gain of 4.37 hectares of tree cover (per Appeal A).

103. The benefits of this proposal are profound in advancing the objectives of national policy to boost significantly the supply of housing. They have an equally important benefit to the local economy through direct and indirect employment generation. It must also be understood that the entire strategy of the plan is based on improving the local and strategic road network in order to realise the constrained economic potential of this sub-region. This can only be achieved by releasing funding from private sector developments with the critical mass to make significant financial contributions *(BHL/OS).*

104. Delay: significant weight should be attached to the fact that the benefits of the development proposals are real and immediately deliverable. Conversely, if consent is refused, it would take many years for another scheme to come forward at the appeal site – indeed it took the Appellant several years to advance the proposed developments through the planning process. This is relevant in that the timescale for the appeal site's delivery was an important aspect of its allocation. Indeed, the Inspector's report for the EiP specifically says that the policy N5 allocation should come forward *"in the first part of the plan period" (CDG.5).* Whilst the council maintains that the plan period began in December 2014, this is clearly inconsistent with the specified plan period in the development plan itself, which began in 2011 *(CDG.4).* Furthermore, the EiP Inspector rejected alternative sites to the SUE identified in policy N5 on the basis that it would introduce material delays to delivery *(CDG.5);* significant weight should therefore be attached to the fact that the grant of consent allows for the policy N5 allocation to come forward in its intended timescale, whereas a refusal would prevent this outcome. Accordingly, the appellant submits that even on its secondary case, the proposals undoubtedly represent sustainable development owing to the benefits identified far outweighing the harm that the Council allege.

105. This balancing exercise is also relevant to the appellant's tertiary case. Indeed, s.38(6) of the 2004 Act indicates that material considerations can overcome conflicts with the development plan. The Framework is a material consideration. Consequently, as the proposed developments represent sustainable development, applying the three roles of sustainability and the Framework as a whole, where policies S10, BN5 and BN9 are found to be not out of date this acts as a material consideration that overcomes any conflict that is found with the development plan. In summary, therefore, all routes lead to the conclusion that the proposed developments represent sustainable development *(BHL/CS).*

The Case for Northampton Borough Council

The Council's evidence is set out primarily in opening submissions (NBC/OS), main proofs of evidence (NBC/1, NBC/2, NBC/3) and closing submissions (NBC/CS)

Introduction

106. The Council was right not to accept the recommendations of its officers and to refuse planning permission for the proposed development for reasons to do with inadequate traffic noise mitigation and the impact on designated heritage assets. For the reasons set out below, both reasons for refusal were well founded, and remain so.

The Council's approach

107. The "presumption in favour of sustainable development" is set out in Framework 14 and must be applied in determining development proposals. So far as relevant to the present case, Framework 14 states that for decision making the presumption means (i) approving development proposals that accord with the development plan without delay; and (ii) where the development plan is silent or absent or relevant development policies are out of date, granting permission unless any adverse impacts of doing so would significantly and demonstrably outweigh the benefits.

108. The Council says that the proposal does not accord with the development plan so that (i) does not apply, and further that the second limb of paragraph 14 does not apply because relevant policies are not out of date.

109. However, before expanding on those matters, reference is made to the case law produced by the Appellant, dealing with the question whether Framework 14 is relevant only to proposals which the decision maker has already decided are sustainable. This issue is to be considered in early 2016 in the appeal relating to the Cheshire East case. For the avoidance of doubt, if the Court of Appeal decides that paragraph 14 is relevant only to proposals which the decision maker considers are inherently sustainable, the Council submits that the Proposed Development is not sustainable (because of its heritage and noise effects) and therefore Framework 14 does not fall to be considered. Nevertheless, to repeat, the Council has considered this case on the basis that Framework 14 is relevant, and sets out its submissions in that regard.

110. In this case, the proposed development conflicts with the development plan. Of course, the development plan is to be read as a whole. However, if the Council is right that because of its noise and heritage concerns the proposed development conflicts with the relevant policies for the protection of those interests (S10, BN5 and BN9), as well as the policy specifically relating to the allocation (N5), the Appellant cannot contend that the proposed development complies with the plan as a whole merely on the basis that there are some policies with which the proposed development does not conflict. That could no doubt be said for almost any proposal.

111. In those circumstances, limb (i) of Framework 14 does not apply. On the contrary, following section 38(6) of the Planning and Compulsory Purchase Act 2004, permission should be refused unless material considerations indicate otherwise. They do not.

112. As to limb (ii) of Framework 14, although there is not a 5 year supply of housing, the housing policies within the development plan which are pertinent to this inquiry are not out of date. It follows that (ii) does not apply. Furthermore, even were (ii) to apply, it would not indicate that permission should be granted. That is because the benefits of granting permission are in this case significantly and demonstrably outweighed by the adverse noise and heritage impacts of doing so.

113. The appellant contends that the Council is wrong to suggest that the housing policies pertinent to these appeals are not out of date. The recent judgement in *Suffolk Coastal DC v Hopkins Homes Ltd & SSCLG/Richborough Estates Partnership LLP v Cheshire East BC & SSCLG* [2016] EWCA Civ 168 does not support the appellant (*NBC/18*). The "broad interpretation" of Framework 49 takes the appellant nowhere. The policies argued by the Appellant to be out of date in this case are policies which would be routinely considered in any assessment of proposed development. Such policies do not fall within the scope of relevant policies for the supply of housing in Framework 49.

114. At the inquiry the appellant accepted that policy N5 was not out of date. However, it still maintained nevertheless that because of the lack of a five year supply of housing, this was a case where relevant policies for the supply of housing were out of date.

115. The appellant argues that policy S1 is out of date. That *is* a spatial policy, which provides among other things that new development in the rural areas will be limited. However, even if in the case of other applications it might be said to constrain the supply of housing, it cannot be said to do so here, because the Collingtree site is allocated in the local development plan. It follows that policy S1 and the other policies dealing with the distribution of housing are not "relevant" policies which are out of date.

116. The appellant also argues that policies S10 and BN9, which are relevant to the Council's noise objection, and BN5, which is relevant to the heritage objection, are out of date. It is wholly unrealistic to argue that these policies are out of date. They are plainly not. They do not impose a material degree of restraint on either the location or amount of new housing development. They are all policies which raise issues that are always relevant to all applications. Policy S10 deals with sustainable development principles, and S10 (k) says that development should "minimise pollution from noise, air and run off." BN9 asks that development proposals should demonstrate that they provide opportunities to minimise and where possible reduce pollution issues, including (e) "reducing the adverse impacts of noise." Such an approach is up to date and of obvious importance and relevance. The same is true also of BN5, dealing with heritage. These considerations are relevant to any application, and it cannot be said that the policies relevant to these appeals are out of date (*NBC/CS,NBC/18*).

117. That is not to deny the relevance of the Council's difficulties in delivering housing, as demonstrated by the lack of a 5 year supply. The delivery problem, and the need for housing, must clearly be placed in the balance, along with other considerations. However, that balance must be made against the background of the correct overall policy approach as set by the Framework (*NBC/CS*).

Noise

118. The mitigation measures proposed by the appellant to address the noise emanating from the M1 motorway fail to demonstrate that a satisfactory residential environment would be created for the residents of the proposed development. It is common ground that the noise climate in gardens is a matter of importance. An appropriate level of noise in external amenity areas is one of the matters relevant when applying policies S10 (k) and BN9 (e) of the JCS, and the relevant guidance in Framework 109 and 123.

119. It is important to consider the issue of garden noise in the context of a proper understanding of the relevant policy. Framework 123 provides that planning policies and decisions should aim to avoid noise giving rise to significant adverse impacts on health and quality of life, and mitigate and reduce to a minimum other adverse impacts on health and quality of life arising from noise. The guidance in the Framework is carried through from NPSE and into PPG. The guidance is applicable to the issue of the effect of noise from the M1 on the amenity areas within the proposed development.

120. "Significant adverse impact" has a specific meaning in the context of the noise guidance. Where there is a significant adverse impact, it should be avoided. However, it is not the case that any adverse effect below the level of "significant" is irrelevant, or can be discounted. Adverse impacts which are not great enough to be "significant" are to be kept to a minimum. So, in the language used in NPSE and PPG, where noise is above the threshold of adverse impact (LOAEL), it is to be mitigated and minimised.

121. That is the context for the guidance in BS 8233: 2014 (*CDK.3*). The guidance provides a desirable guideline of 50dBA, in gardens and external amenity areas, with an upper guideline of 55dBA in noisier areas. It is recognised that achievement of those levels may not be possible in some areas where development may be desirable, for example urban areas adjoining the strategic transport network. In such areas, the development should be designed to achieve the lowest practicable levels. In effect, all reasonable efforts should be made to minimise any exceedance of 55 dBA.

122. There is no other guidance on noise levels in external amenity areas. The Council placed the BS 8233 guidance in the context of national policy (*NBC/1/A*). It takes 50 dBA as the NOEL (No Observed Effect Level) and 55 dBA as the threshold for adverse impact-the LOAEL or Lowest Observed Adverse Effect Level. That is the level above which adverse effect should be minimised; the exceedance over 55 dBA should be kept to the lowest practicable level.

123. The appellant appears to have followed a different approach in formulating its proposals. The ES *(CDA.18.1/7)* says that it is considered that with careful layout design an outdoor noise level between 58-70 dBA can be achieved, which the appellant claims to be *"below NBC's SOAEL outdoor noise criterion of 72dB."*

124. Neither 70 dBA nor 72 dBA has any validity as a criterion for amenity areas or gardens *(NBC/1/B Ax3).* 72 dBA is the highest noise level at which a residential building can be constructed and the *internal* noise level controlled to an appropriate level using the insulation described in the Noise Insulation Regulations. 72 dBA is not in any guidance set out or capable of being derived as a threshold, external or otherwise, for gardens. Even if it were, the obligation

would still be to do what is reasonable to keep exceedance of 55 dBA to a minimum, and that is what the appellant has not done.

125. A measure of the lack of appropriateness of 70 or 72 dBA can be found in the WHO guidance *(CDK.4).* This shows that there is evidence that long term exposure to 65-70 dBA causes heart problems *(NBC/1/A).* Accordingly, the only guidance about noise in external amenity areas is in BS 8233 *(CDK.3),* and there is nothing to justify a higher level than 55dBA as an acceptable level of noise. Thus, even if the Council's EHO had agreed that it was acceptable for noise in gardens to be up to 72dBA, such agreement would have no basis.

126. The appropriateness of the 50 and 55dBA guideline levels in BS 8233:2014 is also shown by the WHO guidelines, which state *(CDK.4, NBC/1/A)* that to prevent the majority of people being moderately annoyed, the outdoor sound level should not exceed 50dBA, and to prevent the majority of people from being *seriously* annoyed, the outdoor sound level should not exceed 55dBA. It is perhaps an indication of the appellant's approach to this matter that it paraphrased the WHO guidance as saying that "few" people would be seriously annoyed below 55 dBA *(BHL/2/A).* That is not what the guidance says. It says that to avoid the *majority* being seriously annoyed, levels must be kept below 55dBA. This shows the importance of making all reasonable efforts to avoid noise levels above 55dBA, and where that cannot be avoided, keeping exceedance to the lowest practicable level *(NBC/CS).*

127. The appeal sites are on land allocated for "in the region of" 1000 houses in policy N5. However, paragraph 12.41 of the JCS makes clear that due to the proximity of the site to the M1, junction 15 and the associated AQMAs, "mitigation measures will be required to address the issues of noise and air pollution". Thus, the JCS explicitly recognises that there is a noise issue from the M1 which will need to be appropriately addressed. Nothing in the JCS indicates any acceptance of unsatisfactory noise levels in external amenity areas. Furthermore, the policy map shows that in order to deal with the noise issue, there should be a structural landscaping strip on the site, parallel to the M1. Policy N5 refers to the boundary of the SUE as shown on the policies map at figure 5 *(CDG.5).* Figure 5 itself cross refers to inset map 12, which shows a substantial "indicative structural green space" parallel to the M1. While described as indicative it is clearly intended to be substantial, and as scaled off inset plan 12, is at least 90 m wide.

128. This approach in the JCS had the full support of the EiP Inspector. He stated that the masterplan would have to resolve detailed design issues regarding noise and air quality *(CDG.5).* He continued *"This includes through the disposition of structural green spaces across the site and the provision of a substantial landscape buffer to the M1 itself on the site's southern boundary."* It is notable that although the appellant claimed it had provided the kind of structural green space indicated in the JCS, the green strip parallel to the M1 shown on the Appellant's proposals is in large part no more than 20m deep, and substantially less within the area covered by appeal B.

129. Much of the site is affected by high traffic noise levels *(NBC/1/C AxA FigA1-A5)* In the appeal B layout, between 64 and 75 of the 378 properties would experience garden noise levels greater than 55dBA, depending on the applicable speed limit *(NBC/1/C table 2.1).* That is between 16.9% and 19.8% of the

houses in that application. A substantial number of those properties would suffer from noise levels over 60 dBA and up to 70 dBA. In relation to appeal A, the number of properties experiencing garden noise levels greater than 55dBA is between 129 and 144 properties *(NBC/1/C table 2.3).* Again, it can be seen that a substantial number of those properties will experience garden noise levels over 60 and up to 70 dBA *(NBC/1/C tables 2.1 and 2.3).* Overall, garden noise levels for a substantial number of dwellings in both appeals would exceed 55dBA.

130. Such exceedances could be avoided. The Council has shown that the extent to which gardens in the proposed development would experience noise levels over 55 dBA can be greatly reduced, and that it is reasonable to do so *(NBC/1/A-G).* It follows that the Appellant has not designed its proposals so as to achieve the "lowest practicable noise levels" over 55dBA.

131. The number of properties experiencing garden noise levels above 55dBA could be greatly reduced by leaving a wider structural green space parallel to the M1 within the appeal sites free from development (and ensuring the southern-most houses are oriented in a way that minimises noise transfer into the rest of the site). This is the Council's "preferred approach" *(NBC/1/B Ax6).* A substantial landscape buffer of this kind was envisaged in the JCS and by the Inspector who conducted the EiP *(CDG4, CDG.5).* The width of the development-free strip would depend on the height of the bund provided along the boundary between the appeal sites and the M1, but it would be considerably greater than the margin proposed by the appellant. This approach has been successfully put into effect at a nearby site adjacent to the M1 at Milton Keynes *(NBC/1/B Ax7).*

132. Using that approach, the number of dwellings experiencing garden noise over 55 dBA would be much reduced: in relation to appeal B 12 dwellings when the speed limit is 70 or 60 mph, and none where the speed limit is 50 *(NBC/1/C table 2.3).* This compares with 64-75 dwellings having garden noise over 55dBA in the Appellant's proposals. Further, no dwellings would have noise levels greater than 60 dBA, whereas in the appellant's layout many dwellings will suffer from these greater noise levels. In relation to appeal A, adopting the "preferred approach", the number of dwellings with garden noise greater than 55dBA would be reduced from 129-144 to 32 *(NBC/1/C).*

133. Even if the "preferred approach" is not adopted, it would still be possible to achieve somewhat lower garden noise levels than those shown on the appellant's proposals, by changing the layouts to ensure that more efficient use is made of dwellings to shield gardens from the motorway noise *(NBC/1/D, NBC/1/E).*

134. However, the fact that improvements could be made does not assist the appellant in relation to appeal B, because it is a full application. Although appeal A is an outline scheme, so that the layout is a reserved matter, "tweaking" the appellant's masterplan layout would make very little change to the overall number of dwellings experiencing garden noise levels over 55dBA *(NBC/1/D).*

135. Clearly, to exclude a structural green space parallel to the M1 in accordance with the "preferred approach" (and that of the JCS) would reduce the area available for residential development. The JCS does not say that every part of the site is necessarily suitable for built development; indeed, it clearly contemplates a substantial structural green space parallel to the M1.

136. The appellant has not shown that the form of the proposed development, one that has adverse effects in noise terms on the ground, is necessary in order to achieve sufficient housing development brought forward in accordance with policy N5 allocation. Thus the appellant has not satisfied the requirement of BS 8233 to achieve the lowest practicable level of garden noise, so the "preferred approach" should be adopted.

137. The general policy BN9 requires proposals to *demonstrate* that they provide opportunities to minimise and wherever possible reduce pollution issues, including (e) reducing the adverse impacts of noise. Similarly with the JCS guidance in relation to the policy N5 site, paragraph 12.41 states that mitigation measures will be required to address noise, and paragraph 12.43 provides that the masterplan should *demonstrate* how the land use elements respond to context and sustainable planning requirements. Responding to context and sustainable planning requirements must include dealing with the issue of noise.

138. In fact, however, the appellant has *not* shown that if the "preferred approach" is adopted, insufficient residential development would be possible. The allocation does not require delivery of precisely 1000 dwellings. The allocation is for "in the region of" 1000 dwellings. A development of fewer than 1000 dwellings could still satisfy the requirements of the policy. Also there is good reason to suppose that the shortfall in dwellings caused by the reduction in developable area in the southern part of the site could be made up elsewhere. The Council has pointed out *(NBC/3/A)* that the proposed development is at an average density of 33 dwellings per hectare. This is below the JCS policy requirement (H1) of a minimum of 35 dwellings per hectare *(CDG.4).* Whilst the Council has not refused planning permission on the grounds of this being an inefficient use of the available land, a higher density of development would clearly be more appropriate, and would accord with the requirements of the development plan. Furthermore, the Parameter Plan provides for some 15 ha of open space over and above that required by the adopted Developer Contributions SPD *(CDA.10).* A lower level of open space provision would be appropriate and not contravene any policy requirements.

139. Thus, there are good grounds for considering that any shortfall due to the exclusion of development on the structural green space parallel to the M1 can be made up elsewhere on the site. It should come as no surprise that this is possible, given that policy N5 itself contemplates a wide structural green space.

140. The appellant argues that because (as agreed) the viability of the appeal schemes is not sufficient to provide as much affordable housing as the development plan seeks, that must mean that the provision of any lower number of dwellings would be less viable. There is no evidence to show that if the "preferred approach" were adopted the number of dwellings would have to be reduced below the 1000 proposed and it cannot be assumed that an amended scheme would in fact be any less viable.

141. Overall, there is no evidence that exclusion of housing from the structural green space parallel to the M1 pursuant to the Council's "preferred approach" would prevent either 1000 dwellings or "in the region of" 1000 dwellings from being delivered on the allocation site. For completeness, the same is true if housing is also excluded from the field west of Barn Corner, in accordance with the Council's heritage concerns. The appellant produced no evidence to suggest

that the development would be prevented if *both* the Council's concerns were taken on board. In that regard it is to be kept in mind that the Field forms only a small part of the overall allocation, and in any event it overlaps substantially with the structural green space from which we say development should be excluded because of concerns about noise.

142. Given that adopting the "preferred approach" cannot be said to prevent the allocation being brought forward, both appeals A and B should be dismissed on the ground of noise. Reasonable attempts have not been made to minimise the extent to which garden noise levels will exceed 55dBA.

143. For clarity, the Council's case is that appeal A, as well as appeal B, should be dismissed if the Secretary of State accepts that the "preferred approach" should have been followed. Although appeal A is an outline application, the application is for up to 1000 dwellings and was accompanied by a Parameter Plan and Environmental Statement. If the Secretary of State accepts that the "preferred approach" should have been followed, he cannot properly allow appeal A unless he is satisfied that 1000 dwellings can be accommodated within the parameters assessed in the ES, ie within the remaining areas shown for housing on the Parameter Plan. This has not been demonstrated.

144. In any event, even if essentially the same footprint of development as that proposed by the appellant were kept, it would still be possible substantially to reduce the noise levels experienced in gardens. The proposed buildings themselves could be used to provide acoustic screening to the gardens. This approach is one the appellant itself has claimed to adopt *(CDA.18.1.7, NBC/1/D)* but it has not been carried through into the submitted layouts. The Council has called this the "fallback approach" *(NBC/1/A).*

145. If the Secretary of State does not accept that the "preferred approach" should be followed and concludes that the development footprint proposed by the appellant is acceptable, Appeal B should still be dismissed on noise grounds, because the approach of using dwellings to shield gardens has not been sufficiently followed, and it is a detailed application, so the layout cannot be amended. It should not be thought that the improvements which could be made by using dwellings to shield gardens to the full extent reasonably possible are too small to justify a refusal of planning permission on this ground. There are substantial areas of appeal B where improvements could be made *(NBC/1/D),* and even an area in the south east part of the site where garden noise levels could be reduced to such an extent as to fall below 55dBA.

146. However, Appeal A should not in those circumstances be dismissed on noise grounds, because it is an outline application and layout is a reserved matter. The Council does not dispute that a detailed layout can be devised by the appellant which follows the "fallback approach" and no one has suggested that following that approach would prevent development of 1000 dwellings within the residential areas shown on the Parameter Plan.

147. The appellant refers to the development at Collingtree Court as a *"precedent of permitting new residential development in close proximity to the M1 motorway in this area is ...already firmly established within NBC." (BHL/2/A).* The Collingtree Court permissions were granted between 1987 and 1999 *(NBC/1/C AxB-K).* First, traffic on the M1 has increased greatly since then - from about 63,000 in 1987 to 167,161 in the design year (2026) of the proposed development so it

was less noisy. Secondly, even at that time, the EHO protested on a number of occasions that the development was unacceptable *(NBC/1/C AxH).* Thirdly, it appears that no formal noise assessment was ever carried out for any of the applications. No reliance can be placed on a lack of complaints by the occupiers. The existence of dwellings at Collingtree Court does not help the appellants

148. PPG 009 does not suggest that provision of an appropriate standard of noise amenity in outdoor areas lacks importance *(BHL/2/A).* Indeed, it expressly states that the benefit of gardens or balconies is reduced with increasing noise exposure. It does not suggest that even a quiet public amenity space is a substitute for an acceptable garden. In any event, even if in some circumstances provision of quiet public amenity spaces might partly compensate for noisy gardens, in this case the public amenity spaces in proximity to dwellings whose gardens are adversely affected by the motorway noise will suffer from the same defect.

149. Overall, the development proposed in both appeals fails to accord with the development plan:

- It does not comply with the requirement in Policy S10 of the JCS that development will minimise pollution from noise (this is one of the JCS's "*sustainable development principles*").

- It also fails to satisfy Policy BN9 of the JCS, which requires development proposals which are likely to result in exposure to sources of pollution to "*demonstrate that they provide opportunities to minimise and where possible reduce pollution issues that are a barrier to achieving sustainable development and healthy communities*" including expressly, "*reducing the adverse impacts of noise*".

- Finally, the proposed development does not accord with the site specific guidance in relation to the allocation. First, paragraph 12.41 of the supporting text to that policy states that, due to the proximity of the NSSUE site to the M1 itself, mitigation measures will be required to address the issue of noise pollution. As explained, the noise mitigation measures proposed by the Appellant are inadequate. Secondly, pursuant to paragraph 12.43, development proposals must be accompanied by a masterplan, which is required to "*demonstrate how the land use elements positively respond to context, design issues, connectivity and sustainable planning requirements*". By proposing residential development in areas of the appeal sites which are unsuitable for such development in noise terms, the submitted masterplan fails to meet this requirement.

150. In relation to the allocation, it is necessary to deal with the appellant's evidence that the proposal complies with all aspects of policy N5 *(BHL/5/A table 6.1*). Policy N5 has to be read along with and in the context of the explanatory text. In relation to the masterplan, policy N5 simply requires submission of a masterplan, and a development might be said literally to comply with this aspect of the policy if any masterplan is submitted. However, paragraph 12.43 sets out the requirements for the masterplan. If those requirements are not complied with, it is meaningless to suggest that the requirements of policy N5 have been met.

151. The Framework also weighs against granting planning permission on noise grounds: The proposals are contrary to Framework 109, which provides that the

planning system should prevent new development from being put at unacceptable risk from, or being adversely affected by, unacceptable levels of noise pollution. It also fails to accord with Framework 123, pursuant to which planning decisions should aim to avoid noise giving rise to significant adverse impacts on health and quality of life as a result of new development, and mitigate and reduce to a minimum other adverse impacts. For those reasons the proposals also fail to satisfy the requirements of Framework 58, 61 and 64 which require good design *(NBC/CS).*

Heritage

152. The development proposed in both appeals A and B is unacceptable in heritage terms because of the harm which it would cause to the setting – and therefore to the significance – of two designated heritage assets: (i) the grade II* listed church of St Columba and (ii) the Collingtree Village Conservation Area.

153. Development is proposed as part of both appeal schemes for the field west of Barn Corner. This field is an important component of the setting of both heritage assets. It reveals and makes a positive contribution to their significance. The development proposed for the Field would seriously harm the setting of both the Church and the Conservation Area. The Field is important as the closest and most evocative component of the pastoral hinterland to the Church and this part of the Conservation Area, and the last remnant of this hinterland to the west of Collingtree. The appellant has not recognised the contribution of this important element in the setting of the Church and the Conservation Area to their significance.

154. It is agreed that great weight must be given to the conservation of designated heritage assets by Framework 132. So far as the Church is concerned, s66 of the PLBCA applies, requiring special regard to be had to the desirability of preserving listed buildings or their settings. It is clear from the *Barnwell Manor* case that where a development causes harm to the setting of a listed building, that is a matter which is to be given considerable importance and weight, and there is a strong presumption against such a development *(BHL/3/B Ax2).* It is also clear from *Barnwell* that the duty applies with all the more force to assets of the highest significance. As a grade II* listed building, the Church is, according to Framework 132, a heritage asset of the highest significance.

155. It is agreed that the Church has both architectural and historic interest. The CAAMP states that the tower has been a cultural and visual reference point in the village since the 15th century *(CDI.2, CDI.2).* The character and appearance of the Conservation Area are summarised in the CAAMP, which makes clear that the Church is the single most visually and architecturally dominant building in the Conservation Area.

156. The appellant says that much of the Conservation Area borders on recent residential development which makes at best a neutral contribution to the significance of the Conservation Area *(BHL/3/A).* In essence, the same can be said in relation to the setting of the Church. The recent development hardly makes a positive contribution to the setting of the Church.

157. It is common ground that historically the village and Church would have been experienced in a rural setting. The appellant says that the presence of modern residential development leaves few opportunities for visual connections between

the historic core of the village and its rural surroundings, and that where these connections are still available, they provide a reminder of the rural agricultural origins of the village, contributing to its historic interest *(BHL/3/A).* The Council agrees and strongly suggests that the remnants of the rural setting of the village and Church are highly valuable, and all the more so because there are so few such remnants *(NBC/2/A).*

158. This is a crucial difference between the parties. The appellant gives what remains of the rural setting of the Church and Conservation area a low value because *"an understanding of setting should be based on how an asset is experienced in the present day" (NBC/2/A).* This stance appears to be that the historic rural setting has largely disappeared, so that what is left does not matter. That is quite wrong, and contrary to the guidance. The HE guidance on setting GPA3 *(CDI.4)* deals with cumulative change. It makes the point that just because the significance of a heritage asset has been compromised in the past does not necessarily mean that it is acceptable now further to compromise it. Specifically, the guidance states that negative change can include severing the last link between an asset and its original setting. The Council's position is that the Field is all the more important because so little of the original rural setting of the Church and Conservation Area is left (NBC/2/A).

159. It is common ground, and incontrovertible, that the Field is part of the rural surroundings in which the village and Church are experienced. In those circumstances, the Field is clearly part of their setting *(CDG.1, CDI.4).* The reference is to experience, and not limited to views. Although there is inter-visibility between the Church and Conservation Area, the experience of the Field as part of the setting of both assets goes beyond views *(NBC/2/A).* The appellant has underestimated the significance of the Field in relation to the heritage assets.

160. There are clear historic links between the Field and the Church and Conservation Area. The Field, and the footpath across it, has been used for at least 235 years (and probably much longer) by the people living in the village, including the Rector, to earn their living *(NBC/2/B Ax2).* Indeed, the presence of pre-enclosure ridge and furrow provides a tangible reminder of the length of time over which villagers have farmed the Field. The CAAMP specifically refers to this characteristic of the Field, in the context of the historic development of the Conservation Area *(CDI.2)* and ridge and furrow is referred to expressly in policy BN5.

161. The current experience of the Field can be placed in the context of these historic links. At present, a person walking across the Field towards the village is able to see the Church tower from it as he or she approaches the village, and hear the bell. In so doing he or she is experiencing the feature which it is common ground has been a cultural and visual reference point of the village since the 15th century, and experiencing the traditional rural setting of the village and Church *(NBC/2/B, NBC/2/C).*

162. In these views, which show the feature which has been dominant in the village for hundreds of years, the Church can properly be described as a "landmark". The Appellant's own Built Heritage Assessment agrees *(CDA.18.1.10.1).* In seeing the Church tower, the walker is seeing the dominant feature of the village, a landmark that has been present for centuries. There are also valuable views west towards the Field from the edge of the Conservation Area. The CAAMP says

that the houses at the west end of Barn Corner and the glimpse of a view out westward form *"very positive contributions"* to the setting of the Conservation Area *(CDI.2).*

163. While planting may to an extent interfere with inter-visibility between the Field and the Church and Conservation Area, some of the planting is deciduous, and winter views show that views are clearer when the leaves have fallen *(NBC/2/C).* Furthermore, planting outside the Conservation Area (including the cypress screen) is not protected, and could be removed at any time without notification or control. HE's guidance specifically states that the impermanence of such planting should be taken into account as part of any assessment *(CDI.4).* In any event, even where views between the Field and the heritage assets are less clear, the Field can still be *experienced* as an important historic and traditional part of the rural setting, by walking within it.

164. Accordingly, the Field has real importance as part of the setting of the Church and Conservation Area. That importance is not diminished, but increased, by the fact that so little of the rural setting remains. Indeed, the Council considers that the relationship between the Field and the Church is unique. No other site relates the Church to its former rural surroundings in the way that the Field does *(NBC/2/A).*

165. The development would fundamentally change the character of the Field from rural to urban or suburban. It may be that the visitor will be able to see the Church tower from what was once the Field, but the rural setting in which the tower was once experienced will have gone. Any view is likely to be glimpses of the Church tower over the roofs or between the houses. Therefore, the experience of the Church and Conservation Area in conjunction with this unique surviving remnant of their rural setting will be wholly lost.

166. The extent of new screening proposed in order to reduce the degree of inter-visibility between the new housing and the heritage assets would not preserve the rural surroundings. It would simply hide the new development with a screen. GPA3 makes clear that screening should never be regarded as a substitute for well-designed developments and it can only, at best, help to mitigate impact *(CDI.4).*

167. Further, it cannot be said that the fact that there is to be no building on the small piece of land between the Field and the Conservation Area boundary justifies the proposed development. That piece of land is very small and just a fragment of what now remains of the rural setting of the village, and the Church tower cannot be seen from it. Further, from the village and the edge of the Conservation Area, the very close presence of urban development would be apparent, as a result either of views of buildings or of thick structural planting placed there to hide the buildings.

168. Overall, the impact of the development would be seriously damaging. The Appellant sought to rely on the statement in the JCS that there are no designated heritage assets that are "likely to place constraints on the development of the site" *(CDG.4/12.42).* However, there is no evidence of any detailed assessment of the impact of development on the policy N5 site during the formulation of the JCS, and no evidence that in that process CAAMP was taken into account. It is significant that on the closer consideration necessitated by the submission of the

applications, HE and the Council's conservation officer have both recognised the harm the proposed development would cause *(NBC/2/B Ax13 and 14).*

169. The appellant has failed to justify developing the Field and thus causing harm to the setting and significance of both the Church and the Conservation Area. The Council estimates that the Field would accommodate around 50 dwellings *(NBC/3/A).* The benefit of the provision of housing on the Field is strongly outweighed by the harm.

170. In any event, as with the Council's noise objection, there are good grounds for considering it likely that housing "lost" from the Field could be accommodated elsewhere within the allocation site, and no evidence from the appellant to show otherwise. It is very hard to think that 50 dwellings could not be accommodated elsewhere within an allocation of the size of policy N5. Further and in any event, even if that were not possible, and only 950 dwellings were able to be delivered on the allocation, that would still be "in the region of 1000", so that the objective of the allocation would have been delivered.

171. Given the serious harm identified, s66 of the PLCBA must count heavily against both appeals. The proposed development also fails to accord with the development plan: it is contrary to Policy BN5, which provides that heritage assets and their settings and landscapes will be conserved and enhanced; Further, paragraph 12.43 of the supporting text to N5 requires the submitted masterplan to demonstrate how the land use elements positively respond to context. In proposing development within a part of the appeal sites which is for heritage reasons unsuitable for development, the masterplan fails to satisfy that requirement.

172. The Framework also weighs against granting planning permission for either appeal, on heritage grounds:

- Whilst the harm caused to the setting of (i) the Church and (ii) the Conservation Area would be "*less than substantial*" for the purposes of Framework 132-134, Framework 129 refers to the need to "*avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal*". Framework 132 accords "*great weight*" to the conservation of heritage assets and requires "*clear and convincing justification*" for <u>any</u> harm to designated heritage assets, particularly ones of "*the highest significance*" such as the grade II* listed Church. There is no justification for the harm caused in the present case.

- The proposed development does not satisfy the requirement found in Framework 61 that planning decisions should address "*the integration of new development into the natural, built <u>and historic</u> environment*".

- Overall, protecting and enhancing the historic environment is vital to the achievement of sustainable development (Framework 7 and 17) and the proposed development is unsustainable insofar as it causes unjustified harm to heritage assets.

173. Both appeal A and appeal B should, therefore, be dismissed on heritage grounds. Both appeal schemes propose development on the field to the west of Barn Corner which would cause unjustified and irreversible harm to designated heritage assets.

Benefits and the balance

174. If the appellant is right that relevant housing policies are out of date, then the second part of Framework 14 applies and permission should be granted unless the adverse impacts significantly and demonstrably outweigh the benefits. The Council's case is that the second part of Framework 14 does not apply. In those circumstances, the approach in s38(6) of PCPA applies. Following that approach, the proposed development conflicts with the development plan, and planning permission should be refused unless material considerations indicate otherwise. Whether the appellant's approach is adopted or that of the Council, the benefits of the proposed development have to be weighed against its adverse impacts.

175. The Council fully acknowledges the benefit of the provision of up to 1000 dwellings, of which up to 150 would be "affordable." There are also resulting and accompanying economic benefits. However, the following points are made in relation to the claimed economic benefits:

- The ES characterises the potential effects of the construction of the proposed development in terms of job creation and expenditure during its operational phase as temporary and of moderate beneficial significance *(A.1.18.4).*

- The figure of £59.8m given by the appellant *(BHL/4/A)* as the contribution which the economically active residents of the proposed development would make to Northampton's economy assumed that all of those residents would work within Northampton, when in fact a significant proportion (in the appellant's estimate, around a quarter) would work elsewhere. There would also be an overlap between the figure given for household expenditure and that given for resident workforce GVA *(BHL/4/A)* but that was not quantified. The potential for a similarly unquantified overlap between resident workforce GVA and local centre GVA was also acknowledged *(BHL/4/A).*

- It was agreed that the New Homes Bonus is not a material consideration in these appeals *(NBC/6)* and Council Tax is simply payment to the local authority for services rendered.

176. As regards the social benefits of the proposed development, the ES characterises those benefits as minor/moderate *(A.1.18.4);* they would primarily be there for new residents and would be necessary to make the development acceptable. As to the environmental benefits of the proposed development, those benefits would have to be provided in order to make the scheme acceptable; against those benefits should be weighed the disbenefit of developing open land.

177. Fundamentally, there is no evidence at all that an alternative proposal for the policy N5 site which respected the Council's concerns in relation to noise and heritage would fail to secure any of the benefits which the appellant contends would result from the proposed development. It was agreed that, to the extent that housing could be delivered on the policy N5 site pursuant to an alternative scheme which addressed the Council's noise and heritage concerns, the benefits contended for by the appellant would accrue. As the Council has explained, the Appellant has provided no evidence that 1,000 dwellings (let alone "in the region of 1000") could *not* be brought forward on the site in a way which avoided the noise and heritage impacts identified by the Council.

178. It has not therefore been shown that the benefits of the proposed development could not equally be secured by an alternative scheme which avoided the areas whose exclusion is necessary having regard to the noise and heritage concerns. The most that can be said is that the dismissal of these appeals would result in some delay (the appellant thought about 12 months) while new proposals are formulated. The Council contends that some delay while *acceptable* proposals are brought forward cannot possibly justify granting planning permission for proposals which are *unacceptable*, even where the Council does not have a 5 year housing land supply. In that regard, it is notable that if delivery of the policy N5 site is postponed by a year, the allocation's contribution during the coming five year period would be reduced by only 100 dwellings *(CDH.4).* Indeed, given that the total expected contribution of the site to the 5 year supply is only 250 dwellings, even a somewhat greater delay to the site's delivery would not justify granting permission for the proposed development on the ground that the need for the housing outweighs the scheme's adverse effects.

179. Having regard to the foregoing, the Council says that - properly analysed - the benefits of the proposed development do not (as a material consideration) indicate that planning permission should be granted, notwithstanding the conflict with the development plan identified by the Council. Furthermore, even if, contrary to the Council's case, the second part of Framework 14 applies and policies S10, BN5 and BN9 are found to be out of date, they are recently adopted policies which should still carry significant weight. The harm which would result from granting permission *would* significantly and demonstrably outweigh the benefits of doing so. For clarity, the Council says the same applies even if the Secretary of State were to accept as justified only one of the Council's two concerns. Even if he were persuaded by the Council's case only in relation to noise, or only in relation to heritage, permission should be refused. Each is sufficient to justify refusal, so that a scheme which avoids the harm and still delivers the allocation can come forward.

Overall conclusions

180. A major housing scheme such as the proposed development should not be permitted to come forward unless it is clear that it has been designed in such a way that adverse noise impacts upon its residents have been minimised as far as is reasonably practicable. That requirement is not met here. Further, according appropriate weight to the conservation of the heritage assets relevant to the present case, the proposals put forward in these appeals are unacceptable.

181. Neither of the above points precludes development of the NSSUE being delivered by a more appropriate scheme that is acceptable in noise and heritage terms. The reasons for refusal do not relate to the principle of the allocation of the appeal sites. The specific proposals put forward by the appellant, however, fail to accord with the development plan, and material considerations do not indicate that planning permission should nevertheless be granted. Rather, it is plain that the adverse impacts of granting planning permission here would significantly and demonstrably outweigh the benefits of doing so *(NBC/CS).*

Third party objections

Members of Parliament

182. **Andrea Leadsom MP** – local residents do not want this development to go ahead and local elected representatives have made it clear they do not support the proposals, with particular concerns arising over air pollution, flood plain management and traffic flow. The local highway network is under pressure, particularly the arterial roads that link to the M1, and local residents are concerned about the impact thousands of new homes will have. Infrastructure improvements are unlikely to be adequate and local residents consider that the road networks in the area will be crippled if the development goes ahead.

183. There is also concern about the effect of increased traffic on air pollution, especially given the proximity of the site to the M1. Northampton already has a number of AQMAs in place and local residents are worried that the level of pollutants around Collingtree would increase exponentially with the proposed new houses and extra vehicles on the local roads.

184. Flooding is a key concern. Wootton Brook is prone to flooding and advice against further development around the Wootton Brook area has been known for years. Local residents know from first hand experience the devastation that is caused when significant flood events occur. This would only get worse with more housing on a flood plain area without significant investment in mitigation by the developers and EA.

185. Local councillors consider that Collingtree is not sustainable as an area for a SUE due to flooding, transport and infrastructure. There is a need for infrastructure to be in place at the same time as home building. They consider these views were ignored by an undemocratic JSPC. Local parish councils, residents groups and others have long voiced their objections to development at Collingtree. Pushing ahead with it runs counter to the wishes of local residents, and contradicts the Government's localism agenda. Local people should have the power to decide planning matters. *(MP/1/A, MP/1/B)*

186. **David Mackintosh MP** (former Leader of NBC) – the limited consideration of infrastructure in terms of roads, education and health are all key areas which are not properly considered by this proposal. NBC has confirmed its objections to the plans. Although residents are not fundamentally against development, they are concerned with the sustainability of the development. This is due to concerns about the current state of road congestion and how increased use would intensify the deterioration of the road without appropriate improvement and investment from this proposal. The increase in traffic would also contribute to increased levels of pollution, a significant problem of national concern.

187. The appellant has failed to take into account the effects of their proposal on the risk of flooding to the area. Wootton Brook is prone to flooding, classed by EA as 'flashy' and in need of further investigation. Before a proposal for development is accepted, it is essential that further investigations are carried out into flood prevention by utilising the most up-to-date models. Any development that incorporates flood mitigation measures will by definition affect the distribution of run-off which will in turn affect the profile of the water level. Flooding is a major concern for all residents following major floods over the past few years and needs to be carefully considered. *(MP/2/A, MP/2/B)*

Northamptonshire County Councillors

188. **Cllr Andre Gonzalez de Savage** (presented by Cllr Nunn) – the 2 roundabouts on either side of the A45 are where key problems exist today and where the biggest problems can be expected in future. In their Transport Assessment, the developers claim that, at these 2 critical roundabouts, without their development the Hunsbury-side roundabout in 2021 would be just at theoretical capacity in the pm peak, and in 2026 just over capacity, but with in each case no problems at the Wootton side. To someone who lives in the area this makes no sense.

189. Today, in the morning peak, there is queuing along Rowtree Road past the Windingbrook Lane roundabout. In the evening peak, traffic leaving the A45 northbound queues on the exit slip road, causing queues across the road bridge, leading to queues on all 3 arms of the Wootton-side roundabout with the A45 southbound slip regularly queuing back through the Berry Lane roundabout onto the A45 main carriageway. There is clearly a problem today which is far in excess of the situation the developers claim will only happen in 2026. If this is so incorrect, how can local residents have any confidence in the rest of the Assessment or that mitigation measures would work. *(CBC/1)*

Northampton Borough Councillors

190. **Cllr Philip Larratt** – NBC was right to refuse the applications for the original 5 reasons. Flooding issues should also have been grounds for refusal. NBC's reputation as a planning authority has been damaged by accepting unchallenged legal advice to drop key reasons because of fears that the applicant would claim costs if the inquiry found the Council's evidence to be unreasonable. The reasons should not have been withdrawn. NBC has sold out the local community.

191. There is a democratic deficit with regard to the site being included as a development site in the JCS. NBC's 45 democratically elected members have consistently resisted it. The development site has been imposed on Northampton, against the wishes of the local members, by the elected representatives of neighbouring District Councils on the JSPC. Northampton Borough has a population of 212,000, more than the combined population of the neighbouring Districts of 173,000. Where is the democracy in this when the minority dictates to the majority? It is the intransigence of the neighbouring Districts and their determination to oppose development in their 'green fields' that causes there to be an apparent shortfall in the 5-year land supply.

192. At the Planning meeting for these applications NBC members voted unanimously not to adopt the JCS in respect of this site, instead calling for development in the north of the town. This is democracy. It is also localism, something the Government says it strongly believes in. NBC was right to state this as a reason for refusal if democracy and localism mean anything.

193. The main objection to this development is the catastrophic impact it would have on the existing community through increased journey times and congestion. Many local residents find it more attractive to travel to work, retail and leisure facilities outside Northampton, using the M1. They rely on their cars and are focussed on car travel, as opposed to any form of public transport. Proximity to the motorway generates a high number of car movements but reliance on car travel does not appear to have been factored into the highway modelling and will

not deliver modal shift. There is no evidence to show whether modal shift has been achieved in recent developments. Local bus services are poor and residents are reluctant to use them.

194. The main problem is the A45 which is already operating above capacity. Widening to increase capacity is virtually impossible so congestion will increase as Northampton grows. This development will significantly add to the volume of traffic using the A45 and this is simply not sustainable. Strategies to limit access to the A45 will adversely affect the local roads leading to it. Rowtree Road is already heavily congested, with school traffic a particular problem. This development will make all that significantly worse. Modelling the highway impact cannot be relied on. Perhaps the applications should be regarded as premature, as a thorough study and understanding of the highway infrastructure is needed before considering large-scale development.

195. Flooding is clearly a risk as existing properties have been affected by flooding over the past few years. The Wootton Brook does not meet the appropriate standards of flood protection for the Upper Nene Catchment Area so no development should take place until those standards have been met. Air quality is also a major issue because of the proximity of the site to the M1 and the A45 and the additional traffic congestion this development would cause, adding to air pollution. There are doubts about the accuracy of the Council's monitoring of pollution levels and it cannot be concluded with confidence that the proposed development would not have a negative effect on air quality. These objections, which echo those of the local community, should be added to the noise and heritage objections put forward by the Council. *(CBC/2)*

196. **Cllr Brandon Eldred** – the proposal would have an unacceptable effect on local infrastructure. There are issues with traffic and facilities in the area. There are 2 primary schools with another on the way, but there are no spare spaces. Children already have to travel to other parts of the town to go to school. The scheme would include a primary school in years to come but it should be in place before development, to provide sufficient school places and to prevent traffic congestion, especially at the school on Rowtree Road. Dentists and Doctors are at full capacity, with delayed appointments. 1,000 houses would mean at least 3,000 people and perhaps 2,000 children needing school places. There are very few sporting facilities or pitches available. All these necessary facilities should be put in place first, before development takes place.

East Hunsbury Parish Council

197. **Cllr Jonathan Nunn** – when Northampton was announced as a growth area some years ago it was with an assurance that adequate infrastructure would accompany, and even precede, development. The Collingtree SUE has been consistently opposed by NBC, local councillors and residents. They are not opposed to development but insist on the assurance made some years ago being honoured so that new development must deliver much needed infrastructure to avoid adverse effects on local communities and vital business areas. This development would have a negative impact so would not honour that assurance and is thus unsustainable.

198. Local residents are concerned about the increasing pressure on local amenities and services, with health and education already at full capacity. There would be an immediate impact on the local road network. This development would be

heavily reliant on car use and unlikely to deliver modal shift to other forms of transport. The likely 6 traffic movements a day per house would result in an additional 6,000 daily vehicle movements. This would be particularly significant for the A45 and its joining roads, already operating at full or above capacity. The capacity of the A45 cannot be increased and the town's future growth will bring even greater congestion. Businesses on the nearby Brackmills industrial estate, one of the country's premier commercial locations, are already facing difficulties caused by traffic congestion. The position is going to become increasingly severe. Adding to existing traffic movements could have devastating impacts for this crucial employment area.

199. Despite modern assessment methods, houses built within the last 10 years have been flooded. Modelling and risk assessment therefore have little credibility locally. Building in an area of such air quality problems, and with noise levels of 55-80 DbA should not be considered as being acceptable. The additional pressure this development would place on local roads and services would have a seriously negative impact on both residents and businesses. The mitigation measures, such as they are, would not adequately address them. Until adequate mitigation solutions can be identified, funded and delivered to allow these issues to be overcome, the proposed development should not be allowed. *(EHPC/1)*

Collingtree Parish Council

200. **Cllr Malcolm Brice** – the Parish Council questions whether any housing in the site proposed would provide a safe and healthy location for future parishioners and allow them to lead a pleasant life as free as possible from stress. The impacts may have been modelled but the results do not convincingly describe the true situation with sufficient accuracy. The traffic movement figures suggested are much less than the likely reality *(CPC.7).* It is difficult to see how any mitigation measure on Rowtree Road can actually help vehicles access the A45 when it is already jammed right into town. When the houses next to Wootton Brook were built there were supposed to be adequate flood mitigation measures in place. They have flooded 5 times in the past 16 years. There is little local trust in mitigation *(CPC.1, CPC/6).*

201. M1 junction 15 is the worst area of air pollution in Northampton. The Council's air quality assessment *(CDH.3)* may be flawed. In any event the figures are close to the legal limit which must indicate some element of risk to health. Worse, they do not include particulate pollution from diesel engines. The prevailing winds would blow pollution across the site, including the school. There are no reliable figures to show how polluted the air is or will be. Noise levels on the site are very high and the impact on future residents would be unacceptable. Houses with non-opening windows admit, but cannot solve the problem, particularly for those trying to enjoy a peaceful time in their gardens. Reference has been made to houses built some time ago in Collingtree Court. The dangers were made clear at the time but an unfathomable error in allowing those houses to be built <u>then</u> surely cannot justify a worse error being made <u>now</u> as both air pollution and noise have greatly increased. *(CPC.2)*

202. The appellants claim that the run off from the site will not make things worse and will provide some betterment by protecting existing houses. The new houses themselves would be placed where they are unlikely to flood. However, there are many springs on the land and it is impossible to know how they will be affected.

Flood water flows along Wootton Brook from the east – there will be no betterment there. Surface water from major development to the east can only flow into Wootton Brook, making conditions worse. There should be no development on flood plains so will this development be safe? It may worsen matters farther west, and it would be unwise to allow more development in an area that already floods with alarming regularity. No consent should be given to the proposal until EA has undertaken a current assessment of these new situations using properly substantiated data. *(CPC/3)*

203. There is a lack of suitable infrastructure. Local doctors and dentists are overloaded and the existing local hospital is unable to cope with the current population. The A45 cannot accept any more traffic as it is often blocked in both directions. Local roads are at capacity. Mitigation would consist of a bus service and encouragement to walk or cycle. That is not at all likely to happen. The first phase of housing would be built without any infrastructure. Children would have to go to existing schools, which are currently operating over capacity with no guarantee that they can expand. No shopping facilities would be provided in phase 1 yet there is meant to be affordable housing which suggests a need for easy access to local shops and other facilities. *(CPC/4)*

204. Collingtree Village is an ancient settlement with a distinguished history. It includes the 11th century Church of St Columba, built on the site of an earlier church, and remains a peaceful place to live with a good sense of community. Although there will be no vehicular access from the proposed development, there will be footpath access for many more people. This will swamp the atmosphere of this conservation village, which has no infrastructure to cope. This will affect the great sense of community. The provision of infrastructure should be insisted on before development takes place. If it goes ahead, there are many conditions that should be placed on the development to overcome what could be negative effects *(CPC/5).*

205. **Cllr Tony Stirk** – Collingtree Park is built on a flood plain. Houses there have flooded and, when it rains heavily and consistently, residents live in dread of flooding again. Everyone in the area is opposed to this proposal. The area has already been vastly overdeveloped. Most, like the proposal, are on higher ground so that all the surface water runs down to the Wootton Brook, which becomes a fast flowing river. This could worsen with the new development and overtop any flood defences. Everyone should have a duty of care not to make the situation any worse than it is. It is not clear that the proposed flood defences would be adequate. There should be an independent expert flooding risk assessment to take all this into account. The EA advises that what is needed is a water holding area upstream to alleviate the acknowledged dangers, but there are no funds available. *(CPC/8)*

Wootton Brook Action Group

206. **Dr Christopher Leads** – WBAG is not against development per se but is concerned about the safety of the families and houses bordering the existing flood zone. WBAG understands the unpredictability of the water flow in the Brook and the difficulties in modelling it and fear that, despite the best efforts of the developers, the flood risk will increase *(WBAG/2).* As OFWAT say 'traditionally water has been moved away as quickly as possible, but to meet future challenges we now need slow water, managed at catchment level.' All the

surface water from the 3,500 or so houses to the north of the Brook empty directly into it - uncontrollable fast water. The new development, on the other side of the Brook, would incorporate a Sustainable Drainage System (SuDS). This would release surface water to the Brook equivalent to the current greenfield rate – this is slow water. The SuDS outfall must be in equilibrium with the Brook. Fast water drainage exceedances upstream or downstream can affect the ability of the Brook to accommodate the SuDS flow *(WBAG/3).* The necessary analysis depends on having a reliable model of the Brook *(WBAG/4).* That is the problem.

207. The EA describe Wootton Brook as 'flashy'. They are not satisfied with their present knowledge of it and know that further investigation is required. *(WBAG/5)* This places a question over the viability of the current model. Existing gauge measurements are unreliable at high flow and, with each update of the model, flood zone 2 extends further from the Brook. *(WBAG/6, WBAG/7)* This concerns local residents.

208. WBAG has considered what would happen if the design storm event came to pass. The record 24 hour rainfall figures associated with the recent 'Storm Desmond' were actually part of a weather system that spanned several days and this is likely to be what happens here. The fast surface water would feed rapidly into the Brook, outpacing and flood-locking the SuDS outfall; water would back up and the Brook would rapidly overtop its banks; water flowing down from the east would add to the chaos; each wave of rainfall would increase exceedances of capacity; and other areas, including safe routes, would progressively flood. Discharge control would be lost, increasing the flood risk elsewhere. WBAG consider this to be a feasible forecast and contends that a reassessment is required to create a viable starting point for the next 100 years, including validation of a more accurate model. Only then, from a reliable and trustworthy base, could a defendable attempt at a SuDS design be made. The best way of managing local flood risk is to refuse this scheme and start again with a scheme that is accurately modelled and properly sustainable *(WBAG/1, WBAG/20).*

209. **Rod Mason** (presented by Dr Leads) – the Traffic Assessment is very much at odds with local experience (*WBAG/9, WBAG/10*). Rowtree Road, the main route in and out of East Hunsbury, has a particular problem, with queues back from the A45 junction on most days substantially delaying the eastward flow of traffic (*WBAG/19, WBAG/19*). Traffic on the A45 is also very bad. Traffic management plans may be in place but they seem to be reactive, rather than anticipating future problems. Reliance is placed on a degree of modal shift, but this is a pipe dream. The driving forces for getting people out of cars are very weak, with little inducement to use the bus or cycle. Northampton is wedded to the car and will be for years to come (*WBAG/13*).

210. The southern side of the town is at capacity in development terms. The best way to meet development need and alleviate traffic concentration in this area is to focus expansion to the north of the town. Local residents consider that the additional morning traffic from the SUE will unequivocally increase the traffic problems in the south, regardless of the mitigation matters proposed. Increased congestion would not meet sustainable development criteria (*WBAG/21*).

Collingtree Park Residents Association

211. **Nigel Mapletoft** – there is no doubt that the site suffers from both noise pollution and air pollution. The levels of both have been understated by the developer. CPRA readings show that predicted noise levels are up to 6 dB too low. Correction indicates that every single house on the site would suffer noise that exceeds the NOEL of 55 dB; at night the noise over the whole site would be more than double the 45 dB NOEL agreed with NBC; at least 40 houses would suffer noise that exceeds the agreed SOAEL of 72 dB; and noise in the school playground would be 75% louder than the 55 dB limit recommended by the WHO and agreed with NBC. The proposed mitigation measures would be ineffective; much of the motorway is on a 5 metre embankment *(BHL/9 Fig1)* so the 3 metre high acoustic barrier would not reduce the noise at all; and sealed windows will mean pumping in polluted air and extreme overheating. Noise actually breaks all the limits agreed with NBC *(CPRA/4, CPRA6).*

212. The site is located beside 2 AQMAs which together have over 178,000 vehicle movements per day, producing high levels of nitrogen dioxide and particulate matter. There is a serious error with the source data used to create the developer's air pollution model. As a consequence the model is fundamentally flawed and air pollution predictions are far too low *(CPRA/1, CPRA/2).* The M1 carries twice as much traffic as the A45, yet the developer states that nitrogen dioxide pollution is 20% lower on the M1. That cannot be true. The reason for this is the location of the diffusion tube monitors. Used in the model as roadside monitors, defined as within 5 metres of the motorway, they are in fact up to 60 metres away. When this source data error is properly adjusted, it is evident that nitrogen dioxide and particulate matter pollution beside the M1 severely exceeds the UK and EU's legal limits. CPRA's predictions are far more accurate *(CPRA/5).*

213. The proposed noise mitigation would be ineffective and air pollution mitigation non-existent. Pollution levels are so high that they would lead to debilitating illnesses and premature deaths for future residents of the site. That is a price that no-one should be willing to accept for any building site *(CPRA/7).*

214. **Murray Croft** – the proposed development breaches National Planning Policy Framework Core Principles in 5 different factors and numerous other Framework clauses. This shows that the area is not sustainable, not urban and not an extension *(CPRA/3).* The Collingtree Park Golf Course was designed to be of international standard. It will be severely compromised by the proposed development. The loss of existing recreational facilities contravenes Framework 74 because no equivalent or better replacement is proposed.

215. Democratically the views of residents, local councillors and the strategic objections by NBC and NCC were ignored and swept aside by the other council members of the JSPC. Subsequently, the entire NBC council voted against the allocation of the land for development. This means the process has been unsafe, lacks democratic legitimacy and totally undermines the involvement of both local residents and local politicians and as such is wholly against the letter and spirit of Localism. The current proposals are 'developer-led', not genuinely 'Plan-led', in accordance with Framework 17 first Core Principle. Over the years the appellant's proposals have been consistently opposed by the two affected Parish Councils, the relevant local Borough and County Councillors and the Constituency Member

of Parliament. A decision to allow this development would be a sham and against all sense of fair and reasonable justice.

216. One of the core objectives is for developments in Northampton to support the town centre's economy. This must be the worst area of Northampton to achieve that due to it being on the very edge of the borough and close to a motorway junction. The majority of existing residents have chosen this location because they have cars and want to use them to access work via the M1 or the A45. This is a view supported by Northamptonshire County Council who maintain that growth is better located to the north of the town where infrastructure can cope more easily. Traffic congestion on the A45 and the junction with the M1 has been having a significant impact on a lot of businesses at the Brackmills Industrial Estate. Future growth could be at severe risk if planning permission is granted for this development. Overall the development offers a complete lack of economic benefit to Northampton and potentially an economic loss, in conflict with Framework 17 third Core Principle.

217. With no school during phase 1 and only a primary school during phase 2, the appellant's plan clearly mocks Framework 72 which states that : 'The Government attaches great importance to ensuring that a sufficient choice of school places is available to meet the needs of existing and new communities.' Local primary and secondary schools are all at or above capacity. With Phase 1 (378 houses) taking potentially 5-7 years to build, during this period all primary and secondary school students will need to be bused or transported by parents to alternative schools in the greater area. That will potentially amount to over 800 extra car journeys per day, increasing congestion on Rowtree Road. An application for housing on this site was rejected as long ago as 1991. How can it be acceptable now? *(CPRA/8*).

Hunsbury and Collingtree Residents Alliance

218. **Robert Boulter** - the inquiry has lost focus on the main issue of how sustainable is the proposed development by concentrating on each individual aspect and not the sum of its parts. The issues of the lack of sufficient sustainability include air and noise pollution, heritage safeguarding and flooding (covered by others), traffic congestion and financial viability.

219. The appellant's modelling of future traffic patterns indicates that the scheme will not increase current congestion even before modal shift is taken into account. This conclusion is particularly difficult to believe and this view is reinforced when NCC state that 'traffic volumes on the county's roads (are) due to grow by another 23% in the next ten years'. The results of the 3 different traffic modelling exercises are not fact and should not be taken as such. If the results are checked, without bias, against the existing situation, it is not credible to say there will be no increase in traffic. The traffic growth management scheme for the A45 is not a plan to help traffic exiting on to it from East Hunsbury via Rowtree Road. Its sole purpose is to help to ensure the safety of the A45 and to keep it flowing. This requires traffic accessing the A45 from Rowtree Road and Wooldale Road to be held back. That can only increase congestion on both roads. The management scheme therefore has no benefit for the local roads feeding the A45 at peak times. As regards modal shift, the bus service, despite planned improvements, will remain inadequate as it is only a half hourly service at best and the improved facilities for cycling are totally inadequate *(HCRA/1).*

220. The appellant argues that the viability of the development is at risk. This is evidenced by the affordable housing provision being reduced to 15%. He says if the number of houses is reduced for noise or heritage reasons, the limited public amenities would be further eroded. The attractiveness of the site to potential occupiers is also reduced by the noise and cost of running ventilation systems on warm days, the cost of maintenance of the SUDS after the first 5 years and residents will also be liable for the ongoing funding of attempts to improve modal shift to the required target of 20%. Calling the proposed development a Sustainable Urban Extension is wrong. The development is very substantially dependent on employment and on the facilities off the site and none of these can be accessed without accessing or crossing Rowtree Road. This includes everybody cycling, walking, on public transport or in cars. This development has only progressed this far by a substantial compromising to the clear aspirations of the Framework. This land should not have been allocated for development due to these multiple issues. The need for building 1000 houses should not be allowed to outweigh the adverse considerations outlined above *(HCRA/3).*

221. **Rod Sellers** – the Appeal Site has always been considered problematical for large scale development and therefore not truly sustainable. This SUE has the most development constraints of all the SUEs in the Core Strategy. This has been reflected in Northampton planning policies since the mid 1960's which left the site undeveloped because of the inherent issues of flood risk, air and noise, land instability and as a strategic landscape gap *(HCRA/2).*

222. Collingtree Village and Parish has not stood still - the number of houses has doubled in the last 20 years largely through infill – but it still has the atmosphere and feel of a Village community, which successive planning policies have tried to maintain. If the proposed development goes ahead Phase 1 alone will dominate Collingtree with more than double the number of houses and an added population of at least a thousand on its doorstep. The fact that vehicular access from any new development to Collingtree Village is not physically possible or desirable underlines yet another constraint on the site.

223. The problems of developing this site are a matter of historical fact whereas the mitigation proposals depend on the forecasts of computer modelling. The data inputs used for this modelling are highly suspect. There are development schemes that might adapt to the constraints of the site and work with the grain of its landscape character but the current applications do not *(HCRA/4)***.**

Written representations

224. **The Sargeant family**, owners of part of the site, support the proposal and confirm they will enter into the necessary planning obligations so as to ensure the delivery of the SUE *(WRS/1).*

225. **Historic England** HE objects to the proposals, reaffirming its advice that Collingtree should be maintained as a separate settlement through the masterplanning process and the provision of green infrastructure. HE considers that the significance of Collingtree Conservation Area and the grade II* listed Church of St Columba would be affected by harm through development within their settings. That should be assessed in line with Framework 132-134 and the statutory duties. The harm would have to be weighed against any public benefits of the proposed development *(CDI/7, WRO/1).*

226. **The 174 local objections** in writing closely reflect the submissions made at the inquiry. They relate primarily to the allocation of the site, access to the A45, the impact on traffic flows and highway congestion, employment and travel, the effect on schools and health facilities, the lack of recreation facilities, flooding, the loss of countryside and agricultural land, noise pollution, air quality, the effect on Collingtree village and an overall lack of sustainability *(WRO/2).*

Obligations and Conditions

227. The parties submitted 2 Planning Agreements, in each case as 2 counterpart documents, setting out planning obligations under s106 of the TCPA *(PA/8, PA/9).* The Agreements were accompanied by a Compliance Statement *(PA1)* which confirms compliance with CIL Regulation 122(2) 'the 3 tests' and with CIL Regulation 123(3) 'the pooling restriction'. The statement provides justification for the provision of the obligations in relation to national planning policy and guidance, the policies of the local development plan and the Council's supplementary guidance. Specific provisions are made within each Agreement *(PA8.19 and PA9.19)* should the Council's CIL Charging Schedule come into force before the decision is issued. An agreed note *(PA7)* confirms the parties' intentions in this event, clarifies potential 'duplications' and reports the Council's resolution that CIL will take effect from 1 April 2016.

228. **The Appeal A Agreement** *(PA8)* commits the parties, if planning permission is granted, to providing affordable housing units, in small clusters, as part of the development; to contributing up to £97,000 to an Apprenticeship Training Scheme; to making a financial contribution of £621,000 towards the expansion of existing healthcare facilities; to providing and marketing a range of Local Centre units; to providing and laying out open space, playing pitch and play areas and contributing £1,500,000 towards their future management; to implementing a Sustainable Urban Drainage System (SuDS) Management Plan; to providing a community hall in accordance with an agreed specification and contributing £327,000 towards its future management; to making transport contributions of £907,147 towards A45 and M1 junction 15 improvements, £568,500 towards sustainable transport provisions and £160,000 towards local highway improvements; to reserving a site for, and making a financial contribution of £5,400,000 towards, the provision of a primary school; to making a financial contribution of £1,368,000 towards secondary school transport costs; to implementing a Travel Plan; to contributing up to £1,350,000 to secure the provision of a bus service; and to providing bus shelters within the development and £195,000 towards their future maintenance. The Agreement allows for the reassessment of viability at various stages, specifically in relation to the provision of affordable housing.

229. **The Appeal B Agreement** *(PA9)* contains similar provisions relating to phase 1 of the development, adjusted for partial payment of the contributions. It excludes the Local Centre, the school and the community hall, which are not part of this phase, and the viability reassessment, which would come into effect after the completion of phase 1.

230. The parties submitted a list of agreed suggested conditions for each appeal. I give here a brief outline of the suggested conditions. Figures in brackets (23) refer to the numbered lists set out in *SOCG2.*

231. **Appeal A conditions: outline application** (1-3) normal outline commencement conditions; (4) development not to exceed 1,000 houses; (5) not materially depart from plans and policy requirements; (6) submit Masterplan and design code; (7) submit phasing plan; (8) submit sustainability strategy; (9) submit materials; (10) submit surface details of roads and paths; (11) submit CEMP; (12) construction working times; (13) engineering and construction details of 2 accesses; (14) location engineering and construction details, walking and cycling measures; (15) highway improvements; (16) traffic surveys to trigger improvements/payments; (17) submit residential Travel Plan;(18) diversion or closure of PROW; (19,20) tree works and protection of trees; (21) surface water drainage as SUDS;(22,23) flood plain compensation and works to Wootton Brook; (24) foul sewage infrastructure; (25) railway fence; (26) archaeological work; (27,28) mitigation strategy to minimise harm to bats and otters; (29) submit ECMS to protect ecological resources; (30) submit LEMP for long term management of open spaces; (31) non-residential noise assessment and provisions for control; (32) non-residential delivery arrangements; (33) Residential noise assessment; (34) submit details of acoustic barrier; (35) identify land for community food production; (36) investigate and remediate contamination; (37) lifetime homes standard; (38,39) controls on use of commercial premises; (40) storage and collection of refuse; (41,42) hard and soft landscaping; (43) meet objectives of Secured by Design; (44) details of LEAPs and NEAPs; (45) not commence phases 2 and 3 without s106 deed of adherence.

232. **Appeal B conditions: full application** (1) time limit; (2) compliance with submitted plans; (3) sustainability strategy for achieving level 3 Code for Sustainable Homes; (4) Submit CEMP; (5) working hours; (6) engineering and construction details of access; (7) location engineering and construction details walking and cycling measures; (8) highway improvements; (9) traffic surveys to trigger works/payments; (10) submit residential Travel Plan; (11) diversion or closure of PROW; (12,13) tree works and protection of trees; (14) surface water drainage as SUDS; (15) works to Wootton Brook; (16) foul sewage infrastructure; (17) archaeological work; (18,19) mitigation strategy to minimise harm to bats and otters; (20) submit ECMS to protect ecological resources; (21) submit LEMP for long term management of open spaces; (22) residential noise assessment; (23) details of acoustic barrier; (24) investigate and remediate contamination; (25) lifetime homes; (26) storage and collection of refuse; (27) hard and soft landscaping; (28) details of LEAPs and NEAPs; (29) provision of bus stops and shelters.

Inspector's conclusions

The following conclusions are based on the oral and written evidence given to the inquiry and on my inspections of the site and its surroundings. The numbers in square brackets [44] *refer to paragraphs in the preceding sections of the report from which these conclusions are drawn.*

233. The main considerations in these appeals fall under 4 broad headings:

- Whether the Council can demonstrate a 5 year supply of housing land and the consequent policy implications;
- Whether satisfactory living conditions would be created for the residents of the proposed development, with particular regard to noise levels;
- The effect of the proposed development on adjacent heritage assets; and
- Whether, taken as a whole, the proposals accord with the local development plan and amount to sustainable development as defined in the Framework

234. There are also additional matters raised by local objectors relating to highways, flooding and air quality to be taken into consideration.

Whether the Council can demonstrate a 5 year supply of housing land and the consequent policy implications

235. The Council acknowledges that it cannot currently demonstrate a 5-year supply of housing land [29,30]. While action is being taken to address that shortfall [20], at present there is no more than 3.76 years supply, including an anticipated 250 houses from the Appeal A site [45]. Framework 49 makes it clear that relevant policies for the supply of housing should not be considered up-to-date if the local planning authority cannot demonstrate a 5-year supply of deliverable housing sites. As Framework 14 explains, where relevant policies are out of date, this means granting permission unless the adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in the Framework taken as a whole.

236. The most relevant policy for the supply of housing in this case is JCS policy N5 which allocates the site as the Northampton South SUE to include up to 1,000 dwellings [22]. The 8 SUEs at Northampton designated in the JCS represent the most sustainable and sequentially preferable locations for new development beyond the existing urban area. Not all are within the NBC boundary, although the Northampton South SUE is, but they are all contiguous with the urban area of Northampton and are intended to serve the town's housing needs. While other policies (such as policy S1, intended to control the distribution of development) may be relevant to the supply of housing in other locations and are out of date, they are not relevant to this particular proposal where housing land is already allocated [115]. As a key policy of the recently adopted JCS, policy N5 carries very significant weight [29]. This site is seen as making an early contribution to housing delivery [51,104,117]. The proposed development would be entirely consistent with policy N5. Not surprisingly the appellant accepts that this policy is not out of date [114].

237. The appellant argues that JCS policies S10, BN5 and BN9 (cited in the reasons for refusal) are relevant policies for the supply of housing so that, since the

Council cannot demonstrate a 5-year supply of deliverable housing sites, they are all out of date [47-49]. Policy S10 requires all development to conform to the principles of sustainable development; policy BN5 is intended to protect the historic environment from harmful development; and policy BN9 requires all proposals to minimise the effects of, among other things, noise pollution [23,50,116].

238. The appellant relies on the findings that the phrase 'relevant policies for the supply of housing' should be given a broad meaning and that those policies that address housing or generally restrict development are relevant policies for the supply of housing [47,48]. He appears to argue that, if the proposal is found to conflict with policies S10, BN5 and BN9, then that would serve to restrict the development of the land alongside the motorway so they are relevant policies that are out of date [49].

239. This seems to me to be a misunderstanding of Framework policy. JCS policy N5 allocates the site for the development of about 1,000 houses. The allocated site clearly includes an undeveloped wide strip beside the motorway to ensure that the requirements of policies S10, BN5 and BN9 can be met. They are all policies intended to control the quality of development and its impact on its surroundings. They may shape the way the development is laid out but they do not restrict the overall supply of housing land or constrain its location. Compliance with these policies would not affect the delivery of the allocated number of houses. All development proposals are required to comply with these policies [116] and the extent of any conflict is a matter to be weighed in the planning balance. In my judgement they cannot be seen as policies relevant to the supply of housing, and they are not out of date. Indeed, since these recently adopted policies are entirely consistent with the Framework's over-arching pursuit of sustainable development and specific policy on the conservation of the historic environment and the control of noise pollution, they carry the full weight of the up-to-date local development plan.

Whether satisfactory living conditions would be created for the residents of the proposed development, with particular regard to noise levels

240. The allocated site lies immediately alongside the M1 motorway [12,14]. The JCS recognises that the site is affected by motorway traffic noise and that mitigation measures will be required to address the problem of noise and air pollution [31,127]. The JCS EiP Inspector noted that these issues would have to be resolved at design stage, including through the provision of 'a substantial landscape buffer' beside the M1 [31,128]. JCS Inset Map 12 shows an 'indicative structural green space' of a nominal 100 metres width, parallel to the M1 on the southern edge of the site [127]. The clear intention was to ensure mitigation of the noise impact on dwellings by distance and landscape provision. This method is well established, albeit under an earlier noise control regime [131].

241. The parties agree that the proposed development should comply with the Government's noise policy statement (NPSE), PPG guidelines and the design criteria set out in BS 8233:2014 [56-60,119-124]. The parties also agree that an acceptable internal noise environment could be provided for all dwellings by a variety of design solutions secured by condition [31,231,232]. The objections centre on the noise levels in private gardens and amenity areas [32,55,118].

