

Combined response to four inter-related rail industry consultations

1 INTRODUCTION

1.1 This document constitutes our formal combined response to the following four inter-related rail industry consultations:

- i) Govia Thameslink Railway December 2015 timetable consultation (*consultation closes 30 January 2015*);
- ii) Network Rail draft Anglia Route Study consultation (*consultation closes 3 February 2015*);
- iii) Network Rail “Improving Connectivity” consultation (*consultation closes 31 January 2015*); and
- iv) DfT Rail Executive East Anglia Rail Franchise consultation (*consultation closes 16 March 2015*).

1.2 Our combined response is subject to ratification at the Association’s full Committee meeting to be held on 7 February 2015. Additionally, in the case of the East Anglia Rail Franchise consultation, we will consult further with the Association’s membership, primarily by means of the Association’s website www.flua.org.uk and its newsletter, *The Fenman*.

1.3 It is therefore intended that, in due course, the following statement will form part of the combined response to the requirement stated on page 6 of the DfT East Anglia Rail Franchise consultation document:

“Prior to finalising this response to the Department of Transport Rail Executive consultation on the East Anglia Rail Franchise, we assembled the views of members as follows:

- On-going dialogue with members about emerging rail policy through dialogue, *The Fenman* newsletter, and correspondence with individual members.
- Members’ comments invited via the Association’s website www.flua.org.uk
- Summary of *draft* responses published in *The Fenman* issue 1/2015. Members invited to request full text of this combined response dated 29 January 2015.
- Members’ comments invited before 6 March 2015 (to allow for Committee discussion of these in good time before the DfT Rail Executive consultation deadline of 16 March 2015).
- Matters raised by all of the above actions have been taken into consideration in finalising this document dated March 2015.” [Date to be inserted].

1.4 We will write again, as appropriate, to confirm our position, but, in view of the deadlines for the first three consultations, **we ask that this document be treated as our formal combined response to all four consultations** (unless advised otherwise by us at a later date).

1.5 Links to the four consultation documents are as under:

<http://www.thameslinkrailway.com/download/6988.8/gtr-timetable-consultation-document/>

<http://www.networkrail.co.uk/long-term-planning-process/anglia-area-route-study-draft-for-consultation.pdf>

<http://www.networkrail.co.uk/long-term-planning-process/improving-connectivity.pdf?cd=1>

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/384309/east-anglia-franchise.pdf

1.6 Throughout this combined response, where train times are stated these are for Monday to Friday services.

1.7 The main Fen Line service, King's Lynn-Ely-Cambridge-King's Cross, is operated by Govia Thameslink Railway (Great Northern) as part of the Thameslink, Southern and Great Northern management contract, let by the Department for Transport on 12 June 2014. Abellio Greater Anglia currently operates the Norwich-Ely-Cambridge, Cambridge-Stansted Airport, and Cambridge-Liverpool Street services, as well as the occasional peak-only extensions on the latter route from/to Ely and King's Lynn. Other train operators run (Birmingham New Street)-Ely-Cambridge-(Stansted Airport) and Liverpool Lime Street-Ely-Norwich services on all or part of the Fen Line between Ely and Cambridge.

<https://www.gov.uk/government/speeches/rail-franchising-thameslink-southern-great-northern>

<http://www.gtrailway.com>

<http://www.abelliogreateranglia.co.uk>

1.8 Ely and Cambridge stations are managed by Abellio Greater Anglia. King's Lynn, Watlington, Downham Market, Littleport, and Waterbeach stations are managed by Govia Thameslink Railway.

1.9 The ORR 2013-14 passenger usage estimate for all six Fen Line stations (King's Lynn, Watlington, Downham Market, Littleport, Ely and Waterbeach) taken together is 4,051,136 entries and exits. Ely figures include passengers using non Fen Line services.

http://orr.gov.uk/data/assets/excel_doc/0018/15363/station-usage-2013-14-data.xls

2 AIM, ISSUES AND OBJECTIVES

2.1 The Association was founded in 1985. Our aim is to seek the best for Fen Line users through the continual development of services on the King's Lynn to Cambridge and London line. We have a long-standing record of working with the rail industry and other interested persons and organisations to further this aim.

2.2 We have identified three major issues of concern to us in advancing our overall aim:

- a) fragile connections at Cambridge to/from King's Cross in the AM and PM peaks;
- b) increasing crowding; and
- c) insufficient accessibility to emerging clusters of economic and social activity located on or close to the King's Lynn-Cambridge-King's Cross route.

Fragile connections at Cambridge to/from King's Cross in the AM and PM peaks

- 2.2.1 Currently, the 0716 and 0807 arrivals at King's Cross and the 1714, and 1814 departures from King's Cross rely on connections at Cambridge with Abellio Greater Anglia peak-only King's Lynn-Liverpool Street services from/to King's Lynn to ensure passengers from all Fen Line stations can travel to/from King's Cross. The timings on the southbound services were amended by Abellio Greater Anglia's predecessors, at FLUA's request, to effect these peak connections. They are, however, fragile, being subject to operational exigencies on a day-to-day basis, and are vulnerable to timetable recasts on either route.
- 2.2.2 A major East Coast Main Line recast is due by 2018, to integrate new Thameslink services with long-distance and remaining Great Northern services. A timetable recast on the Liverpool Street route is likely following potential medium-term changes on that route.

Increasing crowding

- 2.2.3 The enhanced 'Seats for All' Great Northern timetable of May 2009 saw the introduction of longer trains between Cambridge and King's Cross; many King's Lynn-King's Cross services attach/detach at Cambridge, there being 8-car and 12-car workings to/from King's Cross. The 2009 timetable relieved crowding south of Cambridge, though pressures are increasing once more. Flexible working hours are extending peaks of capacity pressure.
- 2.2.4 North of Cambridge, trains to/from King's Lynn generally run as 4-car portions, although there are some semi-fast 8-car services from/to King's Lynn. Because of short platforms at Watlington, Littleport, and Waterbeach, these 8-car trains can only serve Downham Market and Ely.
- 2.2.5 Even with the relief provided by other operators' services between Ely and Cambridge (most of which do not stop at Waterbeach) there is considerable crowding north of Cambridge in the peaks, standing from/to Littleport (i.e. north of Ely) being common. Ely provides the largest number of passengers, but there are substantial numbers joining/leaving at the other stations.
- 2.2.6 In the PM peak, an acute example of crowding, both south *and* north of Cambridge is the 1644 King's Cross-King's Lynn (departs Cambridge at 1740). This 8-car train (detaches 4-cars at Cambridge) serves peak King's Cross-King's Lynn, King's Cross-Cambridge, and Cambridge – King's Lynn flows.

Insufficient accessibility to emerging clusters of economic and social activity located on or close to the King's Lynn-Cambridge-King's Cross route

- 2.2.7 King's Lynn-King's Cross trains serve both the university city of Cambridge and London, both being world-class destinations. The 'CB1' development adjacent to Cambridge station and the 'King's Cross Central' development adjacent to King's Cross are currently under construction. By way of examples to illustrate both stations' significance for employment and business, we mention, out of many, Microsoft (which has located its research lab in 'CB1' at Cambridge) and global communications group Havas, (which is to consolidate its London agencies next to King's Cross station in 2017).

<http://www.cb1cambridge.eu/>

<http://www.kingscross.co.uk/>

<http://www.campaignlive.co.uk/news/1310664/>

<http://research.microsoft.com/en-us/labs/cambridge/>

- 2.2.8 There is a knowledge-based employment and education cluster around the Cambridge Science Park (in December 2014 the Government announced funding for “a new rail station at Chesterton, linked to Cambridge Science Park” in its *National Infrastructure Plan 2014*, page 14 of that document). Chesterton is located on the King’s Lynn-Cambridge-King’s Cross route. To the south of the city, the Cambridge Biomedical Campus (when fully developed, Cambridgeshire County Council expects up to 30,000 jobs to be located there: *Cambridgeshire Local Transport Plan 2011-2031, Policies and Strategy*, November 2014, page 4-107) is adjacent to the King’s Lynn-Cambridge-King’s Cross route.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/381884/2902895_NationalInfrastructurePlan2014_acc.pdf

http://www.cambridgeshire.gov.uk/download/downloads/id/3269/draft_third_local_transport_plan_policies_and_strategy

- 2.2.9 The dominance of Cambridge and King’s Cross as the two most important destinations for Fen Line passengers is likely to remain. Stations at Chesterton and the Cambridge Biomedical Campus would underscore the relevance of Cambridge to Fen Line users. The introduction of cross-London Thameslink services from 2018, with their penetration of Central London, is likely to further emphasize the importance of the King’s Cross route to Fen Line users.
- 2.2.10 Outside of Cambridge, London, and the South East, we consider that access to the Midlands and the North (where the next largest population and commercial distributions are to be found) is important, albeit of secondary significance.

Objectives

- 2.3 In the light of the above issues, we have developed three primary objectives, which are to seek:
- a) replacement of fragile connections at Cambridge to/from King’s Cross in the AM and PM peaks with through trains to/from King’s Cross;
 - b) relief of the increasing crowding, both south and north of Cambridge, especially between Ely and Cambridge; and
 - c) improved accessibility to emerging clusters of economic and social activity located on or close to the King’s Lynn-Cambridge-King’s Cross route.
- 2.4 We use these primary objectives to inform our responses to the four inter-related consultations.

3 THE FOUR CONSULTATION DOCUMENTS

- 3.1 It is necessary to have a working understanding all four consultation documents before making a combined, consistent and co-ordinated response. In undertaking this, we have considered those points most relevant to Fen Line users in sections 4 to 7 below.

4 GOVIA THAMESLINK RAILWAY DECEMBER 2015 TIMETABLE CONSULTATION

- 4.1 The GTR consultation document (page 2) explains the need to phase in a co-ordinated timetable: *“There will be much greater dependency between services operating north and south of London which means that timetabling decisions made on either route (north or south of the central London Thameslink core) will have a greater impact than they do now. Thameslink trains will also share the same tracks with Long Distance High Speed services on the Midland and East Coast Main Lines as well as interacting with multiple operators south of London.”* For reasons considered later, we describe this complex timetable structure, which interlinks many parts of the network (including the East Coast Main Line out of King’s Cross) as akin to a symphony.
- 4.2 In its Great Northern (Outer) section, the GTR consultation document confirms (page 19) that *“From May 2017, following Network Rail improvements [to] the junction north of Ely, train services between London Kings Cross and Kings Lynn will be increased in frequency to two trains per hour all day (with the exception of when existing freight trains operate on the route). It is proposed to maintain one train per hour which will call all stations north of Cambridge and the second to call at principal stations only.”* The principal stations north of Cambridge are Ely, Downham Market, and King’s Lynn, all of which can accommodate 8-car trains. We understand the timetabling constraints over the single lines north of Ely and that the committed GTR 2 trains per hour (tph) King’s Lynn-King’s Cross service (paragraph 4.2) cannot operate at the off-peak times when existing freight trains run. Nevertheless, we will continue to campaign for the committed GTR 2 tph service to call at all Fen Line stations. We note the Route Study (Table 6.35, page 124) states *“To provide a regular half hourly passenger service to Kings Lynn alongside the freight requirement, the single line between Littleport and Downham Market or Watlington and Kings Lynn would require doubling.”* The GTR 2 tph service will add an additional train per hour between Ely and Cambridge (expected to call at the proposed Chesterton station (paragraph 2.2.8) but not calling at Waterbeach).
- 4.3 The GTR document further states (page 19) that *“During 2018 the current Great Northern timetable will be reviewed with improved connectivity, journey opportunities and frequency improvements. Many train services which currently serve London Kings Cross will be extended to provide cross London journey opportunities and serve St Pancras International, Farringdon (and connections via Crossrail), City Thameslink, Blackfriars, London Bridge and onwards to Gatwick Airport, Brighton and Horsham. A new direct service between Cambridge and Brighton will be introduced linking East Anglia with fast journey times to Gatwick Airport with no change of train for the first time.”* The diagram on page 4 of the GTR document shows an all-day 4tph cross-London Thameslink service from Cambridge (2 tph semi-fast to Brighton and 2 tph stopping services to Tattenham Corner) which will operate in addition to the 2 tph fast King’s Lynn-King’s Cross service (paragraph 4.2). Given the expected stopping patterns of the Thameslink trains from Cambridge, many journeys from Cambridge could be quicker using the fast service to King’s Cross, changing to Thameslink at the adjacent St. Pancras International.

- 4.4 The same diagram makes it clear that there will generally be 8 tph between Finsbury Park and London Bridge, via St. Pancras International, Farringdon (for Crossrail), City Thameslink, Blackfriars, and London Bridge. Fen Line King's Lynn-Cambridge-King's Cross services will continue to run to/from King's Cross. The DfT's definition of "Cambridge Express Service" which includes King's Lynn-King's Cross services which run fast south of Cambridge, is "a Passenger Service which is scheduled to call at London King's Cross, Cambridge and no more than two other stations between London King's Cross and Cambridge ..." (section 2.7 (a) (i) of *Thameslink, Southern and Great Northern Franchise, Invitation to Tender, Attachment A: Train Service Requirements*, September 2013).

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/253638/t-sr-attachment-a.pdf

- 4.5 Finsbury Park is already an important interchange station. The GTR Northern City line (paragraph 4.3) operates every 10 minutes from Finsbury Park to Old Street (home of high-tech innovation location 'Silicon Roundabout' – a 9 minute journey) and Moorgate (13 minutes from Finsbury Park). From Finsbury Park, the Piccadilly line runs every few minutes, reaching other significant central London destinations, such as Holborn (11 minutes journey), Covent Garden, Leicester Square, and Piccadilly Circus (15 minutes from Finsbury Park). The Victoria line, which also runs every few minutes, serves, inter alia, Euston (7 minutes journey) and Oxford Circus (10 minutes from Finsbury Park). Changing at Finsbury Park obviates the need for long walks transferring to the Underground at King's Cross. On the Finsbury Park-Moorgate section of the Northern City line, the train frequency will generally increase to 8 tph from its current level of 6 tph (GTR consultation document page 18). In view of this existing connectivity and its future role in Thameslink, we consider it would be worth investigating whether the King's Lynn-King's Cross service could call at Finsbury Park.