242. NPSE's overriding aim is to avoid significant adverse effects on health and quality of life and to mitigate and minimise adverse impacts [56,120]. To that end it sets a series of noise levels [57]:

• No Observed Effect Level (NOEL) - the level below which no effect can be detected. Below this level no detectable effect on health and quality of life due to noise can be established;

• Lowest Observable Adverse Effect Level (LOAEL) - the level above which adverse effects on health and quality of life can be detected; and

• Significant Observed Adverse Effect Level (SOAEL) - the level above which significant adverse effects on health and quality of life occur.

243. BS 8233:2014 recommends a desirable noise level for external amenity space as not exceeding 50 $dBL_{Aeq,T}$, with an upper guideline limit of 55 $dBL_{Aeq,T}$ in noisier environments. The Council accepts that this site lies in a noisy environment and adopts 55 $dBL_{Aeq,T}$ as the LOAEL [60,122]. The BS recognises that these guideline values may not be achievable in all circumstances where development might be desirable, such as urban areas adjoining the strategic transport network, and advises that, in such locations, the design should achieve the lowest practicable levels [121]. This accords with NPSE which requires that all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life while also taking into account the guiding principles of sustainable development. This does not mean that such adverse effects cannot occur [58]. The appellant considers the SOAEL to be about 70 $dBL_{Aeq,T}$ [61,124].

244. WHO guidelines indicate that to prevent the majority of people from being seriously annoyed, the outdoor sound level should not exceed 55dBA [126]. This is the adopted LOAEL, thus the critical consideration in assessing the impact of noise on the health and quality of life of future occupiers of the development is the extent to which the LOAEL would be exceeded.

245. The noise surveys and projections show, not unexpectedly, that the parts of the site closest to the motorway would be affected by high levels of traffic noise. The appellant's noise survey shows that a 50 metre wide strip beside the motorway is subject to noise levels within the 65-70 dBA range, that 60-65 dBA levels extend over 200 metres into the site and that the 55-60 dBA contour band extends up to 500 metres into the site. The northern half of the site falls within the 50-55 dBA band [61].

246. The Council's assessment shows that, even allowing for a 3 metre high noise barrier at the motorway edge and the 'self-screening' layout, up to 144 dwellings would experience garden noise above the LOAEL, approximately half of them within the Appeal B site. Up to 91 would be within the 55-60 dBA band, 46 within the 60-65 dBA band and 7 within the 65-70 dBA band, that is extending right up to the SOAEL acceptable limit [129].

247. The appellant acknowledges that, while exact numbers may not be agreed, a substantial number of the garden areas close to the motorway would be above the 55 dBA upper guideline limit of desirable noise levels for external space, and above the level where people could become seriously annoyed by noise pollution [61]. A significant number, closest to the motorway, would be well above that

level. Here I note the WHO advice that long term exposure to noise levels above 65 dBA causes heart problems [125].

248. It is recognised that, to make the best use of the site as housing land, some exceedance of 55 $dBL_{Aeq,16hr}$ is likely to be necessary. Both NPSE and BS 8233:2014 allow for this eventuality, but expect the adverse effects of noise to be minimised and layouts designed to achieve the lowest practicable noise levels. While the site adjoins the strategic road network, it is open agricultural land, not a tight urban site giving rise to circumstances where development would be difficult without exceeding LOAEL.

249. As the Council points out, the indicative (Appeal A) and proposed (Appeal B) layouts are at an inappropriately low density of development, and open space provision is higher than necessary [138-139]. There is a clear probability that there is room on the site to distance the houses from the motorway as envisaged in JCS policy N5 without any reduction in number. As the EiP Report makes clear, such considerations as a substantial landscape buffer to the motorway can be fully and appropriately taken into account whilst allowing development to proceed [127]. It cannot easily be argued that such a layout is not achievable and indeed the appellant does not, relying instead on promoting the acceptability of the submitted proposals [68].

250. In that regard the appellant appears to have interpreted the flexibility within NPSE and the BS as an indication that an outdoor noise level for gardens falling within the 55-70 dBA range is generally acceptable [61,123]. This seems to me a misinterpretation of the guidance which, in my judgement, to avoid excluding otherwise developable land simply allows some exceedance of the 55 dBA desirable limit in circumstances where a compliant layout is not achievable. In such circumstances, it is clearly the responsibility of the designer to design a layout that achieves the lowest practicable noise levels above that limit.

251. In my view this has not been done. The layouts show a significant number of houses located in the areas close to the motorway where noise levels are at their highest. Self-screening would have a limited effect. Any adjustment to the Appeal A scheme to increase self-screening would be unlikely to reduce garden noise to acceptable levels [66]. For much of the Appeal A site the motorway is on embankment, higher than the proposed noise barrier, so it serves little purpose. In any event, such barriers are not particularly effective in reducing low-frequency noise, a significant part of the traffic noise range. For these reasons I consider that a noise barrier as proposed would not be particularly effective in screening the site [62,211]. The levels of noise in the nearest gardens in both outline and detailed layouts would be within a range that is unacceptable unless it can be demonstrated that locating houses in this position is necessary to the development of the site. That has not been demonstrated.

252. The appellant refers to the development at nearby Collingtree Court, situated next to the motorway. In my view, for the reasons explained by the Council, the outdated and unsatisfactory arrangements at Collingtree Court do not provide an acceptable example for this proposal [69,147]. PPG requires development to be designed to reduce the impact of noise. While it allows garden noise impact to be partially offset if there is access to quiet public space, much of the open space accessible to the affected dwellings would be subject to the same motorway noise

impact and could hardly be considered tranquil [59,148]. There is no justification for unacceptably high garden noise levels on this site.

253. I consider that it would be entirely possible to design a layout of 1,000 houses in accordance with JCS policy N5 with far fewer gardens above the LOAEL of 55 dBA and none at all in the dangerous 65-70 dBA band [130]. In my judgement, in the schemes as illustrated and designed, reasonable steps have not been taken to minimise the adverse impact of noise on the health and quality of life of future occupiers of the development. The proposals would not meet the requirement of JCS policy N5 to make provision for the structural greenspace in accordance with the inset map. They would conflict with policies S10 (k) and BN9 (e) of the JCS, and the relevant guidance in Framework 109 and 123, NPSE and BS 8233:2014 [118,149-151]. I consider that, with regard to noise levels, both layouts show that satisfactory living conditions would not be created for the residents of the proposed development.

The effect of the proposed development on adjacent heritage assets

254. As Framework 126 makes clear, heritage assets are an irreplaceable resource which should be conserved in a manner appropriate to their significance. The parties agree that the adjacent heritage assets consist of the Collingtree Village Conservation Area and the Grade II* listed St. Columba's Church at its heart. It is further agreed that, because the site lies outside the village, it is the settings of the church and conservation area that are under consideration here [33,71,152]. Since the church is grade II* listed, it is of particular importance as a heritage asset and I give great weight to its conservation, including its setting.

255. The significance of the conservation area lies primarily in the medieval origins of the village and the coherent composition of individual historic structures in the core of the village, with the church at its centre [72,155]. The significance of the church itself derives from the architectural and cultural interest of its medieval fabric and its historic interest as the focal point of the village for over 800 years [76, 155].

256. It is common ground that historically the village and the church would have been experienced in a rural setting [156]. Most of that rural setting has been lost through development. The field to the west of Barn Corner (the field) at the edge of the conservation area is now one of the last vestiges of the rural surroundings of the village [77,156]. The southern part of the field shows the distinctive physical remains of pre-enclosure ridge and furrow, a tangible reminder of the long history of the village and its relationship to the countryside. It gives a distinctive sense of place. A public footpath across the field evinces an ancient approach route to the village from the west, entering at Barn Corner [77,160]. As effectively the last link between the heritage assets and their original rural setting, the field now has considerable historic interest and value [75,158].

257. The church can be seen and heard from the footpath across the field and acts as something of a local landmark in the approach to the village [76,162-164]. This visual and aural connection to the church, reflecting the original purpose of the tower, is important to experiencing the presence of the church in the local landscape. With views into and from the conservation area, I consider that the field lies within the setting of the church and the conservation area. The footpath and ridge and furrow are historic features of the setting that contribute much to the special interest and significance of the historic church and village.

258. Both the illustrative and the detailed proposals show that the field would be fully developed. The public footpath would lie within a built-up area and the ridge and furrow would be lost. While views of the church would still be possible, they would be from within an urban area. In my view, the distinctive rural quality of the setting of the heritage assets would be lost, harming the significance of the listed church and the conservation area. The presence of the narrow undeveloped field between the village and the development would not be sufficient to overcome this [73,166]. The severance of one of the last links between the village and its original rural setting would be particularly harmful. The setting of the listed church would not be preserved. The proposal would not sustain or enhance the heritage and landscape features which contribute to the character and setting of the conservation area, in conflict with JCS policy BN5.

259. In terms of Framework 134, and as acknowledged by the parties, I consider that this would amount to less than substantial harm to the significance of the heritage assets [86,172]. That harm has to be weighed against the public benefits of the proposal, including securing its optimum viable use.

Other matters

260. Local objectors raise additional concerns to be taken into consideration:

Highways

261. Understandably, local residents are worried about the impact of vehicle movements from 1,000 new houses on the local highway network [182,186,189, 193-194,198,200,209,216,219,226]. I saw for myself the current congestion at rush hours and at school drop off/pick up times [3]. On the face of it, the introduction of many more vehicles could worsen the current situation.

262. This was recognised at Local Plan stage after full consideration, when it was noted that the delivery of a suitably integrated transport network to serve the site would rely on a number of necessary measures, including off-site highways improvements and sustainable transport facilities [91]. It is acknowledged that highways infrastructure work must be funded by developer contributions [103] and that 'upfront' provision could compromise the viability of development. Accordingly, for the development of the Northampton South SUE, JCS policy N5 requires an integrated transport network focussed on sustainable transport modes including public transport, walking and cycling; necessary infrastructure is required to be phased alongside the delivery of the development [22].

263. The appellant carried out extensive transport assessment work. Details of the strategy to manage the transport impact of the development were agreed with the relevant highway authorities [34-36,90] and include substantial financial contributions towards A45 and M1 junction 15 improvements, sustainable transport provisions, local highway improvements and the provision of a bus service [228,229]. Agreed conditions would require cycle paths and highway engineering work to be completed before occupation, with surveys triggering further highway improvement work in phases as found necessary [231,232]. Following clarification of these matters NBC withdrew its initial objections [7].

264. I recognise that local people who experience the current conditions every day are sceptical that the improvements would be sufficient and argue that larger scale improvements are necessary [194,198,210,216,219]. On a settlement-wide

scale that may be so but no one development can be expected to do more than mitigate the impact of its own traffic generation, with the necessary works making a contribution to the overall solution. Some local people are also cynical about the likelihood of modal change to more sustainable means of travel [193,209]. Habits die hard and no one can be forced to use the bus, cycle or walk but in time such means of travel may become more attractive and social attitudes may change, not least due to the impact of climate change. The commercial bus service operator, Stagecoach, considers there to be the potential for a higher level of modal shift to bus than the scheme allows for. This, with full implementation of the Travel Plan, would contribute to solving the existing traffic issues in south Northampton [36]. The opportunities for more sustainable means of travel would be there, provided by the development, giving people a real choice about how they travel.

265. Overall, the traffic assessment is robust and shows that the highway improvements and sustainable travel measures, within an integrated transport network, would cost-effectively limit the significant impacts of the development. I agree that the residual cumulative impact would not be severe so the proposals would accord with Framework 32.

Flooding

266. The Wootton Brook crosses the northern part of the site, flowing generally from east to west. It has a recent history of flooding. The EA has outlined flood risk zones 2 and 3 associated with the brook, shown diagrammatically on the JCS policy N5 inset map. Local residents are naturally concerned about the impact of the new development on flood risk and the safety of the families in houses bordering the existing flood zone [184,187,195,199,202,2054,206-208].

267. Apart from the access bridge off Rowtree Lane, none of the new building work would be within the flood plain [89,184,202]. All the buildings would be sited on higher ground, which drains to the brook [37]. A critical element of the proposed development is the design of surface water disposal to replicate the current greenfield rate through a sustainable drainage system (SuDS). Properly managed, that would ensure that the rate of surface water run-off joining the brook from the site would remain unchanged. The extent of the works has been agreed with EA [37]. The incorporation of a SuDS and its management would be secured by condition and planning obligation [228,231].

268. I note that current flood risk modelling of the brook is considered somewhat incomplete and unreliable. I heard from WBAG an eloquent description of how local surface water run-off acts on the brook and the possible consequences of a design storm event [206]. As explained, flooding in these circumstances could occur largely through the unsuitability of current drainage systems in the surrounding area, and it may be that flood relief work up or downstream to deal with this is necessary [207-208].

269. However, that is a wider scale off-site problem and, while it clearly needs attention, the responsibility for solving it cannot fairly be attached to the developer of this site. His obligation is to not make matters worse. Crucially, a SuDS which replicates existing run-off would have no additional impact on the likelihood of flood events. In fact, as part of the landscaping, the proposal includes flood relief work adjoining Collingwood Park, reducing flood risk there, so taken overall the situation would be improved [89].

Air Quality

270. The site is located immediately beside the M1 motorway, designated an AQMA because of high levels of air pollution from road traffic. Local residents are particularly concerned about air quality and whether satisfactory living conditions can be provided for future residents on the site [183,195,201,211-213]. They suspect that, because of the position of the monitors, there are errors with the source data. They consider that pollution levels on the site are underestimated and that, unmitigated, they would in fact be so high as to pose danger to the future occupiers of houses near the M1 [213].

271. The main air pollutants of concern related to road traffic are nitrogen dioxide (NO_2) and fine particulate matter (PM_{10} and $PM_{2.5}$). The appellant does rely on the Council's data, but this is used to verify his own models and predictions, made in line with industry best practice. The independently verified data, based on a worst case scenario, is considered to be reasonably accurate. The air quality assessment found that predicted concentrations of all 3 pollutants at the site would be below national air quality objectives so that the effect of road traffic emissions on future residents is considered to be negligible [88].

272. The appellant's air quality assessment was independently reviewed and was found to be robust and thorough. While the effects of the VW scandal mean that there must be some considerable doubt about the accuracy of predicted NO_2 and PM levels, analysis of national and local data shows that levels of pollutants in the area are generally showing some reduction over the longer term. Continuing improvements in vehicle emissions and NBC measures to improve air quality through reduced traffic movement are likely to ensure that this remains the case. The review concluded that there could be no objection to the scheme on air quality grounds. The review findings led the Council to withdraw its original objections [29,88]. The structural landscape buffer beside the motorway, shown on the JCS policy N5 inset map, is intended to address air quality issues as well as noise. Distance and trees can both reduce pollution levels and I consider that, provided an effective landscape buffer is in place, air pollution would be unlikely to be a particular danger.

Local infrastructure

273. Local objectors are worried that the additional population from an extra 1,000 houses would place intolerable burdens on local schools, medical and sports facilities [186,196,198,203,217,226]. The appellant is committed to alleviating the impact of the development by providing a Local Centre on the site which would include a large community hall with meeting rooms, potentially housing a nursery school; a substantial convenience retail store; and commercial floorspace which could accommodate further retail uses, food and drink uses, business uses and a dental practice. A major contribution would be made to the expansion of the GP surgery at Danes Hill to meet the needs of the development. A new Primary School would be provided on the site and a significant contribution made towards the cost of travel to local Secondary Schools [30,228]. The scheme would include playing fields and a range of local play areas.

274. These facilities are intended to meet the needs of the new residents but they would also be open to use by existing residents of the surrounding area. That would be a local benefit. While the financial contributions would be made at the start of the development, the Local Centre would be built as part of the second

phase. Bearing in mind its cost, and the viability of the scheme overall, I do not think this is unreasonable.

Local participation in the planning process

275. Most of the local objectors put forward succinct, well-researched and well-argued cases relating to the principal and secondary issues in the appeal, making a positive contribution to the inquiry. I have taken their objections fully into account in the planning balance.

276. Some objections relate to the allocation of the site, and the manner in which it was allocated, in the JCS [8]. At the inquiry it became apparent that NBC councillors (who all objected to the allocation of the site for development) were unwilling to accept the majority decision of the JSPC to allocate it [185,191,192,215]. Despite my pointing out that the inquiry was not an opportunity to re-run the Local Plan allocation arguments, they and others continued to object in the face of the recent adoption of the JCS, the up-to-date local development plan which allocates the site for development as the NSSUE [8]. They complained that the decision to allocate the site was not democratically arrived at and argued that to ignore the wishes of local people opposed to the development of the site would undermine the Government's commitment to localism. That coloured the evidence they gave to the inquiry.

277. The Government's Localism Act of 2011 aimed to shift power away from central government and towards local people, including reform to make the planning system more democratic and more effective and to ensure that decisions about housing are taken locally. The Act led to the abolition of Regional Strategies, replaced by the duty to cooperate with neighbouring authorities. It introduced a new right for communities to draw up a neighbourhood plan, in line with national policy and the strategic vision for the wider area set by the local authority. In this way local people can exercise influence over decisions that would make a big difference to their lives, and neighbourhoods would have far more ability to determine the shape of the places in which their inhabitants live.

278. Framework 17 sets out the core principle that planning should be plan-led, empowering local people to shape their surroundings, with succinct local and neighbourhood plans setting out a positive vision for the future of the area. These plans should be based on joint working and cooperation to address larger than local issues. They should provide a practical framework within which decisions on planning applications can be made with a high degree of predictability and efficiency. The changes to the planning system that give communities more say over the scale, location and timing of developments in their areas carry with them the responsibility to ensure that local plans are prepared expeditiously to make provision for the future needs of their areas.

279. Thus localism means the opportunity for local people to take part in the preparation of local and neighbourhood plans and to influence development through putting a local neighbourhood policy framework in place, so ensuring local support for decisions that are consistent with the national and local strategic guidance. Localism does not mean that local people should have the 'final say' in individual planning applications; there is nothing in the Localism Act or elsewhere to support that interpretation. I heard nothing to indicate that the proper approach, a neighbourhood plan for the area, had ever been contemplated.

280. The JSPC was set up in accordance with Framework 178-181 as a cooperating multi-district body of representative elected members to address Northampton's pressing housing delivery problem. It clearly had some difficult decisions to make. Despite the objections of NBC councillors, the majority of JSPC members voted to include the NSSUE as an allocated site. That progressed via EiP to adoption. The key decisions were made by a majority vote of representative elected members. While the minority may be unhappy, the acceptance of majority decisions is the essence of democracy. Decisions are made by elected representatives and not on the basis of population density [191,192], and I see no democratic deficit in the allocation process; in fact this seems to me to have been an exemplary illustration of the local planning process in action, providing a realistic and practical framework for vital planning decisions.

Whether, taken as a whole, the proposals comply with the local development plan and amount to sustainable development as defined in the Framework

281. In accordance with s38(6) of the Planning and Compulsory Purchase Act 2004, planning applications must be determined in accordance with the development plan unless material considerations indicate otherwise. In these cases the relevant policies carry the full weight of the up-to-date local development plan. Framework 49 states that housing applications should be considered in the context of sustainable development, with Framework 14 confirming that there is a presumption in favour of sustainable development[1].

282. **Appeal A.** In Appeal A the application is for outline planning permission with all matters except access reserved. The application is supported by an illustrative plan giving an indication of the appellant's overall approach to the development of the site, but this is not a final layout proposal [16]. Layout is a reserved matter. The application is effectively an application for development in principle, with an illustration of one possible approach to development. A finalised layout is more a matter for a subsequent application for approval of reserved matters.

283. All the advantages and constraints of development were considered at Local Plan stage, with the conclusion that this is a suitably located and well contained site that is physically capable of delivering about 1,000 dwellings and, subject to appropriate detailed design and layout, should relate well to its surroundings and provide positive impacts overall. The allocation of the site in the Local Plan as a SUE effectively amounts to an 'in principle' mandate for development, as the Council acknowledged in withdrawing reason for refusal 1 [6]. It settles the location, use and amount of development.

284. Since the application is simply for approval in principle, that in a sense is the end of this matter. Nonetheless I have considered the illustrative layout on its merits as the Council considers that, as a layout, it fails to comply with development plan policies. I agree. I have found that the illustrative layout would not meet the requirement of JCS policy N5 to make satisfactory provision for structural greenspace in terms of resolving design issues; it would conflict with JCS policies S10 and BN9 with regard to external noise levels; it would not

[1] Though I note that Footnote 9 indicates that the presumption does not apply where Framework policies indicate that development should be restricted by virtue of the effect on, amongst other things, heritage assets.

preserve the setting of the listed church; and it would not sustain or enhance the heritage and landscape features which contribute to the character and setting of the conservation area, in conflict with JCS policy BN5.

285. The illustrative layout is thus unacceptable but it is just that – illustrative. It is not part of the application and it is not binding. While policy N5 requires that a masterplan accompanies development proposals, no application stage is specified. Since the policy N5 inset map shows the principal development constraints, a masterplan could be considered less relevant to an outline 'in principle' application. Indeed the Council accepts, through an agreed condition, that an appropriately detailed masterplan should be submitted prior to submission of any reserved matters application, to be adhered to by all phases of development. This seems a realistic and straightforward approach, and would provide the overall control over land use elements required by policy N5 [95].

286. While my findings should guide the preparation of an acceptable masterplan within the compass of the submitted ES, the failure of the illustrative layout to comply with specific development plan policies is beside the point. The proposal complies in principle with JCS policy N5, a key allocation policy of the local development plan [95,181]. That carries great weight. The details of the implications of compliance with the policy requirements are for the reserved matters stage. Taken as a whole, with the 2 road access arrangements agreed (and subject to engineering and construction conditions) the 'in principle' outline application is acceptable.

287. A Sustainability Assessment of the allocated site was carried out at Local Plan stage and was found to be sound. Framework 7 explains that there are three dimensions to sustainable development: economic, social and environmental. The development would provide 300 new construction jobs and make a major contribution to the economic growth of Northampton, fulfilling the economic role of sustainable development. It would provide up to 1,000 new houses, including 15% affordable homes and supporting infrastructure, a major benefit in an area with a long-running and significant housing delivery problem. It would increase the availability and widen the choice of homes, boosting significantly the supply of housing, so meeting the social role of sustainable development. There would be additional flood risk management of Wootton Brook, providing improved conditions for existing residents, and the provision of new green infrastructure, with opportunities to increase biodiversity. While there would be a loss of open countryside, on balance the environmental role of sustainable development would be satisfied. The Council agrees that these benefits would arise from the development of the site, whatever the detailed scheme, in accordance with policy N5 [99-103,175,176]. I consider that the Appeal A scheme would represent sustainable development.

288. **Appeal B.** In Appeal B the application is for full planning permission for the development of part of the overall site, on land to the south of the golf course and next to Collingtree village. This area is referred to as 'Village 1'. Detailed plans show a layout of 378 houses served by a network of roads, with access off Windingbrook Lane. The layout includes a substantial swale between the houses and the realigned 1st hole of the golf course, as part of the overall flood management measures.

289. The existing footpath from Milton Malsor to Collingtree crosses the southernmost field of the site and would be incorporated into the layout. This field lies within the setting of the listed church and the conservation area. The footpath and the ridge and furrow to the south of the path are historic features of the setting that contribute much to the special interest and significance of the historic church and village. The footpath would be urbanised and the ridge and furrow lost. The setting of the listed church would not be preserved and the character and setting of the conservation area would not be sustained, in conflict with JCS policy BN5. Since this would amount to less than substantial harm to the significance of the heritage assets, in accordance with Framework 134 that harm has to be weighed against the public benefits of the proposal.

290. In that planning balance, bearing in mind the grade ll* listing of the church, I give great importance and weight to the conservation of the heritage assets. As heritage assets are irreplaceable, any harm or loss should require clear and convincing justification. The early provision of 378 new houses, some 15% of them affordable, would be a major public benefit in an area where there is a long-established housing deficit, providing a range of homes, creating jobs and contributing to growth. Against that, I have found that the proposed layout would not achieve the lowest practicable garden noise levels at the houses closest to the motorway in order to minimise the adverse impact of noise on the health and quality of life of future occupiers of the development, in conflict with policies S10 and BN9 of the JCS. Nor would the layout make provision for sufficient structural greenspace beside the M1, as required by JCS policy N5.

291. The part of the field containing the footpath and ridge and furrow substantially coincides with the extent of structural greenspace beside the motorway, as indicated on the policy N5 inset map. There is thus good reason to exclude it from the developable area of the site. Furthermore, air quality predictions may turn out to be wrong; should that be the case, the setting back of houses from the motorway would help reduce the potential effects of air pollution.

292. The appellant argues that a reduction in the size of the site, leading to fewer houses, would prejudice the viability of its development. I am not convinced by this argument. Village 1 is promoted as reflecting the character of Collingtree, but the layout shows an extremely high proportion of detached houses fronting estate roads, resulting in a very low density of development. This would reflect recent development rather than the intrinsic historic character of Collingtree, which is more closely built up. While I understand the market attraction of detached housing, Framework 58 makes it clear that new development should respond to local character and history and reflect the identity of local surroundings. In this particular part of the overall site, a layout more sympathetic to the character of Collingtree would likely be at a higher density, so that housing numbers would not necessarily be reduced.

293. The appellant also argues that, if Appeal B is dismissed, that could seriously delay the development of a site relied on by the Council for the early delivery of housing [104,180]. I accept that bringing to fruition a new detailed planning application might be a lengthy process. However, if Appeal A is allowed, with its fully applicable range of obligations and conditions, following agreement of a masterplan all that would be required is a reserved matters application for the first phase of development. That is likely to be much less time consuming, such

that the delivery of a substantial number of houses, envisaged within the first part of the plan period, would not be significantly delayed.

294. A balance has to be struck between meeting the need for new housing and the harm it would cause. In this case, while the early delivery of new housing would be a major public benefit, I consider that that benefit would be clearly outweighed by the harm the development would cause to important heritage assets and by the failure to properly mitigate the impact of noise on the living conditions of future occupiers. The same public benefits could be gained from a more acceptable scheme. There is no clear and convincing justification for this harm. I consider that, taken as a whole, there are no material considerations sufficient to outweigh the conflict with the local development plan.

295. As Framework 56 makes clear, the Government attaches great importance to the design of the built environment; good design is a key aspect of sustainable development. As the first phase of the overall development of the site, the Appeal B scheme would set the standard for the rest of the planned development, so it is important that that standard is high. The scheme would contribute to building a strong, responsive and competitive economy, supporting growth and the provision of infrastructure, thus fulfilling the economic role of sustainable development. However, as proposed it would not create a high quality built environment which would support the health and wellbeing of the local community, and nor it would it protect the historic environment from irreversible harm, so it would not perform the social and environmental roles of sustainable development. Since all 3 roles are mutually dependent, the Appeal B scheme as a whole cannot be considered to be sustainable development.

Obligations and Conditions

296. The 2 s106 Agreements, as planning obligations, were provided in each case as 2 counterpart documents [227]. An obligation made under s106 is a public law document which has to be entered on the planning and local land charges register and may be copied to interested parties. It therefore needs to be clear that all relevant parties have entered into it. In this case the front page of each document lists all the parties to the Agreement and they have all signed one or other of the documents. I consider it to be clear from the documents that all the necessary parties are committed to the obligations. The counterpart Agreements have been correctly executed and are legally valid so the planning obligations can be properly taken into account.

297. The planning obligations are all related to requirements of national planning policy and guidance, policy requirements of the local development plan and the Council's supplementary guidance. They are all necessary to make the development acceptable in planning terms. They are all directly related to the development, are fairly and reasonably related in scale and kind to it, and are in place to mitigate the effects of the development. The s106 Agreements therefore comply with Regulation 122 of the CIL Regulations 2010. Furthermore, taking account of the Council's Compliance Statement, the Agreements also comply with Regulation 123 of the CIL Regulations.

298. The Council's CIL Charging Schedule is expected to be in place from 1 April 2016 [227]. The 2 s106 Agreements have been drafted to cover a pre- and post-CIL situation.

299. The suggested conditions were discussed in a discrete session at the inquiry. The conditions allow for the overall development to be carried out in phases. With some exceptions, identified below, for the reasons given by the Council the agreed conditions in both cases are considered to be necessary and reasonable and to meet the tests for conditions set out in PPG.

300. For Appeal A [231], the 'Code for Sustainable Homes' has been withdrawn; the equivalent of Code level 3 is achievable by necessary compliance with Part L of the Building Regulations so reference to the Code in condition 8 is unnecessary. The approval of external surface materials is more a matter for the reserved matters stage so condition 9 is unnecessary. Condition 25 relates to a safety fence on the golf course beside the railway line. The appellant objects to this condition on the basis of distance from the line and safe orientation of the holes. While the 5th hole would drive away from the line, the 4th hole would drive towards it, with the line about 50 metres beyond the green. An overshot could reach the line. For safety reasons I consider, in those circumstances, that the condition is necessary.

301. The 'Lifetime Homes Design Guide' has also been withdrawn; Part M of the Building Regulations includes an optional requirement M4(2) for accessible and adaptable dwellings that is broadly equivalent to the Lifetime Homes standard. Condition 37 has therefore been amended to require compliance with Part M4(2). The submission of landscaping details is more appropriate at reserved matters stage so conditions 41 and 42 are unnecessary. 'Secured By Design' too has been withdrawn; the new Part Q of the Building Regulations requires similar security arrangements so condition 43 is unnecessary. Provision for the installation and maintenance of bus shelters is made in the s106 Agreement so condition 45 is unnecessary.

302. For Appeal B [232], the equivalent of Code level 3 is achieved by necessary compliance with Part L of the Building Regulations so in a detailed permission condition 3 is unnecessary. Condition 25 has been amended to require compliance with Building Regulations optional requirement Part M4(2). Provision for the installation and maintenance of bus shelters is made in the s106 Agreement so condition 29 is unnecessary.

303. A range of conditions precedent is proposed for each permission. In each case, the requirements of the conditions, including the timing of compliance, are fundamental to the acceptability of the development. They would ensure delivery of high quality design; minimise the impact of the construction period on local residents; and mitigate the environmental impact of the development. Without such conditions it would be necessary to refuse permission.

304. The agreed conditions have been amended where necessary in the interests of clarity and precision. The conditions are set out in schedules attached to this report at Annex A and Annex B.

Overall conclusions

Appeal A

305. The Appeal A site is allocated in the JCS as a sustainable urban extension of some 1,000 houses and associated infrastructure. It represents part of the planned expansion of the town and is a key element in the provision of new

housing to meet a pressing need. The Local Plan process, including EiP procedures, examined all the constraints and concluded that the allocation was sound. The EiP Inspector considered that, subject to appropriate detailed design and layout, development of the site would provide positive impacts overall. This is a clear indication of the 'in principle' acceptability of development.

306. The outline planning application was accompanied by detailed plans of the 2 road accesses. It is important to note that, while an illustrative layout was also submitted, the site layout (with scale and appearance and landscaping) was reserved for future consideration. The illustrative plan was not part of the application and simply showed one way of developing the site. There was no effective objection to the detailed design of the access arrangements. While I have found some aspects of the illustrative layout to be unacceptable, that can be addressed by condition. Development would follow in phases through the approval of reserved matters, resulting in the delivery of up to 1,000 new houses. That would be a major planning benefit. This proposal, at outline stage, complies with the development plan and meets sustainable development principles.

Appeal B

307. The detailed scheme for part of the site, whether seen as the first phase or a stand-alone development, would result in harm to the historic environment and, through the shortfall in noise mitigation measures, applicable to the whole site, would not provide acceptable living conditions for future residents. These are critical faults. For these reasons this proposal would conflict with the development plan and would not preserve significant heritage assets. I consider that, while the delivery of 378 houses, including 15% affordable homes, would be a major public benefit, on balance there are no material considerations sufficient to outweigh that conflict and justify the grant of permission.

Recommendations

308. **Appeal A: APP/V2825/W/15/3028151**

309. I recommend that Appeal A should be allowed subject to the conditions set out in Annex A.

310. **Appeal B: APP/V2825/W/15/3028155**

311. I recommend that Appeal B should be dismissed. If the Secretary of State is minded to disagree with my recommendation, Annex B lists the conditions that I consider should be attached to any permission granted.

Colin Ball

Inspector

APPEARANCES

FOR THE APPELLANT:

Anthony Crean QC, assisted by Killian Garvey of Counsel.	Instructed by Barton Willmore LLP.
They called:	
Ronald Henry BEng CEng MICE MIEI	Partner, Peter Brett Associates LLP.
Graham Harker BSc(Hons) CEng MIMechE MIES MIAQM ACGI	Peter Brett Associates LLP.
Paul Jenkin BEng(Hons) MSc CEng CWEM FCIWEM	Partner, Peter Brett Associates LLP.
David Walker BSc PhD CEnv CSci FIEMA IAQM	Director, Peter Brett Associates LLP.
Stephen Carter BSc PhD MCIfA FSAScot	Senior Consultant, Headland Archaeology (UK) Ltd.
James Donagh BA(Hons) MCD MIED	Director, Barton Willmore LLP.
Mark Sitch BSc(Hons) DipTP MRTPI	Senior Partner, Barton Willmore LLP.

FOR THE LOCAL PLANNING AUTHORITY:

Timothy Corner QC, assisted by Heather Sargent of Counsel	Instructed by LGSS Law Ltd.
They called:	
Ignus Froneman BArchStud ACIFA IHBC	Director, Heritage Collective.
Michael Brownstone BEng(Hons) MIOA	Director, Resound Acoustics Ltd.
Gary Stephens BA(Hons) MA PgcUD MRTPI	Planning Director, Marrons Planning.

INTERESTED PERSONS:

Andrea Leadsom MP	MP for South Northamptonshire.
David Mackintosh MP	MP for Northampton South.
Cllr Andre Gonzalez De Savage	Northampton County Council
Cllr Philip Larratt	Northampton Borough Council.
Cllr Brandon Eldred	Northampton Borough Council.
Cllr Jonathan Nunn	East Hunsbury Parish Council.
Cllr Malcolm Brice	Chairman, Collingtree Parish Council.
Cllr Tony Stirk	Local resident and Parish Councillor.
Roger Mason	Wootton Brook Action Group.
Dr Christopher Leads	Wootton Brook Action Group.
Nigel Mapletoft	Collingtree Park Residents Association.
Murray Croft	Collingtree Park Residents Association.
Robert Boulter	Hunsbury and Collingtree Residents Alliance.
Rod Sellers	Hunsbury and Collingtree Residents Alliance.

DOCUMENTS

INQUIRY DOCUMENTS

IN1	Recovery letter.
IN2	Note of the PIM.
!N3	Supplementary PIM note.
SOCG1	Primary statement of common ground.
SOCG2	Addendum to primary statement of common ground/ Agreed conditions.
SOCG3	Noise statement of common ground.
SOCG4	Heritage statement of common ground.
SOCG5	Highways and transport statement of common ground.
APS1	Highways agreed position statement – Northamptonshire CC/BHL.
APS2	Bus service strategy agreed position statement – Stagecoach Group/BHL.
APS3	Flood risk and drainage agreed position statement – EA/BHL.
PA1	Planning Obligations statement.
PA2	Draft s106 Agreement Appeal A.
PA3	Draft s106 Agreement Appeal B.
PA4	Summary of changes to draft s106 Agreements.
PA5	Final draft s106 Agreement Appeal A, with tracked changes.
PA6	Final draft s106 Agreement Appeal B, with tracked changes.
PA7	Agreed note: s106 and CIL contributions.
PA8	Copy of executed s106 Agreement Appeal A.
PA9	Copy of executed s106 Agreement Appeal B.
SV1	Agreed site visit itinerary: plan
SV2	Additional visit locations requested by local objectors.
IN4	Full Core Documents List
IN5	Letter of 18 January 2016 closing the inquiry.

CORE DOCUMENTS

CD A	**Outline planning application documents and plans: Appeal A**
A.4	Location Plan BHL001-003 rev D
A.6	Illustrative Masterplan BHL001/038D
A.9	Planning Statement
A.10	Design and Access Statement
A.11	Community Engagement Report
A.12	Green Infrastructure Strategy EDP 1881_04b
A.13	Transport Assessment (Appendix Bound Separately)
A.15	Sustainability Statement 20815/026/ Rev2
A.16	Arboricultural Assessment EDP 1881_03a
A.18.1	**Environmental Statement (ES)** 1. Introduction 2. The Site and the Proposed Development 3. Planning Policy Context 4. Socio-Economic Effects 5. Transport 6. Air Quality 7. Noise & Vibration 8. Landscape and Visual Impact Assessment

9. Ecology
10. Cultural Heritage
11. Agriculture and Soil Resources
12. Water Resources
13. Ground Conditions
14. Utilities and Infrastructure
15. Conclusion

ES Technical Appendix

A.18.2 ES Chapter 1 Technical Appendix:
1.1 Location plan BHL 001-003 Rev D
1.2 Site extent Plan BHL 001-045
1.3 EIA Scoping Report April 2012
1.4 NBC Scoping Opinion June 2012

A.18.3 ES Chapter 2 Technical Appendix:
2.1 Parameter Plan BHL 001-015 G
2.2 Indicative phasing BHL 001-019 D

A.18.5 ES Chapter 5 Technical Appendix:
5.1 Transport assessment (see CD A.13)
5.2 Framework Travel plan
5.3 Figures 5.1-5.7
5.4 Traffic flow tables
5.5 Potential environmental effects
5.6 Anticipated construction movements and potential effects

A.18.6 ES Chapter 6 Technical Appendix:
6.1 Model verification
6.2 Traffic data
6.3 Results table
6.4 Figures 6.1 and 6.2

A.18.7 ES Chapter 7 Technical Appendix:
7.1 Glossary of acoustic technology
7.2 PBA Technical note: Revised noise and vibration assessment methodology (EPS 28015'006/TN001 Rev 2)
7.3 Meteorological records at Bedford Weather Station
7.4 Results of measured statistical sound pressure level parameters at LT1 and LT2
7.5 Results of measured statistical sound pressure level parameters for the noise survey at locations ST1, ST2 and ST3
7.6 Summary of the results of measured statistical sound pressure level at Milton Motocross Park
7.7 Average annual weekday traffic flow 18 hr data
7.8 Steps for calculating noise model validation daytime correction
7.9 Figures 7.1-7.10C

A.18.10 ES Chapter 10 Technical Appendix:
10.1 Built Heritage assessment
10.2 Archaeological desk-based assessment
10.3 Archaeological geophysical survey
10.4 Archaeological evaluation

A.18.12 ES Chapter 12 Technical Appendix:
12.1 Flood Risk Assessment

A.19 ES Non-technical summary

Subsequent revisions to outline planning application

CD B

B.2	Parameter plan BHL 001-015 Rev J
B.3	Proposed Rowtree Road Compact Access 28015/002 rev F
B.4	Proposed Windingbrook Lane priority junction 28015/001 rev F
B.5	Post-consultation amendments to the Design and Access statement
B.6	PBA Technical Note: summary of technical consultation process
B.7	Transport Assessment Issue 2.1 (main text and figures only)
B.8	Framework Travel Plan – Issue 2 20815.017 Rev 2
B.9	Flood Risk assessment (Revision 4) 20815 Rev 4
B.10	PBA Technical Note – Noise assessment addendum
B.11	PBA Technical Notes – review of comments on Air Quality ES chapter
B.12	S106 Agreement revised draft heads of terms
B.13	Proposed Wootton Brook highway crossing and floodplain compensation

CD C **Full planning application documents and plans: Appeal B**

C.4	Location plan BHL 001-040 Rev B
C.11	Planning statement
C.12	Design and Access statement addendum
C.13	Community engagement report
C.14	Green Infrastructure Strategy
C.15	Arboricultural Assessment
C.16	PBA Technical Note : Land to the north-west of Collingtree Village and south of Collingtree Park (Turnberry Lane) Northampton
C.17	Landscape and Visual Impact Assessment
C.18	Site waste management plan
C.20	Environmental statement and non-technical summary (CD A.18 & A.19)

CD D **Subsequent revisions to full application**

D.8	**Revised highways drawings**
D.8.3	Proposed primary street swept path analysis 28015/007
D.8.4	Proposed Windingbrook Lane priority junction 28015/001-F
D.8.5	Proposed Windingbrook Lane priority junction swept path anaysis 28015/008A
D.9	**Revised landscape drawings**
D.9.3	Phase 1 hard landcape layout plans 1-5
D.10	Revised floor plans and elevations
D.11	Design and Access statement addendum – post-submission consultation amendments
D.12	Revised technical documents (CD B.6-B.11)
D.13	S106 Agreement revised draft heads of terms
D14	Further revisions covering letter 2 October 2014
D.17	Site layout 866-002 rev H
D.18	Materials 866-003 rev C
D.21	Further revisions covering letter 14 November 2014
D.23	Proposed primary street vertical alignment 28015/003 rev D
D.24	Boundary treatments and surface materials 866-004 rev D
D.25	Open space planting and hard surface plans 1-6
D.26	Phase 1 Residential planting plans 1-10
D.27	Phase 1 Highway strategy general arrangement 28015/006- Rev G

CD F	**NBC Planning Committee and Decisions**
F.1	NBC Planning Committee Officers Report 28 January 2015
F.2	Addendum to Agenda items 28 January 2015
F.3	Minutes of NBC Planning Committee meeting 28 January 2015
F.4	Decision notice 2 February 2015 – N/2013/1035 outline planning application
F.5	Decision notice 2 February 2015 – N/2013/1063 full planning application
F.6	NBC Planning Committee Officers Report 24 March 2015 – s106 Agreements
F.7	Minutes of NBC Planning Committee meeting 24 March 2015
CD G	**Planning policy**
G.1	National Planning Policy Framework
G.2	National Planning Practice Guidance
G.3	Technical Guidance Note to the National Planning Policy Framework
G.4	West Northamptonshire Joint Core Strategy adopted December 2014
G.5	Report on the Examination into the West Northamptonshire Joint Core Strategy 2 October 2014
G.6	NBC Full Council Report 19 January 2015
G.7	Minutes of NBC Full Council meeting 19 January 2015
G.8	Northampton Local Plan June 1997 Saved Policies
G.9	Letter from GOEM 21 September 2007 – saving letter regarding saved policies of the Northampton Local Plan
G.10	Saving Direction for the Northampton Local Plan
G.11	Extracts from the Northamptonshire Minerals and Waste Development Framework Core Strategy 20 May 2010
G.12	Extracts from the Northamptonshire Minerals and Waste Development Framework: Control and Management of Development DPD 30 June 2011
G.13	Northamptonshire Minerals and Waste Local Plan adopted 1 October 2014
G.14	Northamptonshire County Council Parking Standards SPG March 2003
G.15	Northamptonshire County Council Planning Out Crime in Northamptonshire SPG December 2003
G.16	NBC planning Obligations Strategy SPD February 2013
G.17	NBC Affordable Housing Interim Statement February 2013
G.18	NBC Five-Year Housing Land Supply Assessment April 2014
G.19	Minutes of Northampton South SUE-Developer liaison meeting 16 September 2011
CD H	**NBC related documents**
H.1	Officers Report to NBC Planning committee 28 July 2015
H.2	Minutes of NBC Planning committee meeting 28 July 2015
H.3	Northampton South SUE (Collingtree) Northampton: Air Quality Assessment: Stage 1 Review, prepared by Isopleth for NBC
H.4	Northampton related development area Five-Year Housing Land Supply Assessment April 2015
H.5	Email Gallagher/Bovey 24 September 2015 regarding NBC's five-year housing land supply position
H.6	Closing submissions of Timothy Corner QC to the Hardingstone, land at Brackmills inquiry
H.7	Local Development Scheme for NBC September 2015
H.8	East Midlands RSS Milton Keynes SRS Northampton 2 Policy March 2009

H.9	Extracts from the West Northamptonshire Monitoring Report 2013/2014 (Housing Monitoring)
	Community Infrastructure Levy and s106 Agreement
H.10	NBC Cabinet Report in respect of CIL 9 September 2015
H.11	CIL: Background Document June 2014
H.12	CIL: Draft Charging Schedule – consultation June 2014
H.13	CIL: Instalment policy June 2014
H.14	CIL: Draft Reg 123 List Northampton June 2014
H.15	Northampton Longer Term Growth Options Study March 2007
H.16	WNJCS Infrastructure Delivery Plan Update 2014
H.17	CIL Planning Obligations Position Statement January 2015
H.18	Northamptonshire Planning Obligations Framework and Guidance Documents March 2011

CD I	**Heritage related documents**
I.2	Collingtree Village Conservation Area Appraisal and Management Plan
I.3	Collingtree Conservation Area illustrated leaflet
I.4	HE Good Practice Advice Planning Note 3: The setting of Heritage Assets
I.5	HE scoping response
I.6	Email NBC/HE requesting opinion 6 July 2015
I.7	HE reply to NBC 24 July 2015
I.8	Email HE/Headland Archaeology confffirming no further contribution to appeals 29 July 2015

CD J	**Highways related documents**
J.3	NGMS – Memorandum of Understanding 26 March 2012
J.4	The Northamptonshire Local Transport Plan 3, March 2012
J.6	NGMS – Memorandum of Understanding (revised) July 2012
J.8	Northamptonshire Highways Development Management Strategy – Fit for Purpose December 2013
J.9	Guidance on Transport Assessment 2007
J.14	Circular 02/2013 The Strategic Road Network and the Delivery of Sustainable Development DoT 2013
J.17	Guidance on Transport Assessment DoT/DCLG 2007
J.21	Letter Glanville/PBA 8 July 2015
J.22	Letter and associated appendices PBA/lanville 29 July 2015
J.23	Email Glanville/PBA 24 September 2015
J.24	NMMS update – pre-submission Joint Core Strategy Land Use Option Testing Modelling Results (Arup) February 2011
J.25	Highways England – The Highways Agency and the Local Plans Process: A protocol for local authorities, developers and the Highways Agency June 2014
J.26	Highways England – The Strategic Road Network: Planning for the Future September 2015
J.27	Northampton Town Transport Strategy
J.28	Northamptonshire Bus strategy 2013
J.29	Northamptonshire Smarter Choices Strategy 2013

CD K	**Noise related documents**
K.1	Noise policy Statement for England, DEFRA 2010
K.2	Planning Practice Guidance: Noise 2014

K.3	BS 8233:2014 Guidance on sound insulation and noise reduction for buildings BSI 2014
K.4	WHO Guidelines for Community Noise WHO 1999
K.5	Noise Insulation Regulations 1975 (as amended 1988) SI 2000
K.6	The effectiveness and acceptability of measures for insulating dwellings against traffic noise BRE 1985
K.7	Planning Policy Guidance 24: Planning and Noise

APPELLANT'S DOCUMENTS

BHL/OS	Mr Crean's opening submissions.
BHL/1/A	Mr Henry's proof of evidence.
BHL/1/B	Appendices 1-2 to Mr Henry's proof of evidence.
BHL/2/A	Dr Walker's proof of evidence.
BHL/2/B	Appendices 1-8 to Dr Walker's proof of evidence.
BHL/3/A	Dr Carter's proof of evidence.
BHL/3/B	Appendices 1-4 to Dr Carter's proof of evidence.
BHL/4/A	Mr Donagh's proof of evidence.
BHL/4/B	Appendices 1-4 to Mr Donagh's proof of evidence.
BHL/4/C	Mr Donagh's rebuttal proof of evidence.
BHL/5/A	Mr Sitch's proof of evidence.
BHL/5/B	Appendices 1-9 to Mr Sitch's proof of evidence.
BHL/6/A	Mr Harker's proof of evidence.
BHL/7/A	Mr Jenkin's proof of evidence.
BHL/7/B	Appendices 1-5 to Mr Jenkin's proof of evidence.
BHL/8	Agreed location of field west of Barn Corner on Local Plan Inset Map 12.
BHL/9	Dr Walker's Technical Note of 9 December 2015.
BHL/10	Extract from Secretary of State's decision APP/H2835/A/08/2093066.
BHL/11	Extract from s106 Agreement relating to Owners' covenants.
BHL/12	[2012] UKSC 13: Tesco Stores Ltd v Dundee City Council.
BHL/13	[2015] EWCA Civ 1243: Jones v Mordue/Secretary of State.
BHL/14	Other Authorities relied on by the appellant.
BHL/15	A3 versions of Appeal A parameter plan (CD B.2) and illustrative master plan (CD A.6).
BHL/16	A3 versions of Appeal B site layout (CD D.17) and open space planting and hard surface plan (CD D.25).
BHL/CS	Mr Crean's closing submissions.
BHL/17	Appellant's comments on the judgement in *Suffolk Coastal DC v Hopkins Homes Ltd & SSCLG/Richborough Estates Partnership LLP v Cheshire East BC & SSCLG [2016] Civ 168.*

COUNCIL'S DOCUMENTS

NBC/OS	Mr Corner's opening statement.
NBC/1/A	Mr Brownstone's proof of evidence.
NBC/1/B	Appendices 1-7 to Mr Brownstone's proof of evidence.
NBC/1/C	Mr Brownstone's rebuttal proof of evidence.
NBC/1/D	Mr Brownstone's letter of 25 November 2015 and enclosures.
NBC/1/E	Mr Brownstone's letter of 27 November 2015 and enclosures.
NBC/1/F	Mr Brownstone's letter of 10 December 2015
NBC/2/A	Mr Froneman's proof of evidence.
NBC/2/B	Appendices 1-14 to Mr Froneman's proof of evidence.

NBC/2/C Supplemental document to Mr Froneman's appendices: parts 1-4
NBC/3/A Mr Stephens' proof of evidence.
NBC/3/B Appendices 1-2 to Mr Stephens' proof of evidence.
NBC/4 Ms Bovey's letter of 27 November 2015 to PINS with attachments.
NBC/5 Housing Standards Update.
NBC/6 Extract from PPG on local finance considerations.
NBC/7 Bundle of correspondence Council/Network Rail regarding fencing.
NBC/CS Mr Corner's closing statement.
NBC/8 Council's comments on the judgement in *Suffolk Coastal DC v Hopkins Homes Ltd & SSCLG/Richborough Estates Partnership LLP v Cheshire East BC & SSCLG [2016] Civ 168.*

THIRD PARTY DOCUMENTS

Members of Parliament

MP/1/A Andrea Leadsom's letter of 28 October 2015.
MP/1/B Andrea Leadsom's letter of 11 November 2015.
MP/2/A David Mackintosh's letter of 15 September 2015.
MP/2/B David Mackintosh's letter of 2 November 2015.

County Councillors

CBC/1 Cllr Gonzalez De Savage' statement.

Borough Councillors

CBC/2 Cllr Larratt's statement.

East Hunsbury Parish Council

EHPC/1 Cllr Nunn's statement.

Collingtree Parish Council

CPC/1 Parish Council observations on the planning applications.
CPC/2 Air Quality; Noise.
CPC/3 Flooding.
CPC/4 Lack of suitable infrastructure.
CPC/5 Effect on heritage and community.
CPC/6 Cllr Brice's statement
CPC/7 Extract from PBA Transport Assessment: summaries of trip movements.
CPC/8 Cllr Stirk's statement and photographs.

Wootton Brook Action Group

WBAG/1 Sustainability and the 'Egan Wheel'.
WBAG/2 Overview on flooding.
WBAG/3 Flooding: an increased flood risk and Wootton Brook.
WBAG/4 Review of EA model of Wootton Brook Aug 13 edition and evaluation of Northampton South SUE as a suitable location for development.
WBAG/5 Review of Nene tributaries Pre-feasibility Studies: Wootton Brook.

WBAG/6 Wootton Brook Model Report v3.
WBAG/7 Managing Flood Risk: River Nene Catchment flood management plan.
WBAG/8 EA License.
WBAG/9 Traffic; an alternative case v4
WBAG/10 Summary of traffic case rev 1.
WBAG/11 ONS – Home ownership and renting in England and Wales.
WBAG/12 ONS – Families and Households 2013.
WBAG/13 ONS Transport, social trends 41.
WBAG/14 AA – motoring costs 2014 - diesel cars.
WBAG/15 AA – motoring costs 2014 - petrol cars.
WBAG/16 Qualifications and experience of Roger Mason.
WBAG/17 Qualifications and experience of Dr Christopher Leads.
WBAG/18 Dr Leads' chart of traffic capacity on Rowtree Road.
WBAG/19 Dr Leads' chart of traffic flows on Rowtree Road.
WBAG/20 Dr Leads' statement on flooding.
WBAG/21 Mr Mason's statement on traffic.
WBAG/22 Dr Leads' questions for Mr Jenkin.

Collingtree Park Residents Association

CPRA/1 Evaluation of NBC data.
CPRA/2 NSSUE air pollution.
CPRA/3 Breaches of NPPF.
CPRA/4 NSSUE noise pollution.
CPRA/5 Rebuttal – air pollution.
CPRA/6 Rebuttal – noise pollution
CPRA/7 Mr Mapletoft's statement.
CPRA/8 Mr Croft's statement.

Hunsbury and Collingtree Residents Alliance

HCRA/1 Traffic issues + appendix.
HCRA/2 Sustainability
HCRA/3 Mr Boulter's statement.
HCRA/4 Mr Sellers' statement.

WRITTEN SUBMISSIONS

WRS/1 Letter of support from the Sargeant family (appeal site landowners).
WRO/1 Letter of objection from Historic England.
WRO/2 Bundle of 174 letters of objection from local residents.

Annex A

Schedule of conditions to be attached to the grant of outline planning permission for the development of the Northampton South Sustainable Urban Extension to be comprised of up to 1,000 dwellings, a mixed use local centre, a site for a primary school, green infrastructure including formal and informal open space, reconfiguration and extension of Collingtree Park Golf Course, demolition of all existing buildings and structures within the site, new vehicular accesses off Windingbrook Lane and Rowtree Road, car parking, sustainable drainage systems (including flood risk betterment) and infrastructure (including highway improvements) in accordance with application Ref N/2013/1035, dated 2 October 2013:

1) Prior to the submission of any reserved matters application, a Masterplan and Design Code covering the whole of the site shall be submitted to and approved in writing by the Local Planning Authority. The Masterplan and Design Code shall be formulated having regard to the submitted Design and Access Statement and respond to the recommendations of Building for Life 12, and shall include the following details:
☐ A phasing plan for the development, including an affordable housing phasing plan.
☐ The proposed movement network delineating the primary, secondary and tertiary streets and pedestrian and cycleway connections, setting out the approach to estate design, treatment of non-vehicular routes and car and cycle parking.
☐ The proposed layout, use and function of all open space within the development.
☐ The approach to and design principles applied to car parking (on street and off-street).
☐ Phased layout principles to include urban structure, form and layout of the built environment, building heights, densities, legibility, means of enclosure, key gateways, landmark buildings and key groups.
☐ The design approach for areas within the public realm including landscaping and hard surface treatments, lighting, street trees, boundary treatments, street furniture and play equipment.
☐ Servicing, including utilities, design for the storage and collection of waste and recyclable materials.
☐ External materials, to include a palette of wall and roof finishes, windows, doors, porches, heads, cills, chimneys, eaves and verges and rainwater goods.
☐ The design principles that will be applied to the development to encourage security and community safety.
☐ The specific design principles that will be applied to the Local Centre.
☐ The design principles for the incorporation of a Sustainable Urban Drainage System (SUDS) throughout the development.
Thereafter, any reserved matters application for any phase of development shall comply with the principles established within the approved Design Code.

2) Prior to the submission of any reserved matters application, a detailed phasing plan for the development that identifies stages at which each element of the proposed development (including the local centre, community hall, open space, sports provision, play equipment, primary

school, housing, highway infrastructure and SUDs) shall be commenced, completed and made available for occupation, shall be submitted to and approved in writing by the Local Planning Authority. The development shall be carried out in full accordance with the approved details.

3) For each phase of the development details of the layout and scale of the buildings, their appearance and landscaping, and the means of access other than that approved, (hereinafter called "the reserved matters") shall be submitted to and approved in writing by the local planning authority before any development of that phase begins and the development of that phase shall be carried out as approved.

4) Application for approval of the first phase reserved matters shall be made to the local planning authority not later than 3 years from the date of this permission. All other applications for the approval of reserved matters shall be made to the local planning authority within 10 years from the date of this permission

5) Each phase of the development hereby permitted shall begin not later than 2 years from the date of approval of that phase's reserved matters.

6) The number of residential units to be constructed on the site shall not exceed 1,000.

7) The development and all reserved matters applications submitted pursuant to this permission shall not materially depart from the following plans and parameters:
☐ Proposed Windingbrook Lane Priority Junction (28015/001F)
☐ Proposed Rowtree Road Compact Roundabout (28015/002F)
☐ Up to 2.03 hectares for the provision of a primary school
☐ A minimum of 29.43 hectares of strategic open space
☐ A local centre comprising of 450 sq m of convenience retail floorspace (Use Class A1), 360 sq m of flexible commercial floorspace to accommodate uses within use Classes A1(shops), A2 (financial & professional services), A3 (restaurants/cafes), A4 (Drinking Establishments), A5 (Hot Food Takeaways) B1 (Business) and D1 (non-residential institutions) and 725 sq m for a community facility incorporating meeting rooms (Class D1).

8) Contemporaneously with the submission of reserved matters applications for each phase of development, a Sustainability Strategy indicating compliance with Part L of the Building Regulations shall be submitted to and approved in writing by the Local Planning Authority. The development shall be carried out in full accordance with the approved Sustainability Strategy.

9) Concurrently with the submission of reserved matters applications for each phase of development, full details of the proposed surface treatment of all roads, access and parking areas, footpaths, cycleways and private drives including their gradients within that phase shall be submitted to and approved in writing by the Local Planning Authority and shall be provided in full prior to that development phase being first brought into use.

10) Development shall not commence on any phase of development until a Construction Environmental Management Plan (CEMP) has been submitted to and approved in writing by the Local Planning Authority relating to that phase. The CEMP shall include the following:-

a) the management of traffic and routing during construction: to address site access, routes within site kept free from obstruction, wheel washing, travel plan for construction workers, loading and unloading, vehicle parking and turning areas, a scheme for prevention of surface water discharges onto the highway;
b) The location of access points for site traffic for that phase of development;
c) detailed measures for the control of dust during the construction phase of development;
d) the location and size of compounds;
e) the location and form of temporary buildings, adverts and hoardings;
f) details for the safe storage of any fuels, oils and lubricants;
g) construction of exclusion zones to prevent soil compaction for large scale planting areas, public and school playing fields, and remediation of any soil compaction;
h) a scheme for the handling and storage of topsoil;
i) details of the methods of protection of trees, hedgerows and water features in accordance with Condition 20;
j) a scheme for the protection of areas of ecological interest and for the mitigation of any possible harm to such areas;
k) details of any temporary lighting;
l) procedures for maintaining good public relations including complaint management, public consultation and liaison;
m) measures for the control of noise emanating from the site during the construction period;
n) Construction Plant Directional signage (on and off site);
o) provision for all site operatives, visitors and construction vehicles, loading and unloading of plant and materials;
p) waste audit and scheme for waste minimisation and recycling/disposing of waste resulting from construction works including confirmation of any material exports, routing and deposition sites.
The approved CEMP and measures contained therein shall be adhered to throughout the construction period.

11) No construction work (including use of machinery and/or plant maintenance) shall be carried out on the site outside the hours of 0800 to 1800 Mondays to Fridays and 0800 to 1300 on Saturdays or at any time on Sundays, Bank Holidays or other statutory holidays. No construction traffic shall enter or leave the site before 0700 Mondays to Saturday or at any time on Sundays, Bank Holidays or other statutory holidays.

12) Prior to the commencement of development, engineering and construction details of the two access junctions to the site as shown indicatively upon approved drawings 28015/001 Rev F (Windingbrook Lane) and 28015/002 Rev F (Rowtree Road) shall be submitted to and approved in writing by the Local Planning Authority. The Windingbrook Lane junction shall be provided prior to the commencement of any other works on site and in accordance with the approved details. The Rowtree Road junction shall be provided at the start of Phase 2 in accordance with the approved details.

13) No dwelling shall be occupied until details of the precise location and engineering and construction details of the following walking and cycling measures have been submitted to and approved in writing by the Local

Planning Authority and the works have been carried out in accordance with the approved details:
☐ 2no. pedestrian / cycle connections to existing bridleway KG2
☐ Provision of on-road advisory cycle lane on Hilldrop Road (to be delivered at the start of Phase 2) and Penvale Road
☐ Upgrade of existing footway in the southern verge of Mereway between the junction with Penvale Road and the A451 Queen Eleanor Roundabout
☐ 2no. controlled pedestrian crossings on Rowtree Road (the second of which is to be delivered at the start of Phase 2).

14) No dwelling shall be occupied until engineering and construction details of the following highway improvements have been submitted to and approved in writing by the Local Planning Authority and the works have been carried out in accordance with the approved details:
☐ Improvement to Rowtree Road / London Road / Wooldale Road roundabout (TA Figure 15.2)
☐ Improvement to Rowtree Road/Butts Road Roundabout (TA Figure 15.3) (to be delivered prior to the occupation of 379 dwellings on site)
☐ Improvements to Rowtree Road/Penvale Road junction (TA Figure 15.4) (to be delivered prior to the occupation of 379 dwellings on site)
☐ Improvements to A45/Queen Eleanor Interchange (TA Figure 15.6)
☐ Improvements to Towcester Road/Mereway/Tesco/Danes Camp Way roundabout (TA Figure 15.7)

15) Three peak hour part classified junction turning and queue count surveys shall be undertaken at the Berry Lane / Wooldale Road junction:
☐ The first one being undertaken in the last neutral month before works commence to the Rowtree Road / London Road / Wooldale Road Roundabout;
☐ The second one being undertaken in the first neutral month after works are completed to the Rowtree Road / London Road / Wooldale Road Roundabout;
☐ The third one being undertaken in a neutral month one year afterwards. Should both the latter two surveys demonstrate that the conditions at the Berry Lane / Wooldale Road junction have not improved, the improvements shown on Figure 15.5 of the Transport Assessment shall be implemented.

16) Prior to the first occupation of any dwelling a full Residential Travel Plan shall be submitted to and approved in writing by the Local Planning Authority. The measures contained in the agreed Residential Travel Plan shall be carried out in accordance with the approved details.

17) Prior to the commencement of any works affecting any existing public right of way, full details of any enhancement, improvement, diversion or closure shall be submitted for approval in writing by the Local Planning Authority. The works shall be carried out in accordance with the approved details and in accordance with a timetable to be agreed in writing with the Local Planning Authority.

18) No development shall take place in each phase of development until an Arboricultural Method Statement, in accordance with BS 5837:2012 “Trees in Relation to Design, Demolition and Construction – Recommendations”, including details and proposed timing of all proposed tree works to any tree or hedge on, or, if consent obtained, adjacent to, the site and replacement tree planting, has been submitted to and approved in writing by the Local

Planning Authority. Thereafter, the development of each phase of development shall be carried out in accordance with the approved details.

19) No equipment, machinery or materials shall be brought onto the site for the purposes of the development until details of the proposed type, and a plan of the proposed position of, measures for the protection of trees and hedges that are to be retained on the site, in accordance with BS 5837:2012 "Trees in Relation to Design, Demolition and Construction – Recommendations", have been submitted to, and approved in writing by, the Local Planning Authority. The measures identified, including tree protection barriers, shall be implemented in accordance with these details and shall remain in place until all equipment, machinery and surplus materials have been removed from the site. Nothing shall be stored, disposed of, or placed, nor fires lit, in any area fenced in accordance with this condition and the ground levels within these areas shall not be driven across by vehicles, altered, nor any excavation made (including addition/removal of topsoil/subsoil) without prior written consent of the Local Planning Authority.

20) No development shall take place until a surface water drainage scheme for the site, based on sustainable drainage principles and an assessment of the hydrological and hydro geological context of the development, has been submitted to and approved in writing by the local planning authority. The drainage strategy should demonstrate the surface water run-off generated up to and including the 0.5% (1 in 200) probability critical storm with climate change allowance will not exceed the run-off from the undeveloped site following the corresponding rainfall event. The scheme shall subsequently be implemented in accordance with the approved details before the development is completed. The scheme shall comply with the parameters set out in the agreed FRA (Peter Brett Associates, 28015/012 Rev4, February 2014) and shall also include:
☐ Full calculations and detailed drawings with levels to Ordnance Datum, including flow control structures.
☐ Designing for exceedance and consideration of overland flows.
☐ Accommodation of the existing spring on site.
☐ Details of how the scheme shall be maintained and managed after completion to support the Section 106 Agreement

21) Prior to the submission of any reserved matters application for that part of the golf course within the flood plain, a scheme for flood plain compensation must be submitted to, and approved in writing by, the local planning authority. The scheme shall also include:
☐ Flood plain compensation on a level for level, volume for volume basis up to the 0.5% (1 in 200) probability flood with climate change.
☐ Additional storage as set out in section 9 of the agreed FRA, (Peter Brett Associates, 28015/012 Rev4, February 2014).
☐ Evidence that flood risk is not increased elsewhere as a result of the re-profiling of ground levels.
The scheme shall be fully implemented and subsequently maintained, in accordance with the timing / phasing arrangements embodied within the scheme.

22) No development approved by this planning permission shall take place until such time as a scheme for works to Wootton Brook has been submitted to,

and approved in writing by, the local planning authority. The scheme shall comply with the parameters set out in the agreed Flood Risk Assessment, (Peter Brett Associates, 28015/012 Rev4, February 2014) and shall also include:

☐ Full detailed design of the Wootton Brook Crossing and any associated mitigation.

☐ Details of localised channel improvements to improve conveyance.

☐ Details of the long term management and maintenance of the Wootton Brook and associated flood plain.

☐ Evidence that flood risk is not increased elsewhere as a result of the crossing or other works to the Wootton Brook.

The scheme shall be fully implemented and subsequently maintained, in accordance with the timing / phasing arrangements embodied within the scheme.

23) No building works which comprise the erection of a building required to be served by water services shall be undertaken in connection with any phase of the development hereby permitted until full details of a scheme including phasing, for the provision of mains foul sewage infrastructure on and off site has been submitted to and approved in writing by the Local Planning Authority. No building shall be occupied until the works have been carried out in accordance with the approved scheme.

24) Prior to the commencement of development details of a suitable fence adjacent to the boundary with the railway, to prevent golf balls from entering railway land, shall be submitted to and approved in writing by the Local Planning Authority. The fence shall be erected before the proposed new golf holes 4 and 5 adjacent to the railway line are brought into use

25) No development shall take place until a phased programme of further archaeological work (in accordance with the details outlined in the ES accompanying the application) shall be submitted to and approved in writing by the Local Planning Authority. The further archaeological work shall be undertaken prior to the commencement of any infrastructure phase, landscaping phase or development parcel (as identified in the phasing plan to be agreed under Condition 7) where such further archaeological work is required.

26) Prior to the commencement of the demolition of buildings on site a Mitigation Strategy detailing the measures to be put in place to ensure that the risk of harm to bats during demolition is minimised shall be submitted to and approved in writing by the Local Planning Authority; demolition shall be implemented in accordance with the approved details. The Mitigation Strategy shall include details of replacement bat boxes to be sited on retained features to provide alternative roosting opportunities and details of an appropriate Natural England European Protected Species Derogation Licence to undertake the Mitigation Strategy.

27) Prior to the commencement of development a Mitigation Strategy detailing the measures to be put in place to ensure that the risk of harm to otters during construction work is minimised shall be submitted to and approved in writing by the Local Planning Authority; development shall be implemented in accordance with the approved details.

28) Prior to the submission of any reserved matters application an Ecological Construction Method Statement (ECMS) setting out in detail the measures to be implemented to protect ecological resources (as specified in paragraph 9.6.37 of the approved Environmental Statement) shall be submitted to and approved in writing by the Local Planning Authority; development shall be implemented in accordance with the approved Statement.

29) Prior to the submission of any reserved matters application a Landscaping and Ecological Management Plan (LEMP) setting out in detail the long-term management measures to be implemented (as specified in paragraph 9.6.40 of the approved Environmental Statement) shall be submitted to and approved in writing by the Local Planning Authority; development shall be implemented in accordance with the approved Plan.

30) Before any non-residential development commences as part of the overall development a Noise Assessment shall be submitted for approval in writing to the Local Planning Authority specifying the sources of internal and external noise and the provisions to be made for its control. The approved scheme shall be implemented prior to the occupation of the non-residential unit in accordance with the approved details.

31) Before any non-residential development commences as part of the overall development a scheme shall be submitted for approval in writing by the Local Planning Authority which specifies the arrangements to be made for deliveries to the premises concerned. The scheme shall be carried out in accordance with the approved details.

32) Concurrently with the Reserved Matters submission for each phase, a Noise Assessment of the exposure of proposed residential premises, with particular reference to bedrooms, based on the final building and estate layout, due to transportation noise shall be submitted for approval in writing to the Local Planning Authority. In particular the assessment shall identify the dwellings where the LAeq, night 55 dB noise level is exceeded at bedroom window height. The assessment shall take into account the likely growth of traffic over the next 15 years. Where any bedroom is exposed to noise levels in excess of LAeq night 55 dB, the submitted Noise Assessment shall include a scheme to protect those rooms. This will include provision for additional ventilation and / or heat control that will allow the occupant to keep the windows closed, independent of weather conditions.

33) Prior to the first occupation of the development, full details (including the precise alignment and the construction materials) of any acoustic barrier proposed shall be submitted to and approved in writing by the Local Planning Authority and the barrier shall subsequently be installed in accordance with the approved details.

34) Prior to the commencement of Phase 2 of the development, an area of land measuring at least 1.01ha will be identified within the proposed Strategic Open Space for the provision of community food production. The nature of this provision will be agreed in prior consultation with the local resident population. Full details of the provision including timing of implementation shall be submitted to and approved in writing by the Local Planning Authority and thereafter implemented in accordance with the agreed timing.

35) Prior to the commencement of development, an intrusive investigation in respect of possible contaminants and ground gas generation within the site shall be completed – the scope and methodology of which shall be submitted to and approved in writing by the Local Planning Authority. The results of any such investigation shall be used to produce a method statement for any remedial work, which, if required, shall be submitted to and approved in writing by the Local Planning Authority. All remedial works found to be required shall be fully implemented in accordance with the approved details and a validation report shall be submitted to and approved in writing by the Local Planning Authority within 2 weeks of the completion of the development hereby approved. In the event that contamination that was not previously identified is found at any time when carrying out the approved development, it must be reported immediately in writing to the Local Planning Authority and subsequently investigated, remediated and validated in accordance with the full requirements of this condition.

36) The residential units hereby approved shall be designed to provide accessible and adaptable accommodation that meets the optional requirement M4(2) of Part M of the Building Regulations.

37) Notwithstanding the provisions of Article 3(1) of the Town and Country Planning (Use Classes) Order 1987 (as amended) (or any provision equivalent to that Class in any statutory instrument revoking and re-enacting that Order with or without modification), the commercial premises hereby approved shall not be used for any purposes other than those in use classes A1, A2, A3, A4, A5, B1 and D1 of the aforementioned order.

38) Notwithstanding the provisions of Article 3(1) of the Town and Country Planning (Use Classes) Order 1987 (as amended) (or any provision equivalent to that Class in any statutory instrument revoking and re-enacting that Order with or without modification), at no time shall the total gross retail floor area of the development hereby approved exceed 810 sq m and any individual unit exceed 500 sq m gross floor area.

39) Prior to the commencement of each phase, details of the provision for the storage and collection of refuse and materials for recycling shall be submitted for approval in writing by the Local Planning Authority. The development shall be carried out in accordance with the approved details and retained thereafter.