5 NETWORK RAIL DRAFT ANGLIA ROUTE STUDY

- 5.1 King's Lynn-King's Cross services run within Network Rail's Anglia Route between King's Lynn and a point just north-east of Royston (between that point and King's Cross the service runs over lines, including the East Coast Main Line, which are within Network Rail's LNE Route). The LNE Route is based around the East Coast Main Line (ECML) and the companion ECML Route Study is to be produced by Network Rail at a later date. In the Anglia Route Study the King's Lynn-King's Cross service is therefore described by Network Rail as a "Cross-boundary service" (Route Study Table 4.1, page 68) but this is not made fully explicit in the diagram of the assumed 2043 peak service specification shown in the Route Study Fig. 3.9, page 57.
- 5.2 The purpose of the Anglia Route Study is to assist funders in making choices for railway Control Period 6 (2019-2024). In order to make well-informed decisions, it is necessary to project well beyond the CP6 period and consequently the Route Study considers longer-term strategic options for the Anglia Route.
- 5.3 The Route Study process seeks to make the best use of *existing* capacity before assessing the case for *additional* infrastructure.
- 5.4 The baseline for the Route Study is the situation expected at the end of CP5 (March 2019). This baseline includes the CP5 scheme to remodel Ely North Junction (Route Study paragraph 2.1.1).

Expected capacity shortfall between King's Lynn and Cambridge

- 5.5 Paragraph 6.14 of the Route Study states *“There is expected to be a shortfall in capacity on the route from Kings Lynn to Cambridge via Ely that will not be met by the provision of capacity on other routes There is expected to be a shortfall of seated **and** [our emphasis] standing capacity on the Kings Lynn to Cambridge services in the peak hour of 400 passengers by 2023 and 600 by 2043.”*
- 5.6 In its paragraph 5.4.8, the Route Study further states *“There is expected to be a capacity gap on the services into Cambridge from the Kings Lynn line via Ely by the end of CP6. Trains are crowded from Ely to Cambridge and passengers primarily use services to commute to Cambridge and London. Crowding on services arriving into Cambridge between 07:00 and 08:00 can be mitigated through timetable changes and the additional service from Birmingham New Street to Stansted Airport via Cambridge expected to run in CP5 subject to the implementation of the necessary infrastructure works to upgrade level crossings and double Ely North Junction. Crowding on services arriving into Cambridge between 08:00 and 09:00 cannot be mitigated in the same way. Lengthening of one of the Kings Lynn to London King's Cross services [i.e. the semi-fast portion] from 4 carriages to 8 carriages in length would provide sufficient capacity by the end of CP6 and lengthening the service that only stops at Downham Market and Ely would avoid the need to lengthen platforms. However, this would mean that the 8-car service would probably join with a 4-car service [portion] at Cambridge and continue to London King's Cross as a 12 car service. This option would require consideration in the East Coast Main Line Route Study. Other options to mitigate this capacity issue include increasing the density of standing space of rolling stock into Cambridge. However, these services also provide capacity for passengers from Cambridge to London King's Cross and higher seated density rolling stock is more appropriate for this market.”*
- 5.7 Portion working, which involves King's Lynn-King's Cross trains attaching/detaching portions at Cambridge, is a normal feature on King's Lynn-King's Cross services. The 4-car King's Lynn to King's Cross service (previous paragraph, fifth sentence) currently leaves as a semi-fast portion from King's Lynn, departing there at 0725 and meeting the all-stations portion (which departs King's Lynn earlier at 0714) at Cambridge, where the two 4-car portions combine. The two portions arrive at Cambridge at 0804 and 0810 respectively, during the high peak, and the combined train arrives King's Cross at 0910, during the shoulder peak. It is unknown whether platform space would be available at King's Cross for any potential future 12-car arrival at that time, hence the reference to its consideration in the forthcoming East Coast Main Line Route Study.
- 5.8 This method of operation obtains *both* maximum use of the single line sections north of Ely in the peak flow direction *and* utilises only a single train path on the East Coast Main Line. We have noted (paragraph 4.2) that the Route Study (Table 6.35, page 124) states *“To provide a regular half hourly passenger service to Kings Lynn alongside the freight requirement, the single line between Littleport and Downham Market or Watlington and Kings Lynn would require doubling.”* We understand that the committed GTR 2 tph King's Lynn-King's Cross service (paragraph 4.2) cannot run at the off-peak times when existing freight trains run but we will continue to campaign for this to call at all Fen Line stations.
- 5.9 A similar multi-purpose train in the reverse direction is the current 1814 King's Cross-King's Lynn service, which detaches 4-cars at Royston (these then calling all-stations to Cambridge) and runs as an 8-car train, calling at Cambridge, Ely, Downham Market,

and King's Lynn. The 1807 Liverpool Street-King's Lynn service, operated by Abellio Greater Anglia, provides connections for the short-platform stations north of Cambridge (Waterbeach, Littleport, and Watlington).

- 5.10 We consider that a more robust service for Waterbeach, Littleport, and Watlington passengers would be provided by operating the 1814 train in the manner described in paragraph 5.7 above. Were the stopping portion to detach from the semi-fast portion at Cambridge, and both portions run forward to King's Lynn as individual trains, the uncertainty for Waterbeach, Littleport, and Watlington passengers, currently reliant on timely running of a train on a different route (the 1807 from Liverpool Street) would be banished by their ability to travel on a through portion from King's Cross. Currently, the single-line constraints would make this arrangement infeasible.

Felixstowe to Nuneaton freight flows via Ely

- 5.11 A major issue identified by the Route Study is providing sufficient capacity for the forecast freight flows from Felixstowe to the Midlands. Using anticipated figures for freight traffic passing through the Ely area, expressed as numbers of trains per day in each direction (tpd), the Route Study forecasts 48 tpd by the end of CP5 (March 2019), 60 tpd by the end of CP6 (2024) and 90 tpd by 2043 (Table 6.5, page 105).
- 5.12 All Felixstowe-Nuneaton trains traverse the Fen Line for nearly two miles between Ely Dock Junction (south of Ely station) and Ely North Junction.
- 5.13 Route Study paragraphs 5.3.12 and 5.3.13 state that *“An incremental scheme at Ely that upgrades the level crossings in the Ely area will safely permit an increase in freight capacity up to 48 trains per day from Felixstowe and an assumed increase in passenger capacity [CP5 works] To deliver the full freight conditional outputs for CP6 of 60 tpd in each direction, a more comprehensive scheme at Ely to address the Queen Adelaide level crossings is required that avoids the constraints and provide sufficient capacity between Ely and Soham Such a scheme would be expensive due to the necessary works in the Ely area.”*
- 5.14 Looking further ahead, with a view to ensuring CP6 investment is not heedlessly wasted, the Route Study considers two major ways of addressing the issues with accommodating forecast freight traffic in the Ely area (paragraph 5.10). Route Study Option 32 includes grade separated junctions (at Ely Dock Junction and at Ely North Junction) and the construction of more tracks between them. Option 33 envisages the creation of a rail bypass on the western side of Ely to segregate freight trains and passenger services.
- 5.15 Route Study Table 6.8, page 107, states:

Option 32 *“The Ely area is considered operationally to be at capacity by the end of CP6. Conditional outputs from 2024 through to 2043 require the testing of a further growth scenario for passenger and freight services through the Ely area to Felixstowe, Cambridge, Norwich, Peterborough and beyond.*

“These flows introduce four primary constraints into the area:

- * crossing moves at Ely North Jn*
- * crossing moves at Ely Dock Jn*
- * platform utilisation at Ely (especially if splitting/joining of trains is required)*
- * line utilisation Ely to Ely North Jn.*

“It is considered that the following interventions would be required to remove these constraints:

- * Ely 3 / 4 tracking between Ely Station and Ely North Jn*
- * Ely platform works*
- * Ely North Jn Grade Separation*
- * Ely Dock Jn Grade Separation.*

“Previous work undertaken has highlighted the significant difficulties in achieving the above interventions in this area, some examples of which are:

- * additional span on Stuntney Bridge Road under bridge*
- * additional double-track span on Cutter Bridge over Great Ouse, consent required from East Anglia Navigation authority*
- * hydrology issues with new bridges—drainage and scour*
- * land take*
- * embankment widening.*

“Ely North Junction and Ely Dock Junction grade separations are primarily driven by Felixstowe to Nuneaton freight traffic and their interaction with passenger services. Ely Platform works and 3 / 4 tracking between Ely Station and Ely North Junction are primarily driven by passenger aspirations for additional services from Peterborough (and beyond) and the split/join requirements at Ely.

“Some infrastructure investment would be avoided by only partly meeting aspirations.

“Interventions would be necessary when demand requirements are triggered, which would allow for an incremental build.”

Fig. 1 below is a simplified diagram of **Option 32**.



Option 32

5.16 Route Study Table 6.9, page 108, states:

Option 33 *“It is considered that the following intervention in place of option 32, would also relieve these constraints.*

“An option has been assessed which considers the installation of a new railway link on the west side of Ely. This would remove the interaction between freight and passenger services in the Ely area and therefore reduce the required infrastructure work at junctions, level crossings and platforms as defined in Option 32.

“With this option for the long term rather than Option 32 no additional works Ely to Ely North Jn would be required beyond Ely North Jn doubling...”

“The Felixstowe to Nuneaton CP5 scheme to reduce freight headway between Ely and Ely North Jn would be unnecessary and dependent on passenger aspirations level crossing works at the Queen Adelaide and Kiln Lane crossings could be avoided.”

Fig. 2 below is a simplified diagram of **Option 33**.



Option 33

5.17 The Route Study (Tables 6.8 and 6.9) also states:

“In order to accommodate all 2043 outputs with performance robustness either Option 32 or 33 would be required.”

It seems to us that construction based on and around the existing railway through the Ely area (Option 32) could involve long periods of engineering work necessitating replacement bus services and thus creating extensive disruption for passengers. The rail bypass (Option 33) would also create disruption (for example, a bridge would be necessary over the Ely-Cambridge line) but we consider it more likely that the ensuing disruption to passengers would be considerably less with this Option.

East-west services

5.18 Ely is currently a ‘crossroads’ for Norwich-Liverpool, Cambridge-Birmingham, and Ipswich-Peterborough services. Route Study paragraph 4.8.9 states that “Ely has been identified as an appropriate location to undertake splitting and joining of trains allowing a single train to meet multiple [journey requirements].”

5.19 Route Study Table 4.1, page 71 shows an indicative service pattern of potential east to west services:

- * *“1tph each way between Ipswich/Norwich (joining/dividing at Ely) and Liverpool Lime Street via Nottingham.*
- * *1tph each way between Cambridge/Norwich (joining/dividing at Ely) and Derby via Nottingham.*
- * *1tph each way between Norwich and Birmingham via Leicester [it is not made clear if this would run via Ely station].*
- * *1tph each way between Stansted Airport and Birmingham via Leicester [runs via Ely].”*

- 5.20 The potential Cambridge-Oxford service, which requires a new railway to be built between Cambridge and the Bedford area, crossing the East Coast Main Line, is considered by the Route Study in its paragraph 4.9.1: *“For the Anglia Routeing, there are no alternative routeing options available for cross-boundary services entering via Peterborough. Should proposals for the extension of the East West Rail route between Oxford and Bedford to Cambridge come to fruition then this new section of route presents an opportunity for some rerouting of cross-boundary services.”* In its *National Infrastructure Plan 2014*, published in December 2014 (page 14 of that document) the Government stated *“East West Rail – the government will consider the outputs of the Network Rail study into the East West Rail central section (Bedford to Cambridge) as part of the planning for Control Period 6 (2019-2024).”* In its *Cambridgeshire Local Transport Plan 2011-2031, Policies and Strategy*, November 2014, Cambridgeshire County Council states (page 4-112) that: *“Depending on the route chosen [for East West Rail] there will be opportunities for new stations, including at Addenbrookes [Cambridge Biomedical Campus]”* – more tracks would be required if the new station were to be built.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/381884/2902895_NationalInfrastructurePlan2014_acc.pdf

http://www.cambridgeshire.gov.uk/download/downloads/id/3269/draft_third_local_transport_plan_policies_and_strategy

Chesterton station

- 5.21 The proposed new station at Chesterton (paragraph 2.2.8)) is covered by the Route Study, which states on page 36: *“Chesterton Interchange. The new station will be on the main line between Cambridge and Waterbeach located in the suburb of Chesterton, close to Cambridge Science Park. The current station proposal is formed of two through and one bay platform.”*

West Anglia Main Line south of Cambridge

- 5.22 Section 5.4, page 90 of the Route Study considers issues between Cambridge and Liverpool Street on the West Anglia Main Line, including services to Stansted Airport. These services co-ordinate with other routes into Liverpool Street; for reasons considered later, we describe this interlinked timetable structure as akin to jazz.
- 5.23 There are various options to increase capacity on this route; Table 5.22, page 93 states: *“Line speed improvements could provide up to 3 to 5 minutes journey time benefit to some services dependent on timetable structure.”*
- 5.24 The current average journey time for the faster (semi-fast) Cambridge-Liverpool Street trains is 70 minutes. By contrast, the average journey time for fast trains from Cambridge to King’s Cross (half of these originating from Fen Line stations) is 51 minutes.

6 NETWORK RAIL ‘IMPROVING CONNECTIVITY’ DOCUMENT

- 6.1 ‘Improving Connectivity’ (IC) considers a principles-based alternative approach to the established Route Study methodology of developing and testing options rooted in evidence-based analysis and forecasting.

- 6.2 The three principles which have been developed for Britain are:
- i) the use of cross-platform interchanges to simplify connections and avoid train service duplication (IC paragraph 3.1.1);
 - ii) the ordering of arrivals and departures at interchange stations to minimise waiting times between connecting trains (IC paragraph 3.2.1); and
 - iii) the construction of a consistent timetable with sufficient flexibility to respond to variations in demand,. The resulting timetable comprises a Core service, as its basic skeleton, with additional trains overlaid as required (IC paragraph 3.3.1).
- 6.3 These principles are used to construct a ‘Taktfahrplan’ (rhythm interval timetable) in which connectivity of all the parts of a network can take precedence over the maintenance of existing through journeys. ‘Taktfahrplans’ operate in Switzerland (and, at least for local and regional trains, in various parts of Germany, where a national passengers’ organisation is urging a nationwide system be adopted).
- http://www.fahrplanfelder.ch/fileadmin/fap_pdf/Netzgrafik/Netzgrafik2015.pdf
- http://www.pro-bahn.de/pbz/pdf/itf_broschuere.pdf
- 6.4 East Anglia has been used to develop a “case study” off-peak timetable for Network Rail’s Anglia Route. The case study is not a firm proposal, although it has received some media coverage as if it were so. By studying a real-world region, the case study gives an insight into the kind of trade-offs which changing the approach to rail planning would bring. We have therefore treated the case study as if it were a firm proposal.
- http://www.ipswichstar.co.uk/news/rail_bosses_look_at_slowing_trains_on_the_route_from_london_to_norwich_and_introducing_trams_between_ipswich_and_felixstowe_1_3902846
- http://www.edp24.co.uk/news/new_rail_study_suggests_reintroducing_direct_train_service_between_great_yarmouth_and_lowestoft_1_3903200
- http://www.elystandard.co.uk/news/could_railway_revolution_see_new_station_built_at_ely_north_1_3903322
- 6.5 The consultation document notes (IC paragraph 2.6) that *“In Britain, applying the Swiss model is complicated by the dominance of London.”* IC Fig. 2.1 and Fig. 2.2 (page 6) show contrasting patterns of road and rail usage in East Anglia: rail use is London-centric, whereas the road network *“supports a much wider set of regional flows and as a result demand is more evenly spread”* (IC paragraph 2.3). IC Figs 2.1. and 2.2 show aggregated flows and do not distinguish journey pairs (such as, for example, road journeys from the North to the Channel Ports using the M11 in East Anglia, but having no intrinsic purpose in the region).
- 6.6 The existing Ely station is given as an example of poor connectivity: IC paragraph 3.28 states: *“good connections are the exception rather than the norm, and where a good connection is offered, asymmetry in the service pattern means no corresponding good connection is provided in the opposite direction.”*
- 6.7 IC paragraph 3.28 continues: *“For example, someone travelling from Kings Lynn to Ipswich will have a good connection on their outward journey, but on their return leg they will be faced with a 53 minute wait.”* The IC analysis does not take into account the forthcoming increase (from May 2017) in the King’s Lynn-King’s Cross service to two trains per hour (paragraph 4.2). Depending on exact timings, this committed

service upgrade could be expected to lessen the wait at Ely shown in the quoted example by some 30 minutes or so.

- 6.8 The case study envisages an additional, new connectional hub station at Ely North on the site of the existing Ely North Junction. This would appear to assume that a version of Anglia Route Study Option 32 (paragraph 5.15) had been chosen instead of Option 33, a freight bypass for Ely (paragraph 5.16). Neither the current layout of Ely North Junction, nor the layout following the CP5 upgrade work (paragraph 5.4) would permit a station at Ely North Junction without the closure of the existing Ely West Curve (used to route freight trains from the King's Lynn and Norwich directions to Peterborough).
- 6.9 The new station is described in the case study as having "*been sited to serve proposed and recently built housing in North Ely,*" (IC section 7.2, second paragraph). A 1200 metres radius (15 minutes walking time) drawn from the existing Ely station encompasses the city centre and the cathedral area. Co-incidentally, 1200 metres is also approximately half the distance between the existing station and the proposed connectional hub station site. Neither site is well-located in relation to the main bulk of the Ely built-up area.
- 6.10 Some of the new housing built recently, which is in a comparatively elevated position, can look deceptively close when viewed from the train. About 23 hectares of the yet to be built North Ely development (say 800 new dwellings) and about 12 hectares of existing housing (say 400 dwellings) lies within *1200 metres* (15 minutes walking time) of the new station site. No new housing is planned within an *800 metres* radius (10 minutes walking time) from the new Ely North station; the existing hamlet of Queen Adelaide (104 dwellings) lies within a *400 metres* radius of the new station site (5 minutes walking time).
- 6.11 It appears that the situation is complicated by the planning authority's requirement for the major Ely North housing developments to provide a Country Park on the north-eastern and eastern sides of that development (i.e. the land closest to the railway), by the defended flood zone (which hems the site in from the south-west and the east) and also by the presence of County Wildlife Sites (parts of which are also designated Sites of Special Scientific Interest) to the south-west and the south-east.

http://www.eastcambs.gov.uk/sites/default/files/Draft%20Queen%20Adelaide%20Village%20Vision_0.pdf

http://www.eastcambs.gov.uk/sites/default/files/4_1.pdf

<http://www.eastcambs.gov.uk/masterplans/north-ely-development>

<http://www.highflyerfarm-ely.co.uk>

<http://watermaps.environment-agency.gov.uk/wiyby/wiyby.aspx?lang=e&topic=floodmap&layer=0&x=554500&y=280500&scale=10&location=Ely%2c+Cambridgeshire#x=554500&y=280500&scale=10>

<http://www.urbed.com/sites/default/files/Appendix%20B%20-%20Infrastructure%20and%20Constraints%20Report.pdf>

- 6.12 A worked timetable example of how the new Ely North connectional hub station would work is shown in IC Table 3.2, page 12. Once an hour, portions of trains from Norwich would join with King's Lynn-King's Cross trains at Ely North while connections would arrive for Peterborough and for Newmarket (change for Ipswich) at approximately at the same time. Trains for the *opposite* directions on all routes would also arrive around

that time, but the train to King's Lynn (which would detach a portion for Norwich) would have originated from Stansted Airport, not King's Cross. The same procedure would operate 30 minutes later each hour, except that the southbound King's Lynn train (which would also attach a portion from Norwich) would be destined for Stansted Airport, not King's Cross, and this time the northbound King's Lynn train (also with a Norwich portion) would have come from King's Cross. All trains from/to King's Lynn would stand at the new Ely North station for 5 minutes to permit passengers to interchange between routes.