40) Locally Equipped and Neighbourhood Equipped Areas of Play shall be provided across the site in accordance with the indicative positions depicted upon the Parameter Plan (BHL001- 015 J); full details (including for their management and maintenance) shall be submitted contemporaneously with subsequent reserved matters applications and be approved in writing by the Local Planning Authority, development shall be implemented in accordance with the approved details.

41) No development shall commence on phases 2 and 3 (as defined by drawing number BHL0001/019/d – Indicative Phasing) until a ‘Deed of Adherence’ in the form set out in the Ninth Schedule to the Section 106 Agreement dated 22 December 2015 relating to this permission has been executed by all the landowners of the land comprising phases 2 and 3 to secure necessary on- and off-site contributions.

Annex B

Schedule of conditions to be attached to a grant of planning permission for 378 dwellings served by a new access from Windingbrook Lane and the reconfiguration of part of the Collingtree Park Golf Course, including a new temporary hole 17, demolition of all existing buildings and structures within the site, green infrastructure including formal and informal open space, car parking, sustainable drainage systems (including flood risk betterment) and infrastructure (including highway improvements) in accordance with application Ref N/2013/1063, dated 16 October 2013:

1) The development hereby permitted shall begin not later than 3 years from the date of this decision.

2) The development hereby permitted shall be carried out in accordance with the following approved plans: DLA BHL001-040-B, DLA-866-003-C, DLA-866-004-D, DLA-866-006-B, DLA-866-007-B, PBA-28015/001-F, PBA-28015/003-D, PBA-28015/006-G, PBA-28015/007, PBA-28015/008-A, EDP-1881-55-E, EDP-1881-56-F, EDP-1881-57-E, EDP-1881-58-F, EDP-1881-75-F, EDP-1881-69-E, EDP-1881-59-E, EDP-1881-60-E,EDP-1881-61-E, EDP-1881-62-E, EDP-1881-63-E, EDP-1881-64-E, EDP-1881-65-E, EDP-1881-66-E, EDP-1881-67-E, EDP-1881-68-E, DLA-866-H-202-01, DLA-866-H-241-01, DLA-866-H-302-01, DLA-866-H-303-01, DLA-866-H-303-02, DLA-866-H-303-03, DLA-866-H-351-01, DLA-866-H-402-01, DLA-866-H-402-02, DLA-866-H-403-01, DLA-866-H-403-02, DLA-866-H-403-04, DLA-866-H-403-05, DLA-866-H-404-01, DLA-866-H-404-03, DLA-866-H-404-04, DLA-866-H-409-01, DLA-866-H-409-02, DLA-866-H-409-03, DLA-866-H-410-01, DLA-866-H-461-01, DLA-866-H-501-01, DLA-866-H-501-03, DLA-866-H-502-01, DLA-866-H-502-02, DLA-866-H-502-03, DLA-866-H-507-01, DLA-866-H-507-03, DLA-866-H-507-04, DLA-866-H-534-01, DLA-866-H-534-02, DLA-866-H-534-04, DLA-866-H-534-05, DLA-866-H-603-01, DLA-866-H-603-02, DLA-866-HGAR-01, DLA-866-H-GAR-02, DLA-866-H-GAR-03.

3) Development shall not commence until a Construction Environmental Management Plan (CEMP) has been submitted to and approved in writing by the Local Planning Authority. The CEMP shall include the following:-
a) the management of traffic and routing during construction: to address site access, routes within site kept free from obstruction, wheel washing, travel plan for construction workers, loading and unloading, vehicle parking and turning areas, a scheme for prevention of surface water discharges onto the highway;
b) The location of access points for site traffic;
c) detailed measures for the control of dust during the construction phase of development;
d) the location and size of compounds;
e) the location and form of temporary buildings, adverts and hoardings;
f) details for the safe storage of any fuels, oils and lubricants;
g) construction of exclusion zones to prevent soil compaction for large scale planting areas, public and school playing fields, and remediation of any soil compaction;
h) a scheme for the handling and storage of topsoil;

i) details of the methods of protection of trees, hedgerows and water features in accordance with condition 19;
j) a scheme for the protection of areas of ecological interest and for the mitigation of any possible harm to such areas;
k) details of any temporary lighting;
l) procedures for maintaining good public relations including complaint management, public consultation and liaison;
m) measures for the control of noise emanating from the site during the construction period;
n) Construction Plant Directional signage (on and off site);
o) provision for all site operatives, visitors and construction vehicles, loading and unloading of plant and materials;
p) waste audit and scheme for waste minimisation and recycling/disposing of waste resulting from construction works including confirmation of any material exports, routing and deposition sites.
The approved CEMP and measures contained therein shall be adhered to throughout the construction period.

4) No construction work (including use of machinery and/or plant maintenance) shall be carried out on the site outside the hours of 0800 to 1800 Mondays to Fridays and 0800 to 1300 on Saturdays or at any time on Sundays, Bank Holidays or other statutory holidays. No construction traffic shall enter or leave the site before 0700 Mondays to Saturday or at any time on Sundays, Bank Holidays or other statutory holidays.

5) Prior to the commencement of development, engineering and construction details of the access junction to the site as shown indicatively upon approved drawings 28015/001 Rev F (Windingbrook Lane) be submitted to and approved in writing by the Local Planning Authority. The approved junction shall be provided prior to the commencement of any other works on site and in accordance with the approved details..

6) No dwelling shall be occupied until details of the precise location and engineering and construction details of the following walking and cycling measures have been submitted to and approved in writing by the Local Planning Authority and the works have been carried out in accordance with the approved details:
☐ 2no. pedestrian / cycle connections to existing bridleway KG2
☐ Provision of on-road advisory cycle lane on Hilldrop Road (to be delivered at the start of Phase 2) and Penvale Road
☐ Upgrade of existing footway in the southern verge of Mereway between the junction with Penvale Road and the A451 Queen Eleanor Roundabout
☐ A controlled pedestrian crossing on Rowtree Road.

7) No dwelling shall be occupied until engineering and construction details of the following highway improvements have been submitted to and approved in writing by the Local Planning Authority and the works have been carried out in accordance with the approved details:
☐ Improvement to Rowtree Road / London Road / Wooldale Road roundabout (TA Figure 15.2)
☐ Improvements to A45/Queen Eleanor Interchange (TA Figure 15.6)
☐ Improvements to Towcester Road/Mereway/Tesco/Danes Camp Way roundabout (TA Figure 15.7)

8) Three peak hour part classified junction turning and queue count surveys shall be undertaken at the Berry Lane / Wooldale Road junction:
☐ The first one being undertaken in the last neutral month before works commence to the Rowtree Road / London Road / Wooldale Road Roundabout;
☐ The second one being undertaken in the first neutral month after works are completed to the Rowtree Road / London Road / Wooldale Road Roundabout;
☐ The third one being undertaken in a neutral month one year afterwards.
Should both the latter two surveys demonstrate that the conditions at the Berry Lane / Wooldale Road junction have not improved, the improvements shown on Figure 15.5 of the Transport Assessment shall be implemented.

9) Prior to the first occupation of any dwelling a full Residential Travel Plan shall be submitted to and approved in writing by the Local Planning Authority. The measures contained in the agreed Residential Travel Plan shall be carried out in accordance with the approved details.

10) Prior to the commencement of any works affecting any existing public right of way, full details of any enhancement, improvement, diversion or closure shall be submitted for approval in writing by the Local Planning Authority. The works shall be carried out in accordance with the approved details and in accordance with a timetable to be agreed in writing with the Local Planning Authority.

11) No development shall take place in each phase of development until an Arboricultural Method Statement, in accordance with BS 5837:2012 “Trees in Relation to Design, Demolition and Construction – Recommendations”, including details and proposed timing of all proposed tree works to any tree or hedge on, or, if consent obtained, adjacent to, the site and replacement tree planting, has been submitted to and approved in writing by the Local Planning Authority. Thereafter, the development of each phase of development shall be carried out in accordance with the approved details.

12) No equipment, machinery or materials shall be brought onto the site for the purposes of the development until details of the proposed type, and a plan of the proposed position of, measures for the protection of trees and hedges that are to be retained on the site, in accordance with BS 5837:2012 “Trees in Relation to Design, Demolition and Construction – Recommendations“, have been submitted to, and approved in writing by, the Local Planning Authority. The measures identified, including tree protection barriers, shall be implemented in accordance with these details and shall remain in place until all equipment, machinery and surplus materials have been removed from the site. Nothing shall be stored, disposed of, or placed, nor fires lit, in any area fenced in accordance with this condition and the ground levels within these areas shall not be driven across by vehicles, altered, nor any excavation made (including addition/removal of topsoil/subsoil) without prior written consent of the Local Planning Authority.

13) No development shall take place until a surface water drainage scheme for the site, based on sustainable drainage principles and an assessment of the hydrological and hydro geological context of the development, has been submitted to and approved in writing by the local planning authority. The drainage strategy should demonstrate the surface water run-off generated

up to and including the 0.5% (1 in 200) probability critical storm with climate change allowance will not exceed the run-off from the undeveloped site following the corresponding rainfall event. The scheme shall subsequently be implemented in accordance with the approved details before the development is completed. The scheme shall comply with the parameters set out in the agreed FRA (Peter Brett Associates, 28015/012 Rev4, February 2014) and shall also include:
☐ Full calculations and detailed drawings with levels to Ordnance Datum, including flow control structures.
☐ Designing for exceedance and consideration of overland flows.
☐ Accommodation of the existing spring on site.
☐ Details of how the scheme shall be maintained and managed after completion to support the Section 106 Agreement

14) No development approved by this planning permission shall take place until such time as a scheme for works to Wootton Brook has been submitted to, and approved in writing by, the local planning authority. The scheme shall comply with the parameters set out in the agreed Flood Risk Assessment, (Peter Brett Associates, 28015/012 Rev4, February 2014) and shall also include:
☐ Full detailed design of the Wootton Brook Crossing and any associated mitigation.
☐ Details of localised channel improvements to improve conveyance.
☐ Details of the long term management and maintenance of the Wootton Brook and associated flood plain.
☐ Evidence that flood risk is not increased elsewhere as a result of the crossing or other works to the Wootton Brook.
The scheme shall be fully implemented and subsequently maintained, in accordance with the timing / phasing arrangements embodied within the scheme.

15) No building works which comprise the erection of a building required to be served by water services shall be undertaken in connection with any phase of the development hereby permitted until full details of a scheme including phasing, for the provision of mains foul sewage infrastructure on and off site has been submitted to and approved in writing by the Local Planning Authority. No building shall be occupied until the works have been carried out in accordance with the approved scheme.

16) No development shall take place within the application site until the i9mplementation of a programme of archaeological work has been secured in accordance with a written scheme of investigation which has been submitted to and approved in writing by the Local Planning Authority.

17) Prior to the commencement of the demolition of buildings on site a Mitigation Strategy detailing the measures to be put in place to ensure that the risk of harm to bats during demolition is minimised shall be submitted to and approved in writing by the Local Planning Authority; demolition shall be implemented in accordance with the approved details. The Mitigation Strategy shall include details of replacement bat boxes to be sited on retained features to provide alternative roosting opportunities and details of an appropriate Natural England European Protected Species Derogation Licence to undertake the Mitigation Strategy.

18) Prior to the commencement of development a Mitigation Strategy detailing the measures to be put in place to ensure that the risk of harm to otters during construction work is minimised shall be submitted to and approved in writing by the Local Planning Authority; development shall be implemented in accordance with the approved details.

19) Prior to the commencement of development an Ecological Construction Method Statement (ECMS) setting out in detail the measures to be implemented to protect ecological resources (as specified in paragraph 9.6.37 of the approved Environmental Statement) shall be submitted to and approved in writing by the Local Planning Authority; development shall be implemented in accordance with the approved Statement.

20) Prior to the commencement of development a Landscaping and Ecological Management Plan (LEMP) setting out in detail the long-term management measures to be implemented (as specified in paragraph 9.6.40 of the approved Environmental Statement) shall be submitted to and approved in writing by the Local Planning Authority; development shall be implemented in accordance with the approved Plan.

21) Prior to the commencement of development, a Noise Assessment of the exposure of proposed residential premises, with particular reference to bedrooms, due to transportation noise shall be submitted for approval in writing to the Local Planning Authority. In particular the assessment shall identify the dwellings where the LAeq, night 55 dB noise level is exceeded at bedroom window height. The assessment shall take into account the likely growth of traffic over the next 15 years. Where any bedroom is exposed to noise levels in excess of LAeq night 55 dB, the submitted Noise Assessment shall include a scheme to protect those rooms. This will include provision for additional ventilation and / or heat control that will allow the occupant to keep the windows closed, independent of the weather conditions, if they so wish.

22) Prior to the first occupation of the development, full details (including the precise alignment and the construction materials) of the 3m high acoustic barrier (as indicated upon the Parameter Plan (BHL001-015 J)) shall be submitted to and approved in writing by the Local Planning Authority and the barrier shall subsequently be installed in accordance with the approved details.

23) Prior to the commencement of development, an intrusive investigation in respect of possible contaminants and ground gas generation within the site shall be completed – the scope and methodology of which shall be submitted to and approved in writing by the Local Planning Authority. The results of any such investigation shall be used to produce a method statement for any remedial work, which, if required, shall be submitted to and approved in writing by the Local Planning Authority. All remedial works found to be required shall be fully implemented in accordance with the approved details and a validation report shall be submitted to and approved in writing by the Local Planning Authority within 2 weeks of the completion of the development hereby approved. In the event that contamination that was not previously identified is found at any time when carrying out the approved development, it must be reported immediately in writing to the Local Planning Authority and subsequently investigated, remediated and validated in accordance with the full requirements of this condition.

24) The residential units hereby approved shall be designed to provide accessible and adaptable accommodation that meets the optional requirement M4(2) of Part M of the Building Regulations.

25) Prior to the commencement of each phase, details of the provision for the storage and collection of refuse and materials for recycling shall be submitted for approval in writing by the Local Planning Authority. The development shall be carried out in accordance with the approved details and retained thereafter.

26) No development shall take place until there has been submitted to and approved in writing by the Local Planning Authority a detailed scheme of hard and soft landscaping for the site. The scheme shall include indications of all existing trees and hedgerows on the land and details of any to be retained.

27) All planting, seeding or turfing comprised in the approved details of landscaping shall be carried out in the first planting and seeding seasons following the occupation of the building or the completion of the development, whichever is the sooner, and which shall be maintained for a period of five years; such maintenance to include the replacement in the current or nearest planting season whichever is the sooner of shrubs that may die or are removed or become seriously damaged or diseased with others of similar size and species, unless the Local Planning Authority gives written consent to any variation.

28) Prior to the commencement of development full details of the Locally Equipped Areas of Play (LEAPs) and sports pitches shall be submitted to and approved in writing by the Local Planning Authority. These facilities shall be located on the site in accordance with the positions depicted on 'Fig 10 – Public open space' contained within the design and access statement Addendum (July 2014). Development shall be implemented in accordance with the approved details. The LEAPs and sports pitches shall be completed and made available for use prior to the occupation of 200 dwellings on the site and be managed and maintained in accordance with the details submitted to discharge condition 20.

Department for
Communities and
Local Government

RIGHT TO CHALLENGE THE DECISION IN THE HIGH COURT

These notes are provided for guidance only and apply only to challenges under the legislation specified. If you require further advice on making any High Court challenge, or making an application for Judicial Review, you should consult a solicitor or other advisor or contact the Crown Office at the Royal Courts of Justice, Queens Bench Division, Strand, London, WC2 2LL (0207 947 6000).

The attached decision is final unless it is successfully challenged in the Courts. The Secretary of State cannot amend or interpret the decision. It may be redetermined by the Secretary of State only if the decision is quashed by the Courts. However, if it is redetermined, it does not necessarily follow that the original decision will be reversed.

SECTION 1: PLANNING APPEALS AND CALLED-IN PLANNING APPLICATIONS

The decision may be challenged by making an application for permission to the High Court under section 288 of the Town and Country Planning Act 1990 (the TCP Act).

Challenges under Section 288 of the TCP Act

With the permission of the High Court under section 288 of the TCP Act, decisions on called-in applications under section 77 of the TCP Act (planning), appeals under section 78 (planning) may be challenged. Any person aggrieved by the decision may question the validity of the decision on the grounds that it is not within the powers of the Act or that any of the relevant requirements have not been complied with in relation to the decision. An application for leave under this section must be made within six weeks from the day after the date of the decision.

SECTION 2: ENFORCEMENT APPEALS

Challenges under Section 289 of the TCP Act

Decisions on recovered enforcement appeals under all grounds can be challenged under section 289 of the TCP Act. To challenge the enforcement decision, permission must first be obtained from the Court. If the Court does not consider that there is an arguable case, it may refuse permission. Application for leave to make a challenge must be received by the Administrative Court within 28 days of the decision, unless the Court extends this period.

SECTION 3: AWARDS OF COSTS

A challenge to the decision on an application for an award of costs which is connected with a decision under section 77 or 78 of the TCP Act can be made under section 288 of the TCP Act if permission of the High Court is granted.

SECTION 4: INSPECTION OF DOCUMENTS

Where an inquiry or hearing has been held any person who is entitled to be notified of the decision has a statutory right to view the documents, photographs and plans listed in the appendix to the Inspector's report of the inquiry or hearing within 6 weeks of the day after the date of the decision. If you are such a person and you wish to view the documents you should get in touch with the office at the address from which the decision was issued, as shown on the letterhead on the decision letter, quoting the reference number and stating the day and time you wish to visit. At least 3 days notice should be given, if possible.

Appendix 6: ExQ1.0.21: Letter from Maritime Transport Limited

Maritime Transport Limited
Maritime House
Clickett Hill Road, Felixstowe
Suffolk IP11 4AX
Tel: +44 (0) 1394 617300
Fax: +44 (0) 1394 617299
www.maritimetransport.com

AM301018/01

30th October 2018

Mr J Dalby
Deputy Executive Chairman
Roxhill Developments Ltd.
Lumonics House
Valley Drive
Swift Valley
Rugby
Warwickshire,CV21 1TQ

Dear Jason

Northampton Gateway J15 M1 SRFI

Following my recent discussions with your company as the preferred operator for the rail freight terminal at East Midlands Gateway SRFI, we discussed wider opportunities for SRFI developments, including your proposals for the Northampton Gateway. You asked me to write to you with my perspective, from the point of view of an established intermodal logistics company and operator of the SRFI at Birch Coppice (BIFT).

You asked me when doing so to set out my background and details of the company since you might wish to place this letter before the forthcoming Examination at Northampton.

My background

I am the owner of Maritime Transport Limited and Chairman of the Group holding company. I have been involved in the freight transport industry in the UK for over 40 years, at a senior management level for 30 years and the owner of Maritime for the last 17 years. Maritime is a UK-based container transport and ancillary storage operator, servicing global customers which include retailers, manufacturers, logistics companies and shipping lines. The Company also provides domestic distribution services, predominantly to retailers. In addition, Maritime operates a number of rail freight interchanges, handling flows of intermodal and other traffic.

My personal background is in transport and logistics. Throughout my career I have held a number of senior management roles and previous positions have included: Managing Director of Russell Davies Container Transport, the largest container transport operator in the UK at the time, Chief Executive Officer of Securicor Distribution's logistics arm, a £400m transport and logistics business including container transport, freight forwarding and domestic distribution and Commercial Director for Hutchison Ports (UK), with responsibility for the UK ports of Felixstowe, Harwich and Thamesport. I was also a long-serving, Non-Executive Director of the Freight Transport Association, until earlier this year.

\...

During my tenure at Russell Davies, I was responsible for the development of 'Masterhaul', the first road-rail container service in the UK, between Freightliner, then a subsidiary of British Rail, and Russell Davies. It became the biggest intermodal service of its kind, operating as a joint partnership service from 1985 to 2012 and at its height was a £100m business.

Maritime

I acquired Maritime in 2001. At the time the Company was the fifth largest container transport operator by road in the UK. Today, Maritime is the market leader in the domestic movement of containers and is the fastest growing domestic distribution operator with a growing portfolio of rail freight interchange operations in the UK.

As an evolution from our origins in road transport, our involvement in rail freight has expanded on a number of fronts. Over the last 10 years, we have become involved in creating and planning trainload services, as well as becoming the largest provider of road haulage at either or both ends of the rail transit, moving containers between rail freight interchanges and their ultimate origins or destinations.

In 2010 we recognised a growing need to have a strategic stake in rail as a natural extension of our road haulage services, to secure additional transport options and exploit the benefits of rail haulage for moving large volumes of freight. We embarked on diversification into rail freight interchange operations, taking the lease on Tilbury Riverside Rail Terminal for handling port-related traffic to and from rail freight services. In 2014, we acquired Roadways Container Logistics and Birmingham Intermodal Freight Terminal, (BIFT), an open-access, purpose-built rail freight interchange at Birch Coppice in the West Midlands.

As a business we see road and rail as complementary, not competing activities. With long distance road haulage services most affected by growing congestion on the motorway network there are clear benefits and opportunities for the increased use of rail in the UK for both long distance trunk hauls and shorter distance shuttle services.

However, the future success of rail freight is predicated on the development of an expanded network of modern rail interchanges able to accommodate longer trains with more efficient handling, to replicate current road based distribution networks. The creation of an expanded network of SRFIs will facilitate the movement of freight by rail, providing the critical infrastructure needed to run trains from point to point to take substantial volumes from the roads.

\...

Taking our terminal at BIFT as an example, we now receive and handle four trains from three train operating companies a day, from the container ports. As Maritime, we provide the critical mass of traffic needed to underpin these services as well as handling third party traffic which make up the rest of these trains, all of which would otherwise travel by road. The trains arrive and depart full. Inbound, virtually all containers are laden whereas outbound, over half of returning containers to the ports are laden. The interchange facility also enables us to store containers on site as required, prior to delivering these to their final destinations, either to occupiers on the SRFI site (e.g. Euro Car Parts, Smurfit Kappa and Volkswagen) and elsewhere, including Argos at Barton Under Needwood, JLR (various local sites) and Triumph Motorcycles at Hinckley, as required. The system also works in reverse with goods collected and delivered to the train (in the case of BIFT), for export. The location of collections (origin of goods) and deliveries (destination of goods) to and from the terminal by road, is concentrated within approximately a 20-mile radius around the rail terminal.

Northampton Gateway

As you know the East Midlands, and Northamptonshire in particular, represents a key strategic hub for the receipt, storage, consolidation and domestic distribution of goods not only for the region, but for the country as a whole. It is heavily dependent on the road transport industry to provide reliable services to deliver and collect goods on a highly time sensitive basis, which is becoming increasingly difficult with growing volumes and road congestion.

Typically, a single locomotive with a 30-wagon set will trunk 40 containers by rail instead of by road. So the principle of developing strategically located SRFIs throughout the Midlands is, in my view, essential to protect supply chains in the future and to ease the burden on already heavily congested roads.

From a transport operator's perspective, the proposed site is in an excellent location to service the key distribution parks at Brackmills, Prologis Park Pineham and at Milton Keynes to name a few, with immediate motorway links (M1) and connecting arterial roads.

Significant container volumes can potentially transfer from road to rail. For imported goods these can be held at the terminal close to their final destination and can be planned for delivery to avoid peak travel times. Similarly goods for export can be transported to the terminal at non-peak times and held for onward transportation by rail. Furthermore, with the train performing the trunk move to and from the container ports, the role of the road haulier would be the local, first and final miles which would mean shortened, more frequent journeys and operating with less trucks overall.

\...

Rail connectivity would not be limited to the key southern ports of Felixstowe, London Gateway and Southampton either. It could extend to more peripheral but important feeder ports and act as a catalyst for domestic distribution, by rail, to the rest of the UK.

Aside from the occupiers of the planned warehousing on the estate itself, Northampton Gateway clearly provides the opportunity to maximise use of rail for existing manufacturers and producers throughout Northamptonshire and as a platform for growth in the region, building on an already established reputation as the best logistics centre in the country.

The proposed location for Northampton Gateway and the hinterland it would serve, represents a major collection and delivery point for Maritime. We currently have many grocery, FMCG and industrial goods traffic flows that we would look to move by rail once operational.

Maritime supports the expansion of SRFI capacity across the country and recognises the benefit and opportunity of modal shift from road to rail. I therefore fully support the proposed development of Northampton Gateway as an essential addition to the network and given the volume of goods currently moved by road to and from the region, I am confident that it would succeed.

Yours sincerely

JOHN WILLIAMS
Chairman and owner of Maritime Transport Ltd.

Appendix 7: ExQ1.0.22: Network Rail Freight & National Passenger Operators Route Strategic Plan

Freight & National Passenger Operators Route Strategic Plan

February 2018

Contents

1. Foreword

I am delighted to introduce the Freight & National Passenger Operators (FNPO) Route Strategic Plan (RSP) for Control Period 6 (CP6).

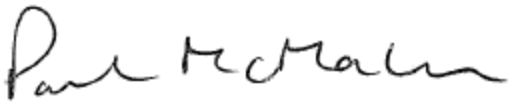
This RSP sets out our five-year plan for CP6, from 1 April 2019 to 31 March 2024. Our plan is centred on a range of objectives that support our freight and national passenger customers' businesses. In particular the plan sets out the first stage of a longer-term vision to facilitate significant rail freight growth over the next fifteen years. Our RSP has been developed with the active collaboration of, and input from, our customers and stakeholders and seeks to deliver what they have told us they want.

FNPO was established in 2016, and in April 2017, as part of Network Rail's Transformation Programme, we implemented the new FNPO organisational structure to strengthen focus and links with our diverse range of customers and stakeholders as well as Network Rail's Routes and the System Operator (SO). We have a central role to support and promote our customers' interests as the Network Rail devolution process develops.

FNPO, as Network Rail's ninth operational route (or "virtual" route), is different to the other Routes: we do not directly manage assets or control train operations, but deliver these working with and through the geographic Routes, System Operator and other parts of Network Rail. Our RSP reflects this unique role and we have structured this plan to be consistent and aligned with other RSPs.

In CP6, FNPO will have its own revenue requirement. This will provide greater transparency on the costs associated with our customers' use of the network and support us to work with the geographical Routes and the System Operator to establish new internal relationships. These will more clearly define customer inputs and specifications and will result in an opportunity to jointly review outputs, costs and outcomes to drive infrastructure cost efficiency, value-for-money and alignment to customer requirements. It also gives an opportunity to create different funding models for the network enhancements and developments necessary to drive continued rail freight growth. In other words, we will function more fully as an independent route business.

I am really grateful for the support and input provided by our customers and stakeholders in developing this RSP. The plans and objectives in this document will continue to develop and will become more refined and detailed as we move towards and into CP6 and continually engage with our customers and stakeholders.



Paul McMahon
Managing Director, Freight & National Passenger Operators
February 2018

2. Summary

2.1 Route Overview

In April 2017, Freight and National Passenger Operators (FNPO) was established as Network Rail's ninth operational (or "virtual") route. Our customers operate nationally across multiple routes, making FNPO the "multi-route" route.

FNPO is different: Our customer base is uniquely varied, with freight operating companies (FOCs), CrossCountry, Caledonian Sleeper, charter operators and aspirant open access passenger operators, who together operate c1000 trains per day.

Our stakeholder base is equally varied. Our external stakeholders range from train and freight operators, through industry third parties (such as ports, shippers and manufacturers) to Governments, the regulator and other public bodies. Our internal stakeholders include all the geographic routes and the System Operator.

FNPO does not physically manage infrastructure or train operations. We deliver performance and other outputs for our customers in conjunction with and through the geographical routes, the System Operator and other Network Rail functions.

Passenger and freight volumes across the network are forecast to grow in CP6. New freight forecasts provided by MDS Transmodal for this plan suggest that freight moved could increase from 2016/17 to 2023/24 by up to 50% depending on market headwinds and assuming unconstrained network capacity. For planning purposes, assuming existing funded capacity and capability, we are estimating growth of 15.6% over the seven year time horizon. Given the inherent uncertainties in forecasting freight traffic and the importance of a robust estimate for CP6 we have consulted publicly on the MDS Transmodal study and will be updating our forecast at the end of 2017/18.

The new rail freight strategies of both the UK and Scottish Governments both support additional rail freight growth and modal switching from road to deliver benefits including easing road congestion, reducing pollution and generating productivity and financial benefits for the economy.

2.2 Vision and Purpose

Our vision is to:

Exceed the expectations of our customers and stakeholders across the rail network in providing a safe, reliable, affordable and growing railway.

Our purpose is to:

Deliver growth and provide excellent service for our customers and stakeholders, through improving safety and performance, and enhancing capacity and capability, at an efficient cost.

Our vision goes beyond the boundaries of CP6, especially for freight. Growth levels as forecast by MDS Transmodal, and desired by the Governments' rail freight strategies, can be achieved – but only if an appropriate framework and infrastructure is put in place.

FNPO is in a unique and pivotal position in the rail freight sector to provide leadership and advocacy for the sector, not least because of Network Rail's ownership of the national network and substantial property portfolio. This RSP sets out Network Rail FNPO's vision and plan to lead the

development of a framework for rail freight growth and in particular to:

- Provide for stable and sustainable access charges for CP6
- Support the development and delivery of new services being developed and offered by FOCs, such that new end-customers will be attracted to rail and help existing end-users expand
- Put in place relationships and governance arrangements with the System Operator and the eight geographic routes to support the framework and its objectives
- Support the vision set out in the DfT's rail freight strategy for the continued growth of rail freight, in order to help relieve pressures on the road network
- Lead the production of the industry plan required by the Scottish Government but – as applicable – applying the key principles to the whole of the UK

In addition, we also see a need to develop a 15-year plan to deliver volume growth and modal shift from road, setting out clearly:

- The likely benefits streams and beneficiaries
- The infrastructure changes needed
- The changes in culture and behaviour that will be needed
- The likely scale of costs and how they might be funded
- How our customers link into and can benefit from Digital Railway

2.3 Route Objectives

Delivering excellent service and successful outcomes can only be achieved by working in close and positive collaboration with all of our customers and stakeholders. Customer scorecards are at the heart of our collaborative relationships. The key objectives we plan to achieve in CP6 are set out in our long term Route Scorecard and are summarised on this and the following pages.

- **Safety**

We will continue to work with customers and stakeholders to drive safety improvement. During 2017/18 we have started to drive greater collaboration with the freight sector through the National Freight Safety Group, following the freight safety charter that has been agreed between all FOCs and Network Rail. We see this as the basis for further collaboration and safety improvement. In particular, we want to develop an ambitious programme to target freight derailments (reducing from 10 in 2018/19 to 5 by 2023/24) and SPADs (reducing from 40 to 35 over the same timeframe). To deliver this we will require expenditure of some £22m over the control period.

We will also increase our focus on reducing hazards and injuries to our FNPO customer workforce on Network Rail's infrastructure. This is a new measure that we introduced on our scorecard in 2016/17 and we want to continue a focus on this so that our customers' staff are as safe as possible on our infrastructure.

- **Train performance**

We will retain the Freight Delivery Metric (FDM) as the key regulatory measure for freight performance. FDM measures the number of trains on time (to 15 minutes) in relation to Network Rail caused delays. We are continuing to outperform our CP5 target of 92.5% (achieving an outturn of 94.3% in 2016/17) and for CP6 our objective is 94.0%, recognising the decline of coal traffic (which saw better performance) and that anticipated traffic growth will predominantly be on the busier parts of the network.

The concept of corridors is critically important to both our passenger and freight customers, where the end to end journey is of greater significance in many cases, than the performance on individual geographic routes. For freight customers we will continue to develop the Strategic Freight Corridor's (SFCs) for managing performance to support future rail freight growth.

Average speed is a key aspect of freight performance and FOCs and freight end-users are keen to see the average speed of freight services on the network increase from c25mph, in order to provide for better asset utilisation, lower cost and improved freight-end customer service. We will develop appropriate plans and metrics for this. As average passenger train speeds are increasing due to the many Journey Time Improvement (JTI) schemes, it is vital that average freight speeds also increase at least to maintain efficient network usage.

We will work with Scotland Route and Transport Scotland to develop plans to address the Scottish High Level Output Specification (HLOS) freight performance and average speed metrics.

For passenger operators, we will discuss with DfT the performance targets and assumptions for CrossCountry given that the franchise ends in October 2019. The Caledonian Sleeper franchise runs for 15 years (2015 – 2030), spanning CP6, and we will continue to work with them to deliver their franchise performance commitment, which is planned to step up from 75% to 80% right time arrival from April 2018.

Charter performance will be targeted at continuing high levels consistent with their operations on the rail network.

– **Achieving rail freight growth**

Our planning and scoping work to date indicates that around £2bn will be needed over a 15 year horizon to fund the infrastructure necessary to underpin step changes in rail freight growth. We will work with the UK and Scottish governments and with prospective third-party investors to develop and establish funding mechanisms for this investment, which will be an urgent priority ahead of and going into CP6. Investing in the network to support modal shift and the growth of rail freight has considerable socio-economic and environmental benefits. The Benefit Cost Ratios for freight enhancement schemes are very strong typically in the range of 4:1 to 8:1. We will work with Scotland Route, Transport Scotland and the wider sector in Scotland to deliver Transport Scotland's HLOS rail freight growth target.

– **Capacity and capability**

Maintaining the published operational capability of the network is critical for our customers, particularly freight and charters. We will work with the geographical routes to develop and set out clear statements of freight capacity and capability.

Given the freight growth forecast in CP6 we will work with the System Operator to plan how capacity can be made available to accommodate this. A proportion will be through the continued drive to optimise use of the existing network. However, on certain routes in order to deliver a step-change in growth, enhancements to network infrastructure will be required.

We will work with both the UK and Scottish Governments to make the case for continued funding to develop the Strategic Freight Network to build on the successes (and tangible benefits) of the CP4 and CP5 Strategic Freight Network funds.

In the longer term, the freight capacity and capability requirements necessary to achieve continued freight growth will form a key element of the 15-year Freight Plan with the anticipated focus being on five key strategic corridors:

– Felixstowe to the Midlands/North/Scotland
– Solent to the Midlands/North/Scotland
– Cross London
– Northern Ports and Trans Pennine capacity
– Development of additional Nodal Yards (to support train regulation and capacity management)

We will work with the System Operator to develop the outline thinking on freight capacity and capability enhancement set out in the Freight Network Study and the Route Studies.

For national passenger operators, we will work with our customers and geographical routes to identify plans to improve reliability, journey times and look to remove bottlenecks.

– **Access and Train planning**

Building on the annual scorecards we have developed with customers, and reflecting the criticality of train planning and minimal levels of disruption for them, we anticipate including access planning and train planning objectives.

– **Access charges**

We are proposing that freight track access charges remain stable beyond the end of CP5 and across CP6. This is important to provide sustainability and affordability for the freight sector and confidence for end-users to support the continued growth in key markets.

– **Customer satisfaction**

We will monitor our business performance and customer satisfaction using Scorecards, but recognising there are also wider strategic objectives that are more qualitative and subjective. Measures will be agreed each year with our customers. We want to align more closely the KPIs on our scorecards with our customers' own objectives to enable closer, more coordinated and productive working.

In delivering these outcomes we will need to continue to develop our processes, our people, our customer service approach and to deliver efficiently, within the funding levels that will be agreed for CP6. This plan outlines these areas and further engagement and development of these areas is necessary.

– **Finance**

FNPO will have its own revenue requirement which will provide greater transparency on the costs associated with our customers' use of the network. As well as directly incurred and traffic related costs, all Network Rail ("common") costs are being allocated to customers as part of the revenue requirements for all routes. We are presenting freight costs with / without all the allocated costs to avoid misleading interpretations of the actual costs that freight operations impose on the network.

The greater transparency on costs will allow us to work with the geographical routes and the System Operator to establish new internal relationships. We will manage these internal relationships in a structured way. The aim is to more clearly define customer inputs and specifications and will result in an opportunity to jointly review outputs, costs and outcomes to drive infrastructure cost reduction, efficiency, value-for-money and alignment to customer requirements. It also gives an opportunity to create different funding models for the network enhancements and developments necessary to drive continued rail freight growth both in CP6 and subsequent control periods leveraging or otherwise recognising the value and income from the freight property estate. In this way, FNPO will be able to function more fully as an independent route business.

– **Railway Ombudsman**

The Rail Minister is supporting the introduction of voluntary binding Alternative Dispute Resolution (ADR)/Rail Ombudsman in the rail sector as per the Government manifesto. This will change the way that the rail industry deals with complaints relating to service provision within a defined scope. Customer services that Network Rail delivers at its Managed stations are eligible under the scheme criteria. The cost of the scheme for Network Rail (running costs and compensation payments), including a risk and uncertainty provision, is estimated at around £150k pa. Government is very supportive of Network Rail joining the scheme. Further details in Section 6.9.

3. FNPO Overview

3.1 Route Overview

In April 2017, Freight and National Passenger Operators (FNPO) route was established as Network Rail' ninth operational route. Our customers operate nationally across multiple routes making FNPO the "multi-route" route.

FNPO's purpose is to deliver growth and excellent service for both our customers and our stakeholders, through improving safety and performance, and enhancing capacity and capability, at an efficient cost.

FNPO is different to the geographical Routes: Access Operators and variety of third parties:

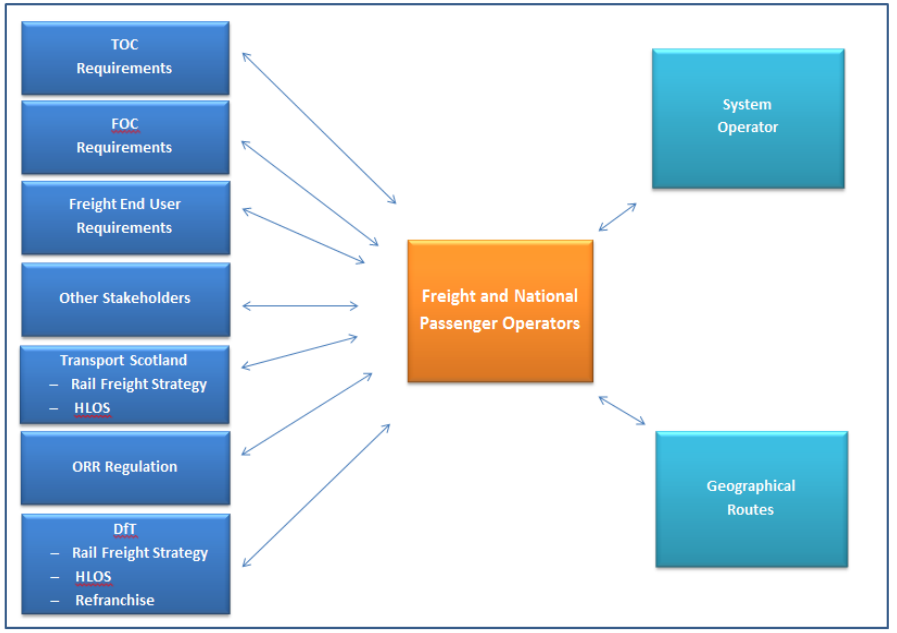
- An equally varied stakeholder base, both external and internal
- We need to have regard to the policies and strategies of both the UK and the Scottish government
- FNPO does not physically manage infrastructure or train operations. We deliver performance and other outputs for our customers in conjunction with and through the geographical routes, the System Operator and other Network Rail functions.

Passenger and freight volumes across the network are forecast to grow in CP6. In addition to this, our customers, passengers, freight end-users and other stakeholders have increasing expectations from Network Rail in terms of safety, train performance and other areas of customer service.

The new rail freight strategies of both the UK and Scottish Governments both support additional rail freight growth and modal switch from road. This will deliver significant benefits including easing road congestion, reducing pollution and generating productivity and financial benefits for the economy

3.2 Our Stakeholders

FNPO's stakeholders are numerous and diverse. Our external stakeholders range from passengers and freight end-users, via Train and Freight operators and other rail third parties to Governments and other public bodies. Our internal stakeholder relationships with the geographic routes and the System Operator are critical. FNPO must look, and manage, both within and outside Network Rail simultaneously. The schematic below shows our relationship framework with our stakeholders



3.2.1 Engagement with our stakeholders

Our CP6 plan is far-reaching, ambitious and is subject to appropriate funding being available. To achieve this we will need and to work closely and collaboratively with all our stakeholders. Transparency, honesty and positive engagement has been, and will continue to be our approach. Our stakeholder engagement approach is summarised in the table below.

External Stakeholders	Internal Stakeholders
Customer engagement processes including regular meetings covering safety, performance, commercial and wider strategic and business development issues	Network Rail governance and reporting structure
Cross-Industry Groups, e.g. RDG Freight Group, Freight Joint Board, Freight Network Study Board	Organisational alignment with Route Freight teams physically based in the geographic routes and in a matrix arrangement. Freight Service Delivery Managers are based in the National Operations Centre
We are planning for the creation of an FNPO Route Supervisory Board during 2017/18	FNPO will establish an internal “Level 1" quarterly review process between FNPO, the System Operator and each geographic route
Network Rail Customer & Freight End User Satisfaction Survey and FNPO team quarterly “pulse check”	
CP6 Stakeholder engagement workshops	

3.2.2 Stakeholder needs and prioritisation

We have engaged extensively in the development of our RSP. We are grateful for the support and positive input our customers and stakeholders have provided. The width and breadth of our stakeholder base meant that a number of workshops were needed to cover our passenger and freight customers and stakeholder so we could establish / review views and priorities. We have held six CP6 customer focused events, with over 60 different customers, end users and stakeholders represented. The outcome of this has identified the following stakeholder priorities,

Stakeholder Priorities	
Safety	Maintaining a safe rail network
Performance	Deliver train service performance that meets customer expectations and regulatory targets
Cross-route challenges	Access, best practice sharing, consistency and joined-up planning and delivery
Efficiency/value for money	Network Rail needs to be more efficient and provide value for money
Growth	Developing and growing passenger and freight services
System Operator (SO)	How this new function will operate and work with customers
Capacity	The need to increase and protect capacity
Capability	Maintain and improve the capability of the network including diversionary routes
Journey Time Improvements	Developing journey time improvements for freight and passenger services

We will continue to monitor and record the views of our customers and stakeholders through CP6 to ensure we meet their requirements as part of our ongoing and evolving customer and stakeholder engagement.

3.2.3 Prioritisation linkage with short and long term route objectives

Each of the themes listed in this section have been discussed and developed as part of the ongoing scorecard process and for the purposes of developing this RSP. The next section details our objectives and KPIs that will measure our performance in addressing our stakeholder and customer priorities.

4. Route Objectives

This plan is predicated on the assumptions listed in Appendix A. Our CP6 objectives our listed below and form the basis of the FNPO Route Scorecard.

	18/19		
Safety	**WORSE THAN TARGET**	**TARGET**	**BETTER THAN TARGET**
Work related absence	40	20	0
Close calls raised	160	180	200
Close calls closed within 90 days	80%	90%	100%
Derailments	13	10	7
SPADs	48	40	32
Operator staff lost time incidents on NR infrastructure	16	12	8
Financial Performance			
Financial Performance Measure	-10%	0%	10%
Investment & Asset Management			
CP5 SFN schemes - Current year GRIP 6 completion vs baseline	80%	90%	100%
Train Performance			
Freight Delivery Metric (FDM) - National	92.5%	94%	94.5%
Right time departures - Freight	78%	81%	84%
FOC on TOC delay (Delay Minutes/100 train km)	1.25	1.18	1.16
Delay per incident – Freight	26.3	27.1	28.0
CrossCountry - PPM	89.2%	90.0%	90.8%
CrossCountry - CaSL	4.0	3.9	3.8
CrossCountry – Time to 3 minutes	64%	66%	68%
Cross Country – Cancellations	2.95%	2.85%	2.75%
Caledonian Sleeper - Right time	75%	80%	85%
Charter Trains - PPM	86%	88%	90%
Locally Driven Customer Measures			
Net tonne miles moved - Freight – (billions)	9.4	10.4	11.4
Freight service plan reviews- delivery against agreed milestones	80%	90%	100%
Strategic Capacity - Freight	5%	10%	15%
CrossCountry - Average minutes lateness	4.40	4.35	4.30
CrossCountry - Access planning agreed milestones met	75%	80%	85%
Caledonian Sleeper - Roll up of customer scorecard	0%	50%	100%
Charter planning compliance	0%	50%	100%
Freight End User (FEU) satisfaction	68%	73%	78%
People Measures			
Your Voice Action Plans – delivery against milestones	80%	90%	100%

*Measures shown as TBC will be developed in CP5 and go live in CP6

Long Term Route Scorecard

Safety	Definitions		19/20	20/21	21/22	22/23	23/24	24/25	Achievability
Work related absence	The number of FNPO Route absences where the cause is classified as work related (e.g. work related stress).	WORSE THAN TARGET	40	40	40	40	40	40	
		TARGET	20	20	20	20	20	20	
		BETTER THAN TARGET	0	0	0	0	0	0	
Derailments	Derailment of commercial Freight services on NR network infrastructure	WORSE THAN TARGET	12	11	10	9	8	7	
		TARGET	9	8	7	6	5	4	
		BETTER THAN TARGET	6	5	4	3	2	1	
SPADs	SPADs involving FNPO customer services	WORSE THAN TARGET	47	46	45	44	43	42	
		TARGET	39	38	37	36	35	34	
		BETTER THAN TARGET	31	30	29	28	27	26	
Close calls closed within 90 days	Close calls closed within 90 days	WORSE THAN TARGET	80%	80%	80%	80%	80%	80%	
		TARGET	90%	90%	90%	90%	90%	90%	
		BETTER THAN TARGET	100%	100%	100%	100%	100%	100%	
RM3 *	To be defined once the metric and target has been developed and agreed with key stakeholders	WORSE THAN TARGET	TBC	TBC	TBC	TBC	TBC	TBC	
		TARGET	TBC	TBC	TBC	TBC	TBC	TBC	
		BETTER THAN TARGET	TBC	TBC	TBC	TBC	TBC	TBC	
Precursor Indicator Model – Freight *	To be defined once the metric and target has been developed and agreed with key stakeholders	WORSE THAN TARGET	TBC	TBC	TBC	TBC	TBC	TBC	
		TARGET	TBC	TBC	TBC	TBC	TBC	TBC	
		BETTER THAN TARGET	TBC	TBC	TBC	TBC	TBC	TBC	
Operator Lost Time Incidents on NR infrastructure	FOC/TOC customer reported lost time injuries occurring on NR infrastructure	WORSE THAN TARGET	15	14	13	12	11	10	
		TARGET	11	10	9	8	7	6	
		BETTER THAN TARGET	7	6	5	4	3	2	

Train Performance Measures	Definitions		19/20	20/21	21/22	22/23	23/24	24/25	Achievability
Freight Delivery Measure (FDM) – National	Regulatory measure of Network Rail's ability to deliver freight trains to destination within 15 mins of booked time	WORSE THAN TARGET	92.5%	92.5%	92.5%	92.5%	92.5%	92.5%	
		TARGET	94.0%	94.0%	94.0%	94.0%	94.0%	94.0%	
		BETTER THAN TARGET	94.5%	94.5%	94.5%	94.5%	94.5%	94.5%	
Freight Delivery Measure (FDM) – Scotland	Regulatory measure of Network Rail's ability to deliver freight trains to destination within 15 mins of booked time in Scotland	WORSE THAN TARGET	93.5%	93.5%	93.5%	93.5%	93.5%	93.5%	
		TARGET	94.5%	94.5%	94.5%	94.5%	94.5%	94.5%	
		BETTER THAN TARGET	95.0%	95.0	95.0%	95.0%	95.0%	95.0%	
Right time departures – Freight	All freight trains that depart origin right time	WORSE THAN TARGET	78%	78%	79%	79%	79%	79%	
		TARGET	81%	81%	82%	82%	82%	82%	
		BETTER THAN TARGET	84%	84%	85%	85%	85%	85%	
FOC on TOC (DM/ 100 train km)	The portion of delay to Passenger operators caused by commercial freight services (normalised)	WORSE THAN TARGET	1.24	1.23	1.22	1.22	1.22	1.22	
		TARGET	1.17	1.16	1.15	1.15	1.15	1.15	
		BETTER THAN TARGET	1.15	1.14	1.13	1.13	1.13	1.13	
Delay per incident – Freight	The average number of attributed delay minutes to third parties caused by FOC incidents	WORSE THAN TARGET	TBC	TBC	TBC	TBC	TBC	TBC	
		TARGET	TBC	TBC	TBC	TBC	TBC	TBC	
		BETTER THAN TARGET	TBC	TBC	TBC	TBC	TBC	TBC	
CrossCountry - PPM	XC PPM delivery (time to 10)	WORSE THAN TARGET	89.2%	89.2%	89.3%	89.4%	89.5%	89.5%	
		TARGET	90.0%	90.0%	90.1%	90.2%	90.3%	90.3%	
		BETTER THAN TARGET	90.8%	90.8%	90.9%	91.0%	91.1%	91.1%	
CrossCountry - CaSL	XC cancellation and significant lateness delivery	WORSE THAN TARGET	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	
		TARGET	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	
		BETTER THAN TARGET	3.8%	3.8%	3.8%	3.8%	3.8%	3.8%	
CrossCountry – Time to 3 minutes	%of all train that arrive at all stations on time to 3 minutes	WORSE THAN TARGET	64%	65%	65%	66%	67%	68%	
		TARGET	66%	67%	67%	68%	69%	70%	
		BETTER THAN TARGET	68%	69%	69%	70%	71%	72%	
CrossCountry – Cancellations	% of all passenger train journeys that are cancelled	WORSE THAN TARGET	2.95%	2.95%	2.95%	2.95%	2.95%	2.95%	
		TARGET	2.85%	2.85%	2.85%	2.85%	2.85%	2.85%	
		BETTER THAN TARGET	2.75%	2.75%	2.75%	2.75%	2.75%	2.75%	
Caledonian Sleeper – Right Time	% of all passenger train journeys that arrive on time.	WORSE THAN TARGET	75%	75%	75%	75%	75%	75%	
		TARGET	80%	80%	80%	80%	80%	80%	
		BETTER THAN TARGET	85%	85%	85%	85%	85%	85%	
Charter Trains - PPM	% of all charter train journeys that arrive within 10 minutes at termination.	WORSE THAN TARGET	86%	86%	86%	86%	86%	86%	
		TARGET	88%	88%	88%	88%	88%	88%	
		BETTER THAN TARGET	90%	90%	90%	90%	90%	90%	

*Measures shown as TBC will be developed in CP5 and go live in CP6

Locally Driven Customer Measures	Definitions		19/20	20/21	21/22	22/23	23/24	24/25	Achievability
Net tonne miles moved – Freight (billions)	Net tonne miles moved – Freight (Great Britain)	WORSE THAN TARGET	9.3	9.6	10.0	10.7	11.8	11.8	
		TARGET	10.4	10.6	11.2	11.9	13.1	13.1	
		BETTER THAN TARGET	11.4	11.7	12.3	13.1	14.5	14.5	
Average speed- Freight *	To be agreed once the metric and target have been defined.	WORSE THAN TARGET	TBC	TBC	TBC	TBC	TBC	TBC	
		TARGET	TBC	TBC	TBC	TBC	TBC	TBC	
		BETTER THAN TARGET	TBC	TBC	TBC	TBC	TBC	TBC	
Freight service plan reviews- delivery against agreed milestones	% achievement of agreed milestones	WORSE THAN TARGET	80%	80%	80%	80%	80%	80%	
		TARGET	90%	90%	90%	90%	90%	90%	
		BETTER THAN TARGET	100%	100%	100%	100%	100%	100%	
Strategic capacity - Freight*	'The % of the gap between the number of required paths and the number of actual paths, that is filled each timetable period	WORSE THAN TARGET	5%	5%	5%	5%	5%	5%	
		TARGET	10%	10%	10%	10%	10%	10%	
		BETTER THAN TARGET	15%	15%	15%	15%	15%	15%	
Scottish freight growth on baseline	Scottish freight growth against an agreed baseline	WORSE THAN TARGET	1.5%	3.0%	4.5%	6.0%	7.5%	7.5%	
		TARGET	1.5%	3.0%	4.5%	6.0%	7.5%	7.5%	
		BETTER THAN TARGET	3.5%	5.0%	6.5%	8.0%	9.5%	9.5%	
Scottish new freight traffic share	Scottish new freight traffic share	WORSE THAN TARGET	1.5%	3.0%	4.5%	6.0%	7.5%	7.5%	
		TARGET	1.5%	3.0%	4.5%	6.0%	7.5%	7.5%	
		BETTER THAN TARGET	3.5%	5.0%	6.5%	8.0%	9.5%	9.5%	
Average speed improvement on baseline (Freight, Scotland)*	Average speed improvement on baseline -(Freight, Scotland)	WORSE THAN TARGET	TBC	TBC	TBC	TBC	TBC	TBC	
		TARGET	TBC	TBC	TBC	TBC	TBC	TBC	
		BETTER THAN TARGET	TBC	TBC	TBC	TBC	TBC	TBC	

*Measures shown as TBC will be developed in CP5 and go live in CP6

Locally Driven Customer Measures	Definitions		19/20	20/21	21/22	22/23	23/24	24/25	Achievability
CrossCountry – Average minutes lateness*	CrossCountry Average Minutes Lateness	WORSE THAN TARGET	4.39	4.38	4.37	4.36	4.35	4.35	
		TARGET	4.34	4.33	4.32	4.31	4.30	4.30	
		BETTER THAN TARGET	4.29	4.28	4.27	4.26	4.25	4.25	
CrossCountry – Access planning agreed milestones met	Key planning milestones met	WORSE THAN TARGET	75%	75%	75%	75%	75%	75%	
		TARGET	80%	80%	80%	80%	80%	80%	
		BETTER THAN TARGET	85%	85%	85%	85%	85%	85%	
Caledonian Sleeper – Roll up of customer scorecard	% achievement of 'better than target' level of total Customer Scorecard	WORSE THAN TARGET	0%	0%	0%	0%	0%	0%	
		TARGET	50%	50%	50%	50%	50%	50%	
		BETTER THAN TARGET	100%	100%	100%	100%	100%	100%	
Charter planning compliance	Roll up of Charters 'Planning and Delivery' metrics	WORSE THAN TARGET	0%	0%	0%	0%	0%	0%	
		TARGET	50%	50%	50%	50%	50%	50%	
		BETTER THAN TARGET	100%	100%	100%	100%	100%	100%	
Freight End User (FEU) satisfaction	Quarterly customer satisfaction survey with freight end users	WORSE THAN TARGET	69%	70%	71%	72%	73%	73%	
		TARGET	74%	75%	76%	77%	78%	78%	
		BETTER THAN TARGET	79%	80%	81%	82%	83%	83%	

Investment & Asset Management	Definitions		19/20	20/21	21/22	22/23	23/24	24/25	Achievability
CP6 SFN schemes - Current year GRIP 3 completion vs baseline	Measures against a baseline SFN plan and tracks the number of schemes completed to GRIP 3	WORSE THAN TARGET	80%	80%	80%	80%	80%	80%	
		TARGET	90%	90%	90%	90%	90%	90%	
		BETTER THAN TARGET	100%	100%	100%	100%	100%	100%	
CP6 SFN schemes - Current year GRIP 6 completion vs baseline	Measures against a baseline SFN plan and tracks the number of schemes completed to GRIP 6	WORSE THAN TARGET	80%	80%	80%	80%	80%	80%	
		TARGET	90%	90%	90%	90%	90%	90%	
		BETTER THAN TARGET	100%	100%	100%	100%	100%	100%	
Freight asset reliability*	To be agreed once the metric and target have been defined.	WORSE THAN TARGET	TBC	TBC	TBC	TBC	TBC	TBC	
		TARGET	TBC	TBC	TBC	TBC	TBC	TBC	
		BETTER THAN TARGET	TBC	TBC	TBC	TBC	TBC	TBC	

*Measures shown as TBC will be developed in CP5 and go live in CP6

Financial Performance	Definition		19/20	20/21	21/22	22/23	23/24	24/25	Achievability
Financial Performance Measure (FPM)	Measures how we are performing against our Income, Opex and Renewals budget.	WORSE THAN TARGET	-£10m	-£10m	-£10m	-£10m	-£10m	-£10m	
		TARGET	0	0	0	0	0	0	
		BETTER THAN TARGET	+£10m	+£10m	+£10m	+£10m	+£10m	+£10m	
Cash Compliance	This is a measure of how well we have remained within our funding envelope in total	WORSE THAN TARGET	-10%	-10%	-10%	-10%	-10%	-10%	
		TARGET	0%	0%	0%	0%	0%	0%	
		BETTER THAN TARGET	10%	10%	10%	10%	10%	10%	

People			19/20	20/21	21/22	22/23	23/24	24/25	Achievability
Your Voice Action Plans - delivery against milestones	% achievement of agreed milestones	WORSE THAN TARGET	80%	80%	80%	80%	80%	80%	
		TARGET	90%	90%	90%	90%	90%	90%	
		BETTER THAN TARGET	100%	100%	100%	100%	100%	100%	

4.1 Scorecards

In 2016/17, Network Rail established route scorecards, which included specific agreed customer KPIs. In 2017/18, building on this, we have, developed with each of our customer specific scorecards for each of customer that underpin the Route scorecards. These customer scorecards cover a range of measures including safety, performance, business development, commercial, train planning and project delivery. Each customer scorecard is bespoke to that particular customer, and the customer has the choice whether to "roll up" all of that scorecard, or just certain measures from it, to the FNPO Route scorecard. We believe that Route and Customer scorecards are an important and powerful addition to our customer focused approach. The scorecards are designed to incentivise Network Rail to focus on what is really important to the customer and by extension, the passenger and freight end-users.

We are looking at ways to enhance the scorecard process in order to give recognition to a number of jointly agreed route customer measures across all the FOCs rather than a roll up of the entire customer scorecard for each scorecard. This will enable the weighting of these measures to be greater on the Route scorecard, so helping to improve focus on delivery. For CP6 we intend to develop our annual scorecards from the overall CP6 scorecard that is at the heart of our CP6 Route Strategic Plan.

The intention for the freight sector is to agree a number of specific objectives between all FOCs that would contribute the most to their businesses. FNPO would be focussed on delivering these key objectives which would help support and grow rail freight. For CrossCountry and Caledonian Sleeper we recognise that On Time metrics become increasingly important as we move towards CP6. We have developed a suite of Right Time/On Time measures for both CrossCountry and Caledonian Sleeper that are currently included on the scorecards which are early steps towards On Time metrics and reporting of these.

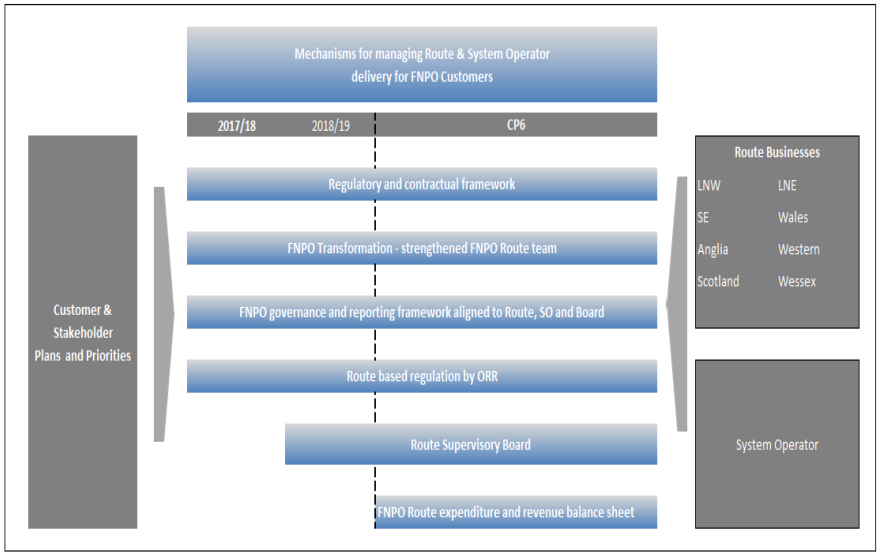
This focused approach has driven improvements across some of the metrics and with more understanding of the measures generated through the various specific work-streams setup around these measures, there should be further improvement throughout the remainder of CP5 to give a firm footing as we head into CP6. With the introduction of Customer scorecards across all Routes in 2017/18, the opportunity for further alignment has arisen. An example is at Birmingham New Street, where both London Midland and Virgin Trains West Coast as well as Cross Country all have right time arrivals at Birmingham New Street on their scorecards.

There are some metrics which still have 'to be confirmed' targets against them. These require more detailed stakeholder discussion and are typically more complex to both understand the detail and also require data and evidence that isn't naturally captured in that way already. We aim to have the TBCs in the Scorecard properly defined and with agreed targets by December 2018.

In addition, there are further discussions required on route scorecard metrics for freight customers, Other collective metrics, that provide a more balanced scorecard are an area of joint collaboration, with that process due to continue in February 2018.

4.2 Route Delivery for FNPO Customers

As Network Rail continues to transform, devolving greater accountability and responsibility to Route Businesses, FNPO will continue to work collaboratively with each geographical route to ensure continued delivery to our customers. The mechanisms already in place to give our customer the necessary assurance include the following:



– **Regulatory and contractual framework to ensure fair treatment of all customers operating on the rail network**

Network Licence, Condition 1 requires that Network Rail meets the reasonable requirements of its customers in respect of managing the network. ORR can, and does, highlight issues and puts them on the "regulatory escalator" in respect of individual Routes as well as the company as a whole.

Each operator has a Track Access Contract which sets out the rights and obligations, including making reference to the Network Code (and Railway Operational Code) which is the common set of rules that apply to all TOCs and FOCs to run their trains on Network Rail infrastructure.

– **Route Supervisory Boards**

Network Rail has been piloting a Route Supervisory Board for Western Route, which includes TOC and passenger representation. The intention is, following the pilot, to establish Supervisory Boards across all Routes, including FNPO.

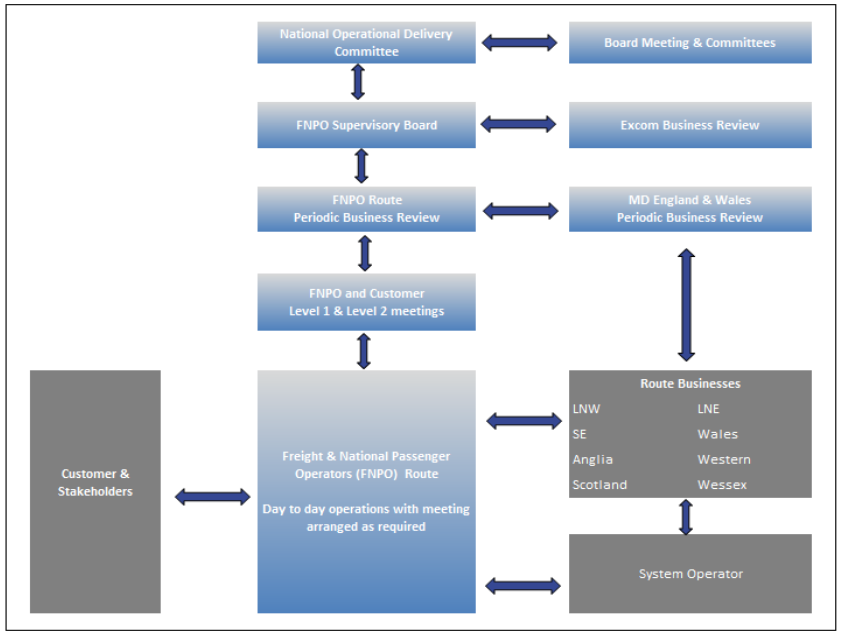
The objective of the Route Supervisory Boards is to bring "track and train" closer together in respect of oversight of day-to-day operations as well as longer term planning.

The Terms of Reference for the Western Board state that the Board must have regard to all users of the Route. This is the template for other routes.

– **FNPO governance and reporting structure aligned to geographical routes**

FNPO is subject to the same governance within Network Rail as geographical routes. Executive Committee and Board reporting packs include FNPO reports alongside Routes. The FNPO scorecards have equivalent status as Route scorecards and are a key part of the Network Rail reporting/governance framework.

The key meeting structure and associated escalation process is summarised below:



– **Strengthened FNPO Route team building stronger links with geographical routes and customers**

We have implemented the new FNPO organisational structure to strengthen our customer focus and governance of the Routes and SO.

Senior Route Freight Managers and Lead/Route Freight Managers are physically based in the Routes and work closely with geographical Route colleagues in a matrix arrangement.

Freight Service Delivery Managers work closely with route controls on real-time freight train performance and regulation – in particular in relation to service recovery following perturbation.

For CP6, further governance processes will be put in place:

– **FNPO Route expenditure and revenue balance sheet supporting great transparency and control**

FNPO will have its own revenue requirement, similar to the eight geographical routes and the system operator. This will provide greater transparency on all income and costs associated with our customers' use of the network; provide a basis for FNPO to better work with geographical routes to ensure that expenditure supports FNPO customer outputs; and will allow FNPO to function more fully as an independent route business.

Geographical Route summaries (see Appendix B). These set out how each Route and FNPO will work together to deliver the Route Strategic Plan. It outlines existing FNPO activity, and then describes the impact of the plans and aspirations of FNPO customers to grow and develop their businesses. It summarises what Network Rail needs to do to deliver these strategies and how, in doing so, efficiencies can be identified and realised.

– **Route based regulation by ORR**

Over the last year ORR have started to meet twice a year with each route (RMD and Exec team) to understand progress and issues. This provides both a basis for its existing regulation and CP6.

4.3 System Operator Delivery for FNPO Customers

The role of the System Operator (SO) and its engagement with FNPO customers is crucial to our business performance. With FNPO being the principal point of contact with national operators, accountable for the delivery of their performance and other outputs and working closely with the geographic routes, an effective SO function will help FNPO and its customers deliver both freight and passengers, safely and efficiently. The SO has established teams to align to each Route, including FNPO. These teams encompass network strategy & planning and capacity planning. This is an important and positive development for FNPO and its customers.

The relationship between FNPO and SO will be carried out at different levels of the organisation, with Managing Director, FNPO Executive and other key roles, having in some cases, day to day interaction with SO. As part of FNPO transformation, the creation of a Head of Strategic Capability post will maintain alignment between the two functions. In addition, FNPO will work closely with SO during the remainder of 2017/18 and 2018/19 following feedback from the respective stakeholder workshops to understand better how we can help collectively focus on the freight and national operators priorities in the short and medium term into CP6.

The SO brings the needs of different parties together to ensure that the enhancements to the network are planned and capacity is allocated effectively. This is divested through different parts of SO and these are:

– **Network Strategy and Planning**

The Long-Term Planning Process (LTPP) is led by teams under the Strategy & Planning Directors in SO. This part of SO seeks the views of stakeholders and the roles within these teams align with devolved funders and other customers. There is a direct alignment with FNPO, as a Principal Strategic Planner (PSP) has been appointed to link directly with FNPO. The PSP will work closely with FNPO to understand, influence and inform the LTPP and other strategic planning matters relating to national operators.

– **Capacity Planning**

The SO organisation is structured to provide a strategic focus for planning activities, capability and capacity analysis, the working timetable (WTT) development process, including the delivery of industry steering groups to support timetable change, management of the timetable planning rules and delivery of permanent alteration for operator requirements. Capacity Planning also leads on the weekly adjustment of the timetable for engineering works, short term operator requirements and the network wide leadership for Access Planning.

SO will set the policy for the way Network Rail manages Access Planning with the activity and process devolved out to the geographic routes in April 2017. Capacity Planning will support the delivery of the Access Planning process and provide a national framework in which to plan and prioritise engineering work. The delivery of many of the Capacity Planning activities is influenced by European Legislation. A focus area for the European Commission has been the harmonisation of timetabling and engineering access planning activities across Europe. The scope of any legislation changes may adjust the process and systems used by Capacity Planning in this area during CP6.

– **Programmes and Policy**

This team provides a central resource to undertake a range of central (non-geographic) cross-functional activities and also provides support to the geographically based teams in specific disciplines. The SO team has portfolio and programme management, client portfolio services, analysis and forecasting as some of the key roles and responsibilities within this part of SO.

FNPO will interface with these teams in such instance linked to the Strategic Freight Network and other freight and national passenger operator related schemes and initiatives.

– **HS2**

The scale and complexity of HS2 requires both SO and FNPO to be heavily involved at different levels. FNPO and its customers need to understand the full impact of HS2 on the day to day freight operations, before, during construction and after delivery of HS2. FNPO will work with HS2 Ltd and our customers to ensure national operators are considered throughout the whole lifespan of the HS2 project. FNPO interest includes the impact on the performance and network capacity available to our customers, particularly, freight following the opening of the first section of HS2 planned for 2026.

Freight & National Passenger Operators Route Strategic Plan

5. Freight

5.1 The role of rail freight

The freight and logistics sector is critically important to the competitiveness and growth of the UK economy with rail freight playing an important role within many sectors of the economy. The transportation of bulk goods remains a key strength while the burgeoning consumer goods market has driven significant growth in intermodal rail freight and modal shift from road.

Rail transported 17.8 billion tonne kilometres of freight in 2016/17, equating to 12% of freight surface transport. Rail's market share has grown 50% from 8% to 12% since 1998.

Examples of how rail freight supports the UK economy include:

- 40% of construction sector traffic into London moves by rail
- Between 30-40% of the containers that arrive or depart from the key deep-sea ports of Felixstowe, London Gateway and Southampton travel by rail
- Rail now has a 10% market share of finished automotive export traffic
- Rail freight provides considerable benefits through reduced CO2 emissions, road congestion and safety. Each tonne transported by rail rather than by road cuts CO2 emissions by 76%
- Rail freight delivers some £1.6bn per annum of economic benefit

5.2 Nature and dynamics of rail freight

The UK freight market is fiercely competitive, both with road (which remains the price and service benchmark for most categories of rail freight) and within rail, with the five main Freight Operating Companies (FOC's) competing across the UK in all markets.

Each year the FOCs transport goods worth over £30bn – from groceries which keep UK supermarkets stocked, fuel to generate electricity, steel and cement, to high-value export goods such as whiskies and cars. The key rail freight market sectors and their relative scale are summarised in the following table.

Market Sector	%	Rail Freight Activity
Intermodal	38	Movement of containers from ports and between inland terminals
Construction	25	Movement of aggregates, cement and spoil for the Construction industry
Metals	9	Movement semi-finished steel between works and finished steel to consuming manufacturing or fabricating industries.
Coal	8	Movement to power stations for electricity generation and steel works for steel production
Oil & Petroleum	7	Movement of oil, petroleum and diesel to distribution terminals
International	3	Movements via the Channel Tunnel
Other (includes biomass)	10	e.g. Movements of biomass ,cars, military equipment, spent nuclear fuel

Source - ORR Freight Rail Usage – 2016/17 Q4 - June 2017

The market itself continues to undergo fundamental change, with the rail freight sector simultaneously managing sustained growth in sectors such as intermodal and construction whilst continuing to manage the reduction in coal volumes since 2014/15.

An example of the changing nature of rail freight is that in recent years most of the major supermarkets have started to utilise rail for trunk haul movements of goods from their national distribution centres to regional centres and even to store. The service and reliability standards required by the UK's major retailers have become the standard for rail freight to achieve and exceed.

Rail freight's use of the network is also changing, reflecting the new economic geography of the UK and the increasing importance of the retail sector. Rail freight is increasingly focussed on serving major cities and areas of population rather than traditional "heavy industrial" areas. This means increasing activity south and east of an imaginary "line" from the Humber to Liverpool, and means that rail freight services increasingly share key (and often constrained) infrastructure with intensive passenger services, which themselves are forecast to grow strongly over the next decade.

5.3 Benefits of rail freight

Rail freight is increasingly recognised by the UK and Scottish Governments, customers and society in general as an economically attractive and environmentally efficient form of transport.