- 6.13 King's Lynn-King's Cross trains would revert to their current hourly frequency; a second train per hour would operate from King's Lynn to Stansted Airport instead. The train path on the East Coast Main Line which the *second* King's Lynn-King's Cross train would otherwise utilise each hour under the committed service upgrade (paragraph 4.2) would instead be taken by a new hourly Norwich-Cambridge-King's Cross express taking "1 hour 46 minutes [106 minutes]" (IC Appendix A, section 7.1, second paragraph). The quoted Norwich to King's Cross journey time is almost the same as the current fastest Norwich-Liverpool Street journey (1hr 44 - 104 minutes); the Norwich-Liverpool Street route operates every half hour. Timetables would be arranged so that Fen Line passengers could change at Cambridge to/from the new hourly Norwich-King's Cross expresses, which would also make a stop at Finsbury Park (paragraph 4.4). There would also be an hourly Peterborough-Cambridge-Stansted Airport express.
- 6.14 Neither the new Norwich-Cambridge-King's Cross nor the new Peterborough-Cambridge-Stansted Airport express services would call at either the new Ely North or the existing Ely stations under the IC proposals. The off-peak train frequency between Ely and Cambridge would be reduced *from* the current 3 tph *to* 2 tph. In fact, the frequency of trains between Ely and Cambridge is expected to be enhanced to 4 tph from May 2017, when the committed GTR 2 tph King's Lynn-King's Cross service is introduced (paragraph 4.2).
- 6.15 The full off-peak service proposed for the whole Anglia Route is to be found in IC Appendix A, at Fig.7.8, page 28.
- 6.16 In order to allow for maximum inter-connectivity, a Taktfahrplan requires trains in both directions on each route to meet at connectional hubs, thus "*if an hourly service were run, the journey time between hubs would need to be a little under 30, 60, 90 minutes and so on*" (IC paragraph 3.2.7). In practice, hubs need to be about 28, 58, or 88 minutes apart in order to give passengers sufficient time to change between trains on connecting routes. A half-hourly service would allow, but it does not require, connectional hubs to be located at 15 minute journey time intervals.
- 6.17 Cambridge is proposed as another interchange hub "*with services timed to connect in all directions*" (IC Appendix A, section 7.2, second paragraph). Currently the journey from Ely to Cambridge is 14 minutes, if non-stop, or 16 minutes if stopping at Waterbeach. An additional stop at Chesterton would add some 2 minutes to journey times between the two stations. The site of the new Ely North Junction lies some 2 minutes journey time north of the existing Ely station. The journey time between Ely North and Cambridge, assuming trains stop at all stations including Chesterton, would therefore be about 20 minutes. Even if train dwell time for interchanging is adjusted, this is *too long* for the requirement of 15 minutes between connectional hubs and *too short* for the 30 minute requirement.

- 6.18 To compare current average journey times with those that it proposes, the IC case study sets out a formula (IC page 16). The resultant “*combined average travel and waiting times*” add the average travel (transit) time of trains over the various legs of example journeys to an average waiting time, which is taken to be half the service interval (frequency). The formula is able to accommodate situations where journey opportunities are irregular and take differing travel times. Our analysis uses the simple version of the formula, that is we *assume* all trains take the same time between two specified points. We accept that this approach is unsophisticated, in the knowledge that for the journeys examined any inaccuracies it creates are likely not to be large enough to significantly affect our overall conclusions.
- 6.19 IC Table 4.1, page 17 “*gives an overview of the effect the Anglia case study has on the service offered. It compares the existing timetable with the full off-peak service developed in the case study and shows the change in combined average travel and waiting time between a selection of the largest centres of population in Anglia.*”
- 6.20 “*Many of the improvements are transformative, with a significant number of savings in excess of 45 minutes*” (IC paragraph 4.3).
- 6.21 “*A new direct half hourly service is proposed between Newmarket and Peterborough to replace the existing service every two hours between Ipswich and Peterborough. A cross platform connection at Newmarket is provided for Ipswich passengers*” (IC Appendix A, section 7.2, third paragraph). This changes the current Ely-Ipswich frequency of one train every two hours to a 2 tph frequency for the service (albeit introducing the need to change at Newmarket).
- 6.22 Using the IC “combined travel and waiting times” formula (paragraph 6.18) it can readily be seen that this increase from 0.5 tph (1 train every 120 minutes, with an average waiting time, as calculated under the formula, of 60 minutes) to a frequency of 2 tph (calculated average waiting time of 15 minutes) saves 45 minutes of “combined average travel and waiting times”; this is without any other intervention beyond the frequency enhancement itself. The proposed quadrupling of the service frequency for a journey leg between Ipswich and Ely *alone* creates an average saving of 45 minutes.
- 6.23 Similar off-peak frequency enhancements proposed by IC (expressed as tph, although changing en-route for some of these means that the measure is actually journey opportunities per hour) and the effect these more frequent trains would have on “combined average travel and waiting times,” without any further interventions, are:
- i) Clacton-Colchester (1 tph to 4 tph) – average saving of 22.5 minutes;
 - ii) Ipswich-Cambridge (1 tph to 3 tph) – average saving of 20 minutes;
 - iii) Lowestoft-Norwich (1 tph to 2 tph) – average saving of 15 minutes;
 - iv) Great Yarmouth-Norwich (1 tph to 2 tph) – average saving of 15 minutes; and
 - v) King’s Lynn-Ely (1 tph to 2 tph) – average saving of 15 minutes.

In any event, the King’s Lynn to Ely leg is to benefit from the committed 2 tph King’s Lynn-King’s Cross GTR service from May 2017 (paragraph 4.2).

- 6.24 An Ipswich-King’s Lynn journey (paragraph 6.7) would thus gain a calculated 45 minutes on the Ipswich-Ely leg *plus* a calculated 15 minutes gain on the Ely-King’s Lynn section, a *total* of 60 minutes. The *total* saving in “combined average travel and waiting times” of 58 minutes quoted for Ipswich-King’s Lynn passengers (IC Table

4.21, page 17) is put into context: *most of the savings are caused by the frequency increases alone.*

- 6.25 Some of the biggest IC “combined average travel and waiting times” savings listed in its Table 4.1, page 17 are from King’s Lynn. These include journeys from that town to destinations (e.g. Colchester, 56 minutes saving, and Clacton-on-Sea, 54 minutes saving) that would benefit from the 45 minutes “combined average” time savings between Ely and Ipswich – as well as the 15 minutes saving between King’s Lynn and Ely, both 45 and 15 minute savings arising from frequency enhancements alone.
- 6.26 *Decreases* in frequency, such as proposed in IC for Ely-Cambridge (paragraph 6.14) can lead to calculations which imply travel (transit) time *increases* (slower running times). In the Ely-Cambridge case, with the change from the existing 3 tph to 2 tph, the formula leads to a calculation of *an increase in running time between Ely and Cambridge of 5 minutes*. This is commensurate with the implied transit time between Ely North and Cambridge being otherwise too short for Taktfahrplan operation (paragraph 6.17).
- 6.27 IC Table 4.1, page 17 includes journeys for which the “combined average travel and waiting times” would be *worse* than now. For those journeys where IC proposes no frequency increase, it is possible to isolate that component of the formula which arises from changes in travel (transit) times. From this analysis, it appears that the journey legs which could necessitate longer running times include:
- i) King’s Lynn-Cambridge – on average 7 minutes *slower* than now;
 - ii) King’s Lynn-London (King’s Cross) – on average 8 minutes *slower* than now;
 - iii) Norwich-Ipswich – on average 7 minutes *slower* than now;
 - iv) Norwich-Colchester – on average 6 minutes *slower* than now; and
 - v) Colchester-London (Liverpool Street) – on average 4 minutes *slower* than now.
- 6.28 Our analysis shows that these longer journeys are all on the main lines to/from London (King’s Cross from King’s Lynn, and Liverpool Street from Norwich).
- 6.29 We consider that attempts to tie the complex timetable structure, which interlinks many parts of the network (including the East Coast Main Line) out of King’s Cross (and which we therefore describe as a symphony) (paragraph 4.1), with the different timetable structure of the interlinked routes out of Liverpool Street (which we describe as akin to jazz) (paragraph 5.21) is very likely to lead to a screeching, cacophony where the two systems meet. Most of the Anglia Route works to the Liverpool Street beat. Self-evidently, King’s Lynn-King’s Cross has to work to the King’s Cross rhythm. The tempos are not the same, hence our concern over fragile peak connections at Cambridge (paragraphs 2.2.1 and 2.2.2).
- 6.30 Increasing the frequencies on connectional routes, by itself, minimises waiting times between trains (paragraph 6.24). The Underground, which largely runs at intensive frequencies on all lines, is a case in point. Interchanges between lines in central London is barely an issue, the frequencies are just too high. The advantage of increasing frequencies without imposing rigid connecting times is that the flexibility thus gained absorbs both short term perturbations and long term structural timetable changes, providing the frequencies are maintained.

- 6.31 We have previously discussed the Taktfahrplan concept face-to-face with Jonathan Tyler (an acknowledged expert in this field). In his published work, he has demonstrated how the King's Lynn-King's Cross service could fit into an East Coast Main Line Taktfahrplan. Our discussion took place well before the GTR 2 tph King's Lynn-King's Cross service was committed. Jonathan Tyler's article *Perfect Timing*, which contains a netgraph for an East Coast Main Line Taktfahrplan including the King's Lynn-King's Cross service, can be found at:

http://www.railpro.co.uk/magazine/archive/PDFs/perfect_timing_tyler.pdf

- 6.32 The IC case study addresses the issue of the single lines north of Ely. In Appendix A, page 33, it states: "*The Improving Connectivity proposal, with a half hourly passenger service and freight services to Middleton Towers, cannot operate over the single track section between Littleport and Downham Market. In accordance with the conclusions of the Anglia Technical Working Group, full or partial doubling of this single line section is required. If partial doubling is considered the preferred option, this should be at the Downham Market end of the single line.*" We understand that the committed GTR 2 tph King's Lynn-King's Cross service (paragraph 4.2) cannot run at the off-peak times when existing freight trains run but we will continue to campaign for this to call at all Fen Line stations; we note the IC comments regarding priorities for track re-doubling, were a full 2 tph all stations plus freight IC case study level of service to run with interest.

7 EAST ANGLIA RAIL FRANCHISE

- 7.1 The current Greater Anglia franchise (operated by Abellio Greater Anglia) expires on 16 October 2016. The DfT Rail Executive expects this will be replaced by a new East Anglia franchise (EARF). Abellio Greater Anglia currently operates the Norwich-Ely-Cambridge, Cambridge-Stansted Airport (off-peak) and Cambridge-Liverpool Street services, as well as the occasional peak-only extensions on the latter route from/to Ely and King's Lynn (paragraph 1.7). Ely and Cambridge stations are managed by Abellio Greater Anglia (paragraph 1.8).
- 7.2 Nineteen questions are set out in the EARF consultation document. Nearly all of these are of a nature which it seems to us would be best answered by individuals (whose priorities and experiences are likely to differ from person to person). Accordingly, we have advised members on how to respond directly to the EARF consultation by means of a link on our website www.flua.org.uk to the consultation document. We have therefore restricted our consideration of the franchise consultation to those issues which are of more general application.
- 7.3 We note that the consultation document (EARF paragraph 5.4) states: "*The rail infrastructure is owned and operated by Network Rail who manage their investment in infrastructure over 5 year control periods. Network Rail's Control Period 5 (CP5) Delivery Plan (2014-19) was published in March 2014 which includes the following schemes planned for the East Anglia area:*
- *Ely North Junction capacity improvement is planned to be completed by May 2017;*
 - *A new station at Chesterton, north of Cambridge, close to the Cambridge Science Park, St. John's Innovation Centre and Cambridge Business Park is expected to open during CP5.*"
- 7.4 The CP5 work at Ely North Junction will facilitate the committed GTR 2 tph King's Lynn-King's Cross service (paragraph 4.2). We understand that the introduction of this GTR

frequency enhancement may mean that the existing Abellio Greater Anglia King's Lynn-Liverpool Street peak-only trains may not be able to run north of Ely, due to occupancy constraints on the single lines north of Ely. In that event, we suggest stopping and semi-fast King's Lynn portions are used for the GTR peak services in the direction of the peak flow – this occurs to some extent already in the AM peak (paragraphs 5.6 and 5.7).

- 7.5 The proposed new station at Chesterton is discussed in paragraph 2.2.8 above.
- 7.6 To the north of Chesterton is the existing Waterbeach station. The franchise document (EARF paragraph 5.20) notes that: *"The [franchise] operator will be required to work with the promoters of third party schemes that will be implemented during the franchise period, and also with promoters of schemes that are expected to be implemented beyond the franchise period. Third party promoted schemes include additional stations at ... Waterbeach ..."*
- 7.7 We understand that any new station at Waterbeach would replace the existing one (alternatively the existing one could be enlarged). Page 5-8 of Cambridgeshire County Council's *Transport Strategy for Cambridge and South Cambridgeshire Transport Strategy and High Level Programme*, April 2014, states: *"Further considerable growth is already planned for Ely and a new town at Waterbeach is currently under consideration both of which would put unacceptable levels of traffic onto the A10 if alternative provision is not provided."* It highlights that at Waterbeach *"a new town of 8,000-9,000 homes, of which 1,400 are likely to have been built by 2031"* is projected. The Transport Strategy affirms that *"A critical part of the transport package for the planned new town on the Waterbeach Barracks site will be a replacement station to cater for both the village and the new town. This station will need to be capable of taking the longer trains that will run on the line north of Cambridge after the commencement of the new Thameslink timetable in 2018."*
- <http://www2.cambridgeshire.gov.uk/CommitteeMinutes/committee-document.aspx/cabinet-and-council/cabinet/2014-03-04/Reports/6999/140304-9-app1a%20PACK.pdf>
- 7.8 There are no current plans to extend cross-London Thameslink services north of Cambridge to Waterbeach or beyond.
- 7.9 The EARF document (its paragraph 5.5) continues: *"Other schemes that are in early stages of development but are not yet committed projects include:*
- *the potential creation of a new east-west rail route from Cambridge to Milton Keynes and Oxford (using the old varsity line)."*

This scheme is discussed in paragraph 5.20 above. Options for the section west of Cambridge have yet to be determined, work being underway to narrow the choices, based on an evaluation of those most likely to bring the greatest benefits. The existing Cambridge to Hitchin line, used by fast King's Lynn/Cambridge to King's Cross services as well as by semi-fast and stopping services from Cambridge (the *current* total is 4 tph) may become more congested when GTR starts to operate cross-London Thameslink trains over it with an all-day frequency of 4 tph (the *new* total over the Cambridge-Hitchin section thus rising to 6 tph). An East West route between Cambridge and Milton Keynes must necessarily cross the East Coast Main Line and it may be that, with suitable connecting junctions, the final chosen route could offer a faster route to King's Cross for fast King's Lynn-Cambridge-King's Cross services at some future date.