– **Environmental:**

The 2016 DfT Rail Freight Strategy made clear the value Government sets on the role rail freight can play in achieving objectives such as the Fifth Carbon Budget, which aims to see a 57% reduction in emissions by 2032, As HGVs are responsible for some 17% of total UK transport emissions, the potential is clear.

There may also be opportunities to further de-carbonise rail freight as only a small percentage of rail freight (around 5 per cent) is currently powered by electric traction. Increased use of electric traction for freight will be crucially dependent on the extent of electrification of the rail network.

– **Economic:**

Analysis by KPMG in 2015 estimated the benefits of rail freight to the UK economy at £1.6bn per year, including productivity gains for UK businesses, reduced road congestion and environmental benefits. Each tonne of freight transported by rail reduces carbon emissions by 7 per cent compared to road, and each freight train removes between 43 and 76 HGVs from the roads.

Freight related rail infrastructure enhancements facilitate significant socio-economic and environmental benefits. As illustrated by the Benefit Cost Ratios (BCRs) calculated using DfT's WebTAG transport appraisal methodology, the following table sets out a representative sample of freight related network enhancement schemes currently being delivered via the ring-fenced Strategic Freight Network (SFN) fund and their respective BCRs. Against a threshold BCR of c1.7, the strong "value for money" of freight enhancement schemes compared to other rail schemes is clear.

Scheme Title	Output	BCR
Southampton – WCML freight train lengthening	Enabling operation of 775m trains	2.73
ECML North	Loading gauge enhancement	7.2
ECML South	Loading gauge enhancement	6.2
Doncaster to Water Orton	Loading gauge enhancement	7.7
Buxton to Peak Forest	Enable operation of 2600t trains	4.0
Yorkshire Terminals Gauge Clearance (Route 1)	Loading gauge enhancement to Selby, Wakefield and Leeds terminals	>4
GWML Gauge (Chipping Sodbury Tunnel)	Loading gauge enhancements	2.7
Oxford 3 Minute Headways	Capacity enhancement	4.1
F2N2: Felixstowe Branch	Capacity enhancement	>4
Northern Ports & Trans Pennine Capacity	Port of Liverpool related capacity enhancement	>4
GWML Gauge Enhancement	Loading gauge enhancement.	2.7
Doncaster Immingham W12 Gauge	Loading gauge enhancement	>4

5.4 Government strategies

The importance of rail freight's role for the UK is reflected in the recent strategies set out by the Scottish Government in 2015 ("Delivering the Goods – Scotland's rail freight strategy") and the UK Government in 2016[1]

Both strategies are very clear that changing pattern of consumption (e.g. as driven by the rise of internet shopping and next-day / same-day deliveries) present challenges for the traditional operating model of rail freight and set out clearly that "the rail freight industry will need to innovate and respond to these challenges". These challenges are being actively addressed by the sector.

The DfT's strategy sets out both the economic and environmental benefits and the increasing contribution rail freight could make to the UK. Crucially, the strategy recognises the importance of a stable public policy framework. The 2016 strategy sees the UK Government's main contributions being:

- Helping to foster the necessary innovation and skills
- Ensuring suitable network capacity and capability is available, through means such as digitalisation, better use of existing capacity and enhancements
- Supporting a stable and affordable track access charging regime
- Ensuring the benefits of rail freight are more widely understood

Transport Scotland's strategy places rail freight in the overarching Scottish National Freight Strategy as well as the wider Scottish Economic and National Transport strategies. Whilst designed to support the Scottish economy and competitiveness, and to address environmental benefits and rural accessibility, the strategy also seeks to address the market issues following the decline of the coal sector.

This RSP sets out Network Rail's approach in response to the challenges set by the Governments in those documents with a vision and plan to lead the sector's response

5.5 Freight growth forecasts

As summarised in the table below, since 2013 there have been four main rail freight market studies addressing growth potential for the sector:

Review	Date	Author	Purpose	Comment
Freight Market Study	October 2013	MDS Transmodal	Support the rail industry Long Term Planning Process including Route Studies and Freight Network Study.	3% growth pa until 2043; Intermodal 5% growth pa; 1% pa Construction growth understated; Based on assumptions re price of oil/drivers wages and, crucially, unconstrained capacity.
DfT Rail Freight Strategy	September 2016	Arup	Understand volume growth potential, constraints and potential for carbon emissions reduction.	Different methodology than MDS
Transport Scotland Rail Freight Strategy	March 2016	Industry	Detailed commodity studies	Published and work in progress
FNPO Strategic Business Plan	December 2017	MDS Transmodal	Update the 2013 Freight Market Study forecasts	Improved construction sector assessment methodology, revised network capacity constraint sensitivity analysis.

[1] "Rail Freight Strategy – Moving Britain Ahead" – September 2016.

Although the various studies had different purposes and different methodologies, the results are broadly consistent in terms of direction, varying mainly on the trajectory and timing of growth; common themes throughout being:

– **Decline in coal**

This has been predicted for years, but the rate and scale of change arising from the Government's April 2015 Carbon Tax changes was not anticipated; sector witnessed a far greater and faster decline in coal volumes than forecast. This is not surprising given that the severity of the impact was unforeseen (even at the time) by the market.

– **Growth in intermodal**

Import and export of containerised goods through the major ports, between UK strategic rail freight interchanges/terminals and through the Channel Tunnel.

Although these sub sectors of the intermodal have market differences, for forecasting purposes they have sufficient similarity once on the rail network to be treated together. There is a common view that further intermodal growth is likely, achievable and desirable – there is less consensus on the form that growth will take, the rate of growth for each segment and the nature and scale of constraints, and how to address these.

– **Growth in Construction, especially bulk aggregates**

The Freight Market Study anticipated growth of c1% pa in this sector whereas since 2012 volumes have grown by over 3.5% per annum.

This is significant given the importance of London, the South East and East Anglia for aggregates traffic meaning that fast growing rail freight volumes need to use the same rail infrastructure as passenger operators who are addressing similar levels of growth.

5.6 Freight market study – 2017 forecast

As part of our assurance work to ensure our CP6 forecast aligns with the freight sectors outlook, MDS have undertaken a market study. The methodology adopted is broadly consistent with that previously employed with the 2013 Freight Market Study forecasting, the major exception being that constraints have now been applied to modelled traffic growth.

The 2013 Freight Market Study projected significant potential rail freight growth between 2011 and 2043. However, there have been various exogenous developments since 2013 that were not foreseen in the Freight Market Study forecast, such as:-

– Government energy and environmental policy changes led to a far sharper decline of ESI coal than previously assumed
– there were lower fuel and wage price levels which are more beneficial for road transport compared to rail and removed one of the main incentives for non-rail users (especially in the retail sector) to consider)
– the extent of rail served warehouse construction has been less than expected
– capacity constraints on the network have persisted, which has constrained the rate of growth of certain traffic flows

The combined effect has been significantly lower overall traffic growth than expected; although Construction traffic has been one market segment that has gone against this trend, seeing growth far in excess of the assumptions in 2013.

MDS Transmodal has based its analysis on four scenarios for 2023/24 growth compared to the 2016/17 base, to reflect the inherent uncertainty in forecasting rail freight traffic and the dependency on factors outside of the control of the freight operating companies or Network Rail.

The scenarios are:
A2: factors which favour rail relative to road, with low market growth;
B2: factors which favour rail relative to road, with high market growth;
C2: factors which disfavour rail relative to road, with low market growth;
D2: factors which disfavour rail relative to road, with high market growth.

The approach used by MDS Transmodel is generally the same as it used in its previous work to produce the forecasts that were used by Network Rail in our 2013 Freight Market Study. There is one major exception being that MDS Transmodal has now applied capacity constraints to modelled traffic growth in the new forecasts whereas the 2013 modelling was based on unconstrained growth. This has given two additional scenarios:

A3: factors which favour rail relative to road, with low and constrained market growth. As per scenario A2 but with network constraints;
B3: factors which favour rail relative to road, with high and constrained market growth. As per scenario B2 but with network constraints.

The table below summarises the results for freight lifted in 2023/24 for the four unconstrained (A2 – D2) and two constrained scenarios (A3 and B3).

Million tonnes	2016/17	A2	A3	B2	B3	C2	D2
Total freight	85.8	104.6	101.5	128.2	119.7	78.4	97.1
Change on base	-	22%	18%	49%	40%	(9%)	13%

Freight lifted in 2023/24 (million tonnes)

We consider that MDS Transmodal has produced a robust analysis and that setting out the analysis in terms of separate scenarios for future traffic levels is appropriate given the inherent uncertainty in forecasting rail freight growth. We recognise that other scenarios could of course be described but we consider the scenarios modelled by MDS Transmodal appropriate, given the uncertainty of UK and Scottish government policies out to 2023/24, the wider macro-economic environment, and the specifics of the rail freight market.

5.7 Traffic forecasts employed in our CP6 plan

For the purposes of this RSP we need to adopt a single traffic forecast from which we may derive the baseline income levels and so too inform our asset management plans and maintenance costs at more granular level across our Routes.

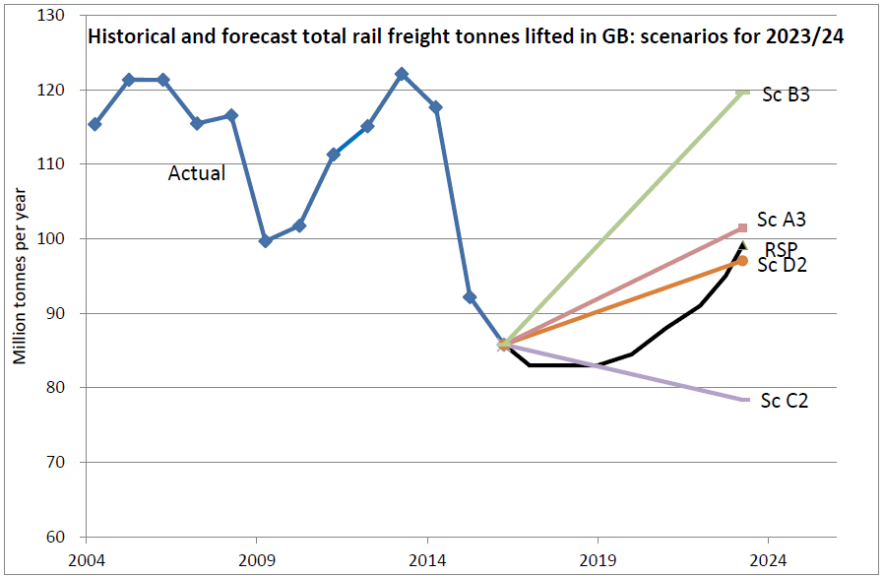
Our current view is that whilst there remain a number of key uncertainties there will be a broadly benign rail policy environment for CP6. In particular, both the UK and the Scottish governments have clearly expressed their support for rail freight, its benefits and continued growth. Moreover, our CP6 plan includes proposals for stable and sustainable track access charges and other initiatives to support rail freight growth. Funding to support freight enhancements in CP6 is very important, albeit any investment would most likely only support growth in the latter part of CP6 and into CP7.

Notably our forecasts recognise the timeframe associated with completion of those network capacity enhancements that will unlock forecast growth in rail freight volumes on certain key corridors. For instance; whilst the CP5/early CP6 Trimley Loop scheme enables +10tpd over the Felixstowe Branch, until the completion of capacity works further along the corridor at Haughley Junction, Soham and Ely, only a fraction of this traffic frequency uplift can be realised.

Finally, given some of the uncertainties around the UK's economic growth prospects, in part due to Brexit, and that ORR, DfT and Transport Scotland have not yet confirmed the position on freight track access charges or other elements of possible support, we are not able to finalise our CP6 forecast.

For the purposes of this version of the CP6 plan, as shown in the graph below, we are assuming the average of the two pro-rail constrained

scenarios (A3 and B3) and the two pro-road scenarios (C2 and D2). This is equal to 15.6% total growth in freight lifted between 2016/17 and 2023/24. It is equivalent to 2.1% growth per annum.



5.7.1 Capacity constraints

Forecasting unconstrained growth as part of our CP6 planning is not appropriate. As part of their scenario analysis MDS Transmodal has assumed capacity constraints on a number of key nodes around the network. This has had the effect of reducing the forecast growth in the two 'pro-rail' scenarios by 3% and 7%, for the low growth and high growth scenarios respectively.

Applying capacity constraints very accurately would be a complex exercise, requiring extensive analysis of the network, future passenger demand, network enhancements, timetabling optimisation options and possible alternative routing possibilities. In this study, a comparatively high-level approach has been undertaken, by limiting the number of freight paths at key points on the network facing capacity constraints. Ahead of further work and finalisation of our CP6 forecast we will undertake further consideration of how capacity constraints are applied in the forecasting.

What is notable, based on the lost growth from the pro-rail scenarios, is that there are corresponding lost economic benefits from modal shift. Using approximate values of mode shift benefits (reflecting the environmental and social costs of HGV journeys) gives a lost value of up to £89 million per annum. Using WebTAG assumptions, this reveals lost mode shift benefits of between £1.7bn and £4.7bn (depending on chosen constrained growth scenario). This provides further justification for the case for freight network enhancements set out elsewhere in this plan.

We intend to update and finalise our forecasting during 2018 as part of our response to ORR's draft determination. This will provide us with the opportunity to undertake a wider consultation on the current MDS Transmodal study and the assumptions used. In addition, when we update the forecast we expect to have further clarity on key CP6 policy parameters and other exogenous factors which will allow us to set out a CP6 forecast with more confidence.

5.8 Rail freight - a framework for growth

The rail freight strategies of the UK and Scottish Governments, supported by both our traffic forecast for CP6 and wider sector opinion, suggests that there are:

- *Immediate* opportunities for rail freight volume growth, particularly across the intermodal, construction and automotive sectors
- *Longer term* opportunities in emerging new markets such as retail logistics, express freight and urban logistics

FNPO considers that rail freight growth levels as envisaged by MDS Transmodal, and desired by the Governments' rail freight strategies, can be achieved – but only if an appropriate framework is put in place to develop infrastructure capability and capacity, and to fairly charge for access to it. Such a framework would then serve to create the operating conditions for an economically sustainable rail freight sector and so a rail freight offer that is both attractive to potential end-users and provides the maximum socio economic gain at lowest cost to funders.

FNPO proposes to lead the development of such a framework for rail freight growth that will variously:

- Underpin continued high levels of safe and reliable operational freight performance on the network
- Respect the open, fair and competitive freight market
- Require as stable a public policy framework as possible, including sustainable charges for access to the network
- Ensure that private sector investors retain the confidence to invest – over £2bn has already been invested in privately held rail freight assets
- Make the case for public sector investment in necessary network infrastructure
- Create conditions for further third-party investment in the network and terminals
- Facilitate freight end-users and FOCs driving efficiencies in their businesses
- Ensure industry processes and procedures are easy to understand.
- Give confidence that freight will be treated fairly in NR's devolved organisational structure
- Facilitate and support advocacy of the benefits of rail freight

The provision of services to rail freight end-users can involve numerous industry parties who necessarily work together in an integrated manner. For each end-user this will include Network Rail and at least one (and often more than one) FOC - and potentially rolling stock providers, rolling stock maintainers, product suppliers, terminal operators, property developers, 3PLs and providers of specialist services such as un/loading and product handling.

The lead party in each instance may differ, but Network Rail remains the only constant owing to the need to access, and use, the national rail network. In addition, Network Rail:

- Owns the majority of the property sites adjacent to, and in many cases connected to, the national network potentially suitable for freight use
- Possesses a unique combination of rail operational and property development knowledge
- Has in-house capability to design and deliver infrastructure works to facilitate new / enhanced railhead facilities
- Has responsibility for the long term strategic planning of the national network to provide for future freight related capacity and capability
- Has an established facilitation and advisory position across the rail freight sector, with unrivalled access to market information

This places Network Rail and FNPO in a unique and pivotal position in the rail freight supply chain and means that within such a framework focused on sector growth, Network Rail is ideally placed to provide leadership and advocacy for the sector.

5.9 CP6 – initial focus and plan

In line with our framework for growth agenda and in support of the sector in delivery of their aspirations, CP6 will see the continuation of preparatory work already underway wherein FNPO are working collaboratively with customers and key stakeholders to*:*

- Facilitate an acceptable access charging solution for CP6
- This will be achieved by working with ORR, DfT, Transport Scotland, FOCs and others to demonstrate the benefits of, and risks to, rail freight volumes to allow an acceptable series of trade-offs that will provide for stable and sustainable track access charging levels
- Put in place relationships with the System Operator and the eight geographic routes to support the framework and its objectives
- This will be achieved through the use of scorecards and establishment of an internal “Level 1" quarterly process between FNPO, the System Operator and each geographic route
- Work with the NR geographic routes to:
    - Ensure freight inputs (e.g. forecasts and specifications) are considered
    - Ensure each route has an appropriate regime for the management and maintenance of freight only infrastructure and yards & sidings
    - Review freight performance to ensure the train plan is robust and to ensure customer requirements and targets are being achieved
    - Review other outputs (e.g. number of TSRs) and freight costs.
- Lead the production of the industry plan required by the Scottish Government

The intention of the Scottish Government is to help drive rail freight growth into new market segments following the decline in Scottish coal production and use. The key focus of the plan will be on what is needed to persuade customers in the target market sectors (e.g. retail, forestry) to use rail and hence for the Scottish Government’s growth target for rail freight to be achieved by the end of CP6.

This plan to facilitate new rail freight growth in Scotland will need to address:

- How to overcome the legacy of the limitations of Scottish rail infrastructure north of the Central Belt which currently inhibit freight capacity and capability
- How to develop an innovative new rail freight offer that reflects the dispersed nature of the population and economic activity across much of Scotland
- The role of rail freight in the new Scotland Rail Enhancements & Capital Investment Strategy
- The specification for freight gauge capacity which will form part of the Scottish Gauge Requirement (SGR)
- The development of a potential freight journey time metric, for assessment over CP6 as to how deliverable it might be
- How performance will achieve 94.5% Freight Delivery Metric (FDM) by the end of CP6

The plan will fulfil the requirement that Network Rail ‘‘clearly demonstrates throughout CP6 that it is using all levers at its disposal to make the use of rail freight attractive across Scotland, including the simplicity of processes and a flexible approach to accommodating new rail freight traffic’’.

5.10 The 15-year horizon

Building on the foundations to be laid in CP6, a framework for growth demands a longer term perspective, indeed the realisation of many of the physical network and terminal interventions required to facilitate sector growth necessarily span multiple control periods.

To this end the following sections consider the specific areas of intervention and action that will collectively constitute the framework for growth over the 15 years beyond the current control period (so through to end of CP8 / 2034), a timeframe that nests within that of the FNS.

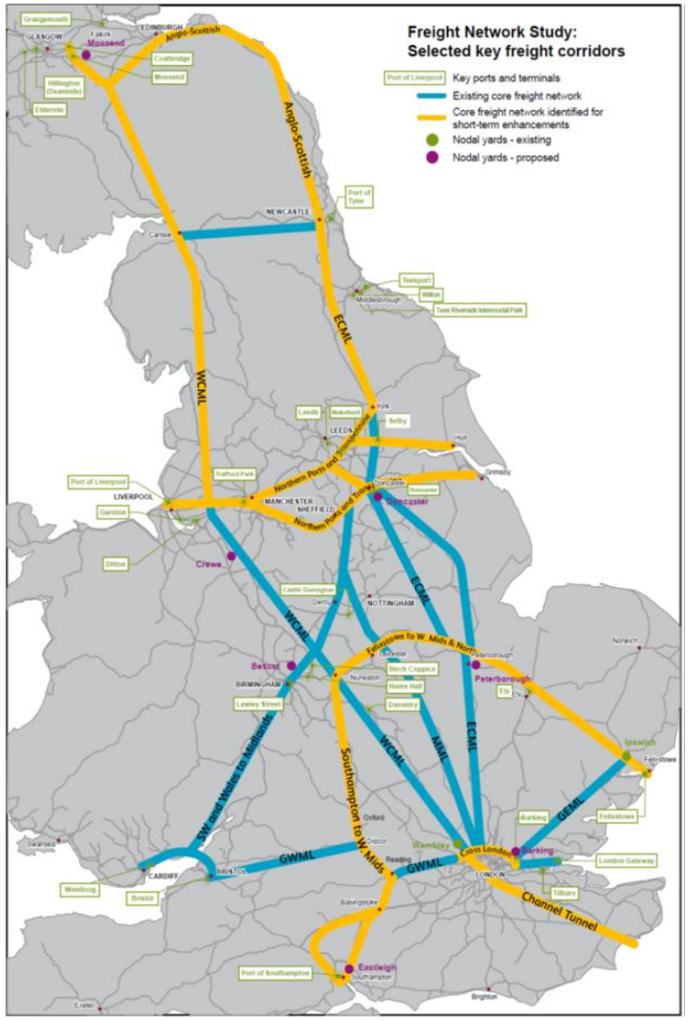
5.11 Realising a Strategic Freight Network

The concept of a Strategic Freight Network was originally enshrined in the Department for Transport's 2009 vision for rail freight "Strategic Rail Freight Network: The Longer Term Vision" which formed the centrepiece of DfT's rail freight strategy between 2009-16 and was supported by the CP4 and CP5 "Strategic Freight Network" ring-fenced enhancement funds.

This promoted the progressive realisation of a core network of freight-capable rail corridors linking the nation's key deep sea, short sea and bulk ports with the terminals and railheads serving centres of production, distribution and consumption – a strategic freight network.
The corridors forming would conform to a consistent set of operational benchmarks; namely:

- W10/W12 loading gauge
- 775m length functionality (650m minima & 1500m aspiration)
- RA10 without infrastructure driven speed restriction
- Electrified (25kV AC, though noting the DfT's current position set out in 2016 by the Secretary of State).
- 24/7 availability (through core & diversionary routes)

Such corridors would be augmented by a network of Nodal Yards, located at key corridor intersections, optimising freight path capacity over adjacent corridors on an increasingly heavily-utilised network.



The map above illustrates the envisaged Strategic Freight Network.

The preparation of the 2017 Freight Network Study entailed significant sector input in identifying a consensus around key capacity and capability constraints. As a result, the rail freight sector already has a large measure of agreement on the key capacity and capability gaps beyond the end of CP5 by rail freight corridor.

The FNS referenced 11 key rail freight corridors and flagged the freight capacity and/or capability gaps for each as summarised in the table below:

Table 6.1: Summary of Capacity Gaps

Corridor	Driver of Gap						
	Capacity Constraints	Diversionary Route Capability	Operational and Timetable Constraints	Line Speed Constraints	Insufficient Gauge Clearance		Electrification of Route section
					W10	W12	
1. West Coast Main Line	■	■	■	■		■	
2. East Midlands and Yorkshire		■	■		■	■	■
3. Felixstowe to the West Midlands and the North	■		■			■	■
4. Southampton to the West Midlands and the WCML	■	■	■	■	■	■	■
5. Channel Tunnel freight		■	■		■	■	
6. Cross London freight flows	■	■	■				
7. South West & Wales to the Midlands	■	■	■				■
8. Northern Ports & Transpennine	■	■	■	■	■	■	■
9. Midland Main Line	■		■	■	■	■	
10. Great Western Main Line	■		■				■
11. Anglo-Scottish & Northern regional traffic	■	■	■		■	■	■

To address these constraints the FNS put forward an array of suggested infrastructure enhancement options, from grade separation at key junctions to additional regulation loops or additional running lines.

Achievement of such an expanded Strategic Freight Network requires a long-term approach and FNPO will work to lead the sector in translating the FNS intervention options into a prioritised programme of works that will progressively realise the core components of the envisaged Strategic Freight Network over the 15 year horizon referenced earlier.

Based on this gap analysis, the table in Appendix C illustrates a proposed sequential ordering of the development and delivery of interventions across all 11 key corridors over a 15 year horizon to deliver the core features of a Strategic Freight Network. It should be noted that Appendix C is a list of investment options and none of the schemes are committed.

The investment options identified in Appendix C also clearly illustrate that realisation of such a programme requires a commensurate long-range funding envelope, cumulatively in the order of £2bn.

Recognising that the CP4 & 5 model of ring-fenced central government funding for SFN enhancements may not apply in future control periods and that the case for any such central government funding is strengthened not only by compelling BCR's but also the attraction of other contributory funding sources, FNPO will seek to leverage contributory funding opportunities from a range of parties and sources such as:

- Regional development bodies or Local Enterprise Partnerships – where such enhancements align with regional economic development agendas
- Principal beneficiaries – where such enhancements deliver demonstrable business benefits to rail using businesses (e.g. ports, quarries, manufacturers)
- Ring-fencing (or otherwise recognising) the value generated by the Network Rail freight estate, if appropriate. The freight estate has the potential to become a "prime mover" supporting future freight network enhancements – offering a direct, incentivised, linkage between further development in the scale of freight estate activity and the resultant incomes then supporting freight network enhancements

5.12 Terminals

Critical to facilitating rail freight growth are the terminals that provide the origins and destinations of freight traffic; ranging from a simple single customer facility with hard standing adjacent to one siding to multi-acre facilities encompassing sophisticated rail linked warehousing.

Network capacity and capability enhancements are ineffective if there is insufficient terminal capacity to accommodate the traffic they enable, such capacity being a function of both the number of terminals and their respective individual capability.

Set out below are the terminal-related demands of the two sectors offering the most immediate growth prospects:

– **Intermodal:**

Additional inland terminal facilities are required and this need is primarily addressed by Strategic Rail Freight Interchange (SRFI) developments.

SRFI's are typically 60Ha plus in size. As the Network Rail freight estate lacks locations of this scale in the UK's distribution heartland, such facilities are typically privately developed on third party land.
They feature extensive on-site commercial warehousing. This is necessary to attract retail customers given their business models and to generate returns sufficient to justify the rail infrastructure investment costs.

In these cases, FNPO's role varies from advocacy for planning consent through facilitation of physical connections to the provision of suitable capacity to run trains.

– **Bulk / Construction:**

These sectors are dependent on developing an appropriate network of railhead facilities (such as aggregates distribution points, asphalt plants, concrete facilities, batching plants etc.) in and around Britain's principal population centres where commercial construction activity is focused.

The location and scale of sites in Network Rail's freight estate often coincides with the needs of these sectors. Increasing the availability of additional such rail-connected sites within Network Rail's freight estate will be key for FNPO.

In these cases FNPOs role includes helping to identify suitable Network Rail sites for use, putting in place suitable commercial lease and connection agreements and ensuring there is suitable capacity available to run trains.

FNPO also has a key role in helping develop innovative solutions to provide cost-effective loading and unloading solutions in cases where a permanent solution is either not feasible or unaffordable. These may include lineside loading under licence (either from a network siding or a running line), which avoids the cost of new connections and sidings. It is ideally suited to lower frequency traffics (i.e. weekly or less) or for campaign / sporadic traffic flows.

Its application is inevitably subject to consideration of timetabling and infrastructure limitations but the FNPO team will draw on recent successes to develop a Loading on the Line (LoTL) template and promote wider application of this technique.

5.13 The Network Rail freight estate

The Network Rail freight estate currently generates some £20m p.a. rental income and can be divided into four categories:

- Sites in active rail freight use by rail using tenants
- Sites under long lease to FOC's (yards, TMDs etc.)
- Strategic freight sites and Supplemental Strategic freight sites (SFS and SSFS) as defined under the 1994 Agreement held pending freight traffic development and potentially under short term lease to non-rail users
- Other land let or vacant currently within the freight estate portfolio

At privatisation, much of the active freight estate was vested with the FOCs by way of long, peppercorn head leases; the FOCs in turn sublet sites to rail freight end users on commercial terms. Under the freight estate acquisition programme in 2014 (also known as "*Project Mountfield"*), Network Rail took a controlling position in the freight estate - through a self-funding commercial arrangement whereby the FOCs surrendered their head leases. One effect of this was to separate the landlord and haulier relationship for end user tenants.

The effective utilisation of the freight estate plays a significant role in facilitating traffic development in the key growth sectors and CP5 has seen the Network Rail freight and property teams working closely to develop and pilot new models of freight estate development.

These models are founded on gaining an understanding of the rail freight user's needs and then seeking to identify, promote and exploit latent capacity in the freight estate to host additional rail freight activity – where possible harnessing resultant lease value to support initial site development, for instance:

- Intensification of tenure on existing active tenanted sites
- Development of new marketable freight sites, development costs funded through part disposal for non-freight or non-rail development
- Identification of new sites capable of multiple tenure; multiple tenants sharing site rail development costs under a rental concession

With rail-using tenants investing in such sites to create facilities that serve their business needs the NR freight estate is the focus of significant private sector investment – circa £1.5m since 2014 alone, with a pipeline of a further £2m by the end of CP5 and potentially in the order of £10m through the course of CP6. Such transformative private investment see's the NR freight estate become an integral part both of the rail freight service offer and our tenant's production infrastructure.

5.14 Strategic Freight Sites

During CP5, Network Rail FNPO, Network Rail Property and the FOCs have worked together to reinvigorate the composition of the strategic freight site portfolio held by Network Rail.

This exercise objectively:

- Identified those sites lacking demonstrable future freight utility (for subsequent release for other non-freight or non-rail development, with a number being released for residential development in support of national governmental housing supply policy)
- Added previously unrecognised sites with demonstrable freight potential to the list and so protecting them for future rail freight use

Network Rail now holds a market-relevant portfolio of sites with genuine potential freight utility that can now be actively promoted for freight-tenure and traffic development. The process of site list review remains ongoing in the light of emerging market trends and needs.

Going forward, the FNPO and Network Rail property team will begin to consider the portfolio strategically on a regional basis, focused on the nations principle population centres. This approach will seek to ensure that NR has the freight estate availability to accommodate emerging rail freight demands – from bulk construction sites today to urban logistics hubs tomorrow.

5.15 Freight Estate Disposals

The 2015 review undertaken by Sir Peter Hendy into the planning of Network Rail's CP5 enhancement programme identified the scope of raising some £1.8bn of capital receipts to support the railway upgrade plan. This potentially includes the sale of freight property. Network Rail is still exploring whether there are means acceptable to Network Rail, the freight sector and government to release value from the freight estate.

Currently, work is underway by Network Rail's property team and FNPO to secure sector buy-in for, and conclude, the freehold disposal of a discrete portfolio of freight sites. This action will see value from the freight estate supporting the delivery of Network Rail's CP5 enhancement programme.

The programme (Project Falcon) will be subject to detailed input from sector stakeholders to ensure that the sale portfolio and deal structure does not have a detrimental impact on existing freight traffic activity and future development.

Most importantly any such disposal approach must not serve to adversely impact confidence amongst those very end users currently investing in and developing traffic from the NR freight estate.

5.16 Planning protection for freight site usage

Against a nationwide trend of increasing re-urbanisation there are increasing instances of residential development on land adjacent or very near to established or potential urban freight sites. Unchallenged, such adjacent development can subsequently see the imposition of environmental restrictions (noise, hours of activity) that can fundamentally undermine the utility of the sites.

Paradoxically, the normal times of planning restrictions of operating hours are frequently at odds with the operational realities of rail freight pathing on the adjacent network.

As a statutory consultee for town planning purposes, Network Rail therefore has a critical leadership role to play in making positive representations about rail freight to planning authorities to protect the long term operational viability of key rail freight sites.

FNPO will continue to work with Network Rail's property and town planning teams to better coordinate the company's response in such instances and will also provide factual input to key sector bodies (e.g. the Rail Freight Group and the Minerals Planning Association) articulating the socio-economic and environmental benefits of rail freight to inform their input in such cases.

5.17 The CP5 SFN programme

For CP5 Government built on the success of the CP4 SFN programme by making a further £235m of ring-fenced funding available for freight specific network enhancements overseen by the SFN steering group.

The table below notes the key schemes being delivered through the SFN programme in CP5 (*Felixstowe capacity starts in CP5, delivered in CP6):

Key schemes to be delivered for the Strategic Freight Network in CP5

Scheme	Expected cost	Target Completion	Outputs	BCR
Felixstowe branch capacity*	£52m,	Late 2019	Additional 10+ trains per day	>4
Southampton to West Midlands train lengthening	£48m	March 2019	Works to enable operation of 775m trains	2.73
Great Western Main Line gauge	£13.2m,	March 2019	Gauge clearance gauge (inc. Chipping Sodbury, Alderton and Severn Tunnels)	2.7
ECML Gauge clearance works	£4.5m,	July 2017	W12 gauge	6.2-7.2
Doncaster – Water Orton	£5.4m	March 2019	W12 gauge	7.7
Buxton to Peak forest train lengthening	£17m,	March 2019	Works to enable 2600t trains	4.0
Yorkshire Terminals W12 gauge	£10m,	Dec 2018	W12 gauge to Selby, Wakefield, Leeds	>4
Oxford 3 minute headways	£5.1m,	March 2018	Capacity enhancement	4.1
Northern Ports & Trans Pennine Capacity	£8m,	TBC	Port of Liverpool capacity enhancement works package	>4
Thames Gateway Level Crossings	£0.5m	March 2019	Train length increase, quantum study	>3

5.18 Other CP5 enhancement schemes with freight benefit

Recognising that on a mixed traffic railway the value of certain network enhancements accrues to both passenger and freight traffic operations; the table below illustrates the notable non-SFN funded schemes due for delivery during CP5 (or by end 2019) that will yield demonstrable freight benefits.

Scheme	Outputs
Stafford Area Improvement Scheme	Additional freight path per hour
Reading Station Area Redevelopment	Increased freight capacity
Crossrail W12 Gauge Clearance (Reading / Acton)	W12 Gauge
Gospel Oak to Barking Electrification	Electrification
North of England Programme (LNW)	Freight Capacity
Oxford Corridor Capacity Improvements	Train Lengthening
East Coast Connectivity Fund	Freight Loops (Northallerton - Newcastle)

5.19 CP6 candidate freight schemes

Through work undertaken with the sector in the derivation of the PR18 process and latterly within the SFN Steering Group forum; a broad consensus has emerged identifying that of the 11 freight corridors referenced in the FNS, 5 in particular warrant the most urgent intervention so as to address currently frustrated potential traffic growth.

The table below highlights some key interventions that are investment options, for each of these 5 high priority corridors. None of the schemes below have funds committed, as this document was submitted:

Key Freight Corridor	CP6 Candidate Freight Schemes	Estimated cost range
Felixstowe to West Midlands & the North	– Doubling of Haugley Jn – Signalling Headways Bury – Ely area (level crossings / bridge speeds) – Ely to Soham doubling – Peterborough - Syston signalling/level crossings – Syston – Sheet Stores gauge (W10/W12) – Further refine layout at Ipswich Yard	£10m – £15m £50m – £70m £100m – £250m £120m – £150m £50m - £60m £5m - £10m £1m - £5m
Southampton to West Midlands & WCML	– Kenilworth doubling	£100m - £170m
Channel Tunnel classic route	– Gauge enhancement (up to W12)	£50m - £80m
Cross-London, and Essex Thameside	– Ripple Lane Nodal Yard – Thameside Level Crossings (capacity)	£10m - £15m £30m – £40m
Northern Ports & Trans Pennine	– Trans Pennine gauge enhancement (up to W12) – New loop between Up Decoy and South Yorkshire Joint Line – Trans Pennine freight capacity	£100 - £200m £5m-£10m tbc
	Total	*c.£0.6bn - £1bn*

5.20 CP6 Other Schemes that could benefit freight

Examples of longer term (CP6 and beyond) schemes that have the potential to positively impact freight capacity and capability include:

– Grade separation of Werrington Junction, near Peterborough
– East-West Rail scheme linking Oxford with the West Coast and Midland Main lines
– HS2

With all such programmes, FNPO will work with the geographical routes and SO to be alert to the potential to realise freight capacity and capability benefits.

5.21 Capability and capacity

The baseline for freight network capability for CP6 will be:

– That which applies, or should apply according to the Sectional Appendices in terms of gauge (including Locomotive gauge), axle weight, route availability, train length, train speed and capability
– That which is currently provided through published heavy axle weight or gauging dispensation documents (i.e. RT3973HAW and RT3973CON forms)
– In respect of Scotland, Transport Scotland's HLOS requirement to achieve and maintain the Scottish Gauge Requirement

The FNPO approach to capacity and capability planning and funding is, wherever possible, for FNPO to work with the System Operator, Routes, customers and freight-end users to provide additional incremental capacity as efficiently as possible, obviating the need for significant capital expenditure, by:

– Developing and using Strategic Capacity & Strategic Freight Capacity
– Flexing existing train paths and reviewing train plans
– Supporting Service Plan Reviews to enable normalisation of longer and heavier services

The enhancement of the capability of existing rail freight services not only enables a more efficient and competitive rail freight sector (more payload for a given traction & traincrew resource), it can also reduce the need for investment in network capacity by making more efficient use of existing paths.

The Capacity Management Review Group (CMRG), is formed of FOC representatives, including timetable practitioners, who understand the detail of access contracts and rights, as well as Network Rail individuals who produce strategic paths, which go into the Strategic Capacity Statement.

Considering passenger and freight requirements jointly remains the preferred approach to larger scale capacity development and FNPO will work with the System Operator to identify and develop such proposals to ensure realisation of the full potential benefits.

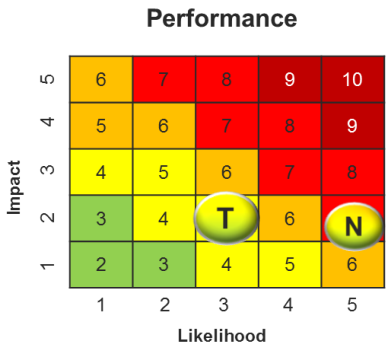
Where optimised use of the current network cannot support further traffic development the case for enhancement will be made, freight related enhancement on the network comprises four main categories:

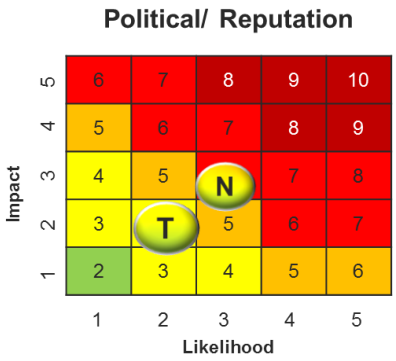
– Schemes planned, authorised and funded by the Strategic Freight Network ring-fenced fund and historically only progressed when endorsed by the SFN Steering Group
– Specific freight-only freight-focussed schemes planned, authorised and funded by routes or other programmes within Network Rail
– Freight schemes planned, authorised and funded either in whole or in part by other parties, including the Scottish Government and third parties such as ports
– Network enhancements which contain either direct or indirect freight benefits – e.g. re-signalling or electrification programmes

FNPO will be relentlessly focused on driving the best use of any enhancement funding; informing the scope of enhancements, driving out cost by design and maintaining oversight of efficient delivery.

Our activity plan to deliver our plan is summarised in the table below:

Summary of CP6 objectives		Strategic Capacity and Capability are two key areas for FNPO customers. The objectives and metrics associated with these areas are being developed for April 2018 and will be included in the annual review of the RSP		
No.	**Key Constraints, Risks and Opportunities**	**What we plan to do**	**Owner**	**Timescale**
1	O: Strategic Capacity receiving a timetable offer in the same way an operator does	From the December 2017 Working Timetable, a bid and an offer will be undertaken for Strategic Capacity. This process will continue for the remainder of CP6 and into CP6	Head of Strategic Capability	On-going through the next 7 years
2	R: Strategic Capacity paths for freight use are not protected 100%	Continue discussions with DfT and the wider rail freight industry to ensure a mechanism is in place to protect Strategic Capacity for freight use in a robust manner	Head of Strategic Capability	April 2019
3	O: Newly developed Strategic Freight Capacity paths for operator use	New paths to be developed on the key routes highlighted in the Strategy for Strategic Freight Capacity document based on the gap between existing freight paths and future requirement.	Head of Strategic Capability	On-going through the next 7 years
4	R: Lack of funding for freight capacity & capability improvement in CP6	Work with DfT and rail freight industry to articulate the issues and challenges if no funding is available to unlock capacity and capability in the next control period	Head of Strategic Capability	October 2018
5	O: End to end review of gauging process within the rail industry	FNPO will participate in an end to end process review of how we undertake and manage gauge and capability on the UK Rail Network. It is a complex process, with a number of parties involved both internal to Network Rail and external through TOC and FOC customers.	Head of Strategic Capability	Initial review by April 2018 and delivery by April 2019
6	O: Review and update of freight related publications and loads data	Undertake a review and update of RT3973 forms, Freight Loads Book, Specially Authorised Loads and Heavy Axle Weight permissions. These are key publications for freight customers and we will work with colleagues in the routes for asset information	Head of Strategic Capability	April 2019
7	O: Develop and deliver an interactive digital map showing rail network capability	Aligned to the review and update of gauge & capability and the freight related publications, development of a digital map that enables the user to click on a line of route and see what details on RA, axle weight information, capability of the network and permitted wagon/container combinations	Head of Strategic Capability	April 2020





Summary of risk outcome:
There is a risk that current capacity and capability constraints of the Network, is impacting train service performance and future business development opportunities, due to limitations in existing processes and funding availability. As part of FNPO transformation we have strengthened our team, by creating a new Strategic Capability team who will work closely with all stakeholders , SO and Route to identify process improvements that will mitigate the risk to allow us to achieve target risk profile

5.22 Freight access charges and policy

In 2013/4, ORR proposals as part of PR13 to significantly increase certain freight track access variable charges were mitigated when a “cap” was applied to bridge the difference between the assessed level of costs directly incurred (the minimum permissible under UK and EU law) and an affordable level of charges that would keep freight on rail rather than risk modal shift to road. As part of PR18, a similar debate is again underway.

In almost all markets, rail freight competes with road and other modes – the freight market in the UK is exceptionally competitive. Freight access charges cannot be viewed in isolation but must be seen in the context of their modal equivalents.

Throughout CP5, government policy has seen road fuel duty frozen, whilst freight track access charges have continued to increase in line with RPI.

Network Rail’s increasing Operations, Maintenance & Renewals (OM&R) cost base throughout CP5 now means that projected CP6 freight costs, if directly translated to freight access charges, would result in variable charges at a level that would be unaffordable and would risk modal shift from rail to road in most commodities.

5.22.1 Freight sustainable charging proposal

FNPO is proposing that, together with the FOCs and the wider freight community, we work with the ORR to:

– Assess and articulate the risk to rail freight volumes
– Articulate the economic and wider benefits of rail freight, and what the impact of any loss of rail freight volume would be
– Bring together a proposal to help the ORR to agree to a CP6 track access charge regime for rail freight that is affordable, if necessary by retaining caps on some variable access charges

It is recognised that the benefits of rail freight to the economy and the environment, are crucial and the proposal set out below, provides the justification for retaining sustainable charges.

The components of a proposal for sustainable charges that articulates the benefits of rail freight could include the following:

– **Commitment to the removal of unused paths that are not needed**

To date, circa 5000 freight paths have been removed from the timetable, and the regular review of any unused paths has become “business as usual”. FOCs have committed to continue this collaborative work throughout CP6 through regular reviews.

– **Freight Network Optimisation Plan**

A review is underway of freight only lines and infrastructure, to ascertain any parts of the network with no current or foreseeable use, that could be removed from the network in order to reduce OM&R costs. A proportion of associated cost savings could then be reinvested in order to improve the performance and capability of priority locations and routes on the remaining freight network, as agreed with the FOCs. The process and detail associated with reinvesting any costs saved, had not been agreed when this document was submitted in early 2018.

– **Removal of FOCs’ ‘Right to Roam’, resulting in lower OM&R costs of lines that become passenger only.**

FNPO and FOCs are reviewing sections or lines of route that have no current or foreseeable freight use. These would then be assessed to quantify potential OM&R savings. If it is agreed to proceed, these would then be removed from FOCs ‘right to roam’ within the Track Access Contract.

– **Bilateral Performance Strategies with each FOC**

FNPO has commenced establishment of joint performance strategies with each FOC. These have previously only existed with TOCs. FOCs would sign up to a strategy that includes FOC on TOC reduction targets, wagon and locomotive reliability improvement strategies and incident response strategies, as well as improvements in FDM.

– **Review of Schedule 8 incident caps**

FNPO and FOCs are examining ways both parties can be incentivised to reduce DPI (Delay Per Incident) for all incidents. Changes to the Schedule 8 regime around incident caps might improve this, although we recognise that Schedule 8 is not the only incentive on FOCs regarding performance, with customer impact generally a more significant consideration.

– **Further work**

FNPO will continue to work with the FOCs to further develop and expand the elements above and articulate into a formal draft proposition. This is an important piece of work, as without it, there is a risk that the DfT and ORR wouldn't have the justification to agree to sustainable charges, despite being supportive of doing so in principle.

5.22.2 Schedule 4

FNPO route has taken full ownership of the management of Schedule 4 claims from the previous position where this was managed by a central processing team. This allows for more rigorous management of the claims process, and links that process more closely to the requirements of Schedule 4 of the Track Access Contract.

FNPO will continue to work with FOCs and ORR to ensure that Schedule 4 is clear transparent and predictable, in order that FOCs are appropriately compensated for any costs associated with engineering access. The new Capability and Planning Manager in FNPO will work closely with Capacity Planning and the geographic routes to ensure that engineering access that impacts FOCs, is managed in the most efficient way.

5.22.3 Schedule 8

FNPO is leading discussions with the FOCs over the recalibration of Schedule 8 for CP6.

Our principle is that all parties are incentivised to improve performance so that overall delay to all train services reduces. This is being achieved through the setting of benchmarks that promote continuous improvement and the setting of incident caps and access charge supplements that encourage all parties to minimise all the delay that they cause.

FNPO will take responsibility for the impact of FOC-caused delay, and the geographic routes will take responsibility for the impact of Network Rail-caused delay. This will ensure that responsibility for management and driving change, sits with those who are more able to influence improvement.

These initiatives will help drive a reduction in overall delay and Delay Per Incident (DPI). We continue to work with our customers and geographical routes to agree our DPI target by December 2018.

5.23 Access planning

The planning and timing of engineering possessions on the rail network is critical for national passenger and freight operators and their customers, and one of their main areas of concern about the impact of route devolution. Ensuring assumptions, plans and delivery are coordinated across the national network, and fully take account of all operators business needs, is critical.

Freight is particularly sensitive to engineering access on midweek nights, as some 65% of services operate overnight. This is partly a requirement of market demand and partly a response to the need to avoid passenger services on busy routes during the day.

Co-ordination across routes to allow effective corridor operation, the availability of diversionary routes with the necessary capacity and capability and the forward planning of major possessions are key as both passenger and freight trains can be more readily diverted if access and diversions are appropriately planned.

There have been good examples of collaborative working which we intend to build on:

– Over time the provision and availability of diversionary routes (e.g Southampton to Didcot) has improved; and
– Aligning engineering access with customer needs – e.g. on the Oxford corridor when work was scheduled for the same time as the BMW Mini plant's annual shutdown

Network Rail devolved its Access Planning function from the centre to geographic routes during Spring 2017. The System Operator (SO) function will continue to support the Access Planning process and both FNPO and the System Operator will support route consideration of whole industry needs and value in engineering access planning and decisions. A national framework is being developed for the planning and prioritisation of engineering work and this will provide clear accountabilities between the System Operator, FNPO and the geographic routes.

Transparency of the approach to, and how, engineering access plans and decisions have been made will be critical to developing greater customer and stakeholder confidence in the process.

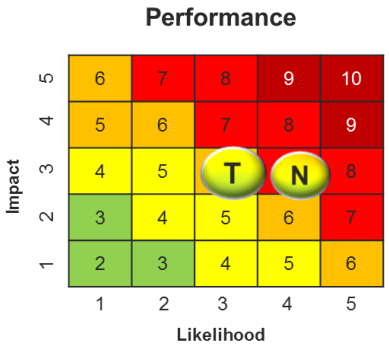
FNPO appointed a Capability & Planning Manager during June 2017, part of whose role is to work closely with FNPO customers and with the geographic route Access Planning Managers, to ensure that the requirements of national operators are fully taken into account.

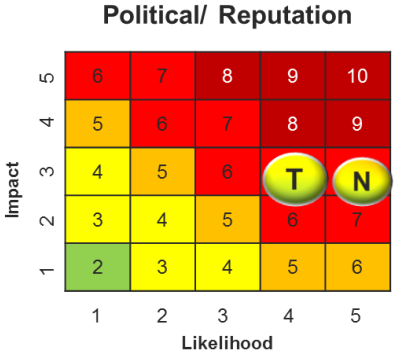
A key element of the rail freight "framework for growth" will be how increasing traffic volumes are handled when engineering access is needed. The provision of suitable gauge cleared diversionary capacity is a central element of the Strategic Freight Network concept and critical to offering customers in sensitive markets such as retail the 24/7 product they require.

FOCs support Network Rail with the provision to Supply Chain Operations of engineering trains for the maintenance and renewal of the network. These need to be fully planned to ensure efficient deployment of often scarce plant resource, as well as operational robustness and effective FOC resourcing in respect of locomotives, crews and wagons.

Our activity plan to deliver our plan is summarised in the table below:

Summary of objectives	Access Planning became an area FNPO become more involved in from April 2017, so the metrics and CP6 objectives are not as developed as others parts of the Route Plan. This will be addressed as part of the 18/19 scorecard process as we understand the issues and the options in more detail			
No.	**Key constraints, risks and opportunities**	**What we plan to do**	**Owner**	**Timescale (start/ finish)**
1	O: More robust end to end process for national operators & planning access	Undertake a review working with both internal access planning teams and national operators to identify how the processes and arrangements with planning access can be improved for cross route operations	Head of Strategic Capability	December 2018
2	R: Geographic Routes developing Access Plans/Strategies in isolation	Through the work of the FNPO Capability & Planning Manager, develop relationships with all routes to ensure an understanding and alignment with FNPO customers is known and taken account of.	Head of Strategic Capability	April 2018
3	O: Reduction in Disputes between geographic routes and FNPO customers	Categorise freight and national passenger operator services on key lines of route to give visibility to Access Planning teams to help improve the dialogue, access proposals and reduce disputes	Head of Strategic Capability	April 2019
4	R: Access Optimisation	As Network Rail explores ways of being more efficient, access optimisation is likely to be required. This could offer opportunities for wider industry cost reduction, but is also a challenge for national operators	Head of Strategic Capability	April 2020
5	R: Capacity studies not being completed	Work with train planning and access planning to identify where operators will require more detailed evidence of available capacity on diversionary routes and allocating this work to an appropriate Network Rail team at an earlier stage in the Engineering Access Statement process	Head of Strategic Capability	December 2018
6	R: Late changes to major projects	Previous major projects have made late changes to previously agreed access plans. The Capability & Planning Manager will work with project teams to improve their understanding of the problems this can cause for FNPO customers. Developing processes that enable better tracking of late change access proposals	Head of Strategic Capability	December 2018
7	O: Access Frameworks	There is an opportunity to revisit the access frameworks developed by Industry Access Planning (IAP) and by working with FNPO operators to update and improve these documents and where they can add value to the access planning process.	Head of Strategic Capability	December 2018





Summary of risk outcome:
With deeper devolution of geographic routes, there is risk that access planning overlooks the need of national operators due to lack of planning alignment across multiple routes. The newly created Strategic Capability team will work with route access planning teams in conjunction with customers, to improve the communication between parties and allowing joint early planning of the options and solutions. This will mitigate the risk to allow us to achieve target risk profile.

5.24 Asset Management and Sustainability

Historically, FNPO and, before it, Network Rail's National Freight Team, involvement in asset management has been limited and linked mainly to:

– Some aspects of consideration of Freight-Only infrastructure in the context of regulatory Periodic Reviews, freight costs and freight access charges
– Specific individual issues, often linked to either failures, incidents or an impact on performance

Network Rail's transformation programme and devolution offers the opportunity, and the need, for FNPO to engage more pro-actively to help drive accurate asset specifications for freight aimed at helping reduce cost and improving performance and efficiency in the geographic routes.

For CP6 a key issue linked to maintenance is ensuring the current operational capability of the network for freight and national passenger operators is retained and where possible enhanced.

5.24.1 Freight-only-lines

There are 116 Freight Only Lines (FOLs) across all commodities, which have a total length of 571 km. The annual cost of maintenance for all FOLs is approximately £16m (CP5 post-efficient).

In CP5 we can only charge a mark-up for FOL for usage by ESI coal, iron ore and spent nuclear fuel traffic (assessed by ORR to be able to bear a mark-up on the variable charge). In CP5 these mark-up charges totalled £4.39m p.a. at the beginning of CP5 but fell to £1.6m in 2015/16 and £0.8m in 2016/17 due to the decline in ESI coal volumes.

In the immediate term, a review of all FOLs and sites previously used for coal traffic will be undertaken during 2017/18 intended to highlight locations, where OM&R can be reduced and a more efficient use of assets identified.

5.24.2 CP6 Proposals

FNPO's working assumption for the purposes of this plan is that the ORR is unlikely to conclude during PR18, that any freight sectors other than ESI coal, spent nuclear fuel and iron ore can bear a mark-up over the variable access charge. This means that there will be very little direct linkage between CP6 access charges and Network Rail freight costs other than the assessment of "cost directly occurred by trains" that underpin variable access charges.

A significant proportion of Network Rail's assessed freight costs will then be funded via Network Grant (or any subsequent mechanism introduced). This flow of funds will form an important part of the basis for the relationship between FNPO and the geographic routes.

FNPO proposes that:

Taking the flow of funds as the starting point for the redefinition of the relationship, FNPO works with the routes to set out clearly and transparently the specification that has resulted in this allocation of cost to freight, including:

- Modelling of volumes by route
- Vehicle Track Interaction Strategy Model (VTISM) inputs and outputs
- Inputs and outputs from other work streams, including the work carried out for Planning & Regulation by Brockley Consulting

In parallel, for each route there is a clear and agreed capability baseline as of April 2019 that covers that is published in the Sectional Appendices and associated documents, but specifically also covers:

- Gauge, including Locomotive Gauge
- Running loop lengths and entry/exit speeds
- RT3973 and HAW restrictions
- An inventory of freight yards and siding capacity and capability
- Connections to third party infrastructure and clear mutual understanding of who maintains / renews and who pays the associated cost

Asset management is a standing agenda item on the "Level 1" FNPO/SO/Route proposed meeting held quarterly to address:

- Current issues
- Progress with initiatives
- Review emerging freight-specific and freight-allocated costs and outputs
- Assist business and budget planning

FNPO wants to develop the relationship with the routes to:

- Improve the knowledge base/specification for FNPO traffics to assist the efficient management of OM&R
- Ensure appropriate and cost-effective standards are being applied, especially to freight-only yards and sidings
- Help drive OM& R cost reductions within the routes
- Improve higher level freight infrastructure cost allocation to facilitate "whole-industry" discussions with stakeholders

5.25 Sustainable Development

Network Rail needs to meet industry good business practice in managing sustainability and work to improve its environmental and social impacts.

In July 2017, the Scottish High Level Output Specification (HLOS 6.28 page 9) stated that it required Network Rail to work with the industry to develop and deliver a metric for continuous carbon emissions reductions which is normalised to cover passenger and freight volumes and set against the baseline at the 31 March 2019. It went on to confirm, that a metric needs to be produced for measurement in CP6 which drives behaviours to reduce overall traction and non-traction energy use by the end of CP6.The aim is to monitor and reduce the overall environmental impact of rail. In addition, Transport Scotland requires Network Rail to work with the rail industry to develop KPIs for monitoring the impact and mitigation of climate change upon network disruption.

Our activity plan to deliver our plan is summarised in the table below:
During CP6, FNPO will work very closely both internally and with customers and stakeholders to develop strategies and plans to manage sustainable development. This will cover key areas such as air quality, weather resilience and promoting and helping to develop initiatives on the wider socio-economic and environmental benefits of rail.

No.	Key constraints, risks and opportunities	What we plan to do	Timescales
1	O: Waste minimisation	Undertake an annual review on how FNPO can reduce waste across the team	Annually through to 2024
2	O: Energy and carbon efficiency	Work closely with our customers to understand how they are developing initiatives to become more efficient with energy and carbon. Add agenda item as part of Level 1 meeting	Annual overview
3	O: Increase socio-economic benefits	Develop key messages on the socio economic benefits of rail working closely with customers and stakeholders	April 2019
4	R: Air Quality	This is a key issue for Governments in England & Wales and Scotland, for air quality limits and emissions reductions. FNPO will work with customers and stakeholders to understand how the sector is tackling this and build on its already low contributor to emissions	April 2020
5	R: Weather resilience	Work with geographic routes, customers and stakeholders to understand more on the impact of weather on the network and FNPO customer operations in particular.	December 2018
6	R: Managing environmental and community risk	Review and work with the Network Rail central team to develop the strategy	April 2019

5.26 Safety

The safe operation of trains, both on and off the network, is fundamental to the continued success of Network Rail and all our customers. Although our network is becoming busier, we are committed to continuous improvement in safety delivery and performance.

This CP6 strategy includes commitments to reduce customer lost time incidents (LTI's) on the network and freight derailments in yards and sidings infrastructure. We have proposed a CP6 programme for safer yard infrastructure and walking routes, which, if funded, will deliver a step change in conditions at many of the busiest freight sites.

Freight-only Infrastructure and freight & third party connections convey some of the heaviest trains on the network and the stewardship of these assets will be a particular focus for CP6.

Delivery of our planned CP6 objectives and action plan are, in part, subject to funding of £22m safety improvements across CP6 being agreed.

FNPO works collaboratively with all customers and the geographic Routes to:

– Build on existing levels of safety engagement and mutual understanding of safety risks
– Maintain high levels of network safety
– Identify and drive opportunities for further safety improvements

FNPO and Network Rail safety representatives attend the industry National Freight Safety Group (NFSG) – a freight-community specialist safety risk group that drives greater collaboration and understanding on safety issues aligned to risk areas identified in 'Leading Health and Safety on Britain's Railway'.

The Rail Delivery Group (RDG) Freight Group Duty Holders (consisting of FOC Managing Directors / Chief Executives and FNPO Route Managing Director) co-signed the Rail Freight Project Charter in 2017. This sets out a framework for greater co-operation between Duty Holders during the remainder of CP5 and into CP6 to identify the greatest risk areas impacting the sector and work together to agree effective risk control measures to mitigate these.

RDG Freight Group – signing of Safety Charter April 2017

Each FOC and TOC also has an established Level 1 strategic safety meeting structure with Network Rail FNPO Route and where necessary a supporting Level 2 tactical meeting structure. These meetings discuss safety performance, lessons learnt from investigations as well as areas for further co-operation to improve safe operations.

Within FNPO, safety metrics are monitored on a weekly and periodic basis through the Visualisation process. Our primary safety metrics on each of our customer scorecards are:

– Commercial Freight SPADs (16/17 total figure was 40 SPADs)
– Commercial Freight Derailments (16/17 total figure was 13 derailments)

These provide the base for future improvement. Our CP6 route objectives shows a substantial targeted improvement in derailments from 13 to 5, based on funding improvements to yards & sidings in CP6. In addition, freight SPADs are targeted to improve from 40 to 35.This is based on the individual efforts of Freight Operators and the collaborative commitment of the freight industry through National Freight Safety Group. This SPAD improvement is set against a background expectation of increased volume of trains, operating on the busiest parts of the rail network.

FNPO has worked with one FOC to develop a Customer Lost Time Injuries (LTI's) metric and Hazard Reporting protocol which has given greater and earlier visibility of hazards enabling these to be resolved before causing customer employee LTIs. This protocol will be offered to all other FOCs before the end of CP5.

FNPO are also measured on (i) the completion of Safety Hours each week and (ii) the reporting of Close Calls relating to safety conditions or observed behaviour.

With effect from August 2017 FNPO has a specialist Operations and Safety Manager. This will;

– Increase our team safety capability
– Help identify and drive specific safety improvements and initiatives within the route
– Building further collaboration opportunities with internal and external stakeholders

5.26.1 CP6 challenges and opportunities

FNPO recognises that the on-going process of devolution and the new relationship between FNPO and the geographic routes has the potential to increase (or change the nature of) risk. Safety will be a standard agenda item for the proposed quarterly "Level 1" meeting between FNPO and each geographic route.

To maintain and improve our safety performance through these changes will require;

– A determined and consistent focus
– A joint industry commitment to ongoing engagement to identify and reduce the shared risks of rail freight operation

In addition to National Freight Safety Group, and the Level 1 and 2 meeting structure with freight customers, this engagement is proposed to include a new regular forum with connected third parties to share best practice and understand the shared risks at connection points.

Both freight and passenger traffic levels on the network during CP6 are expected to increase from current levels with much of this traffic growth likely to be on the busier parts of the rail network. The main safety challenge from traffic growth is at the busier yards and terminals where maintaining safe access and methods of working, is paramount. To mitigate this, we propose a CP6 initiative to maintain and improve common methods of work for sidings and terminals and to investigate how these can be maintained digitally.

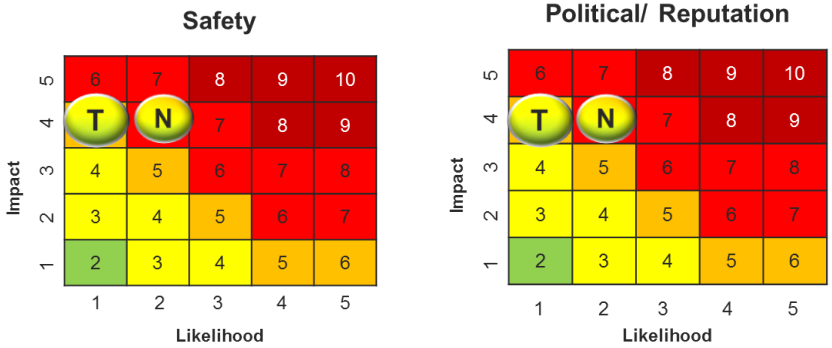
We are strengthening the FNPO team to help prepare for the challenges and opportunities associated with traffic growth:

– Intermodal - We will review and improve the current gauging and RT3973 processes
– Aggregates – We will make greater use of the latent capability of lineside equipment such as GOTCHA devices to manage the risks of traffic requiring a higher level of Route Availability by identifying offset loading and assisting operators with wagon maintenance through provision of dynamic wagon condition data
– Connections – With over 300 connected sites to the rail network, one of the key challenges remains the maintenance of yard and siding connections as well as the associated walking routes and underfoot conditions. To address this:
    - Joint Safety Tours with customers will be further developed with customers in CP6
    - A CP6 programme for safer yard infrastructure and safer walking routes is proposed, targeted at a step change in safety conditions at the busiest freight sites across the network. Subject to funding of £22m across CP6 being agreed, this programme is linked to substantial targeted improvement to Derailments and Operator LTI's on the network through CP6

Our activity plan to deliver our plan is summarised in the table below:

Summary of objectives	A programme that aims to reduce derailments, SPADs and injuries to Network Rail and customer workforce, in order to deliver a higher and sustainable improvement to our business safety maturity by 2024.			
No.	**Key constraints, risks and opportunities**	**What we plan to do**	**Owner**	**Timescales**
1	R: Safety risk when walking in network yard and siding infrastructure	Progress improvements to conditions in network yards and sidings to reduce Lost Time Incidents for our customers	Head of Network Management	Delivery of Programme from April 2019 onwards.
2	R: Safety and security risk from unauthorised third party access to yards and sidings	Identify highest risk sites for unauthorised access in network yards and sidings. Assess site risks and agree improvement initiatives to reduce risk.	Head of Network Management	Develop action plan with industry parties by April 2018
3	R: Derailment risk and incidents in yard and siding infrastructure	Investigate enhanced infrastructure solutions in yards and sidings that better supports fail safe operations. Create a prioritised CP6 programme for investment in yards and sidings, subject to funding	Head of Network Management	Delivery of Programme from April 2019 onwards.
4	R: Risk to Train Drivers safety when using walking routes for train crew relief	Define train drivers walking routes used. Instigate regular 'Go Look See' checks on drivers walking routes to identify hazards and reduce Lost Time Incidents for our customers	Head of Network Management	Delivery of Programme from April 2019 onwards.
5	O: FOC LTI and Hazard Reporting on NR infrastructure process	Build improved consistency with all customers for reporting FOC staff accidents, hazard identification and resolution. This follows the processes trialled with Freightliner during 2017 and being offered to all FOCs .	Head of Network Management	Share at regular L1 Safety Meetings from April 2018 and into CP6
6	O: SPAD Improvement Strategy	Work with NFSG to use available SPAD precursor research to understand and develop plan to reduce the number of SPADs. Work with FOCs to create a forum to review SPAD incidents, share learning and best practice to add depth to industry SPAD improvement plans	Head of Network Management	Annual plan to be agreed with FOCs May 2018
7	O: Train Loading and Wheel/Rail interfaces	Build understanding within the freight sector of asset management issues especially between fixed rail infrastructure and rolling stock. Focus of Cross Industry Freight Derailment Working Group – support action plan	Head of Network Management	On-going workstream for remainder of CP5 and into CP6.

8	O: Industry Joint Safety Tours	Extension of Joint Safety Tours initiative started during CP5 to target 30 key sites per annum during CP6 agreed with customers for Safety Tours	Head of Network Management	Safety Tours schedule agreed each March from March 2018 then annually
9	O: Improved Safety Critical Communications	Work with Freight Industry to review existing communications protocols and agree improvements in line with Communications Review Group	Head of Network Management	Review outputs of CRG through 2018.



Summary of risk outcome

. Throughout the remainder of CP5 and intoCP6, we will reduce the likelihood of a safety incident occurring on Network Rail managed infrastructure by implementing a number of initiatives benefiting workforce and passenger & public safety, including improvements to walk routes in yards and sidings and as well improvements to the safety and security of our sites. This will mitigate the risk to allow us to achieve target risk profile.

5.27 Train Performance

A new customer-focussed performance framework was introduced for CP5 with two primary metrics:

– Freight Delivery Metric (FDM) - measuring Network Rail's ability to provide a reliable infrastructure and train paths by measuring whether a commercial freight train has arrived at destination within fifteen minutes due to Network Rail reasons
– Arrivals to Fifteen (A2F) – measuring whether a commercial freight train has arrived at destination within fifteen minutes. This metric reflects the ability of Network Rail and freight operators to deliver a train to destination within the required timescale

These changes drove two key strategic performance initiatives:

Managing freight performance by Strategic Freight Corridors (SFCs) which allowed stakeholders of trains on specific flows to look at the holistic (usually cross-route) journey, understand problems, and put in place performance improvement initiatives. Examples include:

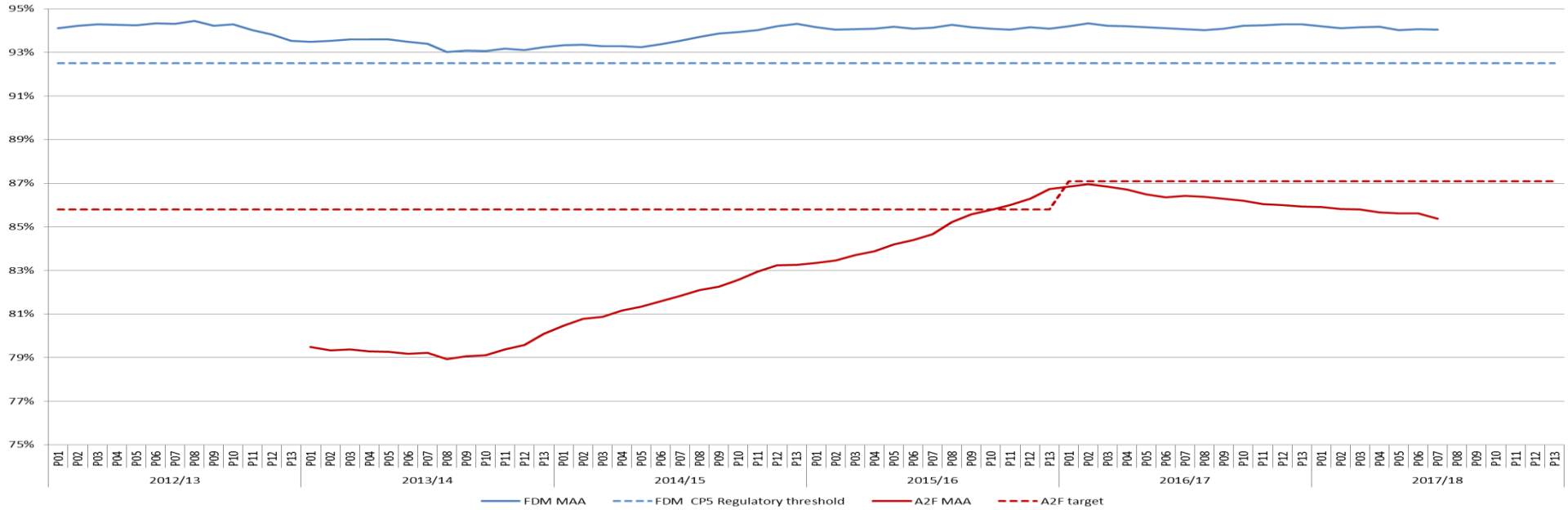
– The introduction of a control room at Felixstowe to improve overall performance on the Felixstowe to Midlands/Northwest freight corridor
– Initiatives at Acton to improve the performance from Somerset to London and the South East
– The introduction of a terminal plan at Daventry, which enabled changes to the occupancy plan
– Improvements to the right time performance of the Immingham Iron Ore flows
– Review and improvement to the train plan at Southampton to improve reliability

The introduction of Freight Service Delivery Managers (FSDMs), who are part of FNPO but are based in Network Rail's National Operations Centre.

The sector has made large improvements in performance with all the key performance metrics at, or close to, their highest-ever points across CP5 to date. These include

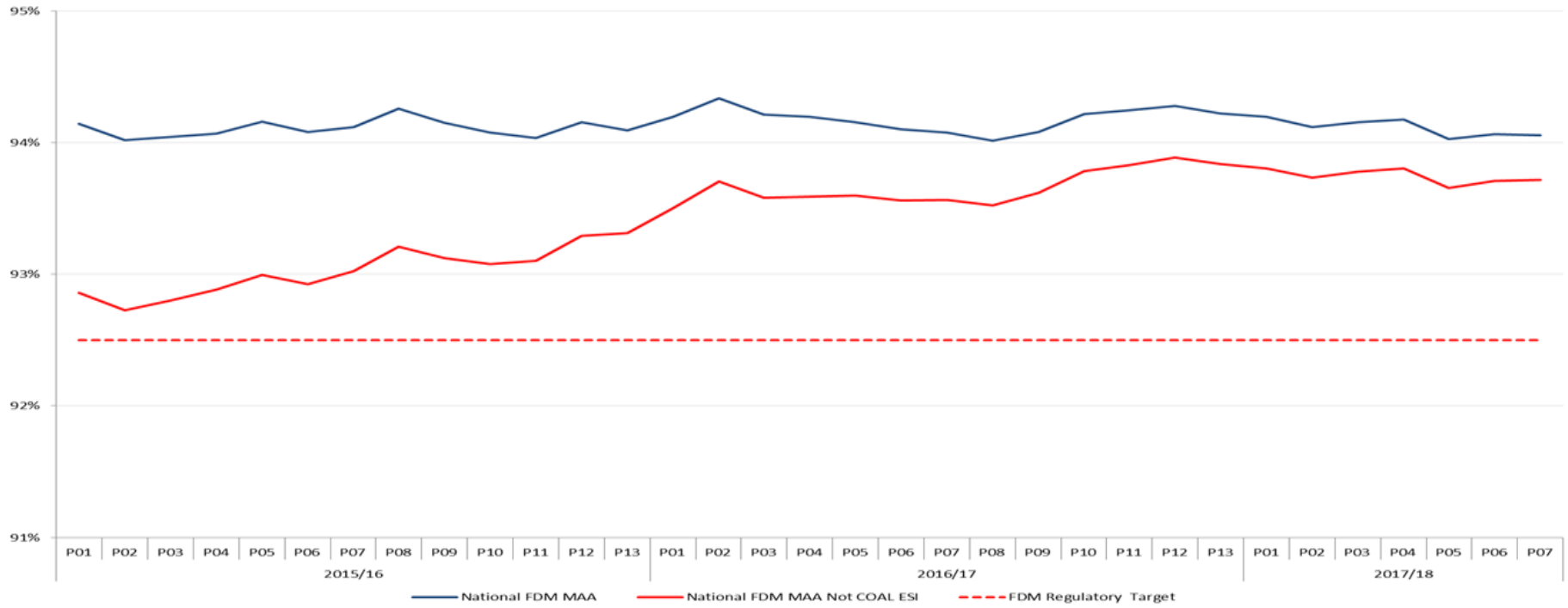
– FDM improved from 93.3% to 94.3% (at end of 2016/17)
– A2F improved from 80.4% to a high of 87% towards the middle of 2016/17
– The impact of freight delay on passenger services dropped from 1.43 delay minutes per 100km to a low point of 1.07 half way through 2016/17

This is evidenced in the graph below:-



This improvement in performance was achieved in a context of challenging sector dynamics.

– The decline in coal traffic was important as traditionally coal traffic performed well against the FDM measure, and tended to pass on less intensively utilised sections of the network. FDM for coal, which made up roughly a third of rail traffic at the start of CP5, tended to track at around 97%. Losing this traffic creates a pressure on FDM. This can be seen in the graph below. The blue line shows the FDM moving annual average over the last three years. The red line is the moving annual average excluding 'coal ESI'. The graph shows that coal had a positive impact on FDM. This is clearest in period 1 of 2015/16 – where FDM drops by 1.15% when excluding coal. Before the big drop off of coal at the end of 2015/16 the difference in FDM and FDM excluding coal ESI was still 0.79%. Put simply, to continue to deliver FDM at a consistent level Network Rail has had to improve overall performance to mitigate the loss of coal traffic.



As a result, it has become more difficult to continue to perform at the high levels achieved in the first two years of CP5. This can be seen in the performance of our key metrics in the graph above:

– FDM has plateaued between 94.3% and 94.4%
– A2F has seen more than a 1% decline since the start of 2016/17
– FOC on TOC delay, whilst still historically very low, worsened in the last year (noting that a number of large incidents remain in dispute)

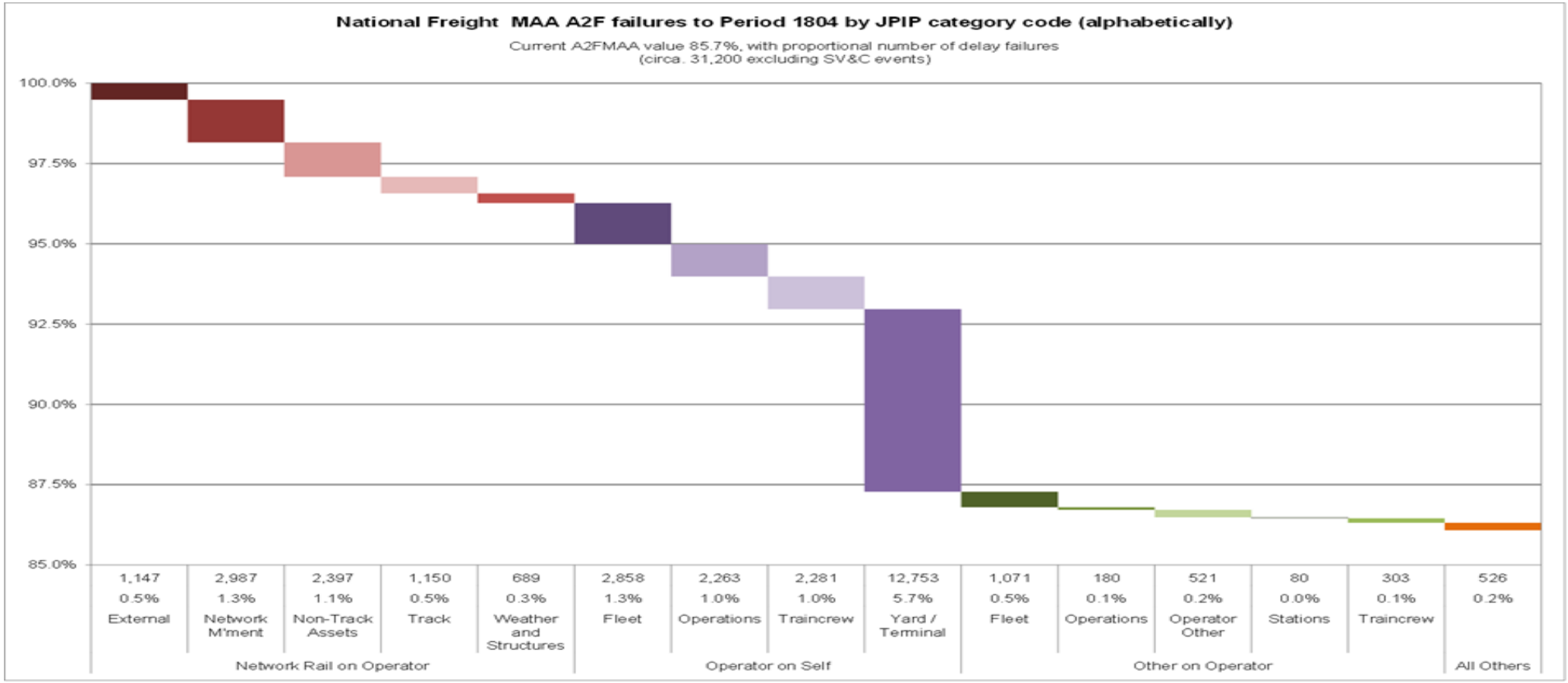
These changes in performance trends have been driven by different factors which provide the focus for performance management during the rest of CP5 and into CP6:

Individual “big” incidents have had an impact on FOC on TOC delay. In Period 2016/17 Period 11 the largest ever individual FOC on TOC incident was allocated more than 80,000 minutes of delay

As responsibility for this incident remains in dispute, 50% of the minutes are currently allocated against the FOC which is sufficient in itself to worsen the metric.

Small incidents also have an effect – 83% of Network Rail caused incidents cause less than 24 minutes of delay.

Almost a quarter of FDM failures resulted from schedule errors. A2F is heavily impacted by the ability of a train to depart on time. 98% of trains departing on time will meet the A2F target. Terminal and yard delay has caused 5.7% of all A2F failures over the last year and is a key area for continued attention. Whilst large delays are more noticeable, improvement focussed on smaller events is likely to have a greater impact on improving FDM and A2F performance. This is illustrated in the diagram below:



Key geographic locations have repeat failures that impact performance. Locations such as Felixstowe, Whatley and Peak Forest are more than five times more likely that average to see delay and incidents. Sustained performance improvement is required in these areas to improve freight performance across the whole network.

The above highlights a challenging environment that requires stretching, but realistic targets – an approach that was supported during our stakeholder engagement sessions. The most stretching of these targets is FDM. This challenge has been built into route specific FDM targets (Route Freight Delivery Metric – R-FDM).

In the table below, R-FDM gives us a strong understanding of where we need to focus geographically in order to deliver FDM to 94%.

	Anglia	LNE	LNW	Scotland	South East	Wales	Wessex	Western
Lower	91.2%	94.1%	92.3%	93.5%	88.8%	93.0%	92.0%	92.5%
Expected	92.9%	95.3%	93.9%	94.5.%	91.0%	94.4%	93.6%	94.0%
Upper	93.5%	95.7%	94.4%	95.0%	91.7%	94.8%	94.1%	94.5%

Through CP6 we will work closely with each route to understand their performance improvement schemes, how these schemes impact FDM and any gaps. Where these gaps occur performance improvement plans will be put in place. The detailed delivery plans will be contained within our FOC and Route performance strategies.

A regulatory floor for FDM and R-FDM will also be put in place for CP6. This is a level that is considered to be significantly below the levels of expected performance. Nationally this is 92.5%. Across the geographic routes it is set at 30% more R-FDM failures than target. This is detailed in the following table.

	Anglia	LNE	LNW	Scotland	South East	Wales	Wessex	Western
Floor	90.8%	93.9%	92.0%	92.0%	88.2%	92.7%	91.7%	92.1%

5.27.1 Strategic Freight Corridors

Within the current control period the use of SFCs has had a positive impact on performance. Corridor working groups have been set up on the vast majority of routes – with improvement schemes being driven through them. FOC, Freight End User, and Network Rail staff have been complimentary of the approach.

There are currently twenty-two SFC's – many with the same origin or destination points. For example SFC007 and SFC902 both start at Southampton. This means that many of the same issues will be discussed at different meetings requiring multiple attendances. We have reviewed the effectiveness of these corridors, and are recommending a consolidation for CP6 based on ports of entry to the UK as well as commodities conveyed to improve the customer fit of each corridor. Our recommended corridors, contained in the table below, will be agreed with the industry for implementation at the start of CP6.

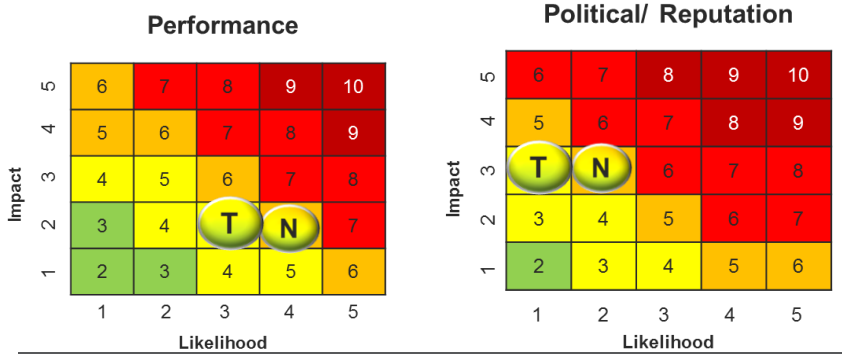
Number	Corridor
1	Felixstowe Inland (all Felixstowe services)
2	Southampton Inland (all Southampton services)
3	Channel Tunnel services
4	South East aggregate services (incorporating Western, Anglia and South East Flows)
5	Mendip primary flows
6	Peak District/Trans Pennine/East Midlands – South East primary flows
7	East Coast Ports and Terminals (Tyne, Tees, Hull, Immingham) including ECML services to Scotland
8	South Wales (including trains to sites such as Round Oak and Dee Marsh)
9	West Coast Mainline services
10	Scotland

Rather than a meeting structure the SFC's framework will become a way in which we identify root performance issues. We will then form smaller working groups to focus purely on that element of performance.

Our activity plan to deliver our plan is summarised in the table below:

Summary of objectives	A plan that continues to deliver the performance element of the FNPO scorecard. This will drive a better every day culture with an appropriately structured organisation , focusing on joint collaboration with FNPO customers

No.	Key constraints, risks and opportunities	What we plan to do	Owner	Timescale
1	O: Increasing average speeds of freight train services.	We will take an intelligent, requirements based, approach to improving average speed. For example, targeting improvements based on commodity – with a greater emphasis on the need for intermodal services to travel more quickly	Head of Strategic Capability and Head of Performance	Action plan to be agreed with customers by December 2018
2	R: Anticipated CP6 growth for passenger and freight may represents a risk for performance.	Realistic but stretching performance targets to be put in place for CP6, including TOC on FOC to be included as a key metric.	Head of Performance	April 2019
3	O: Work closer with geographic routes in delivering reliable and consistent freight performance.	R-FDM will continue to be a performance metric with routes. Put in place a joint performance strategy governance structure where we work with routes and FOCs to understand priorities.	Head of Performance	Strategies & governance by April 2019.
4	C: Right time departures is constrained by the importance placed on it in specific commodities and flows.	Right time departures target put in place at a level that recognises this conflict. Performance improvement initiatives to be prioritised.	Head of Performance	To be delivered through until 2024
5	O: Work more collaboratively with FOCs to improve holistic industry performance – delivering A2F to 87% by 2024	Carry out a review of the joint performance improvement strategies with the FOCs, to identify key priorities.	Head of Performance	March 2020



Summary of risk outcome:

Freight performance remains on track to meet the CP5 regulatory target, therefore the risk assessment is within corporate appetite. During CP6 we are predicting an increase in average speed and an increase in passenger growth. We will aim to mitigate the risk of increasing average speed through taking a requirements based approach to improving average speed. We aim to mitigate the risk of increased passenger numbers by having TOC on FOC as a key metric.

5.28 Digital Railway

The Digital Railway (DR) is a rail industry-wide programme designed to benefit the economy by accelerating the digital enablement of the railway. Key benefits for the freight industry that the Digitalisation could provide, centre on the following areas:

- Additional capacity through enhanced signalling system capability delivering consistently higher train velocity and headway reduction
- Improved quality of freight paths with enhanced traffic management capability, adapting real-time changes for cross route flows across regional control centres. In itself, this the potential to improve the quality of paths, the interaction between freight and passenger services and overall network management
- Digitalisation could also optimise the nodal yard concept to align train paths by optimising of live network timetable data. There is an opportunity to create a wider traffic management network connecting the cross-London freight flows to the key radial intermodal corridors from the ports of Felixstowe, Southampton and London Gateway across London to the Midlands, North and Wales
- Train control and operation could be optimised if systems were capable of dynamic modelling of freight rolling stock capability

The freight industry has identified two key elements that need to be considered and specified within the Digital Railway development process:-

- Firstly, due to the nomadic nature of fleet flows, freight locomotives will have to be prioritised for initial European Train Control System (ETCS) fitment in order for line side signals to be removed
- Secondly, to realise the maximum benefits of the Digital Railway, the ETCS technical and operating parameters must be optimised to reflect the latest freight braking performance data to ensure that freight performance and capacity are not restricted

5.28.1 Activity Plan

The Digital Railway business plan is currently seen as follows:

Now (End of CP5) – independent DR system application on committed projects:

- Cambrian
- Thameslink
- Crossrail
- Romford
- Cardiff and Western 1st Traffic Management deployments
- National enabling projects – ECTS in-cab fitment project, First in Class and Test facilities
- Identifying funding and financing options to support Strategic Outline Business Case (SOBC)

Prioritised Deployment Plan (End of CP7)– integrated DR System Deployment. Select candidate schemes from:

- South East, including Sussex and Kent
- Western – (London to Bristol and Wales)
- Great Eastern Mainline (Liverpool Street – Ipswich and Felixstowe, North London Line and linking to Essex Thameside)
- East Coast Mainline (Kings Cross – Peterborough)
- Wessex (Waterloo – Southampton)
- Trans Pennine
- East London Line

Project Control boards have been/are being set up in each Route to jointly develop business cases.

5.28.2 Freight Technology

This is a long-standing Network Rail and FOCs initiative to leverage smaller-scale technological improvements and has delivered benefit over CP5 to date. A number of schemes have been identified although funding for these has yet to be confirmed:

- Forward Facing CCTV (FFCCTV) – It is proposed that Network Rail could support the purchase and fitment of FFCCTV equipment and associated interfaces. FOCs would then provide Network Rail with access to that data for use in investigating SPADs, maintenance, vegetation management etc
- Application Programming Interface and Open Data - Network Rail could provide FOCs with open access to systems and data owned by Network Rail. This would Improves transparency and allows single sourcing of reliable information. It is expected to help improve FOC efficiency
- Improved planning tools - FOCs have highlighted issues with the current planning and path bidding process and want a new, easy to use visual tool to simplify processes and improve bid success rate. System Operator have a project currently being trialled called “Whole System Modelling”. FNPO will work with SO and FOCs to add their FOC requirements to “Whole System Modelling”
- TOPS (Total Operations Processing System) Replacement. The TOPS system has been the backbone for recording the operational lifecycle of freight wagons for the past four decades within the Freight Industry. However, it is now a very old system, and is poorly placed to meet the needs of the modern freight industry. A programme is needed to manage the replacement of TOPS in a safe and controlled manner

5.28.3 Digital Railway governance for freight scheme

As this Route Strategic Plan was being finalised, the future governance of the DR Programme is being reviewed. How DR works with Network Rail Route Businesses is also changing with guidance provided by a Route Steering Board: this model and approach will also be used to frame FNPO’s role going forward.

The delivery model for the DR Freight Programme will see FNPO become the Client.

The wider freight engagement with the Digital Railway Programme is handled centrally through the Freight Stakeholder Group. The role of the Freight Stakeholder Group will be reviewed early in 2018 to ensure alignment with:

- The changing nature of the DR programme and the need to ensure proper freight engagement in the development of Traffic Management, ATO, C-DAS as well as ETCS
- The role of the geographic routes and Route Project Boards
- The FNPO route’s new “Client” role
- The new Digital Railway Governance Framework

At this stage FNPO will by working with DR and FOCs to ensure a seamless transition for any migration of project responsibility and governance.

National Passenger Operators Route Strategic Plan

6. Cross Country Trains Ltd

6.1 Business overview

Cross Country Trains Ltd (XCTL) is a national operator with services running from Scotland to Cornwall, the North West to the South Coast and from Wales to East Anglia - the largest geographical coverage of any UK passenger train operator. Unlike other train operators, they do not manage any railway stations.

XCTL delivers 37 million journeys p.a., operates 297 planned services a day calling at 121 stations, operating on all of Network Rail geographic Routes except South East. The hub of its operations is Birmingham New St station in Britain's second city and is a pivotal location where performance of services is of paramount importance.

XCTL customers predominantly come from the leisure and business travel markets over a variety of distances, with demand varying each day of the week and every month of the year. Around 15% of passengers commute on a daily basis and most business and leisure travel is discretionary. XCTL must attract and keep customers who have the option not to travel, as well as take alternatives. This is particularly important given the well-known challenges of timetabling and journey times that can make other modes more attractive.

The current CrossCountry franchise expires in October 2019. Work continues on exploring the current franchise between the existing franchisee, the DfT and Network Rail to develop the franchise ahead of the tendering process, due to start in early 2018. It is difficult to predict what this might look like at this early stage and the forecasting of targets for performance and scorecards is difficult without any certainty around franchise commitments.

Emerging issues around HS2 construction works are likely to see an impact on performance. We are yet to understand to what degree as the current issues revolve around how XCTL are indirectly impacted by works on the WCML, particularly at Euston. With other Operators running fewer services to London, XCTL is likely to experience heavier passenger loadings as alternative routes to London destinations are used by the travelling public, notably via Birmingham to link up with Chiltern services to Marylebone or via Leicester to utilise the East Midlands Trains to St Pancras. It has been seen that this places considerable strain on the resources available to XCTL and managing this appropriately across the Network is key over the next 5-10 years. As construction picks up pace and moves to the Midlands area, severe disruption is likely to be seen on key flows around Birmingham New Street.

6.2 Passenger demand

During CP5 XCTL has seen an increase in passenger growth. In CP6 passenger demand is expected grow across the various flows and is likely to be sustained at or around the 4% pa. The key areas of growth are likely to be at:-

- Major city to city, particularly North East (Newcastle, Leeds, York and Sheffield) to Birmingham and the Manchester – Birmingham corridor. There is likely to be sustained growth on all Routes that gravitate towards Birmingham.
- Airports, particularly Birmingham, Stansted and Manchester will see further demand for rail travel to these locations. Connectivity to Heathrow will add potential links between multiple airports.

6.3 Objectives

To support our customers in delivering their future passenger growth and to deliver an effective reliable transport services for passenger undertaking leisure, business and commuting journeys, our aims throughout CP6 will be to:

- Deliver a safe railway for our passengers and workforce.
- Continually review our performance, deliver our targets and through collaboration, focus on specific areas to drive improvement.
- Maximise capacity and capability.
- Protect and improve journey times.
- Optimise timetabled disruption to minimise the impact on passenger journeys

6.4 Scorecard

In 2016/17 Network Rail and XCTL introduced customer scorecards in track and monitor delivery of the various performance metrics. Below is the scorecard for 2017/18 for XCTL.

The customer scorecards have a line of sight with the FNPO Route Scorecards (ref Section Route Objectives). For XCTL, PPM and CaSL remain the industry regulatory measures.

This focused approach has driven improvements across some of the metrics and with more understanding of the measures generated through the various specific work streams setup around these measures there should be improvement throughout the remainder of CP5 which will give a firm footing as we head into CP6.

Following the introduction of Customer Scorecards across all Routes in 2017/18, the opportunity for further alignment has arisen. Alignment has been gained with other Operators, such as at Birmingham New Street, where London Midland has right time arrivals at Birmingham New Street on its scorecard and Virgin Trains West Coast has it as a roll up measure of Right Time arrivals at all destinations. This added alignment with other Operators should drive even more focus on these metrics throughout CP5 and into CP6.

Cross Country Scorecard

Performance	Definition	AIP % WEIGHTING		WORSE THAN TARGET	TARGET	BETTER THAN TARGET
XC PPM	XC PPM delivery (time to 10)	50%	10%	89.2%	90%	90.8%
XC CaSL	XC Cancellation and Significant lateness delivery		10%	4.05%	3.95%	3.85%
Average Lateness @ Destination	Average minutes lateness at destination not including cancellations		6%	3.16	3.12	3.08
RT arrivals at Birmingham New Street	not including cancellations		10%	35%	40%	45%
RT arrivals at Reading (from Basingstoke)	not including cancellations		2%	35%	40%	45%
RT arrivals at Peterborough (from Cambridge)	not including cancellations		2%	50%	55%	60%
RT departures from Bristol Parkway (both directions)	not including cancellations		2%	52.5%	57.5%	62.5%
RT departures from Doncaster (northbound)	not including cancellations		2%	55%	60%	65%
RT departures from Leeds (northbound)	not including cancellations		2%	68%	72%	76%
RT departures from Newcastle (southbound)	not including cancellations		2%	85%	90%	95%
RT departures from Edinburgh (southbound)	not including cancellations		2%	82.5%	87.5%	92.5%
Train Planning	**Definition**	**AIP % WEIGHTING**		**WORSE THAN TARGET**	**TARGET**	**BETTER THAN TARGET**
Access Planning Milestones Met	Key planning milestones met	20%	10%	70%	75%	80%
Informed Traveller Response	Number of trains responded to at TW-14		5%	6%	5%	4%
Open disputes	Number of open timetable and access planning disputes		5%	4	2	0
Commercial	**Definition**	**AIP % WEIGHTING**		**WORSE THAN TARGET**	**TARGET**	**BETTER THAN TARGET**
Schedule 4 and 8 invoicing process (days late)	Number of days late in processing schedule 4 and 8 invoices	10%	1%	>0	0	
Claims paid [from NR to XC] in 30 days as per MPM	Percentage of agreed claims paid within 30 days as per Managing Public Money		1%	90%	95%	100%
£ owed to NR from XC	Amount overdue (invoices older than 28 days) from XC to NR		1%	£50k	£40k	£30k
# Open claims	Number of open claims			Not Targetted		
Total value (£) of outstanding claims	Total value in pounds of outstanding claims					
Average time to close claims	Average number of days taken to close claims over preceding 13 periods		2%	230	200	170
% of disputed delays still unresolved at day 42	Percentage of delays still in dispute at Day 42 for the corresponding period		2.5%	3%	2%	1%
Outstanding periods over preceding 13 periods	Number of periods in the preceding 13 periods with outstanding disputes		2.5%	4	2	0
Cross Route	**Definition**	**AIP % WEIGHTING**		**WORSE THAN TARGET**	**TARGET**	**BETTER THAN TARGET**
L2 Safety Open Actions	Number of L2 safety actions open	20%	2%	20	15	10
Average time to close L2 actions	Average number of days taken to close L2 actions over preceding 13 periods		5%	195	180	165
Performance - Periodic meetings	Meeting frequency and attendance on Route periodic meetings		3%	80%	90%	95%
Performance - Quarterly meetings	Meeting frequency and attendance on Route quarterly meetings		8%	80%	90%	95%
Performance - action close out rate	Percentage of actions closed out on time		2%	70%	80%	90%
			100%			

We have started discussions with our customer to develop our CP6 customer scorecard. Some of the draft metrics and targets are shown below.

Train Performance		17/18	18/19
Cross Country - PPM	Lower	89.2	90.0
	Expected	90.0	90.8
	Upper	90.8	91.6
Cross Country - CaSL	Lower	4.05	4
	Expected	3.95	3.9
	Upper	3.85	3.8
Average Minutes Lateness at Destination	Lower	3.16	3.14
	Expected	3.12	3.10
	Upper	3.08	3.06
On Time Arrivals at Birmingham New Street	Lower	35	40
	Expected	40	45
	Upper	45	50
On Time Arrivals at Reading (from Basingstoke)	Lower	35	40
	Expected	40	45
	Upper	45	50
On Time Departures from Bristol Parkway	Lower	52.5	55
	Expected	57.5	60
	Upper	62.5	65
On Time Arrivals at Peterborough (from Cambridge)	Lower	50	55
	Expected	55	60
	Upper	60	65
On Time Departures from Doncaster (Northbound)	Lower	55	60
	Expected	60	65
	Upper	65	70
On Time Departures from Leeds (Northbound)	Lower	68	71
	Expected	72	75
	Upper	76	79
On Time Departures from Newcastle (Southbound)	Lower	87	87
	Expected	90	90
	Upper	93	93
On Time Departures from Edinburgh (Southbound)	Lower	82.5	87
	Expected	87.5	90
	Upper	92.5	93

		19/20	20/21	21/22	22/23	23/24
On Time at all stations	Lower	TBC	TBC	TBC	TBC	TBC
	Expected	TBC	TBC	TBC	TBC	TBC
	Upper	TBC	TBC	TBC	TBC	TBC
Cancellations	Lower	TBC	TBC	TBC	TBC	TBC
	Expected	TBC	TBC	TBC	TBC	TBC
	Upper	TBC	TBC	TBC	TBC	TBC
Average Minutes Lateness	Lower	TBC	TBC	TBC	TBC	TBC
	Expected	TBC	TBC	TBC	TBC	TBC
	Upper	TBC	TBC	TBC	TBC	TBC
On Time Arrivals at Birmingham New Street	Lower	40	45	45	45	45
	Expected	45	50	50	50	50
	Upper	50	55	55	55	55
On Time Arrivals at Reading (from Basingstoke)	Lower	40	40	40	45	45
	Expected	45	45	45	50	50
	Upper	50	50	50	55	55
On Time Departures from Bristol Parkway	Lower	55	55	60	60	65
	Expected	60	60	65	65	70
	Upper	65	65	70	70	75
On Time Arrivals at Peterborough (from Cambridge)	Lower	55	55	55	55	55
	Expected	60	60	60	60	60
	Upper	65	65	65	65	65
On Time Departures from Sheffield (all directions)	Lower	TBC	TBC	TBC	TBC	TBC
	Expected	TBC	TBC	TBC	TBC	TBC
	Upper	TBC	TBC	TBC	TBC	TBC
On Time Departures from Newcastle (Southbound)	Lower	87	87	87	87	87
	Expected	90	90	90	90	90
	Upper	93	93	93	93	93
On Time Departures from Edinburgh (Southbound)	Lower	87	87	87	87	87
	Expected	90	90	90	90	90
	Upper	93	93	93	93	93

These will be reviewed and agreed with the successful bidder post the franchise letting process.

6.5 Safety

– **Passenger and public safety**

The safety of the public that interact with the Network is paramount to our businesses. We are here to move people from A to B and we must ensure we do that in the safest manner possible, day in, day out.

The management and operation of the platform – train interface (PTI) is complex and presents a number of hazards for station users. These are often exacerbated by an individual's actions and behaviour. Following a number of accidents at the PTI, in particular the accident at James Street, Liverpool in October 2011, there has been considerable focus on improving the operation and management of the PTI. Effective management and operation of the PTI also requires the consideration of operational performance, capacity, right of access for train operation (including freight services), accessibility, public behaviour, and perception.

It is vital that robust procedures are in place to deal with customers who become ill on train services to not only reduce the performance impact (delays and cancellations) but also to ensure the health and wellbeing of the general public. It is important to minimise the risk of passengers being trapped in queuing services which consequently creates the risk of more passengers becoming ill or agitated on following services. We continue to work with station and on-train staff as well as the Emergency Services, will help to mitigate this risk and furthermore reduce the risk of customers self-egressing from trains that are trapped.

– **Level Crossing Safety**

There are approximately 6,500 level crossings in use on the national mainline rail network in Great Britain with another estimated 1,000 to 1,500 on heritage and minor railways. The number of unsafe events occurring at level crossings in Great Britain compares favourably with the record of other countries in Europe. Britain's mainline railway remains amongst one of the safest in the European Union (EU) in terms of the number of unsafe events that have happened, and is the best in the EU at managing risks at level crossings. However, every incident has the potential for significant human and economic loss. Level crossing risk control is a shared responsibility between Network Rail, XCTL, Highway Authorities and users of the crossing. Effective co-operation and collaboration between these parties is critical and each has a role to play, although the contribution of each party to risk control will vary at each crossing, as will their level of understanding.

– **Workforce Safety**

In a 24/7 railway industry, fatigue is an operational concern that needs to be effectively managed just like any other hazard. This is particularly the case in respect of the work carried out by drivers, signallers, train managers/senior conductors, train dispatchers, control room operators and maintenance workers which is critical to safe operations. Safety critical work can occur at any time, day or night, in difficult circumstances and against demanding work schedules. It is therefore essential that controllers of safety critical workers understand the multiple causes of fatigue and adopt a more systematic approach to managing the risks.

Priorities

– Deliver FNPO Route Scorecard – safety metrics i.e. LTIFR, SPADS, Derailments, Close Calls.

– Maintenance at our managed stations, specifically:
Birmingham New Street is a particular area of focus where water ingress and lighting have been of particular concern, both impacting passengers and work force. The "Lamp Block", at the north end of platform 1, is XCTL's primary train crew hub and conditions in and around this area, as well as safe access to it, have raised concerns over the past few years. It is imperative than any issues at

Birmingham New Street and the Lamp Block are addressed swiftly to ensure the safety of the travelling public and XCTL's staff

Bristol Temple Meads has a number of safety and passenger experience issues such as poor platform markings, lack of tactiles and poor location of the customer information point. It will be key to address these issues as part of any station works here in CP6.

– Maintenance of lineside environment such as walking routes and security around stabling locations is important to protect National Passenger Operator (NPO) staff and assets (rolling stock).

  The provision of safe walking routes for XCTL staff on Network Rail infrastructure has been a feature over the past few years, particularly at Birmingham New Street and Central Rivers depot (near Tamworth) which is XCTL's main depot for the fleet of Voyagers. It is important that more effort is put into managing safe walking routes in areas such as this and to move away from having to react to a safety incident, as has been the case with these 2 locations.

  Leicester Carriage Sidings is a notable hot spot where continued action on trespassers and graffiti incidents on XCTL rolling stock to reduce incidents of this type. Ongoing work to minimise trespass on to the network at out stabling locations is key to reduce vandalism of railway assets.

– Improvements on the passenger / train interface (PTI) are important to continually reduce the risk of passenger incidents at stations. Most notably in this area is the correct use of signage and platform markings (white / yellow lines), announcements through PA systems, correct use of tactiles etc.

– Maintaining and improving stepping distances is an area of focus to decrease the risk of passenger incidents when joining / alighting services. Through collaboration between Network Rail and XCTL, we can further understand maintenance activities such as tamping to take action against increasing the stepping distances and potentially improve them with little additional cost.

– Boundary management is a growing area of concern for XCTL and the number of incursions due to unauthorised access onto the line has increased in recent years.

  Since XCTL run over 7 Routes, the area of lineside fencing that its operations are exposed to is considerable. All fencing should be fit for the purpose of preventing unauthorised access and this should be consistent across all Routes.

– Unmanaged vegetation obscures drivers' sighting (especially of signals and speed boards) and damages rolling stock. The number of incidents arising from poorly managed vegetation has also increased in recent years. It is important for operational safety that all Route are consistently and adequately managing their vegetation.

The activities we plan to undertake to deliver these priorities are summarised in the table below:

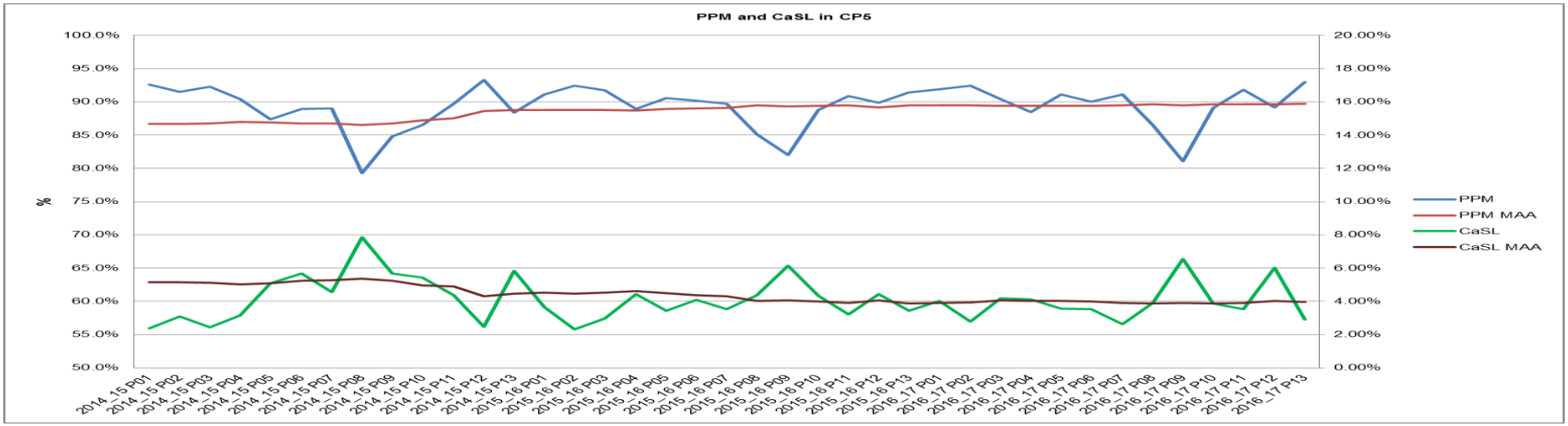
Summary of objectives	Deliver a safe railway for Cross Country passengers and workforce.			
No.	**Key constraints, risks and opportunities**	**What we plan to do**	**Owner**	**Timescale (start/ finish)**
1	O - Develop and implement Safety improvement Strategy	Agree a Joint Safety Improvement Strategy that drives continuous and collaborative safety improvements in identified areas of concern.	Head of Customer Relationship Management (Passenger) HoCRM	March 2019
2	O - Reduce Level Crossing Risk	Identification and classification of the high risk level crossings on XCTL's network and take appropriate action to close or reduce safety risk to of the public	Routes	Ongoing
3	R - Walking Routes	Ensure proactive maintenance is carried out on priority walking routes to reduce the risk of slip, trips and falls of XCTL and NR workforce	Routes	Ongoing
4	R - Managed Stations	Robust reporting procedures in place with designated contacts for each managed station leading to better tracking of issues and swifter resolution	HoCRM	March 2019
5	R - Boundary Management	By working jointly with XCTL, FNPO will be able to use drivers' knowledge to understand when the fences need to be maintained and when they're not fit-for-purpose. FNPO will then work with the Route to reinstate suitable lineside fencing as quickly as possible.	HoCRM	Ongoing
6	O – Meeting Structure	Develop robust meeting structure that ensures Route engagement with XCTL safety issues and increases collaboration and governance of safety issues	HoCRM	March 2018

6.6 Train Performance

Performance for XCTL has seen steady improvement throughout CP5. Both PPM and CaSL have seen a year on year improvement, despite falling short of the CP5 target of 90.8 by year 3. The PPM MAA has risen from an entry point of 86.7 to 89.7 at the end of year 3 in CP5. CaSL has seen similar steady improvement, with the MAA dropping from 5.14% at CP5 entry to 3.95% at the end of year 3 in CP5, this is shown in the graph below

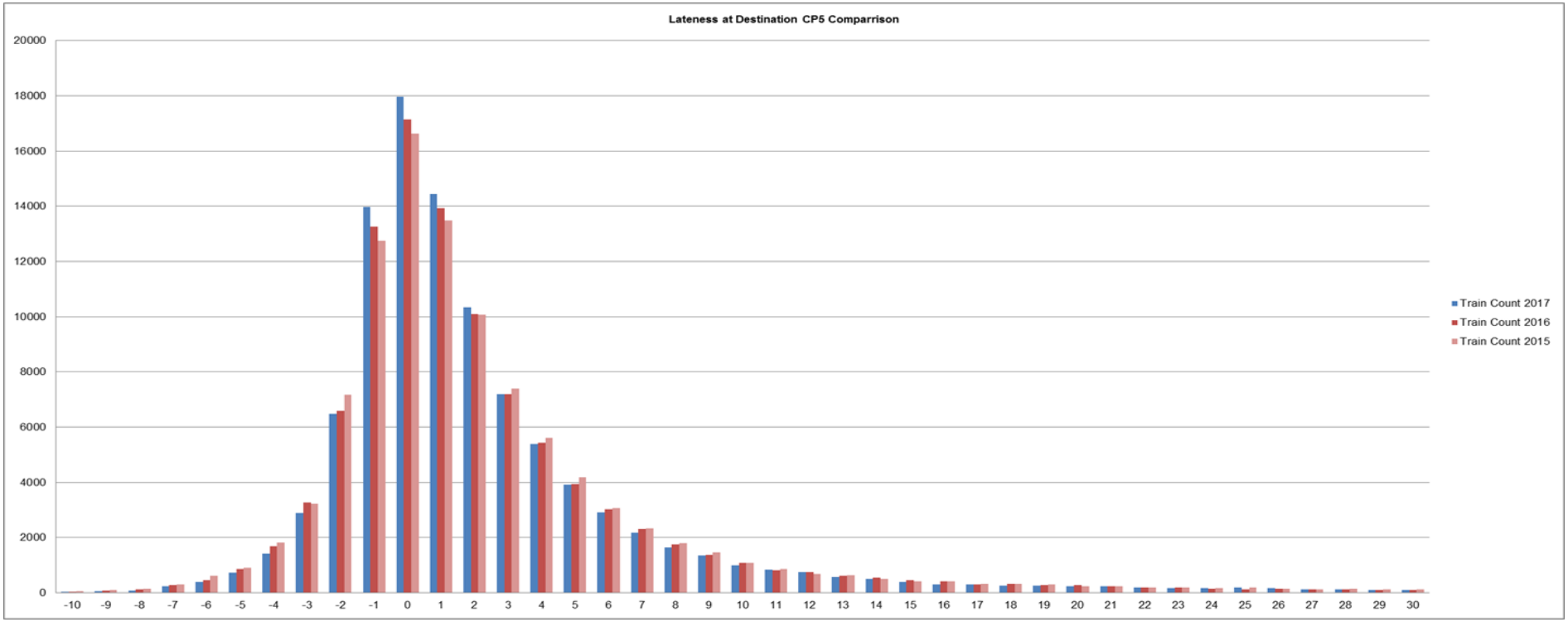
Consistently good performance is critical to XCTL as the majority of the passenger base is leisure and discretionary. The average XCTL passenger only travels once or twice a year so every journey matters. No one flow is worth more than 1% of total revenue so delivering consistently across the whole network and into a number of key nodes is vital. 40% of XCTL's passengers interchange and 10% of passengers change at Birmingham New Street on to another Operators service so right time delivery is crucial across the network but even more so at Birmingham.

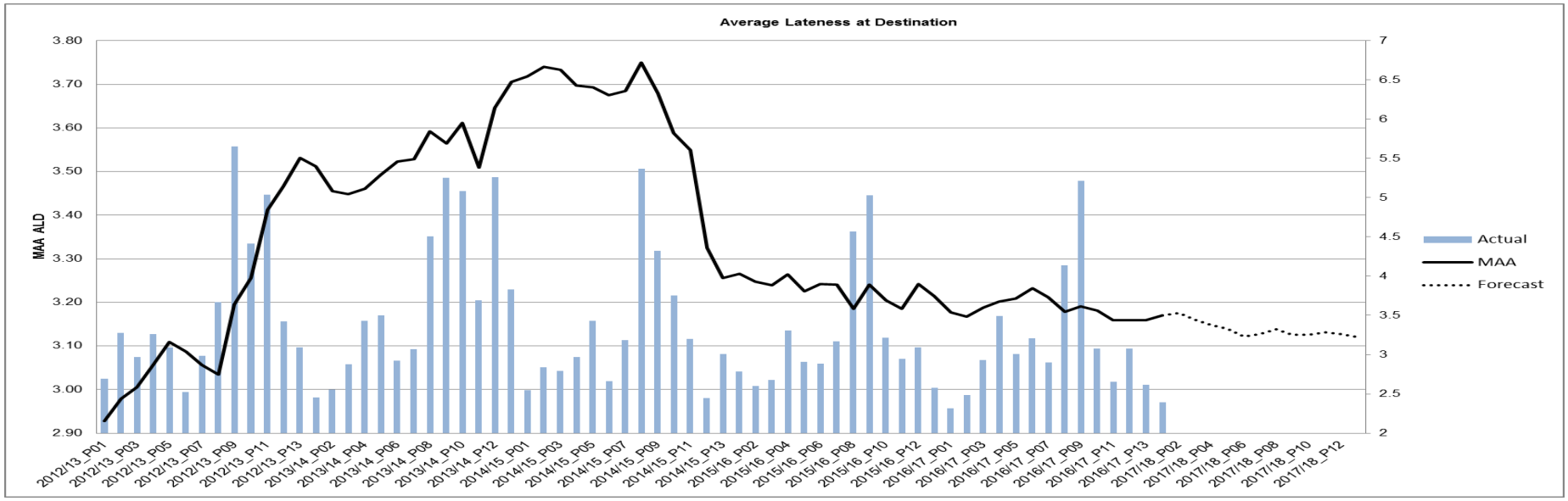
Transport Focus research states that the number one priority for XCTL's customers is seat availability. A reduction in service provision either planned or unplanned is something that needs to be avoided wherever possible. This requires sensible access planning and service recovery plans that are balanced to reduce DPI and continue to offer capacity to disrupted customers. Due to the journey length operated by a large number of services, most passenger journeys take place between intermediate stations. This means that PPM at destination, as the current key performance measure, isn't suitable to the delivery of punctuality and reliability that impacts on the passenger. On Time and cancellations should be seen as the more important measures for XCTL's passengers.



Performance challenges

The overarching strategy is to move the Average Lateness at Destination curve to the left, which aligns with Transport Focus feedback to the industry at CP6 workshops. Below is a graph of how this measure has tracked over the previous years and includes the trajectory for 2017/18

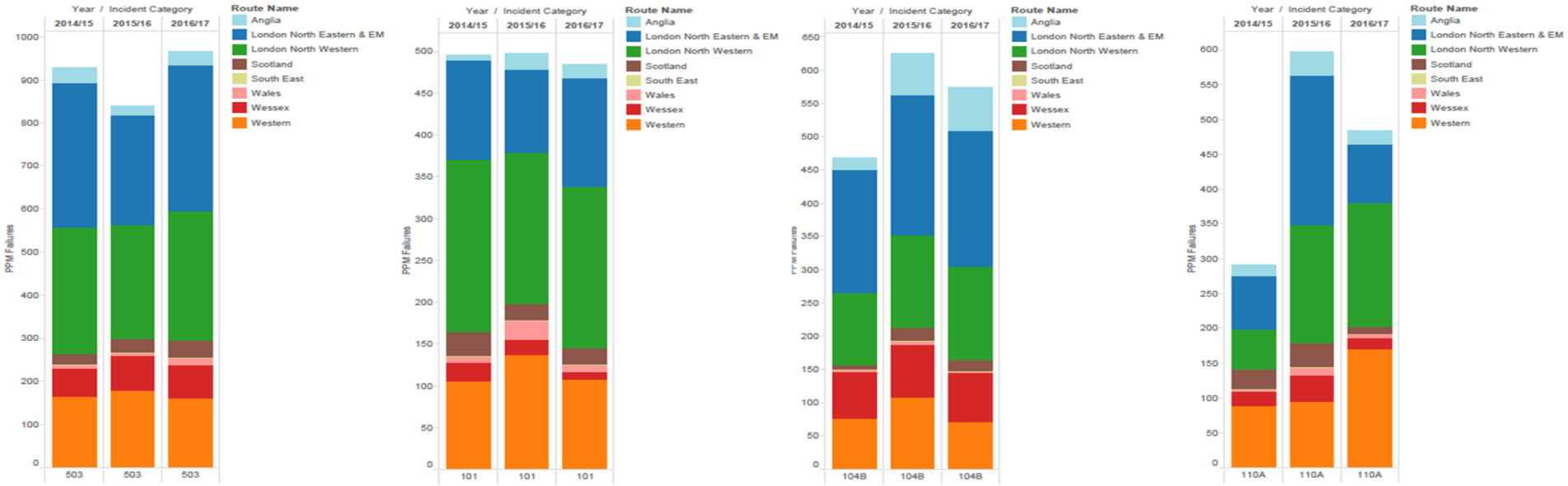




Average Lateness at Destination is a key metric for the remainder of CP5. It seeks to understand the average lateness for XCTL's services at destination. Whilst we are focusing on destination only at this point, it is a sign of the shift towards an On Time operation and the new suite of measures for CP6. It is envisaged this measure will move towards Average Minutes Lateness as we move into CP6. All performance improvement activity should look to improve this graph. This is a new measure that was introduced for 2017/18 and specific plans to understand and improve it are being developed.

Analysis of Network Rail's performance highlights some of the KPIs that remain the biggest impacting, with little improvement seen throughout CP5 so far. These are areas where focused improvement from the Network Rail routes is required to push PPM to the required level by the end of CP5 and give us a strong footing as we move into CP6.

As shown in the schematic below on the next page, Fatalities and Trespass remains the single biggest impacting KPI on XCTL performance, with LNE & EM and LNW the biggest impacting Routes. Work in this area has been developing over the years, with physical mitigations such as lineside fencing improvements, mid platform and platform end fencing the primary interventions. Through CP5 there has been a move towards more "soft" mitigations such as improvements in interventions at key hotspots and the introduction of smart cameras. The strategy is developing further into working in partnership with local mental health authorities. Reactionary delay to a fatality incident has had similar focus, with changes to response and management of the inevitable disruption these types of incident cause. Continued focus to drive down incidents in this KPI is vital to the success of XCTL's performance.



From left to right: 503 (Fatalities and Trespass), 101 (Points Failures), 104B (Track Faults), 110A (severe weather).

The impact of track faults and the inevitable Temporary Speed Restrictions (TSR) that are imposed following such incidents have considerable impact. Whilst TSR's don't often have an impact on PPM, they do have a considerable impact to On Time performance if they are severe enough. Improvements in the management and swift removal of TSRs generated through track faults and other infrastructure issues would see the On Time performance of XCTL services improve considerably. This has been demonstrated regularly where On Time performance dips with the introduction of a TSR, only to return to a normal performance level once the TSR is removed. Unfortunately, some TSRs remain in situ for a considerable length of time.

Severe weather remains a risk as this KPI has seen some variance over the years. Further work on infrastructure robustness, particularly flooding on the Western Route, is required to improve resilience in this area. The works at Hinksey have helped improve this although Cowley Bridge and Dawlish remain susceptible to extremes of weather. The management of the train services across all Routes and Operators is another area that can be improved to ensure that when the infrastructure is susceptible to severe weather, the train service is managed appropriately to reduce the impact on XCTL and the travelling public.

The process for the governing of Network Rail's Performance Delivery is that of a continuous plan, do and review cycle. By focussing on the attrition categories we can understand where PPM is lost. While focus remains on primary delay, including improved governance of Network Rail KPIs, there is an increasing need for robust mitigation of reactionary delay and to gain better understanding of underlying poor performance on our best days through improved analysis and insight gained from our Train Running Specialists to deliver improvements in the day to day plan. The key areas of network wide and routes focus is summarised below:-

Network wide focus

- Autumn preparedness including vegetation clearance and Rail Head Treatment Train circuit improvements
- Reduction in line obstruction and lineside fencing improvements at key hotspots (identified by both Network Rail and XCTL) to reduce instances of animal incursion
- Continual improvement in asset reliability
- Weather resilience actions
- Working more closely with Infrastructure Projects to ensure performance delivery is included in their remits where possible
- Changes to regulation policies to align with the new CP6 performance metrics
- expected performance of the train plan
- Sourcing funding for performance improvements irrespective of the Route of ownership
- Improvements to analytical capabilities including more insight into the
- Improved service recovery plans to help reduce DPI

Route specific focus

LNW

- Right time arrivals at Birmingham New Street
- Reduce HS2 impact as much as reasonably practicable
- Service recovery
- Fatalities & Trespass

Wessex

- Reading Right Time arrivals from Basingstoke
- Track quality, TSR management including timely removal
- Bournemouth and Southampton platforming during perturbation
- Freight management, recognising the projected increase in traffic
- Animal Incursions

Western

- Right Time departures from Bristol Parkway
- Weather resilience
- Fatalities and trespass, particularly off route (Thames Valley) impacting XCTL

Anglia

- Right Time arrivals Peterborough Scorecard Measure
- Track quality and TSR management and timely removal
- Incident reduction in the Cambridge area

Wales

- Right Time improvement for XCTL originators and terminators at Cardiff
- Operational resilience in the Cardiff area post - Cardiff Area Signalling Renewal

Scotland

- Fatalities and Trespass
- Signalling systems and power supply
- Right Time Improvements on Glasgow – Edinburgh corridor

LNE

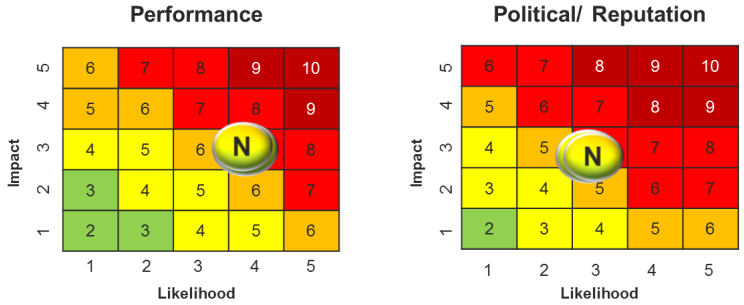
- Right Time boundary handovers and Scorecard Measures
- Fatalities and Trespass
- Bridge strikes

East Midlands

- Points failures
- Signalling systems and power supply
- Right Time improvement at Nottingham and Leicester

The activities we plan to undertake to deliver these priorities are summarised in the table below.

Summary of objectives	Continually review our performance, deliver our targets and through collaboration, focus on specific areas to drive improvement			
No.	**Key constraints, risks and opportunities**	**What we plan to do**	**Owner**	**Timescale**
1	R - Speed Restrictions	Improved management of ESR / TSR and swift removal. Use of technology such as the RailVac and Mobile Maintenance Train	Routes	Ongoing
2	O - Regulation Policies	Regular review of regulation policies to ensure they remain fit for purpose and work in conjunction with the new CP6 metrics	Routes	Ongoing
3	C - KPI Management	Continued challenge on Route delivery to tackle emerging trends and poor performing KPIs to drive performance forward	HoCRM	Ongoing
4	R - Fatalities and Trespass	Continued work with the Routes to understand key hotspots. Deliver schemes that reduce the frequency and impact of incidents	HoCRM & Routes	Ongoing
5	O - Improved analytics	Develop suitable tools to better analyse XCTL performance and target improvement where required	HoCRM	Start March 2018
6	O - Focus on XCTL On Time performance	Continued focus on key locations with Routes to improve the service for passengers where it matters.	HoCRM	On Time - Key Node March 2019
7	R – HS2 Impact mitigation	Ensure disruptive access and amended timetables for HS2 cause as little performance impact as possible – Ensure the plans are well developed – Stakeholder engagement is carried out promptly – Correct approach taken to negotiating access and developing the timetable	Head of Customer Relationship Manager (HoCRM)	Ongoing



Summary of risk outcome:

There is a risk to delivering safe train service performance and protecting and improving journey time for XC. This is due to our reliance on System Operator and geographical routes to deliver an effective train plan and regulation during perturbation, to passenger journeys. Our National Passenger Operator team will work collaboratively with SO and Routes to achieve optimal solutions that minimises the disruption to XC passenger journeys. This approach will mitigate the risk and allow us to achieve our target risk profile.

6.7 Capacity & Capability

Currently, XCTL journeys are “slowed down” by approximately 2000 minutes each day due to pathing allowances and excess dwells (compared to TPR requirements) in the timetable, which equates to around 7 minutes per train. From a passenger perspective, this situation translates into longer journey times and the perception of a slower journey as the train will spend significant amounts of time being stationary. From an economic point of view, this situation reduces the value of the XCTL franchise as it creates a less attractive product when the journey time is compared to that of other modes of transport such as the car which can be seen as more favourable in respect of door to door journey time, flexibility, convenience (parking, changing trains etc) and cost.

Reduced journey times result in rail being more attractive to the public, particularly when compared to road travel. In addition to relieving congestion and reducing road accidents, rail travel also reduces carbon emissions and the wider impact on the economy all of these factors have. Journey Time is therefore an important consideration in the development of enhancements and renewals, including the opportunity to enhance the infrastructure simultaneously. All improvements should be factored in to the development of the timetable to reduce journey times and improve performance.

6.7.1 Priorities

- Identifying schemes that lead to removal of bottlenecks and improve performance
- Integrated transport solutions such as good parking at stations or convenient bus / tram connections to make a journey by train as simple as possible and attractive to the passenger
- Maximise benefits for all operators not just those of a single Operator
- Future-proof and improve the reliability of the infrastructure
- Ensure better links between Projects/System Operator/Performance
- Maximise the opportunities created by new rolling stock and enhanced infrastructure to deliver a reduction in journey times and additional services
- Particular focus on improved journey times for LNW on Birmingham – Reading and East Mids to West Mids XC routes
- Additional path via Birmingham International
- Improvement to planning headways
- Earlier services to Stansted Airport
- Line speed improvements through CP6 infrastructure enhancements

The activities we plan to undertake to deliver these priorities are summarised in the table below:-

Summary of objectives	Opportunities exist for potential schemes to improve capacity and capability for XCTL			
No.	**Key constraints, risks and opportunities**	**What we plan to do**	**Owner**	**Timescales**
1	O - Derby Re-signalling	Works in the Derby area to improve performance and journey times between Birmingham, the North East and Scotland.	Infrastructure Projects	March 2019
2	O - Heathrow West Curve	Explore the opportunity to extend existing Reading services through to Heathrow and directly serve the airport. This would potentially give a direct link from Heathrow to Birmingham International.	Infrastructure Projects	March 2023
3	O - Leicester area capacity enhancement	Increase capacity between Leicester and Peterborough with the potential for additional services through to Cambridge and Stansted	Infrastructure Projects	CP6
4	O - Kingsbury Arrival Road	Remove the bottleneck of propelling moves, improve performance of XCTL services between Derby and Birmingham and increase capacity for additional freight paths.	To be confirmed	To be confirmed
5	O - West of England (Bristol – Penzance)	Re-signalling and enhancement schemes to improve performance, capacity and reduce journey times.	Infrastructure Projects	CP6
6	O - Birmingham – Manchester	Explore the potential for a 3rd Birmingham – Manchester path with capacity improvements and TPR rationalisation and further timetabling work.	HoCRM & LNW Route	March 2019
7	O - Birmingham – North East	Explore the potential for a 3rd Birmingham – North East path to improve connectivity and service offering.	HoCRM & LNE Route	March 2020
8	O - Platform lengthening at Wilnecote and Willington	Provide additional capacity on the Birmingham – Derby route.	Infrastructure Projects	CP6
9	O - Ely Area Capacity Scheme	Ely North Junction doubling, Signalling works, level crossing and bridge enhancements. Deliver a second train per hour between Birmingham and Cambridge/Stanstead.	Infrastructure Projects	CP6
10	O - ECML North of York loops	Loops between Northallerton and Newcastle and uplift from 5 trains per hour to 6. Alleviate capacity constraints in aspirations for XCTL, VTEC and TPE.	To be confirmed	To be confirmed
11	O - Birmingham New Street Area Resignalling	Resignalling of the station itself will deliver significant performance improvements for XCTL.	Route	March 2022
12	O - Oxford Corridor	A new platform at Oxford Station and headway improvements in the Oxford Corridor to provide performance and capacity benefits to XCTL.	Infrastructure Projects	March 2024

6.8 Access and Timetable Planning

Altering the XCTL timetable structure without changing the service outcome (frequency, calling pattern or service flows) is very challenging because of its rigidity, due to:

- The large operating area
- Scale of interaction with other operators
- Number of congested nodes across the network which XCTL services need to be planned through
- Rolling stock allocation based on the original franchise specification to deliver peak demand numbers.

Developing and delivering high quality timetables is a collaborative process. This is particularly necessary on a large, diverse network such as XCTL's, where many routes are shared with other TOCs and freight operators.

The XCTL timetable must be:

- Deliverable - it must not have errors that prevent the base timings being achieved
- Robust - able to cope with some degree of perturbation

The industry must ensure the Timetable Planning Rules and overall construction of the timetable delivers the target performance levels.

Amended timetables must facilitate the enhancement, renewal and maintenance programme while balancing service quality and the overall passenger experience with the need for efficient project delivery

6.8.1 Priorities

- To work collaboratively with XCTL to continually seek innovative ways to ensure that the Timetable Planning Rules and overall construction of timetables delivers the target performance levels
- Earlier access planning to ensure robust delivery and performance of the timetable
- Earlier timetable work to understand the impact of engineering work on XCTL's train service as part of the package for disruptive access to give more certainty and better understanding of costs incurred by Network Rail.
- Develop more robust industry processes within the Engineering Access Statement process to reduce late change and cost, time and quality pressure exerted by late changes to the plan
- A more flexible workforce within the SO to ensure resource is where it is needed and to enable better workload planning
- Reshaping timetable design to support On Time delivery
- An integrated approach by Event Steering Groups to ensure network wide TT benefits for all operators and reduction of performance risk
- Recognise the impact multiple disruption has on a cross-route operator and commit to working with XC to minimise the impact of overall disruption to the passenger
- Reduce conflicts across our network where possible and maintain adherence to the Rules of the Revenue
- Minimises the impact of HS2 delivery
- Learn lessons from CP5 and introduce improved network-wide governance

6.9 Railway Ombudsman

The DfT is supporting the introduction of an independent Ombudsman in the rail sector to investigate and make rulings on unresolved customer complaints. The Ombudsman will change the way that the rail industry deals with complaints relating to service provision within a defined scope and will improve services by the industry for its customers.

Network Rail is planning to join the scheme subject to discussions with the DfT/HMT that this is permissible under our Managing Public Money obligations; confirmation from Rail Delivery Group (RDG) on the final scope of the scheme; and confirmation that the cost to Network Rail of belonging to the scheme is included within the periodic review settlement.

RDG has developed proposals for a scheme and are undertaking a procurement process and reviewing the potential cost models. Customer services that Network Rail delivers at its Managed stations are eligible under the scheme criteria.

The cost of the scheme for Network Rail (running costs and compensation payments) is estimated at £150k pa (£750k over CP6).

We are including the costs in the FNPO plan (Section 10.3) as the Managing Director, FNPO is leading for Network Rail, working with RDG, on the introduction of the Ombudsman scheme. Once agreed we anticipate separating and transferring the budget across Network Rail's Routes.

7. Caledonian Sleeper

7.1 Business overview

Caledonian Sleeper operates sleeper train services between London Euston and major cities across Scotland including Edinburgh and Glasgow. In 2015 the services were moved out of the Scotrail Alliance and became a standalone 15 year Franchise with Serco Caledonian Sleeper chosen by the Scottish Government as the new operator. The vision is for the Sleeper to be a modern, revitalised overnight travel and hospitality experience between Scotland and London.

With a mix of business and leisure travellers, the Caledonian Sleeper offers a rather unique passenger experience, being a mix of normal train travel coupled with “hotel-like” customer service. The services operate six nights a week between London and Scotland, serving London Euston, Glasgow, Edinburgh, Aberdeen, Inverness and Fort William.

The Caledonian Sleeper “Highlander” operates between London Euston and Fort William, Inverness, and Aberdeen. Services depart from Aberdeen, Inverness and Fort William with the 3 portions combining at Edinburgh into a single service to London Euston. In reverse, the service departs Euston in the late evening and divides at Edinburgh, with additional “day coaches” added to the Fort William portion.

The Caledonian Sleeper “Lowlander” operates between London Euston, Glasgow Central and Edinburgh Waverley. A late evening service departs both Glasgow and Edinburgh before combining at Carstairs to form a single service to London Euston with the exact same operation in reverse in each night.

The current rolling stock consists of a mix of specially converted Mark II and Mark III coaches which is now some of the oldest rolling stock still operating on the network. The fleet of locomotives hired in from GBRf to operate the sleeper service is made up of 7x class 92 electric locos which haul the portions to / from Euston, Glasgow and Edinburgh and 6x class 73s that are used on the “Highlander” portions north of Edinburgh.

The separate portions are not reported individually as a train service for performance measurement and only the arrivals at destination are considered. These are made up of the 2 morning Euston arrivals (the “Highlander” and “Lowlander”) and the morning arrivals at the 5 Scottish destinations (the Glasgow and Edinburgh portions of the “Lowlander” and the Inverness, Aberdeen and Fort William portions of the “Highlander”). The current franchise has no target around PPM and only Right Time arrival at the above destinations is considered.

7.2 Priorities

Caledonian Sleepers introduce a brand new fleet of sleeper coaches (known as the Mark V) in late 2018, with ‘Lowlander’ services expected to operate with Mk Vs from October 2018. Minimal disruption during the Mark V introduction will assist with the continued growth in year round business and maximise the commercial impact of the introduction. While Caledonian Sleeper appreciate that Network Rail’s possession and enhancement strategy often revolves around Bank Holidays (due to it being the least disruptive time for most day time passenger operators) Network Rail need to have cognisance of the fact that this is Caledonian Sleepers’ busiest period and try to minimise the impact on its services.

The current Right Time Arrival at destination target of 75% rises to a very challenging 80% for 2018/19 and remains flat for the rest of the franchise after this point. Caledonian Sleeper and Network Rail need to work closely to improve Right Time arrivals to achieve this consistently.

The requirements for major infrastructure works at Euston station to facilitate HS2 will have a considerable impact on Caledonian Sleepers' business and coincides with the introduction of the Mark Vs. One solution to the issue caused by HS2 at Euston, might be to migrate to a different terminal station such as Kings Cross or St Pancras International.

Caledonian Sleepers are looking to expand into new markets including Oban and the Far North of Scotland with possible new intermediate markets between England and Scotland and providing its own dedicated lounges at key stations.

Development of options for early boarding at managed stations to further enhance the service offering to guests. This would provide the opportunity to arrive early, get settled and enjoy a meal or a drink prior to departure in the comfort of the train's lounge car. This is a key aspect of the Caledonian Sleeper business plan.

The new Mark V vehicles will start arriving in early 2018 and a gauging project is well underway to facilitate this with sponsors and project managers appointed in the various routes where surveys and possible infrastructure interventions have been identified. Testing of new stock over a set piece of infrastructure will take place in mid 2018. Development work to understand if improvements at Inverness can help with improved dedicated servicing facility freeing up platform capacity and reducing the number of moves in and out the station at a time when the station will see an uplift in traffic as a result of the Aberdeen to Inverness infrastructure enhancements.

Under the FNPO Route's stewardship, particularly the FSDM monitoring and interventions, improvements have been made with 'on the night' action and help to overcome issues with other industry partners. Further work on the "last mile" initiative will be required to improve Caledonian Sleepers' On Time performance as we seek to reduce the On Time near miss numbers even further.

Network Rail acknowledges that HS2 works will have a significant impact on London Euston, Caledonian Sleepers' services and its customers. Discussions are ongoing between CS and Kings Cross / St Pancras International and will conclude later in 2018. This may lead to future opportunities in growing the sleeper market should any change in terminus prove beneficial to the guests using the service. CS are committed to working with HS2 and all TOCs to improve customer satisfaction levels at Euston.

CS are keen to work with Network Rail to help facilitate 'early boarding' to enable guests to board the train earlier and improve the overall customer experience. This requires longer platform occupation, which reduces capacity and is a considerable challenge at some of our major stations. Network Rail and CS will work on developing options in this area further.

Management of vegetation on the network remains a challenge. Vegetation in Scotland causes damage to rolling stock. RETB aerials which are required for signalling on the West Highland Line are very susceptible to vegetation strikes. This type of damage can cause significant delay to passengers and guests and cause reactionary delay on routes that are notoriously difficult to recover.

Co-ordination of the access plans across the Network Rail Routes is likely to be increasingly more difficult and Network Rail must ensure its plans leave a viable route available via either the WCML or ECML to facilitate the sleeper operating its nightly services.

7.3 Scorecard Metrics

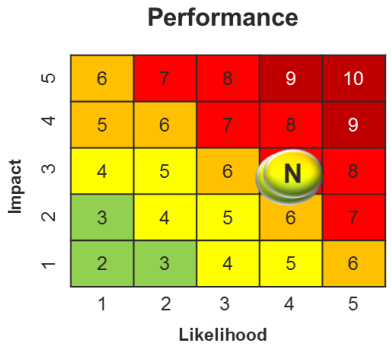
In 2017/18, Network Rail and Caledonian Sleeper introduced a scorecard at a Customer level. The scorecard metrics will be reviewed each year to ensure they remain fit for purpose and place the required emphasis on the measures that are the most important for the customer. The scorecard values will change from April 2018. Below is the customer scorecard for 2017/18 and the activity plan to achieve the business priorities.

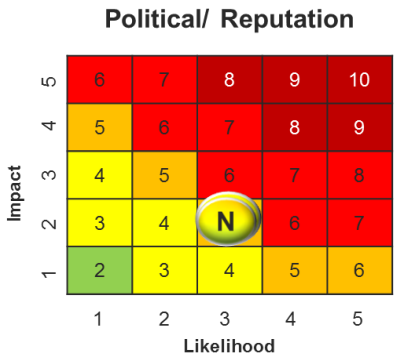
The activities we plan to undertake to deliver these priorities are summarised in the table below:

Caledonian Sleeper Customer Scorecard

Safety	Definitions	AIP % WEIGHTING		WORSE THAN TARGET	TARGET	BETTER THAN TARGET
CS Reported NR Close Calls	Close calls and infrastructure issues raised where NR is the responsible owner	35%	15.0%	7	5	3
Safety Issues Satisfactorily Resolved within 30 days	Both parties agree that the issues have been resolved		20.0%	70%	75%	80%
Train Performance						
Caledonian Sleeper Right Time Arrivals - Overall	All Caledonian Sleeper services that arrive at destination early or right time	35%	0%	72%	75%	78%
Right Time Arrivals- Euston 'Highlander'	All Caledonian Sleeper 'Highlander' services that arrive at destination early or right time at Euston		5%	72%	75%	78%
Right Time Arrivals-Euston 'Lowlander'	All Caledonian Sleeper 'Lowlander' services that arrive at destination early or right time at Euston		5%	72%	75%	78%
Right Time Arrivals-Inverness	All Caledonian Sleeper services that arrive at destination early or right time at Inverness		5%	72%	75%	78%
Right Time Arrivals-Ft William	All Caledonian Sleeper services that arrive at destination early or right time at Fort William		5%	72%	75%	78%
Right Time Arrivals-Aberdeen	All Caledonian Sleeper services that arrive at destination early or right time at Aberdeen		5%	72%	75%	78%
Right Time Arrivals-Glasgow	All Caledonian Sleeper services that arrive at destination early or right time at Glasgow		5%	72%	75%	78%
Right Time Arrivals- Edinburgh	All Caledonian Sleeper services that arrive at destination early or right time at Edinburgh		5%	72%	75%	78%
Project Delivery						
Totems - Project Milestones Outstanding	% of GRIP milestones met	10%	2.5%	TBC	TBC	TBC
Delivery against Grip Stage Cost	Delivery against Grip Stage Cost		2.5%	TBC	TBC	TBC
MK 5 Gauging Project Milestones	% of GRIP milestones met		2.5%	TBC	TBC	TBC
Progress against MK 5 Approvals	No. of NR actions overdue against agreed dates		2.5%	TBC	TBC	TBC
Commercial						
Open Claims (No.)	No. of open claims commercial or RoU, at any given time	10%	0.0%	3	2	1
Current Value of Claims (agreed approximate value)	Current Value of Claims (agreed approximate value)		0.0%	N/A	N/A	N/A
Claims - Average Time Open	Average time open for all active claims		0.0%	365	270	180
Delay Attribution - No. of delays unresolved at Day 42	No. of delays unresolved at Day 42		5.0%	3	0	0
Schedule 4 Invoiced by Day 56	Agreed schedule 4 claims not processed within 56 days		2.5%	0%	100%	100%
Schedule 8 Invoiced by Day 56	Agreed schedule 8 payments not processed / invoiced within 56 days		2.5%	0%	100%	100%
Customer Satisfaction						
Satisfaction with NR overall	Quarterly pulse check % score based on survey question - minimum 4 respondents	10	10%	70%	75%	80%
			100%			

	Key Constraints, Risks and Opportunities	What we plan to do	Owner	Timescale
1	O / R - Track Access Contract	Establish a suitable contract that serves the purpose of Caledonian Sleepers' business and affords Network Rail the opportunity to undertake work at Euston and on the WCML for HS2	Head of Customer Relationship Manager (HoCRM)	March 2019
2	O - Introduction of Mark V rolling stock	Opportunity to further improve performance and service offering with the introduction of Mark V coaching stock	HoCRM	Ongoing
3	O - New Traffic	Develop business opportunity for more paths to the Far North of Scotland	HoCRM	March 2020
4	O - Last Mile Initiative	Further understand and deliver improvements in preventing 1-2 minute losses caused on approach to destination	HoCRM & Routes	Ongoing





Summary of risk outcome:
We expect that CP5 levels of performance to continue and improve into CP6 for Caledonian Sleeper as in April 2017 we implemented our FNPO transformation, where we strengthened the focus via our FSDM team to do "pre flight checks" of the train plan with Route and Customers. We plan to continue with this approach and therefore our net and target risk profile are already aligned.

8. Charters

Charters and Open Access Operators are important niche markets within the FNPO portfolio. Their specialised requirements are recognised in having a dedicated management team.

1000 Charter Services operate across the network each year, with around 50% of these being steam hauled. The market is diverse, ranging from:

– "High end" luxury dining and hotel services
– Days out to popular destinations
– Bespoke charters, e.g. for sporting events
– "Enthusiast" tours to appreciate specific locomotives or branch lines

There is an intensive seasonal peak, with around 70% of services operating between May and September.

A number of parties are involved in the supply chain, each of whom will attempt to engage with multiple parties within Network Rail at every conceivable opportunity. i.e.

– Tour promoters who devise and market the product
– Charter Train Operators who plan and operate the train.
– A third party rolling stock and/ or loco owner may also be involved

Charter Train Operations bring a positive benefit to both the rail industry and to UK Plc.

– They boost local economies by bringing tourism to key destinations across the network
– High profile excursions using revered locomotives such as the Flying Scotsman and Tornado, create an empathy for the railway, which aids Network Rail's profile
– The Jacobite, which operates between Fort William and Mallaig, is an international attraction, with many foreign tourists travelling on this service as part of their UK trip

Unlike other passenger operators, Charter Train Operators have Track Access Contracts granted by the ORR under General Approval;

These give operators the ability to bid to run bespoke charter operations anywhere on the network, subject to network capacity and capability.