- 7.10 Connectional opportunities from/to Fen Line services exist at Ely (paragraph 5.18) even if the connectivity there is sub-optimal (paragraph 6.6). Connections at Ely from King's Lynn and Downham Market will be improved from May 2017, following the introduction of the GTR 2 tph King's Lynn-King's Cross service (paragraph 4.2) which will call at Ely.
- 7.11 The DfT Rail Executive is considering re-routing certain through east to west services which call at Ely. The EARF consultation document (its paragraph 5.10) states:
"In order to improve connectivity between Cambridge and the north of England, Rail Executive is currently assessing the case for the diversion of the current Liverpool Lime Street to Norwich East Midlands Trains to Cambridge and a new hourly East Anglia operated service between Norwich and Peterborough providing good connections to the East Coast Mainline services to Yorkshire, North East England and Scotland. The assessment will equally include a sub-option where the current Ipswich to Peterborough service would be limited to Ely and connections would be provided with the new Norwich to Peterborough service. The option to retain the current Norwich through service to Liverpool Lime Street will be included within this assessment." A range of the service options this ongoing assessment has generated is presented in the consultation document and respondents' opinions on the choices are sought.
- 7.12 Our emphasis is on easier access to Cambridge and London, for the reasons set out in section 2.2 above. We note that a North of England to Cambridge service would complement the committed additional King's Lynn-King's Cross service from May 2017 (paragraph 4.2) in serving the crowded Ely to Cambridge corridor. Were the current off-peak Cambridge to Stansted Airport services (paragraph 7.1) to be started back at Ely, these too could serve this corridor, especially if they operated for longer periods during the day. There may be an opportunity to increase the number of services calling at Waterbeach.
- 7.13 In paragraph 2.2.10 above, we explain that, outside of London, and the South East, we consider that access to the Midlands and the North (where the next largest population and commercial distributions are to be found) is of the next importance. We understand that individuals' responses may differ as to which connections are of the most importance to them, so, taking our general point, we seek service patterns which provide the greatest number of connectional opportunities to Peterborough (for the Midlands and the North) without taking a view on which destinations should be served west or north of Peterborough.

8 CONCLUSION

- 8.1 Based on the foregoing sections 2 to 7 above, we draw the following broad conclusions set out in this section.
- 8.2 Our objective (a) "to seek replacement of fragile connections at Cambridge to/from King's Cross in the AM and PM peaks with through trains to/from King's Cross" (paragraph 2.3) would be met by the committed GTR King's Lynn-King's Cross 2 tph all-day service, excluding when off-peak freight movements operate over the single lines (paragraph 4.2) and we therefore **support** this. We understand that this may not permit the current peak extra Liverpool Street trains to run north of Ely (paragraph 7.4). In this event, we suggest stopping and semi-fast portion working of the GTR service in the direction of the peak flow is introduced (paragraph 7.4). We do **not support** the "Improving Connectivity" case study which would necessitate changing at Cambridge more often (paragraph 6.13).

- 8.3 Our objective (b) “to seek relief of the increasing crowding, both south and north of Cambridge, especially between Ely and Cambridge” (paragraph 2.3) would be aided by the Anglia Route Study suggestions of an additional early Birmingham New Street-Ely-Cambridge-Stansted Airport service (paragraph 5.6) and of increasing the semi-fast (0725) portion of the current 0714/0725 King’s Lynn-King’s Cross from 4- to 8-car length (paragraphs 5.6 and 5.7) subject to further study in the forthcoming East Coast Main Line Route Study and we therefore **support** this. The committed GTR King’s Lynn-King’s Cross 2 tph all-day service, excluding when off-peak freight movements operate over the single lines (paragraph 4.2) will increase capacity and assist in the relief of crowding and, as noted in the paragraph immediately above, we **support** this. The East Anglia Rail Franchise suggestion to create a North of England-Ely-Cambridge service (paragraph 7.11) would introduce an additional train per hour between Ely and Cambridge and, in view of its potential to relieve crowding, we would **support** this. Starting Cambridge-Stansted Airport trains back at Ely (paragraph 7.1) and retaining the peak Liverpool Street extras to run south of Ely would further relieve crowding and we would **support** this course of action. The “Improving Connectivity” case study proposals, which would see the frequency of trains between Ely and Cambridge dropping to 2 tph (paragraph 6.14) would run counter to our objective and the proposals are therefore **not supported**. We ask for more trains to call at Waterbeach (paragraph 7.12). We would welcome any proposals to re-double part or all of the single line sections north of Ely (paragraphs 5.8 and 6.32).
- 8.4 Our objective (c) “to seek improved accessibility to emerging clusters of economic and social activity located on or close to the King’s Lynn-Cambridge-King’s Cross route” (paragraph 2.3) would be assisted by the committed GTR King’s Lynn-King’s Cross 2 tph all-day service, excluding when off-peak freight movements operate over the single lines (paragraph 4.2) by offering a greater frequency and, as noted in paragraphs 8.2 and 8.3 above, we **support** this. We ask that these trains serve the proposed Chesterton station to improve accessibility to the North Cambridge employment and education cluster; we consider the additional journey time to be outweighed by the accessibility gains. We also request that a stop at Finsbury Park be investigated in view of its excellent connectivity to central London, via the Underground and via forthcoming Thameslink services (paragraphs 4.3, 4.4 and 4.5). The proposed East West Rail link westwards from Cambridge to Milton Keynes and Oxford could potentially create a faster route between Cambridge and King’s Cross (paragraph 7.9) and facilitate a possible new station serving the major employment cluster at the Cambridge Biomedical Centre (paragraph 5.20) and we would **support** these. The “Improving Connectivity” approach, as demonstrated by the case study, could create longer journey times between King’s Lynn and Cambridge and between King’s Lynn and King’s Cross (paragraph 6.27) and runs counter to our objective and therefore we do **not support** this.
- 8.5 Finally, in conducting our analysis of the four inter-related consultations, it became apparent to us that major works would have to be undertaken in the Ely area if the forecast long-term increases in Felixstowe to Nuneaton freight traffic occur. We express a preference for a rail bypass of Ely (Option 33, see paragraph 5.16) on the grounds that the construction of this would be less likely to cause considerable disruption to passengers than that associated with the alternative Option 32 (paragraph 5.17).