The 'go anywhere' nature of these rights, means that Network Rail has the challenging requirement to;

– Maintain published gauge capability over the entire network
– Keep the entire network free of vegetation encroachment

FNPO is working with Charter customers to secure a number of 'Strategic Charter Paths', which would provide guaranteed gauge and vegetation cleared paths on core charter routes.

An industry Charter Conference was held in 2017 which brought together key stakeholders within the charter industry, to develop a Charter Strategy, committed to deliver a sustainable future for charters. This Strategy will form the basis of FNPO delivery to the charter industry through CP6.

The nature of Charter Track Access rights means paths can only be requested from Network Rail after other operators' firm rights have been planned. This can create uncertainty for the tour promoter who has to plan a service or programme many months in advance.

Capacity Planning works hard with the industry to find solutions and in the majority of cases they are successful. On some occasions unfortunately, paths cannot be found and in the worst case, proposed services cannot be confirmed and have to be cancelled. We plan to minimise this risk by developing Strategic Capacity for Charters.

In the summer months, the operation of steam services across the network can present the risk of lineside fires. FNPO Route has established a 'Fire Risk Protocol' with geographic routes and Charter Train Operators, that describes the risk assessment process and mitigations to be put in place to reduce the risk of steam related fires.

Network Rail is keen to work with stakeholders to identify new opportunities for development of the charter market to aid local economies. One opportunity is for FNPO Route to engage with Local Enterprise Partnerships to promote opportunities for new charter services. An example of this is the potential to operate day trip services from Southampton to London, providing excursions for visiting cruise ships docking at Southampton, offering passengers the opportunity to visit London for the day while the ship is docked.

An ongoing challenge is the ability to secure network capacity. FNPO is trialling strategic charter paths in the December 2018 timetable. This will then be developed further through CP6 in order that a catalogue of Strategic Paths is established. These paths would be gauge cleared for specific locomotives, and kept operationally robust and clear of vegetation. This approach minimises NR costs by avoiding bespoke planning and clearance, and provides more certainty for operators and customers.

Network Rail has a commitment to ensure effluent discharge is eradicated from the network by 2020. To achieve this FNPO Route is working closely with Charter Operators and rolling stock providers to find solutions which is challenging given the nature/age of heritage rolling stock, and the lack of depot discharge facilities.

The main CP6 objective the creation of a Strategic Capacity Statement for charters. The output will be a catalogue of robustly performing paths, which are fully gauge cleared, and have further operational characteristics such as watering locations and vegetation clearance.

In parallel, Network Rail is working on updating the rules applied to gauging steam locos, aimed at fewer prohibits being issued. The intention is to provide annual certification for regular running locomotives over specific routes, which will reduce the volume of bespoke gauging clearance required.

FNPO Route will also develop:

– Performance strategies for Charter Operators, detailing performance initiatives such as standby locos, and robust station dispatch arrangements
– Joint Safety Strategies with each Charter TOC, which will set out obligations on both the Operator and Network Rail, and will work towards achieving agreed safety targets. During CP6 we will develop a strategy for ETCS fitment and funding of Charter and heritage fleet, although it is not yet clear in what timescales charter operations might be affected by ETCS
– Network Rail will progress current discussions aimed at the elimination of effluent discharge from charter trains, as soon as is practicable. These discussions involve the charters community, ORR and DfT

The activities we plan to undertake to deliver these priorities are summarised in the table below.

Charters CP6 Strategy		Development and delivery of Charters Strategy in order to secure a sustainable future for charters.		
No.	**Key Constraints, Risks and Opportunities**	**What we plan to do**	**Owner**	**Timescale**
1	O Establish a catalogue of Strategic Capacity for Charters	Agree with Charter TOCs and Promoters a trial for Strategic Capacity in the Dec 18 timetable Establish a full catalogue of strategic capacity by December 2020	Charters CRE Charters CRE	March 2018 March 2020
2	O Work with ORR to review and support an appropriate regulatory regime for charters	Develop options for the contractual protection of charter paths, as well as the limitation of 'go anywhere' rights to bid Establishment of agreed options for an appropriate regulatory regime	Charters CRE Charters CRE	March 2020 March 2022
3	R Ability to develop a robust plan for the fitment of retention tanks to charter rolling stock	A plan is being developed to provide robust costs for the fitment of retention toilet tanks to charter heritage fleet with Charter TOCs. The costs associated with fitment of retention tanks to charter rolling stock is currently estimated at £10m.	Charters CRE	March 2019
4	R Ability to develop a robust plan for the fitment of ETCS to charters fleet	Agree plan with ETCS project for the funding and fitment of ETCS to charter fleet	Head of Freight Policy	March 2024
5	O Establish Joint Performance Strategies with Charter Operators	Agree and implement the detail of a performance strategy with each Charter TOC	Charters CRE	March 2019
6	O Establish a Joint Safety Plan with Charter Operators	Agree and implement the detail of a Joint Safety Plan with each Charter TOC, to include for example fire risk protocols, on train discipline, SPAD reduction plans	Charters CRE	March 2019

9. Aspirant Open Access Operators

FNPO Route currently represents all aspirant Open Access Operators (OAOs) within Network Rail.

FNPO is committed to support open access operations with the aim of increase passenger growth and improving customer satisfaction. We work collaboratively with the geographic routes and keep them informed as to the particular needs of open access operators, and the requirement to treat them fairly and consistently.

Aspirant OAOs occupy a niche position. They often have different (and often more complex needs) compared to franchised operators whilst having less railway experience and familiarity. FNPO Route provides a centre of expertise to advise them and represent these needs. These operator aspirations often;

– cross multiple route boundaries
– have multiple operator interactions
– occur outside of refranchising timescales

Grand Central and Hull Trains operate successfully on LNE Route, recording high levels of customer satisfaction.

First East Coast Trains will also commence open access operations on LNE&EM Route in 2020.

FNPO Route is currently representing Alliance Rail, Go-Op, and Swanage Railway with their open access aspirations.

Since FNPO Route assumed responsibility for Open Access Operators, the first-ever jointly negotiated Section 18 contract with an open access operator was awarded by ORR in 2015 to Network Rail and Alliance Rail.

OAOs are often funded by 3rd party investors who need certainty of access rights in place before they will confirm capital investment (e.g. in rolling stock) – whereas ORR would prefer that investment funding to be in place before they grant of access rights. Securing access to the network in advance is thus not straightforward.

Priorities

There is a complex relationship between Government, ORR and OAOs if there is any prospect of an OAO affecting franchise revenue streams, irrespective of abstraction tests carried out by the ORR. Potential OA operations are usually highly political sensitive and require careful management.

The access charging regime for open access operators may change in CP6, with open access operators paying a contribution to the fixed charge. If that happens, it is anticipated that the process of gaining access to the network for OAOs will become easier.

There would then be an opportunity for Network Rail to work with aspirant OAOs to agree how to improve the process for operators seeking capacity on the network.

FNPO will work with SO Capacity Planning and OAOs to establish a robust process for the assessment of capacity for applications involving timetables beyond the current timetable development stage.

10. Activities & expenditure

This plan is predicated on the key assumptions laid out in Appendix A and will be impacted as these assumptions change

10.1 Cost and volume summary

Operating Expenditure (post headwinds and efficiencies in 17/18 prices)

	Unit of measure	CP5						CP6						CP7
		14/15	15/16	16/17	17/18	18/19	CP5	19/20	20/21	21/22	22/23	23/24	CP6	24/25
Controllable Costs	£m	3.7	3.3	3.9	5.2	5.6	**21.7**	5.6	5.7	5.4	5.4	5.4	**27.3**	**5.4**
Railway Ombudsman	£m	N/A	N/A	N/A	N/A	N/A	N/A	0.2	0.2	0.2	0.2	0.2	**0.8**	**0.2**
Total	**£m**	**3.7**	**3.3**	**3.9**	**5.2**	**5.6**	**21.7**	**5.8**	**5.9**	**5.6**	**5.6**	**5.6**	**28.1**	**5.6**

10.2 Controllable Costs.

Approximately 90% are staff and related costs. The increases in late CP5 reflect the transformation programme into the 'FNPO Route'.

FNPO controllable costs are not directly linked to traffic volumes – but to the complexity of customer relationships.

Paradoxically the decline in coal will increase the requirements of the customer teams to ensure the conditions for traffic growth in other sectors, as well as safety improvement, are in existence.

These requirements have become more complex given the structural, and geographic changes of the rail freight market with much of the new traffic growth in construction and intermodal being realised in the South East.

10.3 Railway Ombudsman

These are costs relating to the running and compensation of the ombudsman scheme as detailed in Section 6.9.

10.4 Headroom

We do not want to be in a position where we have to re-plan our activity every time a risk materialises in CP6 as this would be very inefficient. Therefore, our strategic plan includes £4m of route headroom, which has been created by holding back some SoFA funding from Network Rail's overall CP6 plan. This route headroom is particularly for the business performance risk we face in the control period.

Ideally, actual results will be in line with our CP6 plan and we will be able to release our route headroom to invest it in improving the railway – this headroom can be considered as contingent investment.

If needed, we will also have the opportunity to access portfolio headroom in CP6, particularly for inflation risk. Again, we will ideally spend this on further investment to improve the railway. Portfolio headroom will be controlled through our corporate business planning process. Increased investment will depend on successful delivery of the company's plans and good business cases.

Note that figures here exclude connections income which is recognised within Other Single till income noted in Table 12.6.

Capital Expenditure - Renewals (in 17/18 prices)

	Unit of measure	CP6						CP7
		19/20	20/21	21/22	22/23	23/24	CP6	24/25
ETCS Fitment (Freight)	£m	23.2	43.7	44.1	60.1	66.9	**238.0**	**61.6**
ETCS Fitment (Heritage)	£m	0.5	0.8	6.0	10.0	12.8	**30.0**	**6.0**
Total	**£m**	**23.7**	**44.5**	**50.1**	**70.1**	**79.7**	**268.0**	**67.6**

Note that included within the Freight ETCS fitment figures is, £1m for additional staff costs within the FNPO team, and an element of contingency covering schedule 8 risk held by Network Rail for delays resulting from ETCS in cab failures. These are contingent on the funding for ETCS and therefore are not include in the core FNPO funding in sections 11 and 12.

Network Rail is committed to delivering a digital railway. The Digital Railway Programme (DRP) has developed five SOBCs (with the Routes involved and other stakeholders) for digital upgrade schemes. These SOBCs represent an early stage of the investment decision framework (HMT's 'Green Book') as required in the memorandum of understanding agreed between Network Rail and the DfT signed on 17 March 2016.

The SOBCs for upgrading are integrated into the Route Strategic Plans, reflecting the decision of ExCom Plus on 4 July 2017 that the company's CP6 plans should present its commitment to digital. Where appropriate, the net funding amounts correspond to the digital railway elements of this RSP i.e. represent the additional funding required above that needed to fund conventional renewals that were planned prior to integration of DR in addition to committed supporting enhancements.

It is the DR programme's assumption that development funding in CP5 for progression of digital upgrades, in order to deliver them within CP6/7 will come from the NPIF funds. Where there is a shortfall in government funding, this will need to be obtained from other means. DfT funding via the CP6 determination or NPIF is the preferred funding source, although third party funding may also present an opportunity to progress schemes where government funding is not available.

Additionally, there may be options for private finance, although this will still require the identification of a funding source for the repayment of capital and finance charges.

Due to the “go anywhere” nature of freight, the ETCS Freight Programme is a key enabler prior to any broader ETCS infrastructure deployment. As such the ETCS Freight Programme has been established, under the principles of Network Change, to prepare the FOCs to transition to ETCS businesses. The FOCs have been involved from the inception of the programme to ensure their end requirements are met. The programme is essentially in two parts:

– First in Class (FiC) vehicles to prove the design and integration of the ETCS onboard equipment to the vehicle and ensure the associated approvals are complete and the design, material supply and instructions are ready for fleet roll out - this part is more a design and development environment
– Fleet fitment rolls out the proven design to the fleet – this part is more of a ‘production’ environment

In support of the proposed infrastructure ETCS deployments, the current programme schedules the FiC from 2018 to 2022 with the fleet activity commencing 2022 to 2028. Should the infrastructure ETCS deployment plan demand a different vehicle delivery profile this will be change controlled into the ETCS Freight Programme. Associated with the vehicle fitments, the necessary business change activities within the FOCs also form part of the ETCS Freight Programme such as staff training and process and procedural updates.

The programme is structured around 3 main agreements:
Freight Commercial Agreements (FCAs) between Network Rail and each FOC to set out the activities the FOCs will undertake to support their fitment programmes, the compensation framework and the maturity criteria by which responsibility for the on-board equipment transfers to the FOCs Supply Agreement for the provision of up to 21 ETCS FiC projects between 2018 and 2022 and fleet fitment of up to 745 vehicles between 2022 and 2028. IP Signalling has led the procurement of a turnkey contract to make the supplier responsible for delivery of a working solution, with approvals as far as they are legally and efficiently able

Support Agreements which are tripartite between Network Rail, the ETCS supplier and the FOCs for the maintenance of the on-board equipment for 10 years (up to 25 years by exercising options). Responsibility for maintenance costs will transfer to the FOCs when the agreed criteria for system reliability and stability are satisfied.

The FCAs were signed on 7 December 2017 as were the supply and support agreements which had been the subject of a tender competition. The initial FiC works which are funded by the DfT through a Grant Offer and will deliver 3 FiC fitments and 6 completed designs. This (and the funding requested in the table above) will allow the FiCs to be completed, and the fleet fitment to commence, and the associated FOC business change to be undertaken, with the expectation of further funding for fitment in CP7 to complete the project in 2028.

The ETCS (Heritage) fund allows the development of solutions to fit historic vehicles with digital on-board equipment so that current network access rights held by Charter and Heritage Operators are maintained. Work completed to date in conjunction with the Charter and Heritage community has shown that the application of ETCS to such vehicles is feasible and an outline programme spanning CP6 and CP7 has been developed to undertake a fitment programme which is reflected in this submission.

11. Cost competiveness & delivery strategy

Summary of Capex headwinds and efficiency

All major capital expenditure included within the FNPO plan relates to Digital Railway activity and especially the freight in-cab ETCS fitment requirement to support enhancement schemes such as ECML ETCS. These are all set out in Strategic Outline Business Cases and therefore uncertainty still exists as to the precise timing and delivery costs which means they are not yet mature enough for consideration of Headwinds and Efficiencies.

Summary of controllable costs, headwinds and efficiencies

	Year			Year					
Opex	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	CP6 total
At current cost level (£m)	3.9	4.0	4.0	5.6	5.6	5.6	5.6	5.6	27.8
Head winds (£m)	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.2	0.4
Scope Change (£m)	0.0	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0
Efficiency (£m)	0.0	0.3	0.1	0.0	0.0	0.3	0.3	0.3	0.9
Post efficient spend (£m)	3.9	5.2	5.6	5.6	5.7	5.4	5.4	5.4	27.3

Excludes estimated ombudsman costs

Team Structure

Area	Headcount	Staff and related Costs* £m (Annual)
Network Management	24	1.8
Customer Management	22	1.5
Performance	12	0.7
Planning and Capability	10	0.6
Business Development	3	0.4
Managing Director	2	*Split out above*
Total	73	5.0

**Excludes indirect costs*

Headwinds

Area	Cost pressure name	Description	Mitigating actions	Control Period £
Controllable costs	Increasing complexity of Rail Freight market	Following the drop off in coal, and the increases in traffic in the South East, more resource is required to continue to meet our customers' requirements.	The business development team continues to work to identify new revenue opportunities to offset against this.	400k

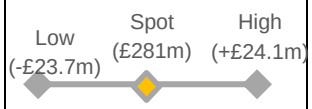
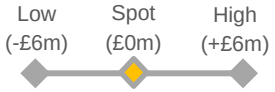
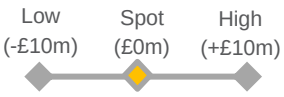
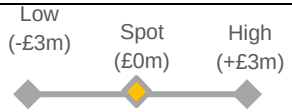
Efficiencies (FNPO funding)

Area	Efficiency name	Type of efficiency	Description	Control Period £
Controllable costs	Continuous improvement	Cost reduction	Following the rightsizing of the team through the transformation programme to create the FNPO route – the team is committed to identifying methods to increase our outputs and therefore efficiency going forward.	900k

Efficiencies (Not to be realised in FNPO books)

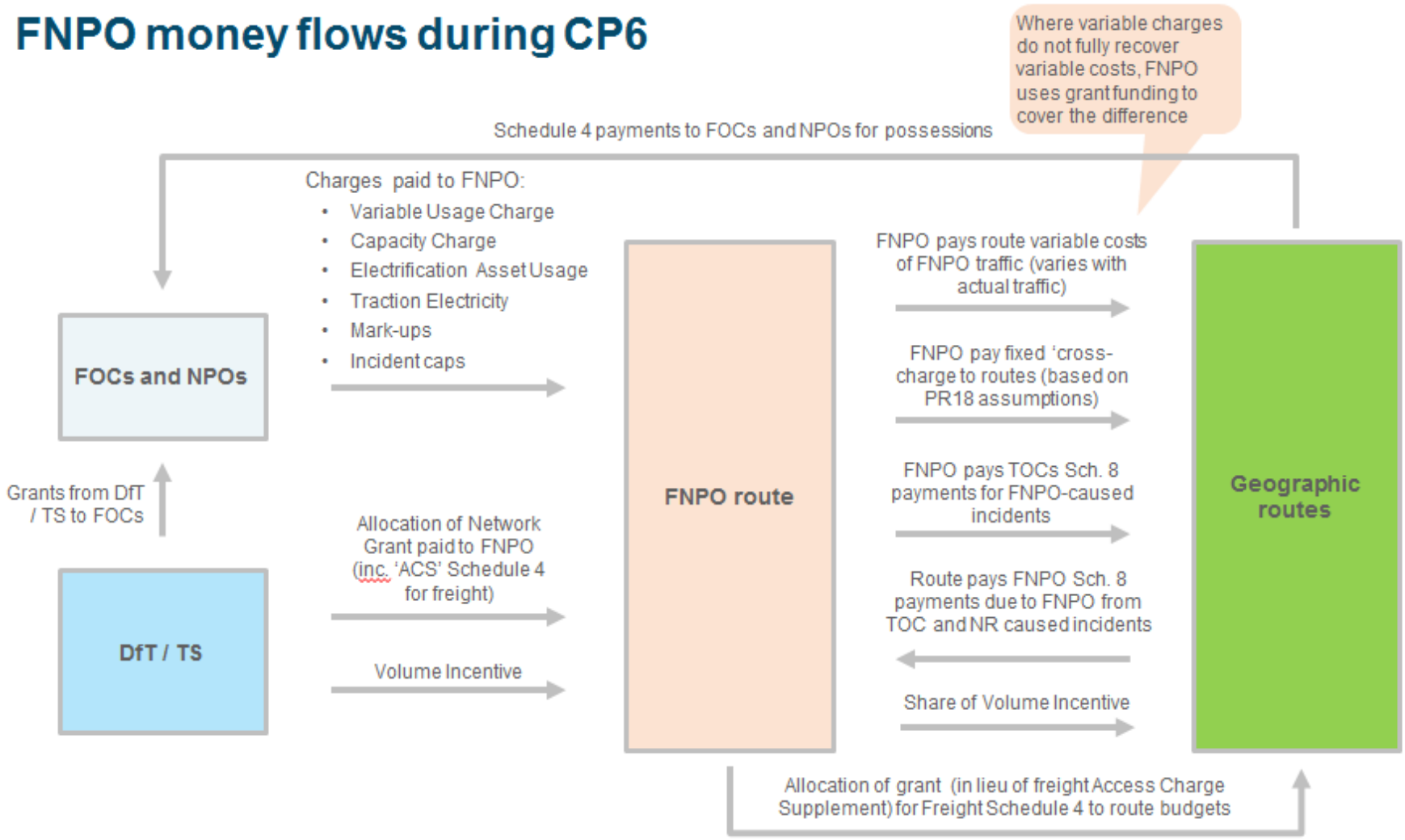
While the FNPO finances may not lend themselves to large scale efficiencies, FNPO intends on setting up a Freight Infrastructure Optimisation programme. This programme will drive efficiencies and savings in CP6 within the geographic routes where infrastructure previously used extensively by coal traffic can be downgraded or scrapped. This programme is in its infancy and quantification of benefits is still to be done in this area. The mechanism for incentivising the FNPO route to collaborate with geographic routes during this programme is still being discussed, but is likely to revolve around the sharing of FPM (financial performance measure) between routes where efficiencies are realised.

FNPO Uncertainty Analysis

Area: (R, M, O, S, Income)	Potential range (low – spot – high) (Control period)	Summary of key drivers of range	% Uncertainty
Freight Income		Freight income can be highly variable, and is affected by a wide range of economic drivers. As part of the preparation for CP6, consideration has been given to multiple plausible scenarios for the future of Freight traffic. The range set out here represents the difference between the best case scenario (conditions favour rail over road, with high economic growth), and the worst case scenario (conditions favour road over rail, with low economic growth). The forecast included in the plan is believed to be the most likely outcome, however the nature of Rail Freight lends itself to market pressures, which should fall within this range. ***Note that due to the FNPO money flows model, which involves passing variable income to geographic routes as a proxy for variable costs – this uncertainty sits within the geographic routes.***	+9% -8%
NPO Schedule 8		The schedule 8 regime is designed to be net neutral, however there is a possibility of discrepancies between NPO on Self income and the related NPO on TOC costs that Network Rail incurs. This has been noted during CP5 at times, and leaves both a risk and opportunity within the plan that is mostly outside of Network Rail's control. It depends on where the TOC on Self delay happens and therefore which other operators are affected. CrossCountry schedule 8 in particular could provide large volatility given the geographical reach this operator has. ***Note that due to the FNPO moneyflows model, which involves holding the geographic routes neutral for NPO on TOC incidents, this discrepancy will exist within the FNPO books. FNPO does not have the ability to fund a shortfall here and therefore this risk needs to be covered through another mechanism.***	N/A
Freight Schedule 8		The schedule 8 regime is designed to be net neutral, however there is a possibility of discrepancies between FOC on Third Party income and the related FOC on TOC costs that Network Rail incurs. This has been noted during CP5 at times, and leaves both a risk and opportunity within the plan that is mostly outside of Network Rail and FNPO's control. It depends on where the FOC on Third party delay happens and therefore which other operators are affected. Freight covers the whole network and therefore could produce a great deal of volatility in this figure. ***Note that due to the FNPO moneyflows model, which involves holding the geographic routes neutral for NPO on TOC incidents, this discrepancy will exist within the FNPO books. FNPO does not have the ability to fund a shortfall here and therefore this risk needs to be covered through another mechanism.***	N/A
Freight Schedule 8		The freight schedule 8 regime is likely to be calibrated on Network Rail's FDM trajectory. Performance above or below this will result in a financial flow between Network Rail and the FOCs. Across the control period, FDM is expected to be within the range of 93-95% and therefore this is our range of uncertainty. ***Note that due to the FNPO moneyflows model, which involves passing variable income to geographic routes as a proxy for variable costs – this uncertainty sits within the geographic routes.***	+9% -8%

Area: (R, M, O, S, Income)	Potential range (low – spot – high) (Control period)	Summary of key drivers of range	% Uncertainty
Freight Schedule 4	Low (-£8m) Spot (£91.7m) High (+£19m) 	Freight schedule 4 costs have been estimated along with the passenger ACS estimates. These are based on Cp6 maintenance and renewals plans, and assumptions around the emergency timetable requirements. Any changes within these plans, and late notice possessions will reduce the certainty over this expenditure. The uncertainty around the renewals work bank has therefore been used here as a % estimate. ***Note that due to the FNPO moneyflows model, which involves recognising freight schedule 4 in the geographic routes this uncertainty sits within the geographic routes.***	+21% -9%
FNPO Operating expenditure	Low (£-2.8m) Spot (£27.3m) High (£2.8m) 	Operating expenditure within FNPO, and previously the Freight team, has generally been seen to be within 10% of the operating expenditure budget, therefore the range of uncertainty here is relatively small.	+10% -10%

FNPO money flows during CP6



Please note: In this diagram, we do not show the step where income is received into NR Centre (i.e. by Treasury) and passed onto routes. We also do not show payments to central functions and System Operator

12. CP6 regulatory framework

This chapter sets out the funding and financing implications of our strategic plan for Control period 6 (CP6), which runs from 1 April 2019 to 31 March 2024.

The FNPO route will have its own revenue requirement for CP6, similar to the 8 geographic routes and the system operator.

The FNPO financials will incorporate track access income from all Freight and National Passenger operators, which the FNPO route will then 'pass' onto the geographic routes for use of the track – acting as a 'super user' on behalf of our operators (this is noted as Income from FNPO in each route strategic plan). This will cover geographic fixed and variable costs associated with Freight and Charter traffic, as well as CrossCountry and Caledonian Sleeper. These 'money flows' will also incorporate recognition of schedule 4 and 8 costs within the geographic route books to incentivise the right areas of the business (for example schedule 4 in geographic routes as they make the decision to take possession of the track, or that the FNPO will hold other routes neutral for FOC/NPO on TOC delays).

[note that the FNPO submission currently includes freight schedule 4 and 8 which will be "budget flexed" to the other routes in CP6 – this is being done to keep all freight finances in one place while discussions are had around the pricing regime].

This methodology will allow the FNPO route financials to be managed like a route business – providing completeness and transparency over income and costs relating to our customers' activity and therefore providing greater insight and opportunity to drive efficiencies network wide. It will also allow FNPO to hold geographic routes more accountable for our customers' interests. The risk/opportunity window around track access income will therefore sit within the geographic routes, as the FNPO route passes variable income onto the geographic route via the 'money flows' model. This will serve to incentivise the geographic routes to operate, maintain and renew the railway in an efficient manner.

Conversely, there is a risk that, if the schedule 8 regimes are not calibrated accurately, there may be a disconnect between income received from TOC on Self/FOC on TP delays, and expenditure from the resulting TOC on TOC/FOC on TOC. This will result in greater transparency of the regimes, however it is also a risk that cannot be mitigated by the route itself, and annual wash-ups from geographic routes will be needed to cover this.

Network Rail's key areas of influence in the development of the rail freight sector are therefore most directly related to Network Capacity and Capability and through its freight estate freehold interests, Terminal Capacity and Capability. Moreover, Network Rail can have positive influence over the effective development of the requisite connecting infrastructure relating to third party terminal developments on private rail adjacent freehold.

12.1 Summary of FNPO route expenditure assumptions

Table 12.1 sets out the proposed route expenditure for CP6. It includes all costs that are incurred directly by the FNPO route and central costs that are allocated / attributed to the FNPO route. However, it does not include the geographic route costs that are allocated / attributed to the FNPO route. These are shown in section 12.3.

Table 12.1: CP6 forecast of FNPO route expenditure

£m in 2017/18 prices	19/20	20/21	21/22	22/23	23/24	CP6
Route expenditure						
Operations *	6	6	6	6	6	**28**
Schedule 4 & 8	21	18	19	19	14	**92**
Allocated / attributed expenditure						**0**
Traction electricity	9	9	9	10	10	**47**
Industry costs and rates	0	0	0	0	0	**0**
System Operator	7	8	9	8	8	**40**
Central support and operations	0	0	0	0	0	**0**
Risk and uncertainty allowance	0	0	0	0	0	**0**
Central renewals	0	0	0	0	0	**0**
Group Portfolio Fund	1	1	2	2	2	**8**
Route costs**	1,134	1,219	1,232	1,158	1,089	**5,832**
Total expenditure	**1,178**	**1,261**	**1,277**	**1,202**	**1,129**	**6,047**

** Excludes Digital railway capital expenditure noted in section 10.*

*** Shows expected 'internal recharge' paid by FNPO route to geographic route for FNPO use of geographic routes' infrastructure.*

12.2 Revenue requirement

Table 12.2 sets out the CP6 route revenue requirement. The net revenue requirement is the amount of income that we need to recover from customers and funders in CP6 to deliver the outputs in our route plan.

We have calculated the revenue requirement based on identifying all costs (including amounts paid to geographic routes) relating to the route. Under this approach we calculate total fixed and variable cost relating to Freight and National Passenger operators, expected schedule 4 & 8 costs (which will be noted as an 'income' in the geographic route submissions) and total operating expenditure. Added to these will be the allocation of central costs to form a total cost base that will need to be recovered through charging or grant income.

Table 12.2 CP6 revenue requirement

£m in 2017/18 prices	18/19	19/20	20/21	21/22	22/23	23/24	CP6
Route support, operations and maintenance	6	6	6	6	6	6	**28**
Central support and operations	0	0	0	0	0	0	**0**
Traction electricity, industry cost and rates	7	9	9	9	10	10	**47**
Schedule 4 & 8 **	11	21	18	19	19	14	**92**
System Operator	0	7	8	9	8	8	**40**
Group Portfolio fund	0	1	1	2	2	2	**9**
Allowed Return	0	0	0	0	0	0	**0**
Amortisation	0	0	0	0	0	0	**0**
Tax	0	0	0	0	0	0	**0**
Gross revenue requirement		**44**	**43**	**45**	**44**	**40**	**216**
Other single till income	(4)	(4)	(4)	(4)	(4)	(4)	**(20)**
Net revenue requirement before allocation of route costs		**40**	**39**	**41**	**40**	**36**	**197**
Freight avoidable costs (including variable costs)*	N/A	302	330	347	339	320	**1,638**
NPO and Charter avoidable costs (including variable costs)*	N/A	188	199	205	187	168	**947**
Minimal network geographic route costs allocated to FNPO*	N/A	644	690	680	632	601	**3,247**
Net revenue requirement		**1,174**	**1,258**	**1,273**	**1,198**	**1,125**	**6,029**

** Shows expected 'internal recharge' paid by FNPO route to geographic route for FNPO use of geographic routes' infrastructure.*

*** Freight Schedule 8 is assumed as nil for CP6 due to recalibration, therefore only schedule 4 and Service Variations and Cancellations shown here*

12.3 Breakdown of FNPO related route costs

The majority of the FNPO route revenue requirement is made up of a 'cross-charge' from the FNPO route to geographic routes for use of geographic routes' infrastructure by freight and national passenger operators. Table 12.3 provides a breakdown of this 'cross-charge'

Table 12.3 Breakdown of FNPO-related geographic route costs

£m in 2017/18 prices	19/20	20/21	21/22	22/23	23/24	CP6
Variable geographic route costs allocated to FNPO (SRMC)						
Freight	49	50	53	56	61	**269**
NPO and Charter	15	15	15	15	15	**75**
Total	**64**	**65**	**68**	**71**	**76**	**344**
Other avoidable geographic route costs allocated to FNPO						
Freight	253	280	294	283	259	**1,369**
NPO and Charter	173	184	190	172	153	**872**
Total	**426**	**464**	**484**	**455**	**412**	**2,241**
Minimal network geographic route costs allocated to FNPO						
Freight	435	469	469	437	416	**2,226**
NPO and Charter	209	221	211	195	185	**1,021**
Total	**644**	**690**	**680**	**632**	**601**	**3,247**
Total geographic route costs allocated to FNPO	**1,134**	**1,219**	**1,232**	**1,158**	**1,089**	**5,832**

12.4 Income

We summarise the income that we are forecasting from each charge in CP6. A more detailed breakdown of income can be found in table 12.5.

The income forecast, below, reflects forecast CP6 traffic levels and is consistent with the CP6 revenue requirement set out in Table 12.2 above. However, it assumes the use of CP5 uncapped access charge rates for freight and continuation of CP5 rates for National Passenger Operators, rather than making assumptions about how the level and structure of charges might change in CP6. The capacity charge has, however, been removed in line with the decision made by the ORR. It should be noted however, that should rates be uncapped in CP6 this would represent a scenario where road may become more favourable than rail and materially affect these forecasts.

Freight traffic levels have been forecast using the outputs of the MDS Transmodal Rail Freight Forecasts draft report. Of the four scenarios, Network Rail believes that an average across all four to be most appropriate. This reflects that we expect medium market growth and conditions that don't favour either rail or road. These assumptions are heavily dependent on government policy and the health of the UK economy. Should there be material changes in either these assumptions will need to be reviewed with a likely material impact on the financial position. These forecasts will be revisited ahead of the draft determination to allow further consideration around the appropriateness of the underlying assumption.

Table 12.4: Total CP6 income

£m in 2017/18 prices	19/20	20/21	21/22	22/23	23/24	CP6
Variable and 'other' charges	66	67	70	74	79	356
EC4T	8	8	9	9	9	43
Schedule 4 ACS	0	0	0	0	0	0
FTAC / Network Grant (SOMR)	896	958	1,003	960	881	4,698
Grant for tax, financing and BTP *	204	224	192	156	156	932
Other single till income	4	4	4	4	4	20
Subtotal (gross revenue requirement)	**1,178**	**1,262**	**1,277**	**1,202**	**1,129**	**6,048**
Capital grant for enhancements	0	0	0	0	0	0
Total income	**1,178**	**1,262**	**1,277**	**1,202**	**1,129**	**6,048**

**The allocation of geographic route costs to FNPO includes costs that will be funded by Government grants outside of the periodic review. These costs are: corporation tax costs, financing costs and BT Police costs. In Table 10.2, we have shown, separately, FTAC/Network Grant, which is intended to cover support, operations, maintenance and renewals costs, from grant funding for costs not covered by the SoFA.*

12.5 Breakdown of forecast CP6 access charges income

Table 12.5 provides a more detailed breakdown of the forecast of CP6 access charging income, which identifies the charging income by customer type, i.e. freight, national passenger operators and charter.

The income forecast, below, reflects forecast CP6 traffic levels and is consistent with the CP6 revenue requirement set out in Table 12.2. However, it assumes the use of CP5 uncapped access charge rates, rather than making assumptions about how the level and structure of charges might change in CP6.

Table 12.5: CP6 forecast of route access charging income

Charges	Year						CP6 total
£million in [2017/18 prices]	18/19	19/20	20/21	21/22	22/23	23/24	
Variable Usage Charge (VUC)	47.0	63.5	64.9	67.8	71.2	76.3	343.7
Freight	45.6	48.5	49.9	52.8	56.2	61.2	268.5
National passenger operators	13.6	13.6	13.6	13.7	13.7	13.7	68.3
Charter	1.4	1.4	1.4	1.4	1.4	1.4	7.0
Electricity for Traction Charge (EC4T)	6.0	7.9	8.4	8.6	8.8	9.2	42.9
Freight	3.0	4.0	4.2	4.3	4.4	4.6	21.5
National passenger operators	3.0	4.0	4.2	4.3	4.4	4.6	21.5
Charter	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electrification Asset Usage Charge (EAUC)	0.3	0.3	0.3	0.3	0.3	0.3	1.3
Freight	0.2	0.1	0.1	0.1	0.1	0.1	0.6
National passenger operators	0.0	0.1	0.1	0.1	0.1	0.1	0.7
Charter	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Freight Specific Charge	0.2	0.8	0.8	0.8	0.8	0.8	3.9
Freight - Other (ICACS & CCACS)	1.4	1.3	1.4	1.4	1.4	1.6	7.1
Schedule 4 Access Charge Supplement	14.5	0.0	0.0	0.0	0.0	0.0	0.0
FTAC/Network Grant	0.0	896.0	958.0	1,003.0	960.0	881.0	4,698.0
Grant for tax, financing and BTP*	0.0	204.4	224.3	191.5	155.8	156.0	931.9
Total charging income	**54.9**	**1,174.2**	**1,257.9**	**1,273.4**	**1,198.4**	**1,125.0**	**6,028.9**

12.6 Allocation of Group Portfolio Fund

Our CP6 plan includes funding for risk and uncertainty (the 'Group Portfolio Fund'). Ideally, actual results will be in line with our CP6 plan and this funding will be gradually released to invest in improving the railway. In CP6, some of this funding will be held at a route-level, with the remainder held at a portfolio-level. There is no 'central' route in our SBP submission so we have allocated all funding for risk and uncertainty to routes and System Operator. Table 10.4, below, includes our allocation of the Group Portfolio Fund for CP6.

Table 12.6: Allocation of Group Portfolio Fund

£m in 2017/18 prices	19/20	20/21	21/22	22/23	23/24	CP6
Group Portfolio Fund	1	1	2	2	2	**8**
Route	1	1	1	1	1	**4**
Portfolio	0	1	1	1	1	**4**

12.7 Breakdown of other single till income

Table 12.6 provides the breakdown of forecast other single till income for CP6. This represents Network Rail income that is received from sources other than track access charges and network grants.

Connections income is operating cost recovery relating to 3rd party connections maintained by Network Rail.

Table 12.7: CP6 forecast of other single till income

£m in 2017/18 prices	18/19	19/20	20/21	21/22	22/23	23/24	CP6
Other route income (connections income)	(3.9)	(3.9)	(3.9)	(3.9)	(3.9)	(3.9)	**(19.5)**
Total other single till income	**0.0**	**(3.9)**	**(3.9)**	**(3.9)**	**(3.9)**	**(3.9)**	**(19.5)**

12.7 Network Rail management connection income

Network Rail manages maintains and develops Britain's national rail infrastructure. Facility owners of freight or passenger facilities such as terminals, ports, sidings, depots, in order to use the rail network need a physical connection in place with Network Rail, consequently followed by the connection contract.

Connection contracts set out the rights and obligations between two parties in respect of the ongoing maintenance, repair and renewal of connecting infrastructure and come under the access provisions in the Railways Act 1993, any such agreements need to be approved by Office of Rail and Road (ORR).

The Model Connection Contract (MCC) is an ORR approved template, which has been developed on the same basis as the provisions in the model track access contracts, already produced and adopted for freight and passenger train operations.

The costs of maintaining, repairing and renewing connection infrastructure generally have both fixed and variable elements. That means, that some of the costs are present regardless of the level of traffic while other costs vary with the number of services operating over the connection.

We are currently undertaking work to review the current cost model, with the aim of updating the charging regime to align it with the asset lifecycle activities and unit rates used by the asset management teams. This will give great transparency of costs to our customers. This work is ongoing and we plan to engage and consult with customers during 2018/19, with a view to implementing any changes in CP6.

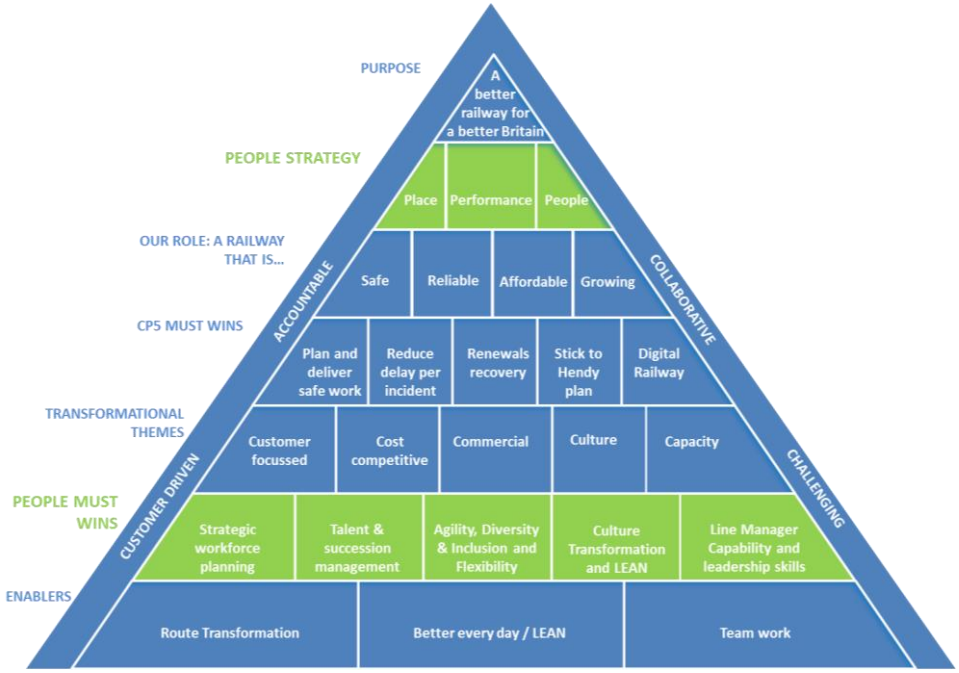
13. People strategy

Organisations should manage people within a planned and coherent framework that reflects the business strategy. This helps ensure that the various aspects of people management work together to develop the performance and behaviours necessary for the delivery of organisational value.

Chartered Institute of Personnel and Development

13.1 Objectives

The FNPO People Strategy forms part of our “Better Every Day Plan”. This has been aligned to the National People Strategy theme of ‘great people’, ‘great place to work’ and ‘high performance’. It also links into the priorities that have been identified going forward into CP6, these being structured around the five key People Must Wins; Strategic Workforce Planning, Talent and Succession Management, Agility, including D&I and Flexibility, Culture Transformation and Line Manager Capability and Leadership Skills. This in turn supports the delivery of a safe and reliable railway; while allowing for the activities necessary to engage, recruit, reward, recognise and retain our people and people managers. By defining specific areas to focus on, this strategy can be adapted and adopted flexibly as it matures within FNPO.



13.2 Strategic workforce planning

Strategic workforce planning is more important than ever before. The skills required are constantly adapting, for example, with the introduction of devolution and Digital Railway; and as such we must address the skills level gap which has been identified within the industry. This will enable us to meet the necessary performance level and operational needs of FNPO (e.g., the right number of people, with the right skills and capabilities at the right time). There needs to be a clear view of the numbers of people, the locations where they will be needed, and the skills sets they will require to perform the roles we have now, and in the future. Analysis needs to be far enough ahead to give us time to recruit develop and retrain the people to fill the roles.

13.3 Talent & succession management

The Talent Matrix is used to identify people with key skills and high potential in order to drive business performance across FNPO by developing, deploying, engaging and retaining talent. The purpose of this is to identify potential and develop individuals into their next role or provide sufficient challenges to retain them at their existing level. Personal Development Plans (PDPs) are used to document their development goals. This provides a pipeline of staff with the required skills that FNPO will need in the future.

Succession plans are the key control to confirm the resource pipeline for key roles in FNPO. It enables HR and line management to identify and address resource gaps for future requirements. This is by recruitment or longer term projects to attract candidates that can be developed into those roles.

13.4 Agility, Diversity & Inclusion and Flexibility

FNPO's activities align with Network Rail's vision to be an open, diverse and inclusive organisation. Achieving this will make us more receptive to new ideas, creativity and innovation, and help us to be more transparent and accessible. FNPO has a structured diversity and inclusion strategy which includes collaboration internally within Network Rail and the wider rail industry. This includes work to improve the health and wellbeing of our employees as well as further improving the gender diversity within FNPO. FNPO also has a focus on agile and flexible working which enables attraction and retention of a diverse and inclusive workforce.

13.5 Culture transformation and LEAN

Integrating continuous improvement into the business will help to increase collaboration and share best practice, resulting in greater innovation and more efficient ways of working whilst focusing on our customers' and creating more capacity to deliver strategic priorities / Must Wins. Within FNPO, we are striving to embed continuous improvement in all aspects of the business, including the employees' life cycle from Recruit, Reward, Recognise, Retain and Relate (Engage). We recognise that with opportunity and change comes risk, however change is possible when we involve our people from the outset. With strong leadership; and to anticipate and meet these risks, we should engage and communicate effectively with our employees and their trades unions.

13.6 Line manager capability and leadership skills.

Line manager capability and leadership skills are central to the successful implementation of the FNPO People Strategy. Leaders have a crucial part to play, not only in the consistent demonstration of leadership behaviours and leading by example with both customers and employees, but in the day-to-day management of people and operations and in the implementation of HR policies. It's therefore important that proper consideration is given to the way line managers are selected, developed and managed on an ongoing basis.

The activities we plan to undertake to deliver these priorities are summarised in the table below.

No.	Key Constraints, Risks and Opportunities	What we plan to do	Owner	Timescale
1.	O: We will be able to fill current and future vacancies with the right person, with the right skills, at the right time and in the right place.	– Develop and Implement a Strategic Workforce Plan Solution – Consistent and updated headcount forecast in place for all client areas. – Develop and implement resource plans and align with Strategic Workforce Plan solution. – Develop recruitment strategy for new entrants, apprentices and graduates to attract and retain people in line with the resource plan/strategic workforce plan and taking into account succession planning.	Route MD / Executive Team / HR	July 2019
2.	R: Increase in retention and fewer vacancies that can't be filled. Better career development for employees. .	– Quarterly Talent and Succession Forum in place to objectively review high potentials and emerging talent. – Robust and effective personal development plans (PDPs) in place and reviewed for all employees. – Succession Plans in place for all Exec direct reports and also their direct reports. Succession plans also developed below that for all key roles within client areas	Route MD / Executive Team / HR	Ongoing
3.	O: Meet expectations of the current and future workforce, and increase diversity whilst doing so, and be better able to fill vacancies internally by supporting people moving roles/location.	– Diversity and Inclusion Plan in place that promotes inclusive leadership and diversity throughout the FNPO Route. – Consistent demonstration of leadership behaviours throughout the FNPO Route. – Engagement Action plans in place, reviewed periodically and progress communicated quarterly. – In conjunction with FOC's, TOC's and FNPO, develop a programme for cross industry graduate placements and secondments opportunities.	Route MD / Executive Team / HR	Ongoing
4.	O: Integrating LEAN (Better every Day) into the business will increase efficiency and reduce costs whilst focusing on our customers' and creating more capacity within FNPO to deliver strategic priorities / Must Wins	– Deliver Safety, D&I, change and LEAN plans. – Promote the sharing of best practice improvements from 'LEAN' and visualisation across the business – Safety leadership to be embedded in our people processes e.g. performance reviews, recruitment, training and development and ensure that safety is a constant factor in any activity we plan and conduct – Work with the Trade Unions to facilitate an environment for the organisation to meet its objectives and targets. To work collaboratively with the Trade Unions and to agree the correct mechanisms to achieve our CP5 and CP6 targets.	Route MD / Executive Team / HR	Ongoing

5.	R: Reduce the risk of IR issues when making changes to the business. Faster decision made locally; reducing time/effort and improving customer experience.	– Aligned objectives that support the Business plan and Organisational behaviours – Measure in place to record the three key meetings of the performance year- objective settings, interim reviews and final reviews. – A structured programme of activity to support people managers which will provide advice and guidance on how to manage and lead people. – A focus on capability of people managers including training interventions. – People managers supported to ensure ease of access to people policies that are clear and easily understood by everyone	Route MD / Executive Team / HR	Ongoing

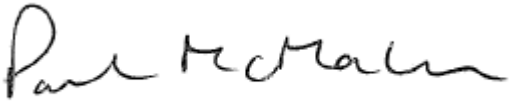
Sign-off

This document and accompanying templates are owned by the Managing Director Freight & National Passenger Operators (FNPO)

Submission of this document indicates confirmation that:

- **all appropriate level 1 assurance activities have been undertaken;**
- **the MD FNPO is satisfied with the quality, currency and appropriateness of the content of this document as well as the cost, volume and activity projections to which it refers;**
- **the signatories are satisfied that the plan has been assessed as deliverable, subject to the assumptions articulated in Appendix A.**

Authorised by:



Paul McMahon
Managing Director, FNPO — 19th January 2018

Simon Harding
Senior Management Accountant, FNPO — 19th January 2018

Appendix A - Key assumptions

Ref no.	Topic (e.g. access, deliverability, climate etc.)	Assumption	Areas impacted (e.g. all opex, track renewals, all spend etc.)
1	Safety	• c £22m safety improvement fund being identified and available • Collaboration with FOCs	• Safety targets in particular derailments, SPAD's and Customer Staff LTI's
2	Performance (FNPO)	• Collaborative working between Network Rail and Customers (Freight & Passengers) to deliver agreed joint performance strategies. • Material increases in Intermodal and construction traffic.	• FNPO Performance targets • FPM - Schedule 8 payments • Customer and Freight End User Satisfaction
3	Asset Management	• Geographical Route support of freight network optimisation programme	• Safety targets • Performance targets • Freight traffic growth • Customer and Freight End User Satisfaction
4	Capability	• Routes will maintain route capability e.g. linespeed, route availability	• Freight traffic growth • Capacity and capability to deliver improved average speed • Customer and Freight End User Satisfaction
5	Capacity	• Support from System Operator to optimise and develop timetable	• FPM • Freight traffic growth • Customer and Freight End User Satisfaction

Ref no.	Topic (e.g. access, deliverability, climate etc.)	Assumption	Areas impacted (e.g. all opex, track renewals, all spend etc.)
6	Rail freight growth	• Secure affordable sustainable access charges for Freight sector • DfT/TS support for funding freight enhancements. • Forecasts are based on conditions that do not favour either road or rail, and are therefore subject to change based on government policy. • Forecasts are based on medium market growth. • Forecasts and underlying will be reviewed in early 2018 against government policy and economic activity and forecasts.	• Net tonne mile targets • Service Plan Review • Capacity and capability to deliver improved average speed • Customer and Freight End User Satisfaction
7	Business development	• DfT/ ORR support for phased funding that supports freight sector 15 year, c£2bn strategic freight network development plan. • Support for innovative funding/financing arrangement to support growth and socio-economic value capture.	• Net tonne Mile • Service Plan Review • Capacity and capability to deliver improved average speed • Customer and Freight End User Satisfaction • FPM
8	Digital Railway	• Non-capital expenditure will be incurred as a direct result of the digital railway schemes noted in section 10.	• Operating expenditure • Schedule 8

Appendix B – Geographical Route Summaries

Anglia Route & Freight & National Passenger Operators (FNPO) Route

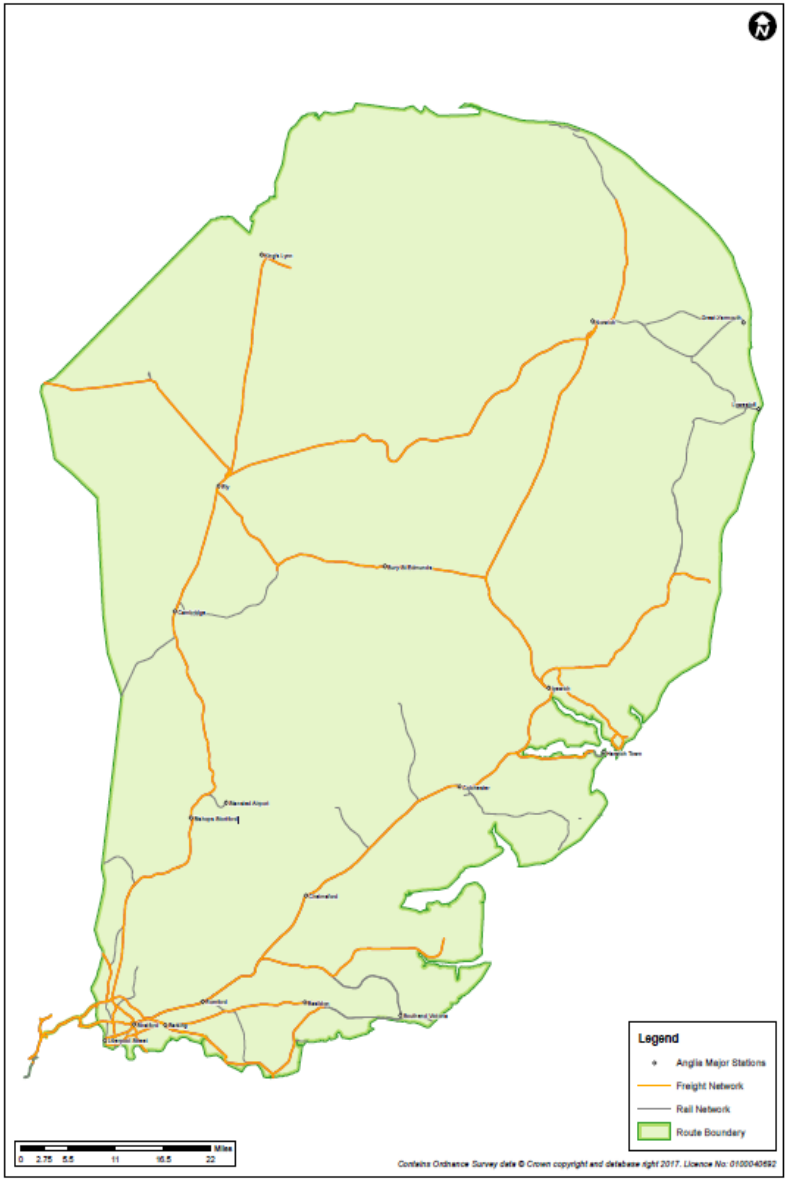
This summary sets out how the Anglia and FNPO routes will work together to deliver the Route Strategic Plan for Anglia. It outlines existing FNPO activity, and then describes the impact of the plans and aspirations of FNPO customers to grow and develop their businesses. It summarises what Network Rail needs to do to deliver these strategies and how, in doing so, efficiencies can be identified and realised.

National Passenger Operators:
CrossCountry is a regular user of Anglia route, with services to and from Stansted Airport. In addition to the Ely area scheme in CP6, there are two important signalling schemes that could improve Cross Country services in CP6. These are the Cambridge area signalling renewal and Ely to Peterborough.

Integration meetings are schedules early in 2018 to connect the Ely scheme and signalling renewal team. The interdependencies that these schemes have are important and need monitoring at programme level to ensure maximum benefits are obtained.

Other key issues include right time arrivals from to and from Peterborough, TSR management and timely removal and incident reduction in Cambridge area.

Charter trains also operate across Anglia route, especially at weekends, to a variety of leisure destinations being hauled by both standard and heritage steam and diesel locomotives. This leisure market is expected to grow during CP6.



Challenges and Opportunities

No	Key Challenges, Risks and Opportunities	What we plan to do
1	Aggregate Growth O: Volume growth from sea-dredged sand facilities to concrete batching plants across the Southeast – Angerstein, Cliffe, Grain, Griffin Wharf, Dagenham to Purley, Battersea, Tolworth, Park Royal, Brentford R: Capacity and capability. Infrastructure not able to cope with traffic demand.	• Explore opportunities for longer and heavier trains maximising loco capability • Support introduction of new wagons that maximise payload/length ratio • Support Terminal and Yard developments – e.g. complete redevelopment of Bow Yard on the Anglia Route for rail freight to be a part of the future Olympic Legacy development in Stratford. • Support introduction of 'pop-up' terminals, bringing out of use infrastructure back into use and increased use of lineside loading • Explore opportunities for new capacity – enhanced use of HS1 and the Channel Tunnel for rail freight to either free-up paths on the classic network or stimulate entirely new traffic

No	Key Challenges, Risks and Opportunities	What we plan to do
2	**Domestic & Deep Sea Intermodal Growth** O: Volume growth from Ports / Terminals (Felixstowe, London Gateway, Tilbury 2) R: Train paths and SRT discrepancies with longer, heavier trains R: Capacity and capability, including gauge clearance and diversionary capability	• Work with customers to maximise opportunities to increase length of trains • Increase Average Journey Speed origin to destination • Explore provision of recognised diversionary routes with adequate capability • Facilitate new terminal developments – future expansion of London Gateway with additional rail terminals similar to the Port of Felixstowe. Demand dependent, but rail needs to be fostered as the best solution for end users. • Explore opportunities for new capacity – Strategic Freight Corridor improvements on the cross country route from Felixstowe to the Midlands and the North including promoting the business cases for Haughley Junction Doubling, Ely-Soham Doubling, Ely area improvements, as well as off route enhancements at Leicester to facilitate the future growth in traffic from Felixstowe
3	**Gauge establishment** C: Establishment of recognised diversionary routes for gauge critical traffic	• Explore gauge clearance on key corridors, e.g. (GE Mainline, Thameside, North London Line, Gospel Oak-Barking, West Anglia Main Line), and provision of diversionary capability • Explore funding opportunities, including Third Party • Documented diversionary routes for core intermodal flows • Review of RT3973 provision to more closely align with traffic flows – reduced duplication
4	**Other Commodity Traffic Growth** O: Steel & other scrap metals O: Automotive O: Forest Products O: Bulk O: Aviation Fuel & other Petro-chemicals	• Work with customers to maximise opportunities for longer and heavier trains maximising loco capability • Support Terminal / Yard developments to facilitate growth • Support introduction of 'pop-up' terminals, bringing out of use infrastructure back into use and increased use of lineside loading. Promotion of and assisting customers to set up new automotive flows and growing traffic from Dagenham and Purfleet Deep Wharf. • Work with FOCs and Freight End Users to deliver new network connections and necessary capacity and capability, or bring out of use infrastructure back into use including the Parkeston Tip Sidings
5	**Franchise changes / Crossrail** R: Refranchising of Greater Anglia Franchise on Anglia seeks greater capacity on shared lines	• Retain adequate capacity, capability and flexibility for existing and forecast freight • Review Impact on possession strategy from new flows • Review stabling plans for new rolling stock / change of locations including the introduction of Brantham Depot for Greater Anglia, an enhanced Ilford Depot for Crossrail and Greater Anglia
6	**Infrastructure enhancements / electrification** O: Greater capacity/opportunity following enhancement (Thameside/Great Eastern OLE Enhancements). O: Electrification of the Gospel Oak – Barking Line - opportunity for through electric rail freight to Ripple Lane & Barking. R: Loss of Capacity following timetable change. Crossrail and Greater Anglia on Anglia Route	• OLE upgrades could potentially present greater opportunities for electric rail freight on the GE and Thameside Routes. • Support Route forums (RSPG etc.) to influence scope and secure freight benefit following scheme delivery • FNPO, FOCs and Freight End Users to provide appropriate input into the decision making process • Work with Route Business development team to identify potential Third Party funding sources
7	**Construction projects / HS2** O: Opportunity for spoil and waste out and aggregate and other commodities in to support construction R: Capacity for new aggregate and spoil flows from HS2 project	• Work with DfT, HS2 Ltd, FOCs and End User -customers to offer solutions to demands of major projects • Work with customers to manage the impact of major projects on their business (HS2) • Terminal / Yard developments ('pop-up' terminals / lineside loading potential) • Work with FOCs and Freight End Users to deliver new network connections and necessary capacity, or bring out of use infrastructure back into use

8	**SRFI Terminal Development** O: SRFI terminal development supports intermodal growth especially addressing demand for inland terminals C: Securing of sufficient capacity to support SRFI developments through planning and into use	• Work with Developers to understand SRFI proposals progression through planning • Offer NR support to proposals when adequate strategic fit and capacity Work with System Operator to support funded early stage timetable work for SRFI developers. Intermodal developments for Anglia will be the additional paths from Felixstowe and the expected expansion of London Gateway Intermodal Operation
9	**End User-customer service** O: Closer working with FEU's enables greater understanding of customer priorities for future (e.g. Tarmac, Aggregate Industries)	• Work with end user -customers to develop business growth and support modal shift to rail • Work with end user -customers to strengthen service delivery and support

No	Key Challenges, Risks and Opportunities	What we plan to do
10	**Review of redundant and unused assets** O: Following traffic changes in CP5 and structural change in energy market, opportunity exists to review size and organisation of non-passenger network R: FOC objection to supporting Network Changes	• Identify opportunities to reduce maintenance costs and remove unneeded infrastructure • Regularise the status of freight assets and other assets including gauge, S&C (actual v published capability) • Explore potential to transfer ownership of redundant lines / assets to secure better opportunities for redevelopment
11	**Yards and sidings infrastructure** R: Yard and Siding Infrastructure asset condition is critical to avoid derailment events and customer LTI's	• Working with Routes and customers to review asset condition on regular basis. Keeping up emphasis on maintaining and enhancing major terminal infrastructure, including Bow. • Working with Routes and customers to establish and benchmark walking route use and condition. For instance establishing a walking route to the headshunt for the Carless Operation at Parkeston •
12	Timetable Review O/R: Timetable Improvements to closely reflect capability of trains and capacity of network required on busier network	• Continuation of CP5 work to review path usage and remove unused paths and agree strategic capacity • Work with FOC's to more closely align Train Slots in the Timetable with Access Rights in the TAC, and remove unused rights where there is no corresponding Train Slot • Work with the Route, System Operator and FOC's/TOCs where in upcoming major timetable re-casts the available capacity may be less than contracted rights, the new Greater Anglia and Crossrail Timetables for Anglia Work with System Operator and customers to review opportunities to improve average speed origin-destination • Review with System Operator and customers suitability of current systems to capture network constraints and traction capability (Loads Book, Timing Loads, Lengths)
13	Digital Railway O: Successful introduction of Digital Railway offers potential for growth on busiest corridors	Act as internal client on behalf of Freight to build sympathetic capability for freight traffic needs. The first major challenge will be the implementation of Traffic Management on the Thameside Route and ensuring that Freight is fully represented and interests protected as we move towards this new way of operating
14	Upgrades and Disruptive Possessions R: Major upgrade programmes including Crossrail, Thameslink and Great Eastern Track and S&C renewals including High Output will require significant disruptive access	• Champion requirements of FOCs and Freight End Users so that services can operate as required during disruptive possessions including availability of diversionary routes and timely provision of capacity studies to identify train service capability

CP6 Plan

Section	Key Themes	Strategy	Specifics	Owner	Timescale
Safety	Lost Time Incidents	Reduce LTIs through concentration on Network Rail yard infrastructure, connecting sidings and walking routes conditions.	• Published rolling programme of joint health and safety visits with customers (FOCs/TOCs) to agreed sites • Complete review of authorised walking routes/crew change locations per customer • Subject to funding, a programme of improvements will be specified and implemented • 'Go Look See' with customer within two weeks of any reportable customer LTI event on network infrastructure	FNPO Operations and Safety Manager/ SRFM	Initial Programme to be published March 2018 then annually during CP6
	Freight Train derailments	Reduce freight train derailments through concentration on Network Rail yard and sidings infrastructure.	• Published rolling programme of joint health and safety visits with customers to agreed sites • End Customer Forum to be implemented to share issues of concern around connection points and maintenance either side of boundary point • Subject to funding, a programme of improvements will be specified and implemented	FNPO Operations and Safety Manager/ SRFM	Initial Programme to be published March 2018 then annually during CP6
	FNPO SPADs	Reduce freight SPADS by collaborative working	• SPAD Forum to be implemented with FOCs to share learning and best practice	FNPO Operations and Safety Manager	Creation of Forum by April 2018. Meeting regularity proposed quarterly.
Performance	Right time departure performance at key hubs and terminals	Use Strategic Freight Corridors to focus delivery Measuring Right Time Departures from terminals at the start of the journey	• Local Working Groups (e.g.Thameside) • Use of Control Rooms and Visualisation at major sites (e.g. Felixstowe) • Re-brief Freight Strategy – 'Freight Delivery Matters' and linkage between RTD and FDM delivery	SRFM/ FNPO Performance Manager	Existing Working Groups to continue into CP6. Quarterly FNPO review of terminal engagement arrangements.
	Measuring FDM and FDM-R	Focus on defined key routes: • Asset Performance • Asset Resilience • Effective contingency plans	• Target FDM-R Route target for end CP6 of 92.9% • Input to Route CP's for consistent application of freight contingency arrangements • FSDM input to incident recovery real-time to build consistency • Asset Reviews with Route Asset teams to share traffic forecasts and asset challenges with SRFM • Influence at RSPG to define future asset strategy in terms of renewals to support freight growth	SRFM/FNPO Performance Manager	Annual target setting during CP6. Periodic review of FDM-R delivery and key influencers
	Joint Freight Performance Improvement Strategies	Agreed joint strategy with each FOC including details of plans to reduce each delay area	• Complete plan annually with each FOC concentrating on primary delay categories • Agreed industry information share • Regular reviews against plan with each Route and FOC customer	FNPO Performance Manager/CRE	Joint Strategy Plan per Operator to be published annually during CP6 and reviewed quarterly

Section	Key Themes	Strategy	Specifics	Owner	Timescale
Capacity & Capability	Identifying future capacity and capability needs.	Bring together all freight capacity plans: • Route Studies • SFN • Customer specific	• All future project specifications to include a specific output level for freight services, reflecting the SFN specifications and forecast future traffic requirements. • Future Capability needs assessment to be undertaken – RA, Gauge, HAW – future plans for improvement to meet capacity requirements • Interactive maps for Gauge, RA to be created and maintained • Continued support for longer, heavier trains programme	Project Sponsor/SRFM. FNPO Head of Strategic Capability/ FNPO Head of Network Management	Future capability programme definition by April 2018 and delivery per strategic route
	Review existing capability constraints	Undertake Capability Review	• Improved gauge and operational flexibility on key freight corridors • Robust gauge cleared diversionary routes • Transparent network capability per route for customers	SRFM/ FNPO Head of Strategic Capability/ FNPO Head of Network Management	Existing capability constraints review definition by April 2018 and delivery per strategic route
	Freight Train Average Speed	Undertake Average Speed Review	• Establish framework for average speed measurement and improvement • Work with Stakeholders to target specific flows and services • Annual plan in connection with annual timetable change	FNPO Head of Performance/ FNPO Head of Strategic Capability/ FNPO Head of Network Management	Measurement framework to be agreed by industry May 2018. Flows to be agreed for Dec 2018 TT change and annually thereafter
	Connections to new terminals and SRFIs	Facilitate connections to the network and associated capacity	• Work with FOC's, Freight End Users and Developers to identify potential new connections, including development of SRFI's • Information share of prospective sites via RSPG • Facilitate new network connections e.g. (Route TBC) • Identify potential sites (new connections, bringing out of use infrastructure back into use and increased use of lineside loading) to facilitate growth, e.g. (Route TBC) for aggregates • Advice to System Operator of future sites and flows to understand timetable and capacity impact • Timetable studies for major terminal developments, e.g. SRFI's	SRFM/ FNPO Business Development Managers	Forward programme of FEU and Developer engagement to be agreed annually during CP6. Freight Developments Register to be held by SRFM for review at RSPG quarterly.
	Delivery of agreed CP6 freight enhancement programme	Continuation of Strategic Freight Network funding and industry governance group	• Promotion of potential freight projects and enhancement schemes • Prioritise funding to best meet demand and facilitate growth • Align SFN proposals with Route and National proposals to deliver a coherent forward strategy which best meets overall requirements	FNPO Head of Freight Development/ System Operator	Ongoing
	Consideration of incremental freight improvements in all schemes	Structured review process with Route planners and Sponsors	• Work with FOC's and System Operator to identify opportunities for incremental freight enhancements as part of the development of enhancement and renewals proposals, e.g. faster entrance/exit speeds into loops and through crossovers. • Defined and consistent engagement process to be agreed with Route Planning team and Sponsors	SRFM/ System Operator	Defined engagement process and inputs to be in place with Route Strategy by April 2018

Section	Key Themes	Strategy	Specifics	Owner	Timescale
Network Availability	Engineering plans that meet both FNPO customer and Route needs.	Regular and co-ordinated freight input into • Engineering Access Statements • Access Planning Requests	Engineering plans that are; • Transparent • co-ordinated • consistent across Routes • planned well in advance and • take into consideration contingency arrangements for long distance services	SRFM/ FNPO Capability and Planning Manager	Annual review of process/requirements between FNPO and Engineering Planning from March 2018 incorporating end to end Access process
Freight Asset Management Plans	Effective asset management arrangements for yards and sidings infrastructure	Create a joint understanding of maintenance responsibility, traffic level changes and asset condition	• Enable Asset Management and Engineering teams to plan the targeted maintenance and renewals requirement of each site • Ensure appropriate standards in use at each location.	SRFM/ Route COO/ RAM	Biannual review of yard and sidings maintenance priorities / traffic flows commencing 2018
	Review of Locomotive and Heavy Axle Weight (HAW) track and structure restrictions	Establish potential/cost for removal of restrictions	• Input into track/structures renewals and maintenance plans	SRFM/ Route COO/ RAM	Review definition and programme issued by April 2018. Delivery per strategic route to be programmed.
	Review Freight Only lines and other infrastructure	Understand the potential to reduce OMR.	• Review based on existing & predicted future use • Input into track/structures/maintenance plans • Outputs to be agreed with customers/ORR	SRFM/ Route COO/ RAM	Definition of Review by Dec 2017. Delivery of initial opportunities report by July 2018. Agreed Action Plan through CP6 per Route
	Removal of TSRs / PSRs in timely fashion	Establish removal plan recognising freight impact	• Work with the Route teams to identify the impact of speed restrictions on freight services and work collaboratively to remove them.	SRFM/ Route COO/ RAM	Ongoing periodic review of performance impact of TSRs to be agreed per Route

LNE&EM Route & Freight & National Passenger Operators (FNPO) Route

This summary sets out how the LNE&EM and FNPO routes will work together to deliver the Route Strategic Plan for LNE&EM. It outlines existing FNPO activity, and then describes the impact of the plans and aspirations of FNPO customers to grow and develop their businesses. It summarises what Network Rail needs to do to deliver these strategies and how, in doing so, efficiencies can be identified and realised.

National Passenger Operators:
CrossCountry is an extensive user of LNE&EM route and key issues include boundary handover of services, as well as the management of fatalities and trespass incidents. The access strategies on LNE&EM for CP6 are key as well as TOC mutually agreed and balanced service recovery plans during times of perturbation, with the aim of reducing overall industry

Caledonian Sleeper operates on the East Coast Main Line into Kings Cross, when diverted away from the West Coast Main Line due to engineering possessions

Charter trains also operate across LNE&EM Route, especially at weekends, to a variety of leisure destinations being hauled by both standard and heritage steam and diesel locomotives. This leisure market is expected to grow during CP6.

Challenges and Opportunities

No	Key Challenges, Risks and Opportunities	What we plan to do
1	**Aggregate Growth** O: Volume growth from Peak District, Leicestershire and Yorkshire R: Capacity and capability (e.g. MML South currently congested infrastructure), infrastructure not able to cope with traffic demand	• Explore opportunities for longer and heavier trains maximising loco capability • Support introduction of new wagons that maximise payload/length ratio • Support Terminal and Yard developments – e.g. York and Newcastle areas. • Support introduction of 'pop-up' terminals, bringing out of use infrastructure back into use and increased use of lineside loading • Explore opportunities for new capacity – e.g. Hope Valley and MML south
2	**Domestic & Deep Sea Intermodal Growth** O: Volume growth from Ports / Terminals (e.g. Felixstowe, London Gateway, Teesport, Immingham, Hull) R: Train paths and SRT discrepancies with longer, heavier trains R: Capacity and capability, including gauge clearance and diversionary capability	• Work with customers to maximise opportunities to increase length of trains • Increase Average Journey Speed origin to destination • Explore provision of recognised diversionary routes with adequate capability • Facilitate new terminal developments – e.g. Rossington, Radlett and East Midlands Gateway • Explore opportunities for new capacity – e.g. F2N schemes, Leicester and Trans-Pennine

No	Key Challenges, Risks and Opportunities	What we plan to do
3	**Gauge establishment** C: Establishment of gauge (e.g. Immingham to Doncaster and Trans-Pennine) and recognised diversionary routes for gauge critical traffic R: Exclusion from major programmes (e.g. Trans Pennine Route Upgrade), and funding	• Explore gauge clearance on key corridors, e.g. Trans-Pennine and Northallerton to Tees via Yarm, and provision of diversionary capability • Explore funding opportunities, including Third Party • Documented diversionary routes for core intermodal flows • Review of RT3973 provision to more closely align with traffic flows – reduced duplication
4	**Other Commodity Traffic Growth** O: Coal O: Steel R: Biomass O: Automotive O: Forest Products O: Bulk R: Capacity and capability on certain routes	• Work with customers to maximise opportunities for longer and heavier trains maximising loco capability • Support Terminal / Yard developments to facilitate growth • Support introduction of 'pop-up' terminals, bringing out of use infrastructure back into use and increased use of lineside loading • Work with FOCs and Freight End Users to deliver new network connections and necessary capacity and capability, or bring out of use infrastructure back into use
5	**Logistics and Mail Opportunity** O: Potential mail growth on main corridors and premium logistics developments	• Explore opportunities for business growth with existing and potential new customers
6	**Franchise changes** R: Refranchising of TOCs in Route seeks greater capacity on shared lines	• Retain adequate capacity, capability and flexibility for existing and forecast freight • Review Impact on possession strategy from new flows • Review stabling plans for new rolling stock / change of locations
7	**Infrastructure enhancements / electrification** O: Greater capacity/opportunity following enhancement (e.g. East West Rail on LNE&EM) R: MML Electrification to Kettering – risk to freight capacity O/R: Current enhancement proposals (e.g. ECML loops) may not be delivered due to affordability. Potential Third Party funding to secure delivery	• East/West Rail provision for gauge and freight diversions • Trans-Pennine provision for gauge and freight growth including diversionary capability • MML Electrification • Support Route forums (RSPG etc.) to influence scope and secure freight benefit following scheme delivery • FNPO, FOCs and Freight End Users to provide appropriate input into the decision making process • Work with Route Business development team to identify potential Third Party funding sources
8	**Construction projects / HS2** O: Opportunity for spoil and waste out and aggregate and other commodities (e.g. Tunnel segments) in to support construction R: HS2 routing requires the removal and re-location of existing freight facilities (e.g. Toton, Leeds Freightliner Terminal, Leeds Midland Road and Leeds Stourton Aggregates)	• Work with DfT, HS2 Ltd, FOCs and End-customers to offer solutions to demands of major projects • Work with customers to manage the impact of major projects on their business (HS2) • Terminal / Yard developments ('pop-up' terminals / lineside loading potential) • Work with FOCs and Freight End Users to resolve conflicts with existing freight facilities (e.g. Toton, Leeds Freightliner Terminal, Leeds Midland Road and Leeds Stourton Aggregates) • Work with FOCs and Freight End Users to deliver new network connections and necessary capacity, or bring out of use infrastructure back into use
9	**SRFI Terminal Development** O: SRFI terminal development supports intermodal growth especially addressing demand for inland terminals C: Securing of sufficient capacity to support SRFI developments through planning and into use	• Work with Developers to understand SRFI proposals progression through planning • Offer NR support to proposals when adequate strategic fit and capacity • Work with System Operator to support funded early stage timetable work for SRFI developers

No	Key Challenges, Risks and Opportunities	What we plan to do
10	**End User-customer service** O: Closer working with FEU's enables greater understanding of customer priorities for future (e.g. Tarmac)	• Work with end-customers to develop business growth and support modal shift to rail • Work with end-customers to strengthen service delivery and support
11	**Review of redundant and unused assets:** O: Following traffic changes in CP5 and structural change in energy market, opportunity exists to review size and organisation of non-passenger network R: FOC objection to supporting Network Changes	• Identify opportunities to reduce maintenance costs and remove unneeded infrastructure • Regularise the status of freight assets and other assets including gauge, S&C (actual v published capability) • Explore potential to transfer ownership of redundant lines / assets to secure better opportunities for redevelopment
12	**Yards and sidings infrastructure** R: Yard and Siding Infrastructure asset condition is critical to avoid derailment events and customer LTI's	• Working with Routes and customers to review asset condition on regular basis • Working with Routes and customers to establish and benchmark walking route use and condition
13	**Timetable Review** O/R: Timetable Improvements to closely reflect capability of trains and capacity of network required on busier network	• Continuation of CP5 work to review path usage and remove unused paths and agree strategic capacity • Work with FOC's to more closely align Train Slots in the Timetable with Access Rights in the TAC, and remove unused rights where there is no corresponding Train Slot • Work with the Route, System Operator and FOC's/TOCs where in upcoming major timetable re-casts the available capacity may be less than contracted rights, e.g. ECML December 2019 timetable change • Work with System Operator and customers to review opportunities to improve average speed origin-destination • Review with System Operator and customers suitability of current systems to capture network constraints and traction capability (Loads Book, Timing Loads, Lengths)
14	**Digital Railway** O: Successful introduction of Digital Railway offers potential for growth on busiest corridors	• Act as internal client on behalf of Freight to build sympathetic capability for freight traffic needs
15	**Upgrades and Disruptive Possessions** R: Major upgrade programmes such as MML, ECML and TRU will require significant disruptive access	• Champion requirements of FOCs and Freight End Users so that services can operate as required during disruptive possessions including availability of diversionary routes and timely provision of capacity studies to identify train service capability

CP6 Plan

Section	Key Themes	Strategy	Specifics	Owner	Timescale
Safety	Lost Time Incidents	Reduce LTIs by concentrating on Network Rail yard infrastructure, connecting sidings and walking routes conditions	• Published rolling programme of joint health and safety visits with customers (FOCs/TOCs) to agreed sites • Complete review of activities undertaken at Network Rail locations for each customer (FOCs/TOCs) and including authorised walking routes/crew change locations etc • Subject to funding, a programme of improvements will be specified and implemented • 'Go Look See' with customers within two weeks of any reportable customer LTI event on network infrastructure	FNPO Operations and Safety Manager/ SRFM	Initial Programme to be published March 2018 then annually during CP6
	Freight Train derailments	Reduce freight train derailments by concentrating on Network Rail yard and sidings infrastructure	• Published rolling programme of joint health and safety visits with customers to agreed sites • End Customer Forum to be established to share issues of concern around connection points and maintenance either side of boundary point • Subject to funding, a programme of improvements will be specified and implemented	FNPO Operations and Safety Manager/ SRFM	Initial Programme to be published March 2018 then annually during CP6
	SPADs	Reduce freight SPADS by collaborative working	• SPAD Forum to be established with FOCs to share learning and best practice	FNPO Operations and Safety Manager	Creation of Forum by April 2018. Meeting regularity proposed quarterly.
Performance	Right time performance at key hubs and terminals	Use Strategic Freight Corridors to focus delivery Measuring Right Time Departures from terminals at the start of the journey	• Use of joint Control Rooms and visualisation at major sites (e.g. Immingham and Drax) • Local workings groups to be established where appropriate, e.g. Mountsorrel and Doncaster area • Re-brief of Freight Strategy – 'Freight Delivery Matters' and linkage between RTD and FDM delivery	SRFM/ FNPO Performance Manager	Existing Working Groups to continue into CP6. Quarterly FNPO review of terminal engagement arrangements.
	Measuring FDM and FDM-R	Focus on key defined routes – e.g. ECML, MML, TransPennine corridor and Immingham to Doncaster: Asset Performance Asset Resilience Effective contingency plans	• Target FDM-R LNE&EM target for end CP6 of 95.3% • Input to Route Contingency Plans for consistent application of freight contingency arrangements • FSDM input to incident recovery real-time to build consistency • Asset reviews with Route Asset teams to share traffic forecasts and asset challenges • Influence at RSPG to define future asset strategy in terms of renewals to support freight growth	SRFM/FNPO Performance Manager	Annual target setting during CP6. Periodic review of FDM-R delivery and key influencers
	Joint Freight Performance Improvement Strategies	Agreed joint strategies with each FOC including details of plans to reduce each delay area	• Complete plan annually with each FOC concentrating on primary delay categories • Agreed industry information share • Regular reviews against plan with each Route and FOC customer	FNPO Performance Manager/CRE	Joint Strategy Plan per Operator to be published annually during CP6 and reviewed quarterly

Section	Key Themes	Strategy	Specifics	Owner	Timescale
Capacity & Capability	Identifying future capacity needs.	Bring together all freight capacity plans: • Route Studies • SFN • Customer specific	• All future project specifications to include a specific output level for freight services, reflecting the SFN specifications and forecast future traffic requirements • Capability constraints review – RA, gauge, HAW and other. Reconcile published versus actual infrastructure. Future plans for improvement to meet capacity requirements • Interactive maps for gauge, RA to be created and maintained • Continued support for longer, heavier trains programme	Project Sponsor/SRFM. SRFM/ FNPO Head of Strategic Capability/ FNPO Head of Network Management	Future capability programme definition by April 2018 and delivery by strategic route
	Review capability constraints	Undertake Capability Review	• Improved gauge and operational flexibility on the key freight corridors • Robust gauge cleared diversionary routes • Transparent network capability for each route	SRFM/ FNPO Head of Strategic Capability/ FNPO Head of Network Management	Existing capability constraints review definition by April 2018 and delivery per strategic route
	Freight Train Average Speed	Undertake Average Speed Review	• Establish framework for average speed measurement and improvement • Work with Stakeholders to target specific flows and services • Annual plan in connection with annual timetable change	FNPO Head of Performance/ FNPO Head of Strategic Capability/ FNPO Head of Network Management	Measurement framework to be agreed by industry May 2018. Flows to be agreed for Dec 2018 TT change and annually thereafter
	Connections to new terminals	Facilitate connections to the network and associated capacity	• Work with FOC's, Freight End Users and Developers to identify potential new connections, including development of SRFI's • Information share of prospective sites via RSPG • Facilitate new network connections e.g. Radlett and East Midlands Gateway • Identify potential sites (new connections, bringing out of use infrastructure back into use and increased use of lineside loading) to facilitate growth, e.g. York and Newcastle area for aggregates • Advice to System Operator of future sites and flows to understand timetable and capacity impact • Timetable studies for major terminal developments, e.g. SRFI's	SRFM/ FNPO Business Development Managers	Forward programme of FEU and Developer engagement to be agreed annually during CP6. Freight Developments Register to be held by SRFM for review at RSPG quarterly.
	Delivery of agreed CP6 freight enhancement programme	Continuation of Strategic Freight Network funding and industry governance group	• Promotion of potential freight projects and enhancement schemes • Prioritise funding to best meet demand and facilitate growth • Align SFN proposals with Route and National proposals to deliver a coherent forward strategy which best meets overall requirements	FNPO Head of Freight Development/ NSO	Ongoing
	Consideration of incremental freight improvements in all schemes	Structured review process with Route planners and Sponsors	• Work with FOC's and System Operator to identify opportunities for incremental freight enhancements as part of the development of enhancement and renewals proposals, e.g. faster entrance/exit speeds into loops and through crossovers	SRFM/ System Operator	Defined engagement process and inputs in place with Route Strategy by April 18

Section	Key Themes	Strategy	Specifics	Owner	Timescale
Network Availability	Engineering plans that meet both FNPO customer and Route needs.	Co-ordinated freight input into • Engineering Access Statements • Access Planning Requests	Engineering plans that are; • Transparent • co-ordinated • consistent across Routes • planned well in advance and • take into consideration contingency arrangements for long distance services	SRFM/ FNPO Capability and Planning Manager	Annual review of process/requirements between FNPO and Access Planning from March 2018 incorporating end to end Access process
Freight Asset Management Plans	Effective asset management arrangements for yards and sidings infrastructure	Create a joint understanding of maintenance responsibility, traffic level changes and asset condition	• Enable Asset Management and Engineering teams to plan the targeted maintenance and renewals requirement of each site • Ensure appropriate standards in use at each location.	SRFM/ Route COO/ RAM	Biannual review of yard and sidings maintenance priorities / traffic flows commencing 2018
	Review of Locomotive and Heavy Axle Weight (HAW) track and structure restrictions	Establish potential/cost for removal of restrictions	• Input into track/structures renewals and maintenance plans	SRFM/ Route COO/ RAM	Review definition and programme issued by April 2018. Delivery per strategic route to be programmed.
	Review Freight Only lines and other infrastructure	Understand the potential to reduce Operations, Maintenance & Renewals costs	• based on existing & reasonable future use • Input into track/structures/maintenance plans	SRFM/ Route COO/ RAM	Delivery of initial opportunities report by July 2018. Agreed Action Plan through CP6 per Route.
	Removal of TSRs / PSRs in timely fashion	Establish removal plan recognising freight impact	• Work with the Route teams to identify the impact of speed restrictions on freight services and work collaboratively to remove them	SRFM/ Route COO/ RAM	Ongoing periodic review of performance impact of TSRs to be agreed per Route

LNW Route & Freight & National Passenger Operators (FNPO) Route

This summary sets out how the LNW and FNPO routes will work together to deliver the Route Strategic Plan for LNW. It outlines existing FNPO activity, and then describes the impact of the plans and aspirations of FNPO customers to grow and develop their businesses. It summarises what Network Rail needs to do to deliver these strategies and how, in doing so, efficiencies can be identified and realised.

.

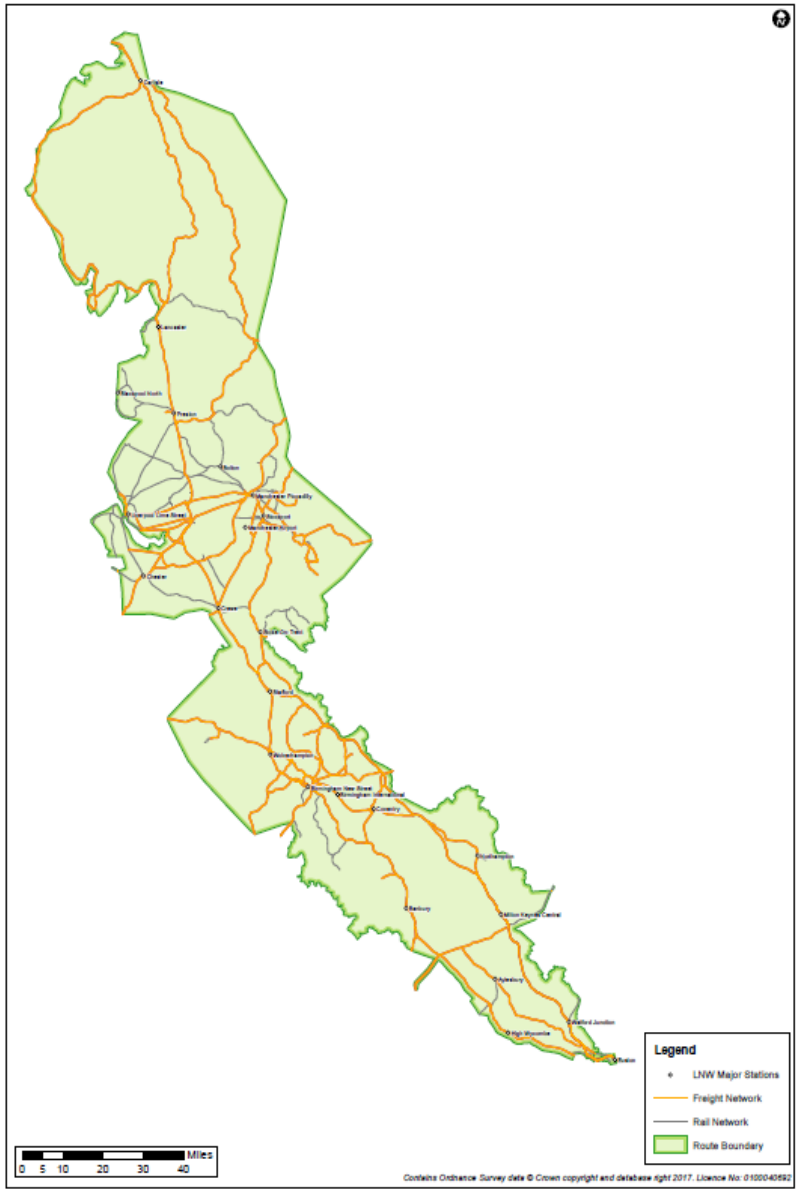
National Passenger Operators:
CrossCountry is an extensive user of LNW route and key issues include right time arrivals at Birmingham New St, as well as the management of fatalities and trespass incidents.

Caledonian Sleeper also operates nightly services, six nights per week, from London Euston via WCML to Glasgow, Edinburgh, Aberdeen and the Scottish Highlands. These services rely on overnight availability and reliability of WCML and the longer platforms at London Euston station.

Charter trains also operate across LNW Route, especially at weekends, to a variety of leisure destinations being hauled by both standard and heritage steam and diesel locomotives. This leisure market is expected to grow during CP6.

Challenges and Opportunities

No	Key Challenges, Risks and Opportunities	What we plan to do
1	**Aggregate Growth** O: Volume growth from quarries in the Peak District area R: Capacity and capability. Infrastructure not able to cope with traffic demand.	• Explore opportunities for longer and heavier trains maximising loco capability • Support introduction of new wagons that maximise payload/length ratio • Support Terminal and Yard developments – e.g. Peak Forest and other locations required for sector growth. • Support introduction of 'pop-up' terminals, bringing out of use infrastructure back into use and increased use of lineside loading • Explore opportunities for new capacity – e.g. Buxton URS lengthening, trial longer trains



No	Key Challenges, Risks and Opportunities	What we plan to do
2	**Domestic & Deep Sea Intermodal Growth** O: Volume growth from Ports / Terminals (Daventry, Hams Hall, Liverpool, Trafford Park) R: Train paths and SRT discrepancies with longer, heavier trains R: Capacity and capability, including gauge clearance and diversionary capability	• Work with customers to maximise opportunities to increase length of trains • Increase Average Journey Speed origin to destination • Explore provision of recognised diversionary routes with adequate capability • Facilitate new terminal developments at Daventry, Northampton, West Midlands and Parkside. • Explore opportunities for new capacity through better paths, longer trains, faster and cleaner paths.
3	**Gauge establishment** C: Establishment of recognised diversionary routes for gauge critical traffic	• Explore gauge clearance on key corridors and provision of diversionary capability • Explore funding opportunities, including Third Party • Documented diversionary routes for core intermodal flows • Review of RT3973 provision to more closely align with traffic flows – reduced duplication
4	**Other Commodity Traffic Growth** O: Coal O: Steel R: Biomass O: Automotive O: Forest Products O: Bulk	• Work with customers to maximise opportunities for longer and heavier trains maximising loco capability • Support Terminal / Yard developments to facilitate growth • Support introduction of 'pop-up' terminals, bringing out of use infrastructure back into use and increased use of lineside loading • Work with FOCs and Freight End Users to deliver new network connections and necessary capacity and capability, or bring out of use infrastructure back into use • Support the development and introduction of the West Cumbrian Mining traffic flow to Teesside and other locations
5	**Logistics and Mail Opportunity** O: Potential mail growth on main corridors and premium logistics developments	• Explore opportunities for business growth with existing and potential new customers • Continue to work with Royal Mail to improve performance and train service delivery
6	**Franchise changes** R: Refranchising of TOC in Route seeks greater capacity on shared lines	• Retain adequate capacity, capability and flexibility for existing and forecast freight • Review Impact on possession strategy from new flows • Review stabling plans for new rolling stock / change of locations
7	**Infrastructure enhancements / electrification** O: Greater capacity/opportunity following enhancement (East West Rail) R: Loss of Capacity following timetable change	• East/West Rail provision for gauge and freight diversions • Trans-Pennine provision for gauge and freight growth • Support Route forums (RSPG etc.) to influence scope and secure freight benefit following scheme delivery • FNPO, FOCs and Freight End Users to provide appropriate input into the decision making process • Work with Route Business development team to identify potential Third Party funding sources
8	**Construction projects / HS2** O: Opportunity for spoil and waste out and aggregate and other commodities in to support construction R: HS2 routing requires the removal and re-location of existing freight facilities	• Work with DfT, HS2 Ltd, FOCs and End-customers to offer solutions to demands of major projects • Work with customers to manage the impact of major projects on their business (HS2) • Terminal / Yard developments ('pop-up' terminals / lineside loading potential) • Work with FOCs and Freight End Users to resolve conflicts with existing freight facilities • Work with FOCs and Freight End Users to deliver new network connections and necessary capacity, or bring out of use infrastructure back into use

No	Key Challenges, Risks and Opportunities	What we plan to do
9	**SRFI Terminal Development** O: SRFI terminal development supports intermodal growth especially addressing demand for inland terminals C: Securing of sufficient capacity to support SRFI developments through planning and into use	• Work with Developers to understand SRFI proposals progression through planning • Offer NR support to proposals when adequate strategic fit and capacity • Work with System Operator to support funded early stage timetable work for SRFI developers
10	**End User-customer service** O: Closer working with FEU's enables greater understanding of customer priorities for future	• Work with end-customers to develop business growth and support modal shift to rail • Work with end-customers to strengthen service delivery and support
11	**Review of redundant and unused assets**: O: Following traffic changes in CP5 and structural change in energy market, opportunity exists to review size and organisation of non-passenger network R: FOC objection to supporting Network Changes	• Identify opportunities to reduce maintenance costs and remove unneeded infrastructure • Regularise the status of freight assets and other assets including gauge, S&C (actual v published capability) • Explore potential to transfer ownership of redundant lines / assets to secure better opportunities for redevelopment
12	**Yards and sidings infrastructure** R: Yard and Siding Infrastructure asset condition is critical to avoid derailment events and customer LTI's	• Working with Routes and customers to review asset condition on regular basis, • Working with Routes and customers to establish and benchmark walking route use and condition
13	**Timetable Review** O/R: Timetable Improvements to closely reflect capability of trains and capacity of network required on busier network	• Continuation of CP5 work to review path usage and remove unused paths and agree strategic capacity • Work with FOC's to more closely align Train Slots in the Timetable with Access Rights in the TAC, and remove unused rights where there is no corresponding Train Slot • Work with the Route, System Operator and FOC's/TOCs where in upcoming major timetable re-casts the available capacity may be less than contracted rights. • Work with System Operator and customers to review opportunities to improve average speed origin-destination • Review with System Operator and customers suitability of current systems to capture network constraints and traction capability (Loads Book, Timing Loads, Lengths)
14	**Digital Railway** O: Successful introduction of Digital Railway offers potential for growth on busiest corridors	• Act as internal client on behalf of Freight to build sympathetic capability for freight traffic needs
15	**Upgrades and Disruptive Possessions** R: Major upgrade programmes such as HS2 which will require significant disruptive access	• Champion requirements of FOCs and Freight End Users so that services can operate as required during disruptive possessions including availability of diversionary routes and timely provision of capacity studies to identify train service capability

CP6 Plan

Section	Key Themes	Strategy	Specifics	Owner	Timescale
Safety	Lost Time Incidents	Reduce LTIs through concentration on Network Rail yard infrastructure, connecting sidings and walking routes conditions.	• Published rolling programme of joint health and safety visits with customers (FOCs/TOCs) to agreed sites • Complete review of authorised walking routes/crew change locations per customer • Subject to funding, a programme of improvements will be specified and implemented • 'Go Look See' with customer within two weeks of any reportable customer LTI event on network infrastructure	FNPO Operations and Safety Manager/ SRFM	Initial Programme to be published March 2018 then annually during CP6
	Freight Train derailments	Reduce freight train derailments through concentration on Network Rail yard and sidings infrastructure.	• Published rolling programme of joint health and safety visits with customers to agreed sites • End Customer Forum to be implemented to share issues of concern around connection points and maintenance either side of boundary point • Subject to funding, a programme of improvements will be specified and implemented	FNPO Operations and Safety Manager/ SRFM	Initial Programme to be published March 2018 then annually during CP6
	FNPO SPADs	Reduce freight SPADS by collaborative working	• SPAD Forum to be implemented with FOCs to share learning and best practice	FNPO Operations and Safety Manager	Creation of Forum by April 2018. meeting regularity proposed quarterly.
Performance	Right time departure performance at key hubs and terminals	Use Strategic Freight Corridors to focus delivery Measuring Right Time Departures from terminals at the start of the journey	• Local Working Groups (e.g. Peak District, Daventry) • Re-brief Freight Strategy – 'Freight Delivery Matters' and linkage between RTD and FDM delivery	SRFM/ FNPO Performance Manager	Existing Working Groups to continue into CP6. Quarterly FNPO review of terminal arrangements.
	Measuring FDM and FDM-R	Focus on defined key routes: - Asset Performance - Asset Resilience - Effective contingency plans	• Target FDM-R Route target for end CP6 of 93.9% • Input to Route Contingency Plan for consistent application of freight contingency arrangements • FSDM input to incident recovery real-time to build consistency • Asset Reviews with Route Asset teams to share traffic forecasts and asset challenges with SRFM • Influence at RSPG to define future asset strategy in terms of renewals to support freight growth	SRFM/FNPO Performance Manager	Annual target setting during CP6. Periodic review of FDM-R delivery and key influencers
	Joint Freight Performance Improvement Strategies	Agreed joint strategy with each FOC including details of plans to reduce each delay area	• Complete plan annually with each FOC concentrating on primary delay categories • Agreed industry information share • Regular reviews against plan with each Route and FOC customer	FNPO Performance Manager/CRE	Joint Strategy Plan per Operator to be published annually during CP6 and reviewed quarterly

Section	Key Themes	Strategy	Specifics	Owner	Timescale
Capacity & Capability	Identifying future capacity and capability needs.	Bring together all freight capacity plans: • Route Studies • SFN • Customer specific	• All future project specifications to include a specific output level for freight services, reflecting the SFN specifications and forecast future traffic requirements. • Future Capability needs assessment to be undertaken – RA, Gauge, HAW – future plans for improvement to meet capacity requirements • Interactive maps for Gauge, RA to be created and maintained • Continued support for longer, heavier trains programme	Project Sponsor/SRFM. FNPO Head of Strategic Capability/ FNPO Head of Network Management	Future capability programme definition by April 2018 and delivery per strategic route
	Review existing capability constraints	Undertake Capability Review	• Improved gauge and operational flexibility on key freight corridors • Robust gauge cleared diversionary routes • Transparent network capability per route for customers	SRFM/ FNPO Head of Strategic Capability/ FNPO Head of Network Management	Existing capability constraints review definition by April 2018 and delivery per strategic route
	Freight Train Average Speed	Undertake Average Speed Review	• Establish framework for average speed measurement and improvement • Work with Stakeholders to target specific flows and services • Annual plan in connection with annual timetable change	FNPO Head of Performance/ FNPO Head of Capacity and Capability/ FNPO Head of Network Management	Measurement framework to be agreed by industry May 2018. Flows to be agreed for Dec 2018 TT change and annually thereafter
	Connections to new terminals and SRFIs	Facilitate connections to the network and associated capacity	• Work with FOC's, Freight End Users and Developers to identify potential new connections, including development of SRFI's • Information share of prospective sites via RSPG • Facilitate new network connections • Identify potential sites (new connections, bringing out of use infrastructure back into use and increased use of lineside loading) to facilitate growth,(West Cumbrian Mining for coal) • Advice to System Operator of future sites and flows to understand timetable and capacity impact • Timetable studies for major terminal developments, e.g. SRFI's	SRFM/ FNPO Business Development Managers	Forward programme of FEU and Developer engagement to be agreed annually during CP6. Freight Developments Register to be held by SRFM for review at RSPG quarterly.
	Delivery of agreed CP6 freight enhancement programme	Continuation of Strategic Freight Network funding and industry governance group	• Promotion of potential freight projects and enhancement schemes • Prioritise funding to best meet demand and facilitate growth • Align SFN proposals with Route and National proposals to deliver a coherent forward strategy which best meets overall requirements	FNPO Head of Freight Development/ System Operator	Ongoing
	Consideration of incremental freight improvements in all schemes	Structured review process with Route planners and Sponsors	• Work with FOC's and System Operator to identify opportunities for incremental freight enhancements as part of the development of enhancement and renewals proposals, e.g. faster entrance/exit speeds into loops and through crossovers. • Defined and consistent engagement process to be agreed with Route Planning team and Sponsors	SRFM/ System Operator	Defined engagement process and inputs to be in place with Route Strategy by April 2018

Section	Key Themes	Strategy	Specifics	Owner	Timescale
Network Availability	Engineering plans that meet both FNPO customer and Route needs.	Regular and co-ordinated freight input into Engineering Access Statements Access Planning Requests	Engineering plans that are; • Transparent • co-ordinated • consistent across Routes • planned well in advance and • take into consideration contingency arrangements for long distance services	SRFM/ FNPO Capability and Planning Manager	Annual review of process/requirements between FNPO and Engineering Planning from March 2018 incorporating end to end Engineering Access process
Freight Asset Management Plans	Effective asset management arrangements for yards and sidings infrastructure	Create a joint understanding of maintenance responsibility, traffic level changes and asset condition	• Enable Asset Management and Engineering teams to plan the targeted maintenance and renewals requirement of each site • Ensure appropriate standards in use at each location.	SRFM/ Route COO/ RAM	Biannual review of yard and sidings maintenance priorities / traffic flows commencing 2018
	Review of Locomotive and Heavy Axle Weight (HAW) track and structure restrictions	Establish potential/cost for removal of restrictions	• Input into track/structures renewals and maintenance plans	SRFM/ Route COO/ RAM	Review definition and programme issued by April 2018. Delivery per strategic route to be programmed.
	Review Freight Only lines and other infrastructure	Understand the potential to reduce OMR.	• Review based on existing & predicted future use • Input into track/structures/maintenance plans • Outputs to be agreed with customers/ORR	SRFM/ Route COO/ RAM	Delivery of initial opportunities report by July 2018. Agreed Action Plan through CP6 per Route.
	Removal of TSRs / PSRs in timely fashion	Establish removal plan recognising freight impact	• Work with the Route teams to identify the impact of speed restrictions on freight services and work collaboratively to remove them.	SRFM/ Route COO/ RAM	Ongoing periodic review of performance impact of TSRs to be agreed per Route

Scotland Route & Freight & National Passenger Operators (FNPO) Route

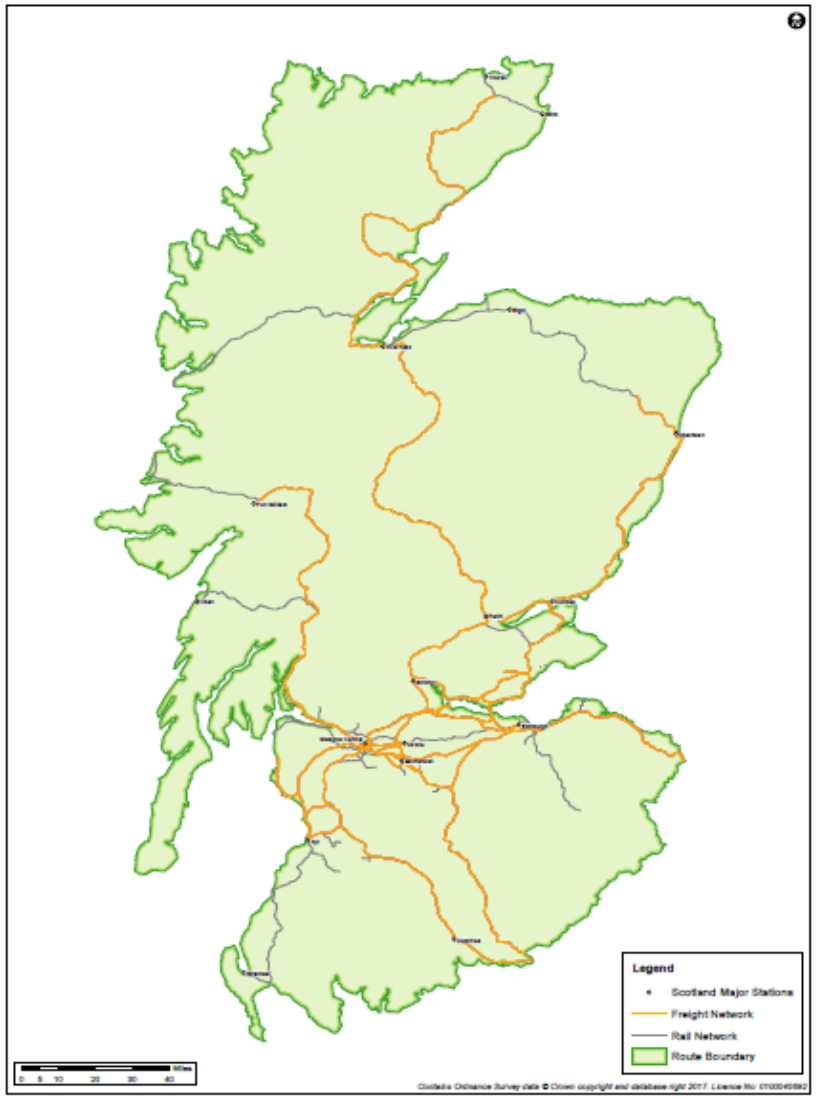
This summary sets out how the Scotland and FNPO routes will work together to deliver the Route Strategic Plan for Scotland. It outlines existing FNPO activity, and then describes the impact of the plans and aspirations of FNPO customers to grow and develop their businesses. It summarises what Network Rail needs to do to deliver these strategies and how, in doing so, efficiencies can be identified and realised.

.

National Passenger Operators:
CrossCountry is an extensive user of Scotland route and key issues include the management of fatalities and trespass incidents and right time improvements on the Edinburgh to Glasgow corridor

Caledonian Sleeper also operates nightly services, six nights per week, from London Euston via WCML to Glasgow, Edinburgh, Aberdeen and the Scottish Highlands. These services rely on overnight availability and reliability of WCML and the longer platforms at London Euston station.

Charter trains also operate across Scotland Route, especially at weekends, to a variety of leisure destinations being hauled by both standard and heritage steam and diesel locomotives. This leisure market is expected to grow during CP6.



Challenges and Opportunities

No	Key Challenges, Risks and Opportunities	What we plan to do
1	**Leading response to Transport Scotland's (TS) rail freight growth challenge** (O) Potential growth sectors identified by TS strategy include Intermodal, Retail (Food & Drink), Forest Products, Aggregates and Metals (R) Needs whole-sector approach, including FOCs, 3PLs, terminal operators, ports and rolling stock suppliers (R) Potential customers may decide not to "buy" for reasons outside the sectors' control (R) Scotland's size, geography and remoteness from markets	• Lead response to TS challenges: ○ Development of Industry Plan to target 7.5% volume growth target by end CP6 measured in kgtm ○ Making rail freight easier for Scottish customers to use ○ Commodity/area workshops ○ Flexible approach to new traffic • Develop the freight element of the Scottish Gauge Requirement

No	Key Challenges, Risks and Opportunities	What we plan to do
2	**Domestic and Deep Sea Intermodal Growth** (O) volume growth from ports (Teesport, Felixstowe) and inland terminals (Coatbridge, Mossend, Daventry) (O) volume growth in food & drink and retail sectors (R) Scottish Strategic Freight Network programme not completed (R) Planned capacity already used by other TOCs (R) Limited looping capability in Scotland (R) Train Paths and SRT discrepancies with longer, heavier trains	• Maximise use of 775m trains • Increase Average Journey Speed, origin to destination • W10/W12 gauge enhancement to allow 10'2" containers on megafret wagons over WCML to Central Belt • Facilitate earlier train arrivals into Grangemouth to meet retail customer requirements • Facilitate overnight path to Inverness to meet retail customer requirements • Explore provision of recognised diversionary routes with adequate capability • Facilitate new terminal developments or terminal capacity enhancements • Explore opportunities for new capacity eg Mossend area enhancements
3	**Gauge Establishment** (C) Establishment of recognised diversionary routes for gauge critical traffic	• Explore gauge clearance on key corridors e.g. WCML to Grangemouth, G&SW, Central Scotland to Inverness and Aberdeen. • Explore funding opportunities, including Third Party • Documented diversionary routes for core intermodal flows • Review of RT3973 provision to more closely align with traffic flows • Review of RT3973 provisions and work with Scotland Route to 'protect' existing capability
4	**Aggregates Growth** (O) volume growth from Scottish quarries (R) Limited volumes (R) Proximity to markets	• Facilitate new terminal developments • Explore opportunities for longer and heavier trains, maximising loco capability • Support Terminal/Yard developments. • Support introduction of ''pop up' terminals, bringing out of use infrastructure back into use and lineside loading potential. • Review requirements for HAW traffic on lower RA routes
5	**Forest Products secured to rail** (O) volume growth potential (R) Lack of geographically suitable loading/unloading sites. (R) Historic customer experience may inhibit development (R) Double handling from forest to road to railhead reduces the attractiveness of rail	• Facilitate new loading / unloading points, including minimum cost "temporary" solutions such as "Loading on the Line" • Support introduction of ''pop up' terminals, bringing out of use infrastructure back into use and lineside loading potential
6	**Food and Drink/Retail Growth** (O) Volume growth potential (R) Diffuse volumes requiring consolidation for rail	• Facilitate [a network of] new loading/unloading facilities, including consolidation points • Clarify the pinch points and facilitate the expansion of 2.55m and 2.6m wide gauge between the Central belt of Scotland and Aberdeen/Inverness

No	Key Challenges, Risks and Opportunities	What we plan to do
7	**Other Traffic Growth/Reductions** (O) Metals/Steel traffic growth (O) Automotive growth (O) Logistics and Mail growth (R) potential further volume loss for coal traffic	• Work with Customers to maximise opportunities for longer and heavier trains maximising loco capability. • Support Terminal / Yard developments to support growth. • Support introduction of ‘‘pop up’ terminals, bringing out of use infrastructure back into use and lineside loading potential. • Work with FOCs and Freight End Users to deliver new network connections and necessary capacity and capability, or bring out of use infrastructure back into use. • Help Scotland Route pro-actively manage coal-related OM&R as market changes • Explore opportunities for business growth with existing and potential new customers
8	**Yard and Siding Infrastructure and Walking Routes** (R) Yard and Siding infrastructure asset condition is critical both to sustain current traffic levels, avoiding derailment events and customer LTIs) and to support growth	• Highlight potential for Freight only Lines currently Short Term Network Changed out of use to return to Operational use during CP6 to Scotland Route. • Liaise with Scotland Route in order that the Route allows for funding requirements. • Clarify where growth is likely to occur • Review maintenance & renewals requirements in freight yards and sidings • Review of redundant and unused assets which could support a reduction in OMR • Working with Routes and customers to review asset condition on a regular basis. • Working with Routes and customers to establish and benchmark walking route use and condition. • Regularise the status of freight assets (actual v published) • Explore potential to transfer ownership of redundant lines/assets to secure better opportunities for redevelopment
9	**Capacity & Capability** (R) Nature of infrastructure north of Central Belt with single lines, short loops and gradients constrains standard freight train characteristics (R) Capacity for volume from new markets, especially when target markets are geographically remote (R) capacity challenge stemming from Scotrail’s “Revolution for Rail” (R) Timetable Review with 2019 timetabling limiting freight train options (O) Timetable Review provides an opportunity to review path usage, velocity and traction usage	• Review freight requirements so that they are included in all route plans • Promote targeted freight enhancement proposals to address constraints • Review RoTR constraints • Maximise train length’s • Continue the use of the SPR process • Promote use of AC traction on WCML for pathing reasons • In partnership with FOCs and stakeholders, review train paths to improve journey times where feasible
10	**Timetable Review** (O)/(R) Timetable improvements to closely reflect capability of trains and capacity of network required on busier network	• Continuation of CP5 work to review path usage • Work with FOC’s to more closely align Train Slots in the Timetable with Access Rights in the TAC, and remove unused rights where there is no corresponding train slot. • Work with the Route, System Operator and FOC’s/TOC’s to review opportunities to improve average speed between origin and destination • Review with System Operator and customers suitability of current systems to capture network constraints and traction capability (loads book, timing loads, lengths)

No	Key Challenges, Risks and Opportunities	What we plan to do
11	**Upgrades and Disruptive Possessions** (R) Major upgrade programmes such as Motherwell North Re-signalling will require significant disruptive access	• Champion requirements of FOCs and Freight End Users so that services can operate as required during disruptive possessions including availability of diversionary routes and timely provision of capacity studies to identify train service capability
12	**Digital Railway** (O) Successful introduction of Digital Railway offers potential for growth on busiest corridors (O) Technology from Digital Railway programme could mean freight information (gauge, SA, RA, Loads books) could be electronic	• Act as internal client on behalf of freight to build sympathetic capability for freight traffic needs.

CP6 Plan

Section	Key Themes	Strategy	Specifics	Owner	Timescale

Growth		• Lead response to TS challenges:
		  ○ Development of Industry Plan to target 7.5% volume growth target by end CP6 measured in kgtm
		  ○ Making rail freight easier for Scottish customers to use
		  ○ Commodity/area workshops
		  ○ Flexible approach to new traffic
		• Develop the freight element of the Scottish Gauge Requirement
			• Published rolling programme of commodity/regional workshops.
			• Published stakeholder engagement plan to review growth potential.
			• Complete a review of existing processes appertaining to 3rd Party development (ie GRIP/Leases) to understand perceived challenges and propose solutions.
			• In partnership with FOCs, End Users and stakeholders document suggestions and, subject to funding where required, promote implementation of the proposals to secure growth.
			• Work closely with Route to define requirements to secure the freight element of the HLOS gauge requirement.
				SRFM
				SRFM
				
				SRFM / System Operator / Sponsor / Property
				
				SRFM / System Operator
				
				SRFM/System Operator / DRAM
					Nov 2017
					Nov 2017
					
					By April 2018
					
					By April 2018
					
					Plan by April 2018, Delivery of agreed proposals by end CP6

Section	Key Themes	Strategy	Specifics	Owner	Timescale
Safety	Lost Time Incidents	Reduce Lost Time Injuries (LTIs)s through concentration on Network Rail yard infrastructure, connecting sidings and walking route conditions	• Published rolling programme of joint health and safety visits with customers (FOCs/TOCs) to agreed sites. • Route Vegetation clearance programme to include Network Yards, Sidings and Walkways • Complete review of authorised walking routes/crew change locations • Subject to funding, a programme of improvements will be specified and implemented. • 'Go Look See' with customer within two weeks of any reportable customer LTI event on Network infrastructure.	FNPO Operations and Safety Manager / SRFM	Initial Programme to be published in March 2018 then annually during CP6
	Freight Train derailments	Reduce freight train derailments through concentration on Network Rail yard and sidings infrastructure.	• Published rolling programme of joint health and safety visits with customers (FOCs/TOCs) to agreed sites. • End Customer Forum to be implemented to share issues of concern around connection points and maintenance either side of boundary point. • Timely renewal/refurbishments of FO Infrastructure to prevent derailment risk • Subject to funding, a programme of improvements will be specified and implemented.	FNPO Operations and Safety Manager / SRFM	Initial Programme to be published in March 2018 then annually during CP6
	FNPO SPADs	Reduce freight SPADS by collaborative working	• SPAD Forum to be implemented with FOCs to share learning and best practice.	FNPO Operations and Safety Manager	Creation of Forum by April 2018, meeting regularity proposed quarterly

Section	Key Themes	Strategy	Specifics	Owner	Timescale
Performance	Right time performance at key hubs and terminals	Use Strategic Freight Corridors to focus delivery Measuring Right Time Departures from terminals at the start of the journey	• Local Working Groups • Use of Control Rooms and Visualisation at major sites if required • Focus on terminals at Mossend, Coatbridge, Grangemouth and Oxwellmains • Proactive management of On Time targets at all Scottish terminals • Re-brief Freight Strategy – 'Freight Delivery Matters' and linkage between RTD and FDM delivery	SRFM / FNPO Performance Manager	Quarterly FNPO review of terminal engagement arrangements
	Measuring FDM and FDM-R	Focus on WCML & other defined key routes: • Asset Performance • Asset Resilience • Effective contingency plans	• Target FDM-R Scotland target for end CP6 of 95.1%. • Transport Scotland HLOS target of 93% FDM at start CP6 increasing to 94.5% FDM at end CP6 • Input into Route CP's for consistent application of freight contingency arrangements. • FSDM input into incident recovery real-time to build consistency. • Asset Reviews with Route Asset teams to share traffic forecast and asset challenges with SRFM. • Influence at RSPG to define future asset strategy in terms of renewals to support freight growth	SRFM / FNPO Performance Manager	Annual target setting during CP6. Periodic review of FDM-R delivery and key influencers
	Joint Freight Performance Improvement Strategies	Agreed Joint Strategy with each FOC including details of plans to reduce each delay area	• Complete plan annually with each FOC concentrating on primary delay categories. • Agreed industry information share. • Regular reviews against plan with each Route and FOC customer.	FNPO Performance Manager / CRE	Joint Strategy Plan per Operator to be published annually during CP6 and reviewed quarterly
Capacity & Capability	Identifying future capacity needs	Bring together all freight capacity plans; • Route Studies • SSFN • Customer specific	• All future project specifications to include a specific output level for freight services, that reflects the SSFN specifications and forecast future traffic requirements. • Future capability needs assessment to be undertaken – RA, Gauge, HAW – future plans for improvement to meet capacity requirements • Interactive maps for gauge, RA to be created and maintained • Continued support for longer, heavier trains programme	Project Sponsor / Lead Strategic Planner / SRFM / FNPO Head of Strategic Capability / FNPO Head of Network Management	Future capability programme definition by April 2018 and delivery per strategic route.
	Review existing capability constraints	Undertake Capability Review	• Improved gauge and operational flexibility on key freight corridors. • Robust gauge cleared diversionary routes. • Transparent network capability per route for customers	SRFM / FNPO Head of Strategic Capability / FNPO Head of Network Management / Lead Strategic Planner	Existing capability constraints review definition by April 2018 and delivery per strategic route

Section	Key Themes	Strategy	Specifics	Owner	Timescale
Capacity & Capability	Management of capability	Produce baseline freight statement that outlines HLOS requirements. Initiate Capability Review to contribute to strategy to deliver Scottish Gauge Requirement.	• Review requirements to satisfy requirement to deliver HLOS requirements that; ○ Capability of the network to be operated and maintained as a minimum throughout CP6 at a level which satisfy all track access rights in place at the time of HLOS or by March 2019 ○ all Scottish Routes are maintained to be capable of accommodating the gauge of all locomotives and passenger rolling stock , including cross-border services and charter operators' vehicles, which have run in Scotland in CP4 and CP5 or are known to be planned to run in Scotland in CP6. ○ Freight gauge capability should be maintained to at least the level shown in the Freight Gauge Database Map, or the Sectional Appendix, or full suite of RT3973 forms or Scotland route at time of HLOS publication	SRFM / FNPO Head of Strategic Capability / FNPO Head of Network Management / Lead Strategic Planner / DRAM	Recorded Details of existing capability for FNPO customers by April 2018
	Freight Train Average Speed	Undertake average speed review to ascertain what would be required to deliver HLOS target	• Establish framework for average speed measurement and improvement. • Work with Stakeholders to target specific flows and services • Annual plan in connection with timetable change. • Specifications for enhancement projects to consider journey time improvement output for freight services • Produce proposals, iterate with stakeholders, test and review with Transport Scotland annually.	FNPO Head of Performance / FNPO Head of Strategic Capability / FNPO Head of Network Management	Measurement framework to be agreed by industry May 2018. Flows to be agreed for Dec 2018 TT change and annually thereafter.
	Connections to new terminals	Facilitate connections to the network and associates capacity	• Work with FOCs, Freight Users and Developers to identify potential new connections. • Information share of prospective new sites via RSPG. • Identify potential sites (new connections, bringing out of use infrastructure back into use, lineside loading) to facilitate growth. • Advice to System Operator of future sites and flows to understand timetable and capacity impact. • Facilitate and promote "Loading on the Line" wherever possible. • Promote innovative options for temporary or cost-effective connections	SRFM / FNPO Business Development Managers	Forward programme of FEU and Developer engagement to be agreed annually during CP6. Freight Developments register to be held by SRFM for review at RSPG quarterly

Section	Key Themes	Strategy	Specifics	Owner	Timescale
Capacity & Capability	Delivery of agreed CP6 freight enhancement programme	Continuation of Scotland Strategic Freight Network Funding and Industry Governance Group	• Promotion of potential freight projects and enhancement schemes. • Prioritise funding to best meet demand and facilitate growth. • Align SSFN proposals with Route and National proposals to deliver a coherent forward strategy which best meets overall requirements	SRFM / System Operator	Ongoing
	Consideration of incremental freight improvements in all schemes	Structured review process with Route planners and through mechanisms such as the Sub Group of the Route Strategy Planning Group	• Work with FOCs and System Operator through mechanisms such as the Sub Group of RSPG to identify opportunities for incremental freight enhancements as part of the development of enhancement and renewal proposals –such as removal of differential speed restrictions aligned to renewals or enhancements • Defined and consistent engagement process to be agreed with Route Planning team and Sponsors	SRFM /System Operator	Defined engagement process and inputs to be in place with Route Strategy by April 2018
Network Availability	Effective asset management arrangements for yards and sidings infrastructure	Create a joint understanding of maintenance responsibility, traffic level changes and asset condition	• Address perceived deterioration of yards over CP5 • Enable Asset Management and Engineering teams to plan the targeted maintenance and renewals requirement of each site • Ensure appropriate standards in use at each location.	SRFM / Route Infrastructure Director / DRAM	Bi-annual review of yard and sidings maintenance priorities / traffic flows commencing 2018
Freight Asset Management Plans	Review of Locomotive and Heavy Axle Weight (HAW) track and structure restrictions	Establish potential/cost for removal of restrictions	• Input into track/structures renewals and maintenance plans • Normalise capability within Sectional Appendix to sustain existing traffic and support growth with particular reference to the Far North Line between Helmsdale and Georgemas.	SRFM / Route Infrastructure Director / DRAM	Review definition and programme issued by April 2018. Delivery per strategic route to be programmed
	Review Freight Only lines and other infrastructure	Understand the potential to reduce OMR	• Review need based on existing & predicted future use • Input into track/structures/maintenance plans • Ensure adequate budgetary provision and plans for those FOLs that have been temporarily taken out of use though the Short Term Network Change process, for which future use is known • Outputs to be agreed with Customers/ORR/TS	SRFM / Route Infrastructure Director / DRAM	Delivery of initial opportunities report by July 2018. Agreed Action Plan through CP6 per Route.
	Removal of Speed restrictions in timely fashion	Establish removal plan for TSRs recognising freight impact	• Work with the Route teams to identify the impact of speed restrictions on freight services and work collaboratively to remove them	SRFM / Route Infrastructure Director / DRAM / FNPO Performance Manager	Ongoing periodic review of performance impact of TSR to be agreed per route.

South East Route & Freight & National Passenger Operators (FNPO) Route

This summary sets out how the South East and FNPO routes will work together to deliver the Route Strategic Plan for South East. It outlines existing FNPO activity, and then describes the impact of the plans and aspirations of FNPO customers to grow and develop their businesses. It summarises what Network Rail needs to do to deliver these strategies and how, in doing so, efficiencies can be identified and realised.

.

National Passenger Operators:
No national passenger operators use South East route infrastructure

Charter trains also operate across South East Route, especially at weekends, to a variety of leisure destinations being hauled by both standard and heritage steam and diesel locomotives. This leisure market is expected to grow during CP6.

Challenges and Opportunities

No	Key Challenges, Risks and Opportunities	What we plan to do
1	**Aggregate Growth** O: Volume growth from locations off SE Route to end terminals on the route R: Capacity and capability. Infrastructure not able to cope with traffic demand.	• Explore opportunities for longer and heavier trains maximising loco capability • Support introduction of new wagons that maximise payload/length ratio • Support Terminal and Yard developments – e.g. Peak Forest and other locations required for sector growth. • Support introduction of 'pop-up' terminals, bringing out of use infrastructure back into use and increased use of lineside loading • Explore opportunities for new capacity – e.g. including trial longer trains

No	Key Challenges, Risks and Opportunities	What we plan to do
2	**Gauge establishment** C: Establishment of recognised diversionary routes for gauge critical traffic	• Explore gauge clearance on key corridors, e.g. (Ashford/Maidstone East/Sevenoaks Line, West London Line and North Kent), and provision of diversionary capability • Explore funding opportunities, including Third Party • Documented diversionary routes for core intermodal flows • Review of RT3973 provision to more closely align with traffic flows – reduced duplication
3	**Other Commodity Traffic Growth** O: Steel & other scrap metals O: Automotive O: Forest Products O: Bulk O: Aviation Fuel & other Petro-chemicals	• Work with customers to maximise opportunities for longer and heavier trains maximising loco capability • Support Terminal / Yard developments to facilitate growth • Support introduction of 'pop-up' terminals, bringing out of use infrastructure back into use and increased use of lineside loading. Promotion of and assisting customers to set up new automotive flows from Queenborough on the Isle of Sheppey and growing traffic from Dagenham and Purfleet Deep Wharf • Work with FOCs and Freight End Users to deliver new network connections and necessary capacity and capability, or bring out of use infrastructure back into use including the Parkeston Tip Sidings and Newhaven Marine. .
4	**Franchise changes / Crossrail** R: Refranchising of Southeastern seeks greater capacity on shared lines	• Retain adequate capacity, capability and flexibility for existing and forecast freight • Review Impact on possession strategy from new flows • Review stabling plans for new rolling stock / change of locations including the introduction of a potential new depot for Southeastern in the inner London area
5	**Infrastructure enhancements / electrification** R: Loss of Capacity following timetable change. Southeastern on the Southeast Route.	• Support Route forums (RSPG etc.) to influence scope and secure freight benefit following scheme delivery • FNPO, FOCs and Freight End Users to provide appropriate input into the decision making process • Work with Route Business development team to identify potential Third Party funding sources
6	**Construction projects / HS2** O: Opportunity for spoil and waste out and aggregate and other commodities in to support construction R: Capacity for new aggregate and spoil flows in the Southeast from HS2 project	• Work with DfT, HS2 Ltd, FOCs and End-customers to offer solutions to demands of major projects • Work with customers to manage the impact of major projects on their business (HS2) • Terminal / Yard developments ('pop-up' terminals / lineside loading potential) • Work with FOCs and Freight End Users to deliver new network connections and necessary capacity, or bring out of use infrastructure back into use
7	**SRFI Terminal Development** O: SRFI terminal development supports intermodal growth especially addressing demand for inland terminals C: Securing of sufficient capacity to support SRFI developments through planning and into use	• Work with Developers to understand SRFI proposals progression through planning • Offer NR support to proposals when adequate strategic fit and capacity Work with System Operator to support funded early stage timetable work for SRFI developers. Southeast Route is hoping to see the establishment and development of Howbury Park as a major intermodal logistics hub
8	**End User-customer service** O: Closer working with FEU's enables greater understanding of customer priorities for future (e.g. Tarmac, Aggregate Industries, Brett, Days Group, Hanson)	• Work with end user -customers to develop business growth and support modal shift to rail • Work with end user -customers to strengthen service delivery and support

No	Key Challenges, Risks and Opportunities	What we plan to do
9	**Review of redundant and unused assets:** O: Following traffic changes in CP5, opportunity exists to review size and organisation of non-passenger network R: FOC objection to supporting Network Changes	• Identify opportunities to reduce maintenance costs and remove unneeded infrastructure • Regularise the status of freight assets and other assets including gauge, S&C (actual v published capability) • Explore potential to transfer ownership of redundant lines / assets to secure better opportunities for redevelopment
10	**Yards and sidings infrastructure** R: Yard and Siding Infrastructure asset condition is critical to avoid derailment events and customer LTI's	• Working with Routes and customers to review asset condition on regular basis. Keeping up emphasis on maintaining and enhancing major terminal infrastructure including Angerstein and Bow. • Working with Routes and customers to establish and benchmark walking route use and condition
11	**Timetable Review** O/R: Timetable Improvements to closely reflect capability of trains and capacity of network required on busier network	• Continuation of CP5 work to review path usage and remove unused paths and agree strategic capacity • Work with FOC's to more closely align Train Slots in the Timetable with Access Rights in the TAC, and remove unused rights where there is no corresponding Train Slot • Work with the Route, System Operator and FOC's/TOCs where in upcoming major timetable re-casts the available capacity may be less than contracted rights, the new Thameslink/GTR and Southeastern timetables for the Southeast Route • Work with System Operator and customers to review opportunities to improve average speed origin-destination • Review with System Operator and customers suitability of current systems to capture network constraints and traction capability (Loads Book, Timing Loads, Lengths)
12	**Digital Railway** O: Successful introduction of Digital Railway offers potential for growth on busiest corridors	Act as internal client on behalf of Freight to build sympathetic capability for freight traffic needs.
13	**Upgrades and Disruptive Possessions** R: Major upgrade and S&C renewals including High Output will require significant disruptive access	• Champion requirements of FOCs and Freight End Users so that services can operate as required during disruptive possessions including availability of diversionary routes and timely provision of capacity studies to identify train service capability

CP6 Plan

Section	Key Themes	Strategy	Specifics	Owner	Timescale
Safety	Lost Time Incidents	Reduce LTIs through concentration on Network Rail yard infrastructure, connecting sidings and walking routes conditions.	• Published rolling programme of joint health and safety visits with customers (FOCs/TOCs) to agreed sites • Complete review of authorised walking routes/crew change locations per customer • Subject to funding, a programme of improvements will be specified and implemented • 'Go Look See' with customer within two weeks of any reportable customer LTI event on network infrastructure	FNPO Operations and Safety Manager/ SRFM	Initial Programme to be published March 2018 then annually during CP6
	Freight Train derailments	Reduce freight train derailments through concentration on Network Rail yard and sidings infrastructure.	• Published rolling programme of joint health and safety visits with customers to agreed sites • End Customer Forum to be implemented to share issues of concern around connection points and maintenance either side of boundary point • Subject to funding, a programme of improvements will be specified and implemented	FNPO Operations and Safety Manager/ SRFM	Initial Programme to be published March 2018 then annually during CP6
	FNPO SPADs	Reduce freight SPADS by collaborative working	• SPAD Forum to be implemented with FOCs to share learning and best practice	FNPO Operations and Safety Manager	Creation of Forum by April 2018. Meeting regularity proposed quarterly
Performance	Right time departure performance at key hubs and terminals	Use Strategic Freight Corridors to focus delivery Measuring Right Time Departures from terminals at the start of the journey	• Local Working Groups • Use of Control Rooms and Visualisation at major sites • Re-brief Freight Strategy – 'Freight Delivery Matters' and linkage between RTD and FDM delivery	SRFM/ FNPO Performance Manager	Existing Working Groups to continue into CP6. Quarterly FNPO review of terminal engagement
	Measuring FDM and FDM-R	Focus on defined key routes: - Asset Performance - Asset Resilience - Effective contingency plans	• Target FDM-R Route target for end CP6 of 91.0% • Input to Route CP's for consistent application of freight contingency arrangements • FSDM input to incident recovery real-time to build consistency • Asset Reviews with Route Asset teams to share traffic forecasts and asset challenges with SRFM • Influence at RSPG to define future asset strategy in terms of renewals to support freight growth	SRFM/FNPO Performance Manager	Annual target setting during CP6. Periodic review of FDM-R delivery and key influencers
	Joint Freight Performance Improvement Strategies	Agreed joint strategy with each FOC including details of plans to reduce each delay area	• Complete plan annually with each FOC concentrating on primary delay categories • Agreed industry information share • Regular reviews against plan with each Route and FOC customer	FNPO Performance Manager/CRE	Joint Strategy Plan per Operator to be published annually during CP6 and reviewed quarterly

Section	Key Themes	Strategy	Specifics	Owner	Timescale
Capacity & Capability	Identifying future capacity and capability needs.	Bring together all freight capacity plans: • Route Studies • SFN • Customer specific	• All future project specifications to include a specific output level for freight services, reflecting the SFN specifications and forecast future traffic requirements. • Future Capability needs assessment to be undertaken – RA, Gauge, HAW – future plans for improvement to meet capacity requirements • Interactive maps for Gauge, RA to be created and maintained • Continued support for longer, heavier trains programme	Project Sponsor/SRFM FNPO Head of Strategic Capability/ FNPO Head of Network Management	Future capability programme definition by April 2018 and delivery per strategic route
	Review existing capability constraints	Undertake Capability Review	• Improved gauge and operational flexibility on key freight corridors • Robust gauge cleared diversionary routes • Transparent network capability per route for customers	SRFM/ FNPO Head of Strategic Capability/ FNPO Head of Network Management	Existing capability constraints review definition by April 2018 and delivery per strategic route
	Freight Train Average Speed	Undertake Average Speed Review	• Establish framework for average speed measurement and improvement • Work with Stakeholders to target specific flows and services • Annual plan in connection with annual timetable change	FNPO Head of Performance/ FNPO Head of Strategic Capability/ FNPO Head of Network Management	Measurement framework to be agreed by industry May 2018. Flows to be agreed for Dec 2018 TT change and annually thereafter
	Connections to new terminals and SRFIs	Facilitate connections to the network and associated capacity	• Work with FOC's, Freight End Users and Developers to identify potential new connections, including development of SRFI's • Information share of prospective sites via RSPG • Facilitate new network connections e.g. (Route TBC) • Identify potential sites (new connections, bringing out of use infrastructure back into use and increased use of lineside loading) to facilitate growth, e.g. (Route TBC) for aggregates • Advice to System Operator of future sites and flows to understand timetable and capacity impact • Timetable studies for major terminal developments, e.g. SRFI's	SRFM/ FNPO Business Development Managers	Forward programme of FEU and Developer engagement to be agreed annually during CP6. Freight Developments Register to be held by SRFM for review at RSPG quarterly.
	Delivery of agreed CP6 freight enhancement programme	Continuation of Strategic Freight Network funding and industry governance group	• Promotion of potential freight projects and enhancement schemes • Prioritise funding to best meet demand and facilitate growth • Align SFN proposals with Route and National proposals to deliver a coherent forward strategy which best meets overall requirements	FNPO Head of Freight Development/ System Operator	Ongoing
	Consideration of incremental freight improvements in all schemes	Structured review process with Route planners and Sponsors	• Work with FOC's and System Operator to identify opportunities for incremental freight enhancements as part of the development of enhancement and renewals proposals, e.g. faster entrance/exit speeds into loops and through crossovers. • Defined and consistent engagement process to be agreed with Route Planning team and Sponsors	SRFM/ System Operator	Defined engagement process and inputs to be in place with Route Strategy by April 2018

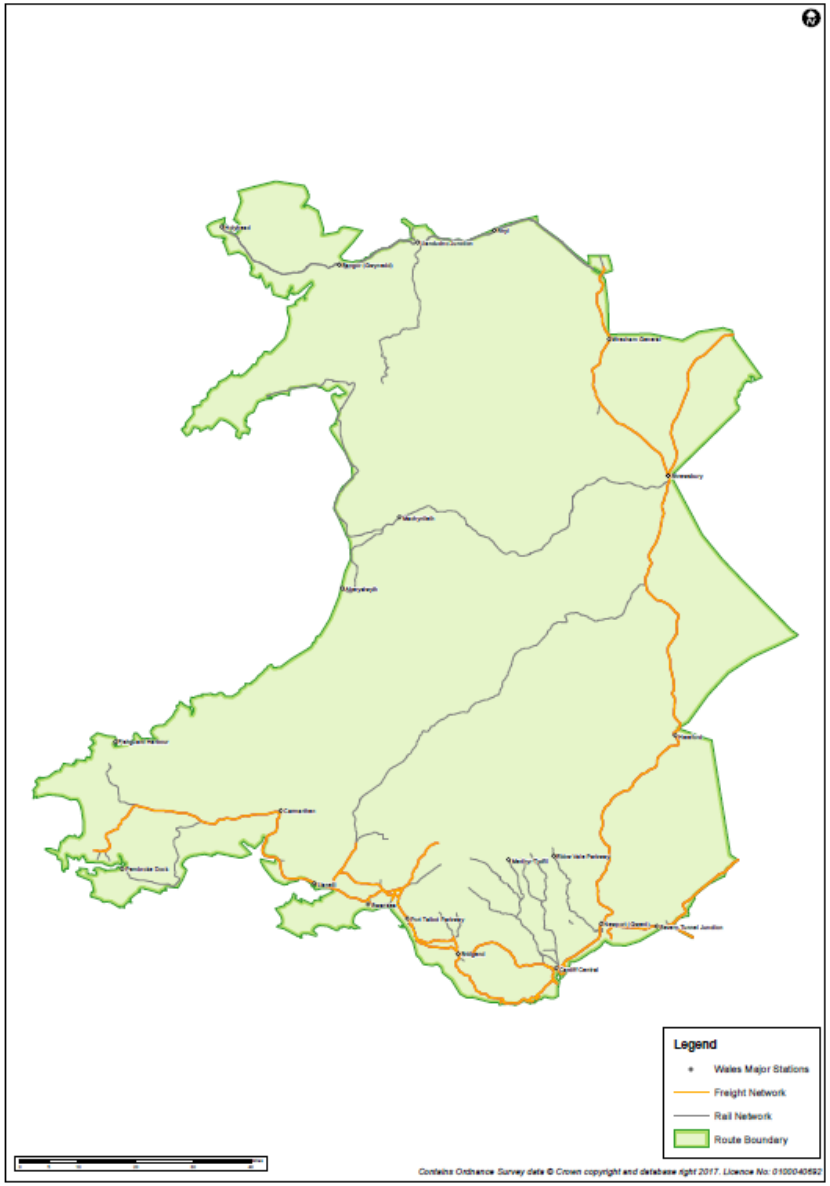
Section	Key Themes	Strategy	Specifics	Owner	Timescale
Network Availability	Engineering plans that meet both FNPO customer and Route needs.	Regular and co-ordinated freight input into • Engineering Access Statements • Access Planning Requests	Engineering plans that are; • Transparent • co-ordinated • consistent across Routes • planned well in advance and • take into consideration contingency arrangements for long distance services	SRFM/ FNPO Capability and Planning Manager	Annual review of process/requirements between FNPO and Engineering Planning from March 2018 incorporating end to end Engineering Access process
Freight Asset Management Plans	Effective asset management arrangements for yards and sidings infrastructure	Create a joint understanding of maintenance responsibility, traffic level changes and asset condition	• Enable Asset Management and Engineering teams to plan the targeted maintenance and renewals requirement of each site • Ensure appropriate standards in use at each location.	SRFM/ Route COO/ RAM	Biannual review of yard and sidings maintenance priorities / traffic flows commencing 2018
	Review of Locomotive and Heavy Axle Weight (HAW) track and structure restrictions	Establish potential/cost for removal of restrictions	• Input into track/structures renewals and maintenance plans	SRFM/ Route COO/ RAM	Review definition and programme issued by April 2018. Delivery per strategic route to be programmed
	Review Freight Only lines and other infrastructure	Understand the potential to reduce Operations Maintenance & Renewals costs	• Review based on existing & predicted future use • Input into track/structures/maintenance plans • Outputs to be agreed with customers/ORR	SRFM/ Route COO/ RAM	Delivery of initial opportunities report by July 2018. Agreed Action Plan through CP6 per Route
	Removal of TSRs / PSRs in timely fashion	Establish removal plan recognising freight impact	• Work with the Route teams to identify the impact of speed restrictions on freight services and work collaboratively to remove them	SRFM/ Route COO/ RAM	Ongoing periodic review of performance impact of TSRs to be agreed per Route

Wales Route & Freight & National Passenger Operators (FNPO) Route

This summary sets out how the Wales and FNPO routes will work together to deliver the Route Strategic Plan for Wales. It outlines existing FNPO activity, and then describes the impact of the plans and aspirations of FNPO customers to grow and develop their businesses. It summarises what Network Rail needs to do to deliver these strategies and how, in doing so, efficiencies can be identified and realised.

National Passenger Operators:
CrossCountry is a regular user of Wales route and key issues include right time improvement for services arriving and departing Cardiff, as well as operational resilience around Cardiff.

Charter trains also operate across Wales Route, especially at weekends, to a variety of leisure destinations being hauled by both standard and heritage steam and diesel locomotives. This leisure market is expected to grow during CP6.



Challenges and Opportunities

No	Key Challenges, Risks and Opportunities	What we plan to do
1	**Aggregate Growth** O: Volume growth from quarries in Wales and South West R: Infrastructure not able to cope with traffic demand	• Explore opportunities for longer and heavier trains maximising loco capability • Support the introduction of new wagons that maximise payload/length ratio • Support Terminal and Yard developments when identified • Support introduction of 'pop-up' terminals, bringing out of use infrastructure back into use and increased use of lineside loading • Develop the inbound movement of aggregate and spoil from Cardiff Docks
2	**Domestic & Deep Sea Intermodal Growth** O: Volume growth from Ports / Terminals (Felixstowe, London Gateway, Southampton, Liverpool) will feed into Wentloog R: Train paths and SRT discrepancies with longer, heavier trains R: Gauge enhancement to Wentloog does not go ahead	• Work with customers to maximise opportunities to increase length of trains • Increase Average Journey Speed origin to destination • Recognised Diversionary routes with adequate capability, review of the Vale of Glamorgan to see if any improvement feasible beyond W6 • Explore the opportunity for a terminal development on the Llanwern site in conjunction with Tata

No	Key Challenges, Risks and Opportunities	What we plan to do
3	**Commodity Traffic Growth** O: Tata to source more coal from UK sources O: Growth of finished steel to EU via rail O/R: Coal burn at Uskmouth may be replaced by Biomass O: Steel traffic increase as Liberty Steel expansion continues including inbound scrap movement if arc furnaces reinstalled R : Cwmbargoed coal traffic could be impacted by Cardiff Metro development	• Explore opportunities for longer and heavier trains maximising loco capability • Terminal / Yard developments to support traffic growth where possible • Ensure heavy freight requirements are incorporated into Cardiff Metro plans • Work with stakeholders to assess feasibility of re-instating rail link into Liberty site in Newport
4	**Franchise changes** R: Refranchising of TOC in Route seeks greater capacity on shared lines	• Retain adequate capacity, capability and flexibility for existing and forecast freight • Review Impact on possession strategy from new flows • Review stabling plans for new rolling stock / change of locations
5	**Construction projects** O: Opportunity for spoil and waste out and aggregate and other commodities in to support construction O: Site clean-up at Port Talbot may generate spoil movement opportunity	• Work with FOCs and End-customers to offer solutions to demands of major projects e.g. M4 relief road at Newport, Swansea Bay Tidal Barrier • Terminal / Yard developments ('pop-up' terminals / lineside loading potential) e.g. Swansea Burrows
6	**SRFI Terminal Development** O: SRFI terminal development supports intermodal growth especially addressing demand for inland terminals C: Securing of sufficient capacity to support SRFI developments through planning and into use	• Work with Developers to understand SRFI proposals progression through planning • Offer NR support to proposals when adequate strategic fit and capacity • Work with System Operator to support funded early stage timetable work for SRFI developers
7	**End User-customer service** O: Closer working with FEU's enables greater understanding of customer priorities for future (e.g. Tata, Celsa and Liberty House)	• Work with end-customers to develop business growth and support modal shift to rail • Work with end-customers to strengthen service delivery and support • Work with FOCs to investigate wagonload possibilities (shared services) for multiple customers
8	**Review of redundant and unused assets** O: Following traffic changes in CP5 and structural change in energy market, opportunity exists to review size and organisation of non-passenger network	• Identify opportunities to reduce maintenance costs and remove unneeded infrastructure • Regularise the status of freight assets (actual v published) • Explore potential to transfer ownership of redundant lines / assets to secure better opportunities for redevelopment
9	**Yards and sidings infrastructure** R: Yard and Siding Infrastructure asset condition is critical to avoid derailment events and customer LTI's	• Working with Routes and customers to review asset condition on regular basis, • Working with Routes and customers to establish and benchmark walking route use and condition • Liaise with DBC to focus on critical interfaces at Margam and Llanwern
10	**Timetable Review** O/R: Timetable Improvements to closely reflect capability of trains and capacity of network required on busier network	• Continuation of CP5 work to review path usage • Work with System Operator and customers to review opportunities to improve average speed origin-destination • Review with System Operator and customers suitability of current systems to capture network constraints and traction capability (Loads Book, Timing Loads, Lengths)
11	**Digital Railway** O: Successful introduction of Digital Railway offers potential for growth on busiest corridors	• Act as internal client on behalf of freight to build sympathetic capability for freight traffic needs

CP6 Plan

Section	Key Themes	Strategy	Specifics	Owner	Timescale
Safety	Lost Time Incidents	Reduce LTIs through concentration on Network Rail yard infrastructure, connecting sidings and walking routes conditions.	• Published rolling programme of joint health and safety visits with customers (FOCs/TOCs) to agreed sites, including Cardiff Tidal Pengam, East Usk, Margam Knuckle Yard and Llanwern • Complete review of authorised walking routes/crew change locations per customer • Subject to funding, a programme of improvements will be specified and implemented • 'Go Look See' with customer within two weeks of any reportable customer LTI event on network infrastructure	FNPO Operations and Safety Manager/ SRFM	Initial Programme to be published March 2018 then annually during CP6
	Freight Train derailments	Reduce freight train derailments through concentration on Network Rail yard and sidings infrastructure.	• Published rolling programme of joint health and safety visits with customers to agreed sites • End Customer Forum to be implemented to share issues of concern around connection points and maintenance either side of boundary point • Subject to funding, a programme of improvements will be specified and implemented	FNPO Operations and Safety Manager/ SRFM	Initial Programme to be published March 2018 then annually during CP6
	FNPO SPADs	Reduce freight SPADS by collaborative working	• SPAD Forum to be implemented with FOCs to share learning and best practice	FNPO Operations and Safety Manager	Creation of Forum by April 2018. Meeting regularity proposed quarterly.
Performance	Right time departure performance at key hubs and terminals	Use Strategic Freight Corridors to focus delivery Measuring Right Time Departures from terminals at the start of the journey	• Local Working Groups (e.g. S.Wales corridor) • Use of Control Rooms and Visualisation at major sites (e.g. Margam Knuckle Yard) • Re-brief Freight Strategy – 'Freight Delivery Matters' and linkage between RTD and FDM delivery	SRFM/ FNPO Performance Manager	Existing Working Groups to continue into CP6. Quarterly FNPO review of terminal engagement
	Measuring FDM and FDM-R	Focus on defined key routes: - Asset Performance - Asset Resilience - Effective contingency plans	• Target FDM-R Route target for end CP6 of 94.4% • Input to Route CP's for consistent application of freight contingency arrangements • FSDM input to incident recovery real-time to build consistency • Asset Reviews with Route Asset teams to share traffic forecasts and asset challenges with SRFM • Influence at RSPG to define future asset strategy in terms of renewals to support freight growth	SRFM/FNPO Performance Manager	Annual target setting during CP6. Periodic review of FDM-R delivery and key influencers
	Joint Freight Performance Improvement Strategies	Agreed joint strategy with each FOC including details of plans to reduce each delay area	• Complete plan annually with each FOC concentrating on primary delay categories • Agreed industry information share • Regular reviews against plan with each Route and FOC customer	FNPO Performance Manager/CRE	Joint Strategy Plan per Operator to be published annually during CP6 and reviewed quarterly

Section	Key Themes	Strategy	Specifics	Owner	Timescale
Capacity & Capability	Identifying future capacity and capability needs.	Bring together all freight capacity plans: • Route Studies • SFN • Customer specific	• All future project specifications to include a specific output level for freight services, reflecting the SFN specifications and forecast future traffic requirements. • Future Capability needs assessment to be undertaken – RA, Gauge, HAW – future plans for improvement to meet capacity requirements • Interactive maps for Gauge, RA to be created and maintained • Continued support for longer, heavier trains programme	Project Sponsor/SRFM SRFM/ FNPO Head of Strategic Capability/ FNPO Head of Network Management	Future capability programme definition by April 2018 and delivery per strategic route
	Review existing capability constraints	Undertake Capability Review	• Improved gauge and operational flexibility on key freight corridors • Robust gauge cleared diversionary routes, for example for containerised traffic departing Margam • Transparent network capability per route for customers	SRFM/ FNPO Head of Strategic Capability/ FNPO Head of Network Management	Existing capability constraints review definition by April 2018 and delivery per strategic route
	Freight Train Average Speed	Undertake Average Speed Review	• Establish framework for average speed measurement and improvement • Work with Stakeholders to target specific flows and services • Annual plan in connection with annual timetable change	FNPO Head of Performance/ FNPO Head of Strategic Capability/ FNPO Head of Network Management	Measurement framework to be agreed by industry May 2018. Flows to be agreed for Dec 2018 TT change and annually thereafter
	Connections to new terminals and SRFIs	Facilitate connections to the network and associated capacity	• Work with FOC's, Freight End Users and Developers to identify potential new connections, including development of SRFI's • Information share of prospective sites via RSPG • Facilitate new network connections where required • Identify potential sites (new connections, bringing out of use infrastructure back into use and increased use of lineside loading) to facilitate growth, e.g. Liberty House connection on the Birdport Branch line • Advice to System Operator of future sites and flows to understand timetable and capacity impact • Timetable studies for major terminal developments, e.g. SRFI's	SRFM/ FNPO Business Development Managers	Forward programme of FEU and Developer engagement to be agreed annually during CP6. Freight Developments Register to be held by SRFM for review at RSPG quarterly.
	Delivery of agreed CP6 freight enhancement programme	Continuation of Strategic Freight Network funding and industry governance group	• Promotion of potential freight projects and enhancement schemes • Prioritise funding to best meet demand and facilitate growth • Align SFN proposals with Route and National proposals to deliver a coherent forward strategy which best meets overall requirements	FNPO Head of Freight Development/ System Operator	Ongoing

Section	Key Themes	Strategy	Specifics	Owner	Timescale
Capacity & Capability	Consideration of incremental freight improvements in all schemes	Structured review process with Route planners and Sponsors	• Work with FOC's and System Operator to identify opportunities for incremental freight enhancements as part of the development of enhancement and renewals proposals, e.g. faster entrance/exit speeds into loops and through crossovers. • Defined and consistent engagement process to be agreed with Route Planning team and Sponsors • Look for opportunities within the Cardiff Metro development to enhance freight's opportunities	SRFM/ System Operator	Defined engagement process and inputs to be in place with Route Strategy by April 2018
Network Availability	Engineering plans that meet both FNPO customer and Route needs.	Regular and co-ordinated freight input into • Engineering Access Statements • Access Planning Requests	Engineering plans that are; • Transparent and well understood • co-ordinated • consistent across Routes • planned well in advance and • take into consideration contingency arrangements for long distance services	SRFM/ FNPO Capability and Planning Manager	Annual review of process/requirements between FNPO and Engineering Planning from March 2018 incorporating end to end Access process
Freight Asset Management Plans	Effective asset management arrangements for yards and sidings infrastructure	Create a joint understanding of maintenance responsibility, traffic level changes and asset condition	• Enable Asset Management and Engineering teams to plan the targeted maintenance and renewals requirement of each site • Ensure appropriate standards in use at each location. • Ensure that changes in market demand are communicated	SRFM/ Route COO/ RAM	Biannual review of yard and sidings maintenance priorities / traffic flows commencing 2018
	Review of Locomotive and Heavy Axle Weight (HAW) restrictions	Establish potential/cost for removal of restrictions	• Input into track/structures renewals and maintenance plans	SRFM/ Route COO/ RAM	Review definition and programme issued by April 2018. Delivery per strategic route to be programmed.
	Review Freight Only lines and other infrastructure	Understand the potential to reduce OMR.	• Review based on existing & predicted future use • Input into track/structures/maintenance plans • Outputs to be agreed with customers/ORR • Close scrutiny on the impact of Valley coalfields decline e.g. Cwmgrach and Hirwaun branch lines • Gaerwen to Amlwch branch status to be reviewed, also the Waterston branch	SRFM/ Route COO/ RAM	Delivery of initial opportunities report by July 2018. Agreed Action Plan through CP6 per Route
	Removal of TSRs / PSRs in timely fashion	Establish removal plan recognising freight impact	• Continue to work with the Route teams to identify the impact of speed restrictions on freight services and work collaboratively to remove them	SRFM/ Route COO/ RAM	Periodic review of performance impact of TSRs to be agreed by Route

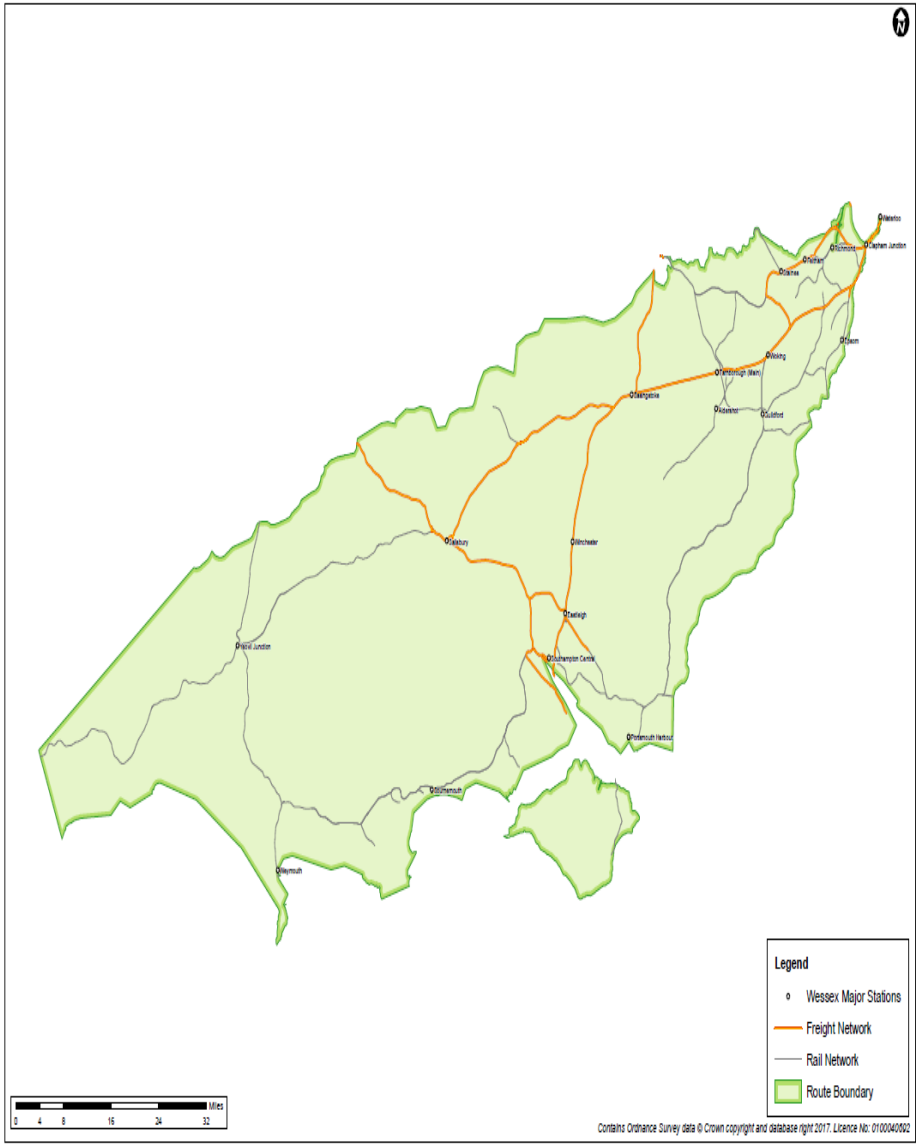
Wessex Route & Freight & National Passenger Operators (FNPO) Route

This summary sets out how the Wessex and FNPO routes will work together to deliver the Route Strategic Plan for LNW. It outlines existing FNPO activity, and then describes the impact of the plans and aspirations of FNPO customers to grow and develop their businesses. It summarises what Network Rail needs to do to deliver these strategies and how, in doing so, efficiencies can be identified and realised.

.

National Passenger Operators:
CrossCountry is a regular user of Wessex route and key issues include right time arrivals from Basingstoke, animal incursions and TSR management including timely removal

Charter trains also operate across Wessex Route, especially at weekends, to a variety of leisure destinations being hauled by both standard and heritage steam and diesel locomotives. This leisure market is expected to grow during CP6



Challenges and Opportunities

No	Key Challenges, Risks and Opportunities	What we plan to do
1	**Aggregate Growth** O: Volume growth from quarries in Mendips and Leicestershire to S and SE R: Infrastructure not able to cope with traffic demand	• Explore opportunities for longer and heavier trains maximising loco capability • Facilitate new wagons that maximise payload/length ratio • Support Terminal and Yard developments whenever identified, in particular those which could service the London market • Support introduction of 'pop-up' terminals, bringing out of use infrastructure back into use and increased use of lineside loading
2	**Domestic & Deep Sea Intermodal Growth** O: Volume growth from Southampton R: Train paths and SRT discrepancies with longer, heavier trains	• Work with customers to maximise opportunities to increase length of trains • Increase Average Journey Speed origin to destination • Recognised Diversionary routes with adequate capability • Support any inland terminal developments – e.g. DIRFT 3, Four Ashes, Port Salford, Parkside
3	**Gauge establishment** C: Establishment of recognised diversionary routes for gauge critical traffic	• Documented diversionary routes for core intermodal flows • Explore third party funding opportunities • Review of RT3973 provision to more closely align with traffic flows – reduced duplication

No	Key Challenges, Risks and Opportunities	What we plan to do
4	**Commodity Traffic Growth** O: Automotive growth from BMW Oxford via Southampton R: Brexit impact could affect the Automotive market	• Explore opportunities for longer and heavier trains maximising loco capability • Support Terminal / Yard developments to facilitate growth • Support introduction of 'pop-up' terminals, bringing out of use infrastructure back into use and increased use of lineside loading • Work with FOCs and Freight End Users to deliver new network connections and necessary capacity and capability, or bring out of use infrastructure back into use
5	**Logistics and Mail Opportunity** O: Potential mail growth on main corridors and premium logistics developments	• Explore opportunities for business growth with existing and potential new customers
6	**Construction projects / HS2** O: Opportunity for spoil and waste out and aggregate and other commodities in to support construction	• Work with FOCs and End-customers to offer solutions to demands of major projects • Work with customers to manage the impact of major projects on their business (HS2) • Terminal / Yard developments ('pop-up' terminals / lineside loading potential)
7	**SRFI Terminal Development** O: SRFI terminal development supports intermodal growth especially addressing demand for inland terminals C: Securing of sufficient capacity to support SRFI developments through planning and into use	• Work with Developers to understand SRFI proposals progression through planning • Offer NR support to proposals when adequate strategic fit and capacity • Work with System Operator to support funded early stage timetable work for SRFI developers
8	**Infrastructure enhancements / electrification** R: Proposed electrification of Reading to Basingstoke will lead to more closures – lack of a robust diversionary route at W10 gauge	• Examine feasibility of creating a robust diversionary route for W10 traffic.
9	**End User-customer service** O: Closer working with FEU's enables greater understanding of customer priorities for future (e.g. Tarmac)	• Work with end-customers to develop business growth and support modal shift to rail • Work with end-customers to strengthen service delivery and support
10	**Review of redundant and unused assets** O: Following traffic changes in CP5 and structural change in energy market, opportunity exists to review size and organisation of non-passenger network	• Identify opportunities to reduce maintenance costs and remove unneeded infrastructure • Regularise the status of freight assets (actual v published) • Explore potential to transfer ownership of redundant lines / assets to secure better opportunities for redevelopment
11	**Yards and sidings infrastructure** R: Yard and Siding Infrastructure asset condition is critical to avoid derailment events and customer LTI's	• Working with Routes and customers to review asset condition on regular basis, • Working with Routes and customers to establish and benchmark walking route use and condition
12	**Timetable Review** O/R: Timetable Improvements to closely reflect capability of trains and capacity of network required on busier network	• Continuation of CP5 work to review path usage and remove unused paths and agree strategic capacity • Work with FOC's to more closely align Train Slots in the Timetable with Access Rights in the TAC, and remove unused rights where there is no corresponding Train Slot • Work with the Route, System Operator and FOC's/TOCs where in upcoming major timetable re-casts the available capacity may be less than contracted rights, e.g. (Route TBC) • Work with System Operator and customers to review opportunities to improve average speed origin-destination • Review with System Operator and customers suitability of current systems to capture network constraints and traction capability (Loads Book, Timing Loads, Lengths)
13	**Digital Railway** O: Successful introduction of Digital Railway offers potential for growth on busiest corridors	• Act as internal client on behalf of Freight to build sympathetic capability for freight traffic needs

CP6 Plan

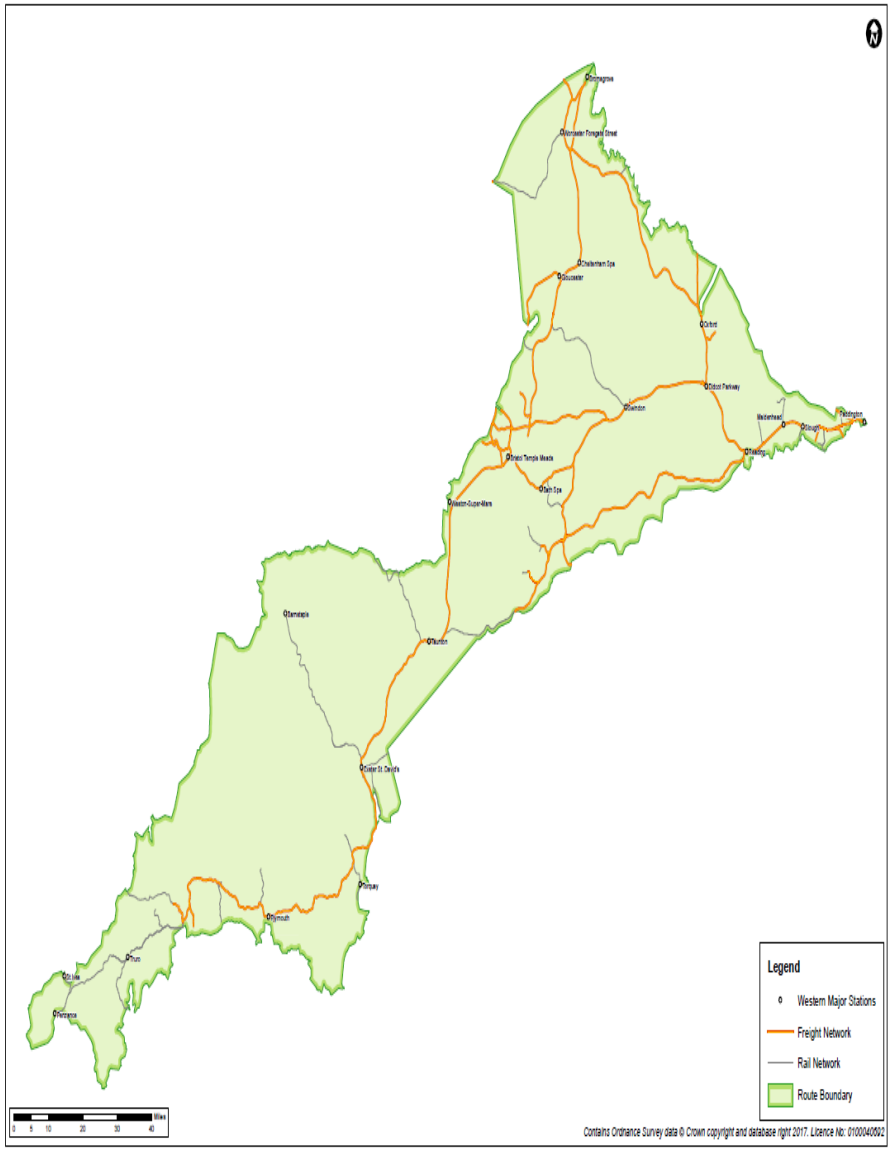
Section	Key Themes	Strategy	Specifics	Owner	Timescale
Safety	Lost Time Incidents	Reduce LTIs through concentration on Network Rail yard infrastructure, connecting sidings and walking routes conditions.	• Published rolling programme of joint health and safety visits with customers (FOCs/TOCs) to agreed sites including Southampton / Redbridge and Hinksey • Complete review of authorised walking routes/crew change locations per customer • Subject to funding, a programme of improvements will be specified and implemented • 'Go Look See' with customer within two weeks of any reportable customer LTI event on network infrastructure	FNPO Operations and Safety Manager/ SRFM	Initial Programme to be published March 2018 then annually during CP6
	Freight Train derailments	Reduce freight train derailments through concentration on Network Rail yard and sidings infrastructure.	• Published rolling programme of joint health and safety visits with customers to agreed sites • End User Customer Forum to be implemented to share issues of concern around connection points and maintenance either side of boundary point • Subject to funding, a programme of improvements will be specified and implemented	FNPO Operations and Safety Manager/ SRFM	Initial Programme to be published March 2018 then annually during CP6
	FNPO SPADs	Reduce freight SPADS by collaborative working	• SPAD Forum to be implemented with FOCs to share learning and best practice	FNPO Operations and Safety Manager	Creation of Forum by April 2018. Meeting regularity quarterly.
Performance	Right time departure performance at key hubs and terminals	Use Strategic Freight Corridors to focus delivery Measuring Right Time Departures from terminals at the start of the journey	• Local Working Groups (e.g. Port of Southampton, Automotive) • Use of Control Rooms and Visualisation at major sites (e.g. Southampton) • Re-brief Freight Strategy – 'Freight Delivery Matters' and linkage between RTD and FDM delivery	SRFM/ FNPO Performance Manager	Existing Working Groups to continue into CP6. Quarterly FNPO review of engagement
	Measuring FDM and FDM-R	Focus on defined key routes: Asset Performance Asset Resilience Effective contingency plans	• Target FDM-R Route target for end CP6 of 93.6% • Input to Routes for consistent use of contingency arrangements • FSDM input to incident recovery real-time to build consistency • Asset Reviews with Route Asset teams to share traffic forecasts and asset challenges with SRFM • Influence at RSPG to define future asset strategy in terms of renewals to support freight growth	SRFM/FNPO Performance Manager	Annual target setting during CP6. Periodic review of FDM-R delivery and key influencers
	Joint Freight Performance Improvement Strategies	Agreed joint strategy with each FOC including details of plans to reduce each delay area	• Complete plan annually with each FOC concentrating on primary delay categories • Agreed industry information share • Regular reviews against plan with each Route and FOC customer	FNPO Performance Manager/CRE	Joint Strategy Plan per Operator to be issued annually in CP6 & reviewed quarterly

Section	Key Themes	Strategy	Specifics	Owner	Timescale
Capacity & Capability	Identifying future capacity and capability needs.	Bring together all freight capacity plans: • Route Studies • SFN • Customer specific	• All future project specifications to include a specific output level for freight services, reflecting the SFN specifications and forecast future traffic requirements. • Future Capability needs assessment to be undertaken – RA, Gauge, HAW – future plans for improvement to meet capacity requirements • Interactive maps for Gauge, RA to be created and maintained • Continued support for longer, heavier trains programme	Project Sponsor/SRFM/ FNPO Head of Strategic Capability/ FNPO Head of Network Management	Future capability programme definition by April 2018 and delivery per strategic route
	Review existing capability constraints	Undertake Capability Review	• Improved gauge and operational flexibility on key freight corridors • Robust gauge cleared diversionary routes • Transparent network capability per route for customers • Continue to push for SFN 775m implementation	SRFM/ FNPO Head of Strategic Capability/ Head of Network Management	Existing capability constraints review definition by April 2018 and delivery per strategic route
	Connections to new terminals and SRFIs	Facilitate connections to the network and associated capacity	• Work with FOC's, Freight End Users and Developers to identify potential new connections, including development of SRFI's • Information share of prospective sites via RSPG • Facilitate new network connections e.g. (Route TBC) • Identify potential sites (new connections, bringing out of use infrastructure back into use and increased use of lineside loading) to facilitate growth, e.g. (Route TBC) for aggregates • Advice to System Operator of future sites/flows to understand timetable/capacity impact. .Timetable studies for major terminal developments, e.g. SRFI's	SRFM/ FNPO Business Development Managers	Forward programme of FEU and Developer engagement to be agreed annually during CP6. Freight Developments Register to be held by SRFM for review at RSPG quarterly.
	Delivery of agreed CP6 freight enhancement programme	Continuation of Strategic Freight Network funding and industry governance group	• Promotion of potential freight projects and enhancement schemes • Prioritise funding to best meet demand and facilitate growth • Align SFN proposals with Route and National proposals to deliver a coherent forward strategy which best meets overall requirements	FNPO Head of Freight Development/ System Operator	Ongoing
	Consideration of incremental freight improvements in all schemes	Structured review process with Route planners and Sponsors	• Work with FOC's and System Operator to identify opportunities for incremental freight enhancements as part of the development of enhancement and renewals proposals, e.g. faster entrance/exit speeds into loops and through crossovers • Defined and consistent engagement process to be agreed with Route Planning team and Sponsors	SRFM/ System Operator	Defined engagement process and inputs to be in place with Route Strategy by April 2018

Section	Key Themes	Strategy	Specifics	Owner	Timescale
Network Availability	Engineering plans that meet both FNPO customer and Route needs.	Regular and co-ordinated freight input into • Engineering Access Statements • Access Planning Requests	Engineering plans that are; • Transparent and understood • co-ordinated • consistent across Routes • planned well in advance and • take into consideration contingency arrangements for long distance services	SRFM/ FNPO Capability and Planning Manager	Annual review of process/requirements between FNPO and Engineering Planning from March 2018 incorporating end to end Access process
Freight Asset Management Plans	Effective asset management arrangements for yards and sidings infrastructure	Create a joint understanding of maintenance responsibility, traffic level changes and asset condition	• Enable Asset Management and Engineering teams to plan the targeted maintenance and renewals requirement of each site • Ensure appropriate standards in use at each location.	SRFM/ Route COO/ RAM	Biannual review of yard and sidings maintenance priorities / traffic flows commencing 2018
	Review of Locomotive and Heavy Axle Weight (HAW) track and structure restrictions	Establish potential/cost for removal of restrictions	• Input into track/structures renewals and maintenance plans	SRFM/ Route COO/ RAM	Review definition and programme issued by April 2018. Delivery per strategic route to be programmed.
	Review Freight Only lines and other infrastructure	Understand the potential to reduce OMR.	• Review based on existing & predicted future use • Input into track/structures/maintenance plans • Outputs to be agreed with customers/ORR	SRFM/ Route COO/ RAM	Delivery of initial opportunities report by July 2018. Agreed Action Plan through CP6 per Route
	Removal of TSRs / PSRs in timely fashion	Establish removal plan recognising freight impact	• Continue to work with the Route teams to identify the impact of speed restrictions on freight services and work collaboratively to remove them.	SRFM/ Route COO/ RAM	Ongoing periodic review of performance impact of TSRs to be agreed per Route

Western Route & Freight & National Passenger Operators (FNPO) Route

This summary sets out how the Western Route and FNPO routes will work together to deliver the Route Strategic Plan for Western. It outlines existing FNPO activity, and then describes the impact of the plans and aspirations of FNPO customers to grow and develop their businesses. It summarises what Network Rail needs to do to deliver these strategies and how, in doing so, efficiencies can be identified and realised.



National Passenger Operators:
CrossCountry is a regular user of Western route and key issues include right time departures from Bristol Parkway, weather resilience and trespass and fatality incidents

Charter trains also operate across Western Route, especially at weekends, to a variety of leisure destinations being hauled by both standard and heritage steam and diesel locomotives. This leisure market is expected to grow during CP6.

Challenges and Opportunities

No	Key Challenges, Risks and Opportunities	What we plan to do
1	**Aggregate Growth** O: Volume growth from quarries in Mendips and Wales to SE and Anglia O: Aggregate for export via Avonmouth O: Reactivation of rail connected quarries e.g. Tytherington R: Infrastructure not able to cope with traffic demand	• Explore opportunities for longer and heavier trains maximising loco capability • Facilitate new wagons that maximise payload/length ratio • Support terminal / yard developments e.g. proposed Southall Campus • Support introduction of 'pop-up' terminals, bringing out of use infrastructure back into use and increased use of lineside loading • Explore opportunities for new capacity
2	**Domestic & Deep Sea Intermodal Growth** O: Volume growth from Southampton will feed through Western R: Train paths and SRT discrepancies with longer, heavier trains	• Work with customers to maximise opportunities to increase length of trains • Look for opportunities to increase Average Journey Speed origin to destination • Recognised Diversionary routes with adequate capability

No	Key Challenges, Risks and Opportunities	What we plan to do
3	**Gauge establishment** C: Establishment of recognised diversionary routes for gauge critical traffic	• Documented diversionary routes for core intermodal flows • Review of RT3973 provision to more closely align with traffic flows – reduced duplication
4	**Commodity Traffic Growth** O: New aviation fuel terminal at Colnbrook O: Increased movements from BMW Oxford via Southampton Docks O: Higher tonnages of steel shipped to EU from Wales will transit Western Route R: Brexit impact could affect commodity traffic adversely	• Explore opportunities for longer and heavier trains maximising loco capability • Develop new flow from Grain to Colnbrook • Look for opportunities to free-up capacity following the decline of Avonmouth coal • Support introduction of 'pop-up' terminals, bringing out of use infrastructure back into use and increased use of lineside loading • Work with FOCs and Freight End Users to deliver new network connections and necessary capacity and capability, or bring out of use infrastructure back into use
5	**Logistics and Mail Opportunity** O: Potential mail growth on main corridors and premium logistics developments	• Explore opportunities for business growth with existing and potential new customers
6	**Franchise changes / Crossrail** R: Refranchising of TOC in Route seeks greater capacity on shared lines R: Development of Crossrail will increase capacity demands on the most congested part of the Route	• Retain adequate capacity, capability and flexibility for existing and forecast freight • Review Impact on possession strategy from new flows • Review stabling plans for new rolling stock / change of locations
7	**Infrastructure enhancements / electrification** O: Greater capacity/opportunity following enhancement (eg. East West Rail on Western and LNW) R: Loss of Capacity following timetable change (eg. Crossrail on Western)	• East/West Rail provision for gauge and freight diversions • MML Electrification – risk from faster trains? • Support Route forums (RSPG etc) to influence scope and secure freight benefit following scheme delivery
8	**Construction projects / HS2** O: Opportunity for spoil and waste out and aggregate and other commodities in to support construction	• Work with DfT, HS2 Ltd, FOCs and End-customers to offer solutions to demands of major projects • Work with customers to manage the impact of major projects on their business (HS2) • Terminal / Yard developments ('pop-up' terminals / lineside loading potential) • Work with FOCs and Freight End Users to resolve any conflicts with existing freight facilities • Work with FOCs and Freight End Users to deliver new network connections and necessary capacity, or bring out of use infrastructure back into use
9	**SRFI Terminal Development** O: SRFI terminal development supports intermodal growth especially addressing demand for inland terminals C: Securing of sufficient capacity to support SRFI developments through planning and into use	• Work with Developers to understand SRFI proposals progression through planning • Offer NR support to proposals when adequate strategic fit and capacity • Work with System Operator to support funded early stage timetable work for SRFI developers
10	**End User-customer service** O: Closer working with FEU's enables greater understanding of customer priorities for future (e.g. Mendip Rail)	• Work with end-customers to strengthen service delivery and support • Work with end-customers to develop business growth and support modal shift to rail
11	**Review of redundant and unused assets** O: Following traffic changes in CP5 and structural change in energy market, opportunity exists to review size and organisation of non-passenger network	• Identify opportunities to reduce maintenance costs and remove unneeded infrastructure • Regularise the status of freight assets (actual v published) • Explore potential to transfer ownership of redundant lines / assets to secure better opportunities for redevelopment

No	Key Challenges, Risks and Opportunities	What we plan to do
12	**Yards and sidings infrastructure** R: Yard and Siding Infrastructure asset condition is critical to avoid derailment events and customer LTI's	• Working with Routes and customers to review asset condition on regular basis, • Working with Routes and customers to establish and benchmark walking route use and condition
13	**Timetable Review** O/R: Timetable Improvements to closely reflect capability of trains and capacity of network required on busier network	• Continuation of CP5 work to review path usage • Work with System Operator and customers to review opportunities to improve average speed origin-destination • Review with System Operator and customers suitability of current systems to capture network constraints and traction capability (Loads Book, Timing Loads, Lengths)
14	**Digital Railway** O: Successful introduction of Digital Railway offers potential for growth on busiest corridors	• Act as internal client on behalf of Freight to build sympathetic capability for freight traffic needs

CP6 Plan

Section	Key Themes	Strategy	Specifics	Owner	Timescale
Safety	Lost Time Incidents	Reduce LTIs through concentration on Network Rail yard infrastructure, connecting sidings and walking routes conditions.	• Published rolling programme of joint health and safety visits with customers (FOCs/TOCs) to agreed sites including Acton, Westbury, Southall and Brentford • Complete review of authorised walking routes/crew change locations per customer • Subject to funding, a programme of improvements will be specified and implemented • 'Go Look See' with customer within two weeks of any reportable customer LTI event on network infrastructure	FNPO Operations and Safety Manager/ SRFM	Initial Programme to be published March 2018 then annually during CP6
	Freight Train derailments	Reduce freight train derailments through concentration on Network Rail yard and sidings infrastructure.	• Published rolling programme of joint health and safety visits with customers to agreed sites • End Customer Forum to be implemented to share issues of concern around connection points and maintenance either side of boundary point , in particular covering the quarries at Whatley and Merehead • Subject to funding, a programme of improvements will be specified and implemented	FNPO Operations and Safety Manager/ SRFM	Initial Programme to be published March 2018 then annually during CP6
	FNPO SPADs	Reduce freight SPADS by collaborative working	• SPAD Forum to be implemented with FOCs to share learning and best practice	FNPO Operations and Safety Manager	Creation of Forum by April 2018. Meeting regularity proposed quarterly

Section	Key Themes	Strategy	Specifics	Owner	Timescale
Performance	Right time departure performance at key hubs and terminals	Use Strategic Freight Corridors to focus delivery Measuring Right Time Departures from terminals at the start of the journey	• Local Working Groups (e.g. Mendip Rail, Acton Yard) • Use of Control Rooms and Visualisation at major sites (e.g. Merehead) • Re-brief Freight Strategy – 'Freight Delivery Matters' and linkage between RTD and FDM delivery	SRFM/ FNPO Performance Manager	Existing Working Groups to continue into CP6. Quarterly FNPO review of terminal engagement arrangements
	Measuring FDM and FDM-R	Focus on defined key routes: - Asset Performance - Asset Resilience - Effective contingency plans	• Target FDM-R Route target for end CP6 of 94.0% • Input to Route CP's for consistent application of freight contingency arrangements • FSDM input to incident recovery real-time to build consistency • Asset Reviews with Route Asset teams to share traffic forecasts and asset challenges with SRFM • Influence at RSPG to define future asset strategy in terms of renewals to support freight growth	SRFM/FNPO Performance Manager	Annual target setting during CP6. Periodic review of FDM-R delivery and key influencers
	Joint Freight Performance Improvement Strategies	Agreed joint strategy with each FOC including details of plans to reduce each delay area	• Complete plan annually with each FOC concentrating on primary delay categories • Agreed industry information share • Regular reviews against plan with each Route and FOC customer, in particular targeting A2F improvement at the Eastern end of the Western Route where the greatest congestion occurs.	FNPO Performance Manager/CRE	Joint Strategy Plan per Operator to be published annually during CP6 and reviewed quarterly
Capacity & Capability	Identifying future capacity and capability needs.	Bring together all freight capacity plans: • Route Studies • SFN • Customer specific	• All future project specifications to include a specific output level for freight services, reflecting the SFN specifications and forecast future traffic requirements. • Future Capability needs assessment to be undertaken – RA, Gauge, HAW – future plans for improvement to meet capacity requirements • Interactive maps for Gauge, RA to be created and maintained • Continued support for longer, heavier trains programme	Project Sponsor/SRFM SRFM/ FNPO Head of Strategic Capability/ FNPO Head of Network Management	Future capability programme definition by April 2018 and delivery per strategic route
	Review existing capability constraints	Undertake Capability Review	• Improved gauge and operational flexibility on key freight corridors • Robust gauge cleared diversionary routes • Transparent network capability per route for customers	SRFM/ FNPO Head of Strategic Capability/ FNPO Head of Network Management	Existing capability constraints review definition by April 2018 and delivery per strategic route

Section	Key Themes	Strategy	Specifics	Owner	Timescale
Capacity & Capability	Freight Train Average Speed	Undertake Average Speed Review	• Establish framework for average speed measurement and improvement • Work with Stakeholders to target specific flows and services, key target is the waste flow from London to Severn Beach • Annual plan in connection with annual timetable change	FNPO Head of Performance/ FNPO Head of Strategic Capability/ FNPO Head of Network Management	Measurement framework to be agreed by industry May 2018. Flows to be agreed for Dec 2018 TT change and annually thereafter
	Connections to new terminals and SRFIs	Facilitate connections to the network and associated capacity	• Work with FOC's, Freight End Users and Developers to identify potential new connections, including development of SRFI's • Information share of prospective sites via RSPG • Facilitate new network connections if required • Identify potential sites (new connections, bringing out of use infrastructure back into use and increased use of lineside loading) to facilitate growth, e.g. (Route TBC) for aggregates • Advice to System Operator of future sites and flows to understand timetable and capacity impact • Timetable studies for major terminal developments, e.g. SRFI's	SRFM/ FNPO Business Development Managers	Forward programme of FEU and Developer engagement to be agreed annually during CP6. Freight Developments Register to be held by SRFM for review at RSPG quarterly.
	Delivery of agreed CP6 freight enhancement programme	Continuation of Strategic Freight Network funding and industry governance group	• Promotion of potential freight projects and enhancement schemes • Prioritise funding to best meet demand and facilitate growth • Align SFN proposals with Route and National proposals to deliver a coherent forward strategy which best meets overall requirements	FNPO Head of Freight Development/ System Operator	Ongoing
	Consideration of incremental freight improvements in all schemes	Structured review process with Route planners and Sponsors	• Work with FOC's and System Operator to identify opportunities for incremental freight enhancements as part of the development of enhancement and renewals proposals, e.g. faster entrance/exit speeds into loops and through crossovers. • Defined and consistent engagement process to be agreed with Route Planning team and Sponsors	SRFM/ System Operator	Defined engagement process and inputs to be in place with Route Strategy by April 2018

Network Availability	Engineering plans that meet both FNPO customer and Route needs.	Regular and co-ordinated freight input into
		• Engineering Access Statements
		• Access Planning Requests
			• Engineering plans that are;
			  • Transparent
			  • co-ordinated
			  • consistent across Routes
			  • planned well in advance and
			  • take into consideration contingency arrangements for long distance services
				SRFM/ FNPO Capability and Planning Manager	Annual review of process/requirements between FNPO and Engineering Planning from March 2018 incorporating end to end Access process

Appendix C – Summary of Investment options

Below is a summary of the investments options laid out within the document, which are required to deliver the benefits articulated in each section.

Investment Option	CP6 Financial Value
Proposed options for freight – 15 year investment programme *For further details please see below C.1*	£2bn
Freight Safety Improvement programme. *For further detail please see section 5.26*	£22m
Charter CET installation *For further detail please see section 8*	£10m

C.1 Proposed options for freight – 15 year investment programme

The table below combines the options for funders set out in the April 2017 Freight Network Study with some further schemes proposed through subsequent business development work, and allocates them to a control period for development and delivery. Broadly it is expected that schemes would be developed during the control period prior to the one in which they are to be delivered. However, some small schemes could be developed and delivered within a single control period. As a result, schemes put forward as options for delivery in CP6 are limited to those for which development work has already taken place or is expected to before the end of CP5, plus some smaller schemes.

Where estimated cost ranges are put forward, these refer to the totality of the expected funding requirements. It is anticipated that this would be drawn from a range of sources including dedicated freight funds, wider industry funding with freight contributions, and third-party funding.

It should be noted that the list mentioned in Appendix C are choices for funders and none are committed schemes. Schemes will only progress from concept, through development, and into delivery, by passing joint, incremental funding decision points with the relevant funder(s). Schemes will also only progress to the next stage of the lifecycle, subject to an ongoing assessment of viability and affordability.

	CP6 delivery and development options				CP7 development options
Corridor	**➢➢Deliver in CP6**	**Estimated cost range (£m)**	**Develop in CP6 ➢➢ Deliver in CP7**	**Estimated cost range (£m)**	**Develop in CP7 ➢➢ Deliver in CP8+**
1. West Coast Main Line			Preston Station area remodelling --- Dynamic Down loop Tebay to Shap Summit --- Dynamic Up loop Carlisle to Plumpton --- Dynamic Up loop Eden Valley to Shap Summit --- Carstairs remodelling --- Winsford to Weaver Jn interventions (2026) --- Gauge clearance of WCML from London to Coatbridge (incremental up to W12) --- Gauge clearance to W10/W12 Coatbridge to Grangemouth --- Northampton Loop enhancements (Line speed and headway improvements) --- Doubling of Stafford South Jn --- 775 metre train length capability Weaver Jn to Scotland --- Nodal yards at Crewe and Mossend	375 – 875 --- 250 – 500 --- 250 – 500 --- 375 – 875 --- 100 – 250 --- tbc --- tbc --- tbc --- 225 -550 --- 15- 35 --- tbc --- tbc	Possible Crewe Yard changes --- Four- tracking Preston to the border Carlisle Station remodelling including Four-tracking of approaches; Three or four-tracking Gretna Jn to Floriston; Four-tracking sections from Carlisle to Carstairs --- Grade separation Law, Holytown and Uddingston Jns --- Settle & Carlisle upgrade to accommodate all freight traffic --- Acton Grange to Warrington capacity Wigan to Preston interventions --- Gauge clearance to W12 of the Glasgow South Western route --- Winsford to Weaver Jn interventions (2043)

2. East Midlands and Yorkshire			Gauge clearance to W12 of South Yorkshire Joint Line	15 - 35	Diversionary access for Immingham and Teesport --- Electrification of Yorkshire freight routes --- W12 gauge clearance of additional platform lines through York and Newcastle
3. Felixstowe to the West Midlands and the North	Doubling of Haughley Jn --- Headway improvements Bury St Edmunds --- Ely area capacity, including: • Level Crossings • Bridge strengthening --- Ely to Soham full doubling --- Signalling and level crossing improvements Peterborough – Syston East Jn --- Gauge clearance to W10 and/or W12 Syston to Sheet Stores Jn/Trent Jn --- Further refine layout at Ipswich Yard	10 – 15 50 – 70 100 – 250 120 -150 50 - 60 5-10 1-5	Loop at Haugley Jn --- Leicester area capacity --- Gauge clearance to W10/W12 North Stafford Jn – Stoke --- 775 metre train length capability in the West Midlands --- Nodal yards Peterborough and Bescot	35 - 75 600 – 1000 17 - 23 tbc tbc	Further doubling of Felixstowe branch --- Haughley Jn four-tracking --- Haughley Jn grade separation --- Grade separation and additional tracks around Ely --- New Ely avoiding line --- Track and signalling enhancements Leicester to Nuneaton --- Passing loop between Colchester and Witham --- Four-tracking Werrington Jn to Peterborough --- Electrification of the route via Ely --- Further gauge enhancement (incremental up to W12) of the route via Ely --- F2N Phase 3: to accommodate long term growth --- Scheme to accommodate East West Rail traffic on to WCML

4. Southampton to the West Midlands and the North	Doubling of route via Kenilworth	100 - 170	Grade separation at Didcot East Jn and either: • grade separation at Oxford North Jn and improvements at Oxford station, or • four-tracking Didcot to Oxford --- Nodal yard at Eastleigh --- Investigations into running trains longer that 775m	100 – 475 tbc tbc	Electrification of diversionary route via Andover --- Bathampton/Bradford Jn (Dundas Aqueduct) W8/W10 --- W10 diversionary via Westbury and Melksham --- Passing loop between Eastleigh and Basingstoke --- Grade separation at Basingstoke --- Capacity enhancements between Southcote Jn and Oxford Road Jn --- Banbury loops --- Leamington Spa station remodelling --- Water Orton area interventions --- Sutton Park Line electrification --- Electrification of key freight terminals in the West Midlands
5. Channel Tunnel classic routes	Gauge enhancement (incremental up to W12)	50 - 80	Redhill track circuits	15 - 30	

6. Cross London including Essex Thameside	Ripple Lane Nodal Yard --- Thameside level crossings (capacity scheme)	10 – 15 30 - 40	Cross London freight capacity	tbc	Infill electrification --- Enhancements to signalling on the Gospel Oak to Barking line --- Freight loop at Gospel Oak on the Gospel Oak to Barking line --- Modification of signalling block at Hampstead Heath Tunnel --- Freight regulation loop at Kensal Rise --- Forest Gate grade separation --- Possible Pitsea to Ingatestone rail link --- West Anglia Main Line W12 gauge clearance
7. South West and Wales to the Midlands			Gauge clearance to W10 Bristol to Birmingham	tbc	Bromsgrove Corridor interventions --- Re-opening of Stourbridge - Walsall/Lichfield Line --- Electrification of key freight terminals in the West Midlands

8. Northern Ports and Trans Pennine	Gauge enhancement (incremental up to W12) of core Trans Pennine route(s) --- New Loop between Up Decoy and South Yorkshire Joint Line --- Trans Pennine freight capacity	100 – 200 5 – 10 tbc	Level crossing enhancements Teesport – Northallerton --- Level crossing enhancements at East Boldon and Tile Shed	tbc 4	Immingham line speed improvements --- Line speed improvements from 20mph up to 40mph on the Bootle branch. --- Enabling works to support the aspiration to reach 3tph from South Liverpool Terminals to the WCML --- Enabling works to support the aspiration to reach 3tph from Port of Liverpool to the WCML. --- Rearranging maintenance schedules to allow night-time access to the Chat Moss corridor. --- A loop at Edale in the Hope Valley. --- A loop at Grindleford in the Hope Valley. --- Electrification of Yorkshire freight routes: • Tapton Junction to Masborough and Nunnery Main Line Junction, via Beighton Junction • Beighton Junction to Woodburn Junction • Hare Park Junction to Leeds Stourton terminal Reception line • Stourton terminal to Whitehall Junction --- Improved capacity and line speeds on the Calder Valley line. --- Level crossing enhancements at East Boldon and Tile Shed --- Diversionary access for Immingham and Teesport --- Capacity interventions on ECML between York & Newcastle
Network Rail					--- Gauge clearance to W12 of South Yorkshire Joint Line --- Gauge clearance to W12 of further routes

9. Midland Mainline			Gauge clearance to W10/W12 between London and Bedford (including cross London route infill) --- Gauge clearance to W10/W12 between Kettering and Wigston and Between Corby and Manton Jn (including cross London route infill) --- Line speed improvements on Midland Mainline	tbc tbc tbc	Grade separation at Harpenden and Leagrave Jns --- Bedford area enhancements including new platform and a new Turnback --- 4-tracking Kettering North Jn to Kilby Bridge Jn --- New line linking Stenson Jn to the Midland Mainline --- Stenson Jn to Sheet Stores Jn linespeed improvements --- Additional turnback facility at Derby station --- Further Peak Forest capacity Additional access to Mountsorrel Aggregates Terminal --- Dore to Sheffield capacity enhancements --- Reopening of Matlock - Buxton line

10. Great Western Main Line	Gauge clearance to W10/W12 Wootton Bassett to Bristol via Bathampton	4 - 5	Gauge clearance to W12 London to Bristol and Cardiff	8 - 12	Remodelling of Bishton Flyover (with flat junction) and west end of Severn Tunnel Jn --- Remodelling of Bishton Flyover (with replacement flyover) and east end of Severn Tunnel Jn --- Grade separation at Maindee West Jn --- Headway improvements between Bishton and Maindee Jn --- Headway improvement on Main Lines between Ebbw Jn and Cardiff Central --- Headway improvement on Main and Relief Lines between Ebbw Jn and Cardiff Central --- Electrification of Avonmouth Branch
11. Anglo-Scottish and Northern regional traffic			Grantshouse dynamic loops and four-tracking Prestonpans to Drem --- Edinburgh Suburban Line capacity improvements --- Four-tracking in Hare Park Jn area --- Freight loop at Camperdown --- Looping strategy between Dundee and Aberdeen --- Strategic infill gauge clearance to W12 of sections connecting to the East Coast Main Line	250 150 - 300 tbc 45 – 111 56 – 140 tbc	Enhancements to loops north of Newcastle --- Capacity interventions on ECML between York and Newcastle

All corridors	Remove heavy axle weight speed restrictions and/or other freight speed restrictions including on entry and exit of loops	15 - 20	Remove heavy axle weight speed restrictions and/or other freight speed restrictions including on entry and exit of loops	15 - 20	Remove heavy axle weight speed restrictions and/or other freight speed restrictions including on entry and exit of loops
Total		650 – 1100*		2900 - 6060	

*Estimated costs for Trans Pennine capacity enhancements are to be confirmed so are not included in the CP6 total.

Appendix 8: ExQ1.1.1 (ii): Glossary of Terms used in Chapter 9 (Air Quality) of the Environmental Statement (Document 5.2)

AADT	Average Annual Daily Traffic
AAWT	Average Annual Weekday Traffic
APIS	Air Pollution Information System
AQMA	Air Quality Management Area
AQMS	Air Quality Monitoring Station
AQS	Air Quality Standard
AURN	Automatic Urban and Rural Network
CAZ	Clean Air Zone
CEMP	Construction Environmental Management Plan
CERC	Cambridge Environmental Research Consultants
CO_2	carbon dioxide
DEFRA	Department for Environment, Food and Rural Affairs
DfT	Department for Transport
DMRB	Design Manual For Roads and Bridges
EFT	Defra's Emissions Factor Toolkit
EPUK	Environmental Protection UK
HDVs	Heavy Duty Vehicles
HGVs	Heavy Goods Vehicles
IAQM	Institute of Air Quality Management
LAQM	Local Air Quality Management
LDVs	Light Duty Vehicles
LGVs	Light Goods Vehicles
LV	Limit Value
NBC	Northampton Borough Council
NCC	Northamptonshire County Council
NECD	National Emission Ceilings Directive
NLES	Northampton Low Emissions Strategy
NO_2	nitrogen dioxide
NO_x	oxides of nitrogen
NPPF	National Planning Policy Framework
NPSNN	National Policy Statement for National Networks
NSIP	Nationally Significant Infrastructure Project
NSSUE	Northampton South Sustainable Urban Extension
NSTM2	Northamptonshire Strategic Transport Model
P-CEMP	Phase specific Construction Environmental Management Plan

PCM	Pollution Climate Mapping
PM10	fine particulate matter
PPG	Planning Practice Guidance
SL-PCM	Streamlined Pollution Climate Model
SNC	South Northamptonshire Council
SPA	Special Protection Area
SRFI	Strategic rail freight interchange
SSSI	Site of Special Scientific Interest
UK-AIR	UK Atmospheric Information Resource
UKAQS	UK Air Quality Strategy
UNECE	United Nations Economic Commission for Europe
WNJCS	West Northamptonshire Joint Core Strategy

Appendix 9: ExQ1.1.11: Figure 9.18 of the Environmental Statement

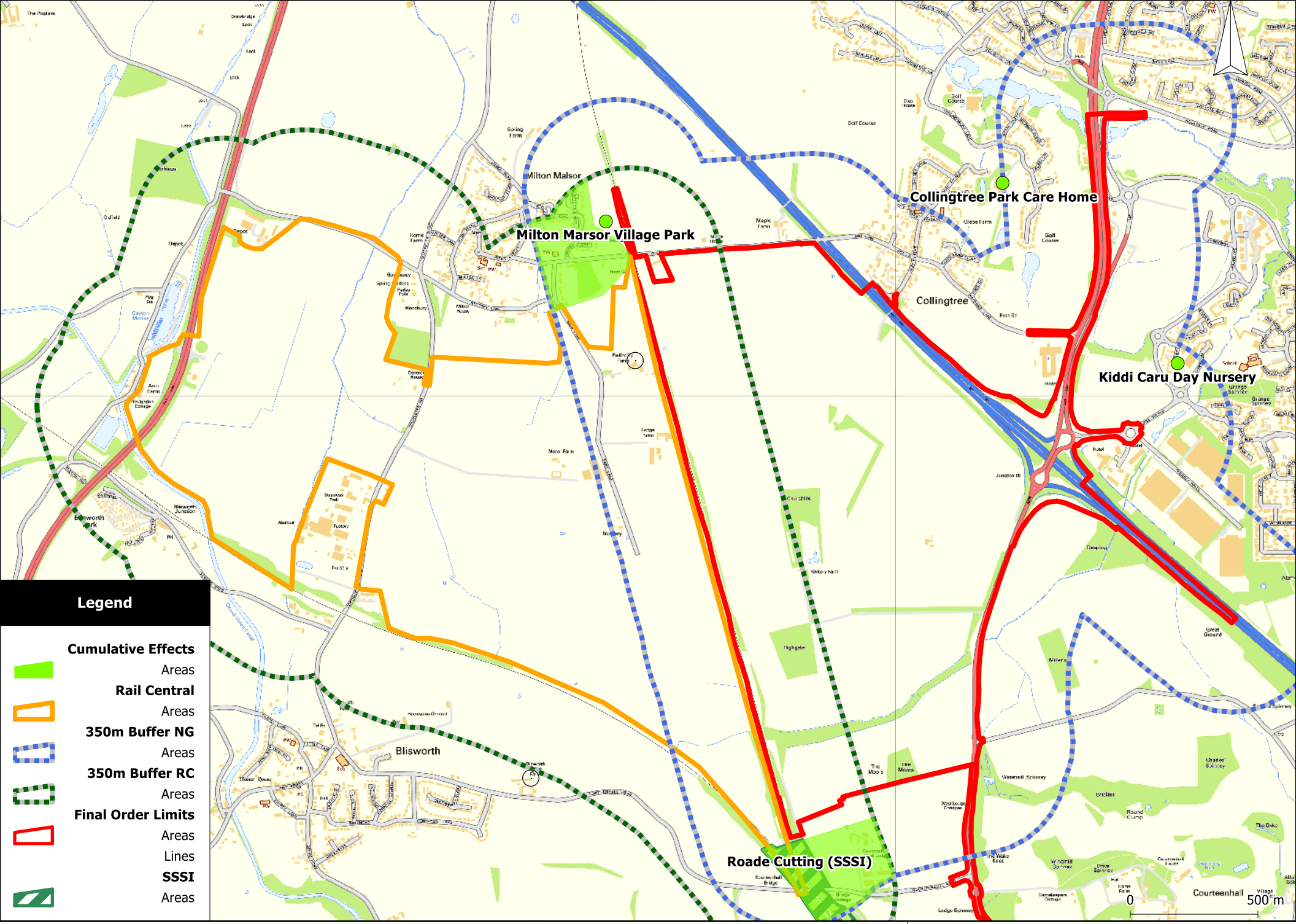


Figure 9.18 Northampton Gateway & Rail Central Construction Phase Receptors

Drawn By: HP
Date: 01/05/2018

ROXHILL

Appendix 10: ExQ1.1.18: Upper Nene Valley Gravel Pits SPA

Northampton Gateway – Upper Nene Valley Gravel Pits SSSI/SPA - Air Quality Screening Assessment

This document has been prepared to answer **ExQ1.1.18.**

Please find below a summary of our Air Quality Screening Assessment for the Upper Nene Valley Gravel Pits Site of Special Scientific Interest (SSSI) and Special Protection Area (SPA).

No evidence could be found that that the waters of the Upper Nene Valley Gravel Pits SPA/SSSI are oligotrophic and of low alkalinity. As such, a full screening assessment was undertaken to illustrate that the proposed development will have a negligible impact of air quality and nutrient nitrogen deposition at this site.

Upper Nene Valley Gravel Pits SSSI/SPA

The Upper Nene Gravel Pits SSSI/SPA at its closest is located 5.5km to the north-east of the application site. At this location the SSSI/SPA is over 100m from a road where significant changes in traffic are expected due to the proposed development (A45). The SSSI/SPA abuts the A45 to the north of Rushden approximately 23km to the north-east.

Sensitive Ecological Site Assessment

The Design Manual for Roads and Bridges (DMRB) Volume 11, Section 3 Environmental Assessment Techniques[1]provides detailed guidance for the assessment of the potential impact of road projects on air quality, including ecologically sensitive sites such as SSSIs and SPAs. The guidance states that "where appropriate, the advice may be applied to existing roads".

The guidance has since been adopted to assess effects of plans and projects where they contribute traffic to existing roads and Natural England advise that it is the appropriate guidance to use in Habitats Regulation Assessment.

The DMRB applies a coarse screening threshold, whereby plans or projects which lead to a change in Annual Average Daily Traffic (AADT) flows of 1,000 Light Duty Vehicles (LDV) or 200 or more Heavy Duty Vehicles (HDV) require further assessment. The DMRB advises that "only properties and Designated Sites within 200m of roads affected by a project need be considered".

A limit of 200m from roads is considered highly conservative as research has shown that air pollution drops off quickly away from the road. It is stated in "NO_2 Concentrations and Distance from Roads"[2] that "at 100m or more from the road, the difference between the total concentration and the background concentration should be as close to zero as will make virtually no difference"

[1] Highways Agency (2007) Design Manual for Roads and Bridges Volume 11, Section 3 Environmental Assessment Techniques.
[2] Laxen & Marner (2008). NO_2 Concentrations and Distance from Roads

Traffic data

Traffic data was sourced from the outputs of Northampton County Council's NSTM2 model, which is maintained and managed by WSP. The relevant data for this assessment is shown in Tables 1 and 2 below. Table 1 shows the data relevant to the proposed development's opening year in 2021 and the Table 2 shows the data relevant to the proposed development's assumed year of full operation in 2031.

Table 1: Traffic data for roads relevant to this assessment (2021)

	2021 without				2021 with				Difference (with-without)			Potentially Significant
	AADT	HDV (%)	HDV	LDV	AADT	HDV (%)	HDV	LDV	AADT	HDV	LDV	
A45, N of Rushden - NB	14485	12.0%	1741	12744	14432	12.2%	1756	12675	-53	16	-69	No
A45, N of Rushden - SB	16589	14.2%	2362	14227	16618	14.2%	2354	14264	29	-8	37	No
A45, E of Brackmills - WB	48968	6.9%	3376	45591	49251	7.6%	3725	45526	283	348	-65	Yes
A45, E of Brackmills EB	Unknown – not provided in transport modelling.											
A45, (N of Wooldale Rd) – NB	28743	9.1%	2609	26134	31286	10.7%	3333	27953	2543	724	1819	Yes

Table 2 Traffic data for roads relevant to this assessment (2031)

	2031 without				2031 with				Difference (with-without)			Potentially Significant
	AADT	HDV (%)	HDV	LDV	AADT	HDV (%)	HDV	LDV	AADT	HDV	LDV	
A45, N of Rushden - NB	14873	8.6%	1285	13588	14962	8.6%	1282	13680	88	-3	92	No

A45, N of Rushden - SB	17283	9.9%	1713	15569	17336	9.6%	1672	15664	53	-42	95	No
A45, E of Brackmills - WB	53291	5.7%	3052	50239	53968	8.2%	4416	49551	676	1364	-688	Yes
A45, E of Brackmills EB	Unknown – not provided in transport modelling.											
A45, (N of Wooldale Rd) – NB	32767	8.4%	2764	30003	37145	12.4%	4593	32552	4378	1829	2549	Yes

As traffic data was not provided for the 'A45, E of Brackmills EB'. It has been assumed that there will be no further dispersion in development traffic from the road link 'A45, (N of Wooldale Rd) – NB'. This is a worst-case assumption as this road link is closer to the proposed development and there are numerous other road links, where dispersion of HDV trips could occur (e.g. the A5076, the A508, and the B526).

Where the SSSI/SPA abuts the A45 to the north of Rushden, changes in traffic numbers due to the proposed development (2021 & 2031) are well below the DMRB screening criteria (1000 LDV or 200HDV AADT); as such, impacts can be screened out there. Despite the distance, there is the potential for impacts at the closest section of the SSSI/SPA, south of the A45 east of Brackmills in 2021 and 2031. As such, a screening assessment has been undertaken.

Critical level
The critical level of oxides of nitrogen (NO_x) for the protection of vegetation is 30µg.m^{-3}.

Critical loads
Critical loads exist for a number of habitats within this SSSI/SPA; the most sensitive habitat to nutrient nitrogen (N) deposition 'raised and blanket bogs 'has a minimum critical load of 5Kg N ha^{-1} y^{-1}.

Significance Criteria
The significance of impacts is determined in terms of Defra's screening criteria[3] for environmental permitting. The significance of impacts is determined by both the Process Contribution (PC), which describes the impact associated with the proposed development, and the Predicted Environmental Concentration (PEC), which is the PC plus the concentration of the substance already present in the environment.

[3] Defra. (2016) Air emissions risk assessment for your environmental permit. (accessed online, 10/09/2018) https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit

The screening criteria states that if the long term PC is < 1% of the long term critical load or level for protected conservation areas; the impact of the development can be considered insignificant.

If the development contribution does not meet this threshold, the impact of the development can be considered 'insignificant' if the long-term PEC is less than 70% of the long-term critical level or critical load.

Model Inputs

The air dispersion model 'ADMS-roads' (further detail available in ES chapter) was used to predict ground level concentrations of NO_X at the discreet receptor points on the border of the Upper Nene Valley Gravel Pits SSSI/SPA adjacent to the A45 'E of Brackmills'. The location of these receptors is outlined in Table 1 and Figures 1 below. Other model inputs are set out in Table 2, below.

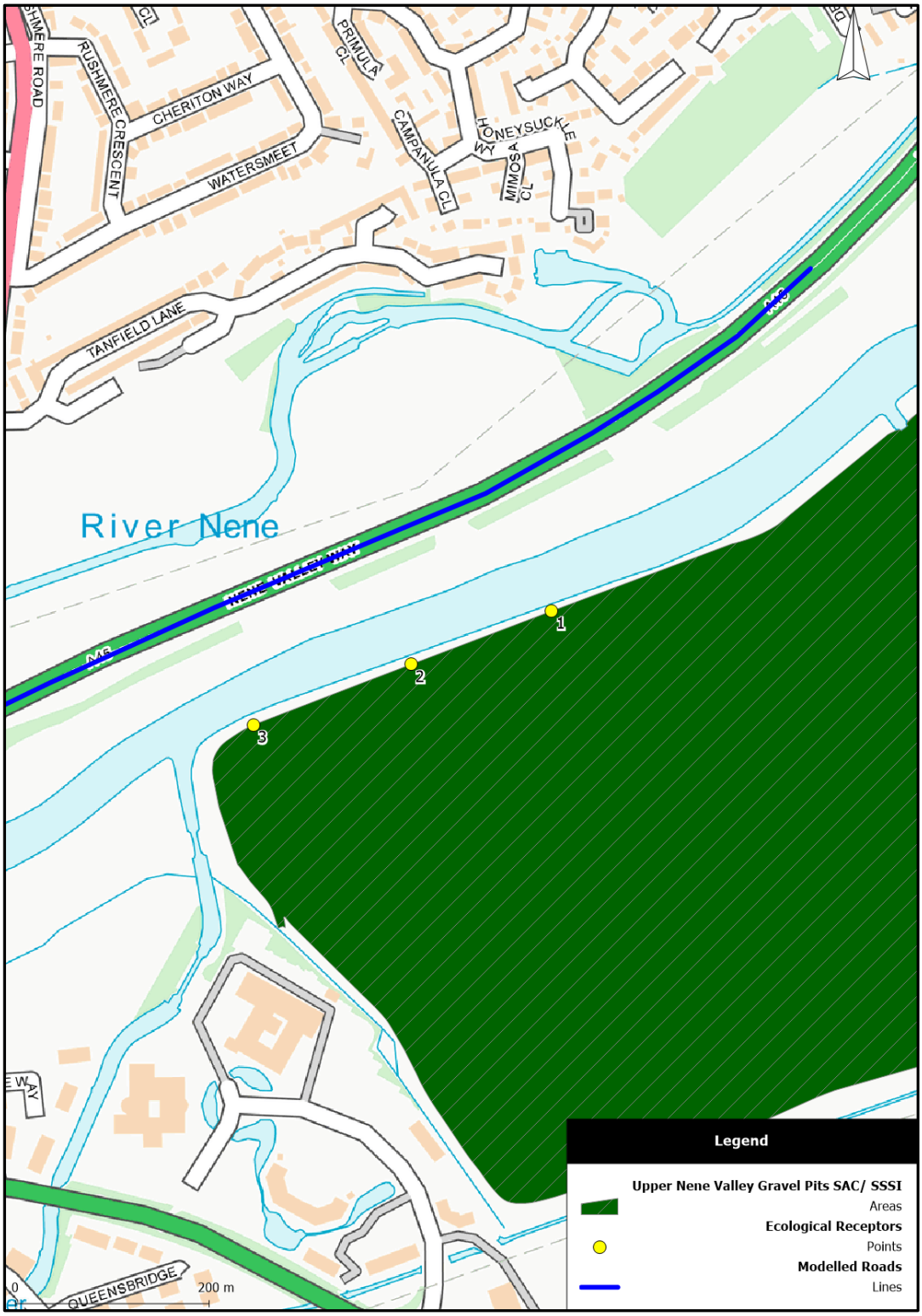
Table 3: Modelled receptors

Receptor ID	X,Y	Description/justification
1	478419.44, 260154.91	Closest border of Upper Nene Valley Gravel Pits to A45 E of Brackmills
2	478274.09, 260099.81	Closest border of Upper Nene Valley Gravel Pits to A45 E of Brackmills
3	478111.34, 260037.36	Closest border of Upper Nene Valley Gravel Pits to A45 E of Brackmills to A45.

Table 4: Model Inputs

Model Input	Value
Meteorological station	Bedford 2016
Surface roughness (m)	0.3
Emission Year	2021 & 2031
Emission dataset	EFT v.8.0 (2vc)
Road type	England (urban)

Figure 1 Upper Nene Valley Gravel Pits SSSI/SPA – Modelled road and receptors locations.



Results

The results of the air dispersion modelling assessment for the Upper Nene Valley Gravel Pits SSSI/SPA are set out in Tables 5 and 6, below.

Critical Level Assessment:

Table 5: Initial Screening (Critical Level) Upper Nene Valley Gravel Pits SSSI/SPA

Receptor	PC ($\mu g.m^{-3}$ NO_x)		Critical Level	Potentially Significant
	PC	% of critical level		
2021				
1	0.12	0.4%	30	No
2	0.13	0.4%	30	No
3	0.14	0.5%	30	No
2031				
1	0.07	0.2%	30	No
2	0.07	0.2%	30	No
3	0.08	0.3%	30	No

The predicted long-term NO_x PC is not greater than 1% of long-term critical level at any receptor in 2021 or 2031.

The impact of the proposed development on predicted long-term NO_x concentrations in the Upper Nene Valley Gravel Pits SSSI/SPA can, therefore, be considered insignificant.

Critical Load Assessment:

Table 6: Initial Screening (Critical Load) for Upper Nene Valley Gravel Pits SSSI/SPA

Receptor	PC (Kg N ha^{-1} y^{-1})		Critical load (CL_{min})	Potentially Significant
	PC	% of critical load (CL_{min})		
2021				
1	0.01	0.1%	5	No
2	0.01	0.1%	5	No
3	0.01	0.1%	5	No
2031				
1	0.00	0.1%	5	No
2	0.00	0.1%	5	No
3	0.00	0.1%	5	No

The predicted long-term nutrient nitrogen deposition PC is not greater than 1% of long-term critical level at any receptor. The impact of the proposed development on nutrient nitrogen deposition at the Upper Nene Valley Gravel Pits SSSI/SPA can, therefore, be considered insignificant.

Summary

This assessment concludes that the proposed development could not result in significant increases in NO_x concentrations, nor nutrient nitrogen deposition on Upper Nene Valley Gravel Pits SSSI/SPA.

Appendix 11: ExQ1.1.31 East Midlands Non-Agglomeration Zone

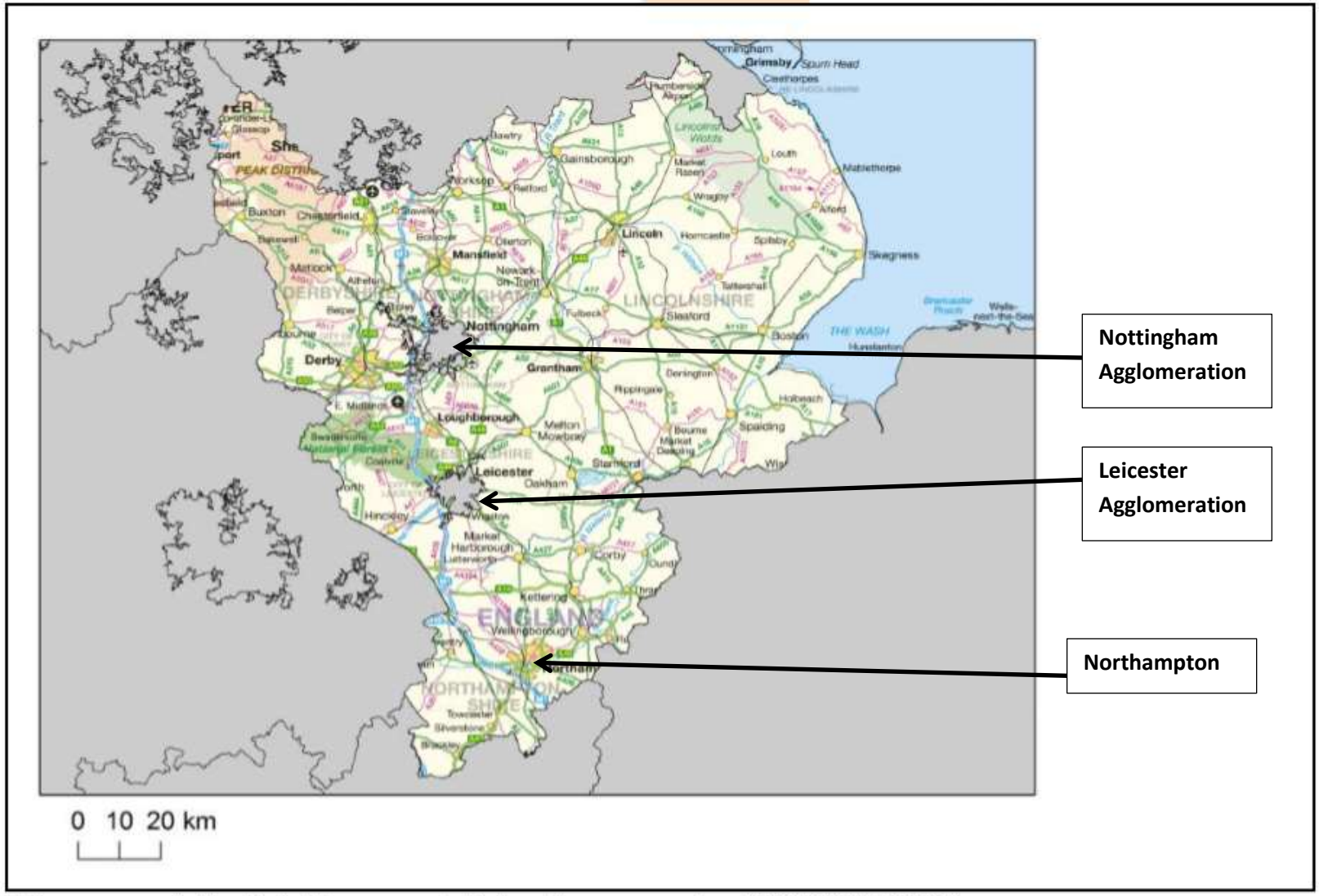


Figure 1 Map Showing The Extend Of The East Midlands Non-Agglomeration Zone (UK0032) (After Defra (2015) *Air Quality Plan for the achievement of EU air quality limit value for Nitrogen dioxide (NO_2) in East Midlands (UK0032).*

The agglomerations of Nottingham and Leicester are not included in the East Midlands Non Agglomeration Zone.

★ Approximate location of Northampton Gateway