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Newsletter of East Anglia Branch of Railfuture

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Internet at www.railfuture.org.uk/East+Anglia TWITTER at twitter.com/RailfutureEA.

New Cambridge Ticket Office Area Open



The new Cambridge station ticket office area opened at the end of October although with only ticket machines fully operational. It combines with a new station portal, to the right, and exit onto the platform. Around the time this newsletter gets to you, the scheme is expected be fully operational, including the new counter, on the distant left of this picture. Cambridge eagerly awaits. For further news on other stations see page 18.

WHAT'S INSIDE

- *Abellio and Thameslink prospective Timetables*
- *Rolling stock review*
- *50% ticket reductions in Cambridgeshire!*
- *Norfolk Community Rail report.*

Railfuture East Anglia Chairman, Peter Wakefield asks: “will our railway be full up when all the promised new services materialise, will capacity truly be at a premium?”

Our network is operated by three recently installed franchisees: Greater Anglia (GA), Cross Country (XC), Govia Thameslink-Great Northern (GTR-GN). There is excellent progress from two of them towards creating a railway serving the region well, but, as is said elsewhere, nothing at all from XC.

The new services proposed (or lack of them in some places), throw into sharp relief where the capacity deficits are across our network.

The list is long: **Ely area, Trowse Swing Bridge, Ipswich station, Felixstowe Branch, Newmarket-Cambridge, Bow Junction, south end of the West Anglia/GE main lines, Shepreth Branch Junction (Shelford) through Cambridge to Chesterton.**

Some are the result of unavoidable “rationalisation”; some the result of unprecedented traffic growth; while others are entirely due to poor planning. Let us examine the GA franchise where some really exciting things are in prospect for the user including a totally renewed and enlarged train fleet:

- more services are promised in south Essex and east Hertfordshire
- an extension of the Sudbury service to Colchester Town
- creation of a through service from Norwich to Stansted Airport via Cambridge (not an additional service); four through trains per day from Lowestoft to Liverpool Street
- an hourly service from Colchester to Peterborough
- and faster services from London to Ipswich, Norwich, Stansted Airport and Audley End for Saffron Walden. All of admirable intent, but, what of aspirations elsewhere?

Excellent proposal though it is for a faster service to Audley End, it is at the expense of a cut in off-peak service level from major towns such as Harlow and Bishops Stortford to Cambridge from 2tph to just one. This link must be operated at 2tph. Not so long ago we were campaigning for hourly services from most stations and along all lines.

This has been achieved but extraordinarily, our economy is growing so fast that this no longer seems adequate and half hourly must be the new service level aspirationbut there are no proposals for extra local trains to Clacton/Walton, none to Yarmouth, just one a day extra between Cambridge-Norwich/Ipswich, none north of Bishops Stortford. Partly it is caution, but above it all it is congestion at the usual pinch-points. So let’s repeat that list of capacity deficits:

- Several locations around Ely (prime candidate is reconfiguring North Junction)
- Trowse swing bridge (to double track)
- Ipswich station (more platforms)
- Felixstowe branch single track (to double track)
- single track between Newmarket and Cambridge (at least long loops)
- inadequate track layout at Cambridge North and south of Cambridge (the need for four tracks to Shelford).

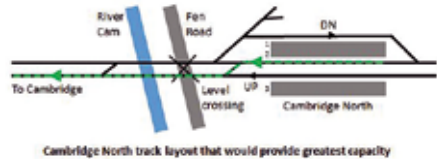
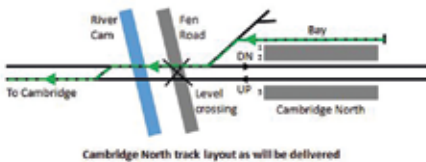


Container trains serving Yorkshire depots pass at Ely.

We hope that our Local Enterprise Partnerships (LEPs) and members of parliament will not rest on their laurels after such splendid efforts to date, but carry on the fight “as one” for that work so necessary to making our network far more robust and resilient to delay, enabling it to carry out its job for years to come. PW

Post 2018 Thameslink timetable gestates and frustrates

Meanwhile GoviaThameslinkRailway-GreatNorthern (GTR-GN) has been consulting on the 2018 off-peak timetable for Thameslink. So far as our part of that network is concerned the planned timetable is entirely achievable, if tight, but with some exceptions. For example, at the new Cambridge North it has been confirmed that the track layout is not optimal choice the Branch officially submitted three years ago. Here they are side by side so you can see immediately the differences between the two.



The TOC’s preferred layout is to turn the current down main platform into a turn-back and convert the planned west side bay-platform into the through down main to Ely together with a new trailing crossover between the Down and Up mainlines immediately south of the new platforms. This “standard” turn-back layout allows the ‘reversing’ train to access the Up main immediately by way of the new crossover without any blocking of the down main.

It is revealed that the current 1980s installed trailing crossover well south of the new station, the level crossing and river bridge is to be used ...and that will be the main capacity-eating problem. It is too far south and the low speed to and across it for a southbound train uses up 5/6 minutes, blocking the down main for all of that time. The decision that led to this is understood in terms of the need to save money on projects, but if the result is a layout that cannot deliver all required from it, the money spent becomes poorer value. If the GTR-GN Cambridge North-Brighton services are given priority, starting a Cambridge North-Liverpool Street fast service there will be tight if not impossible.

The key elements of the off peak 2018 timetable are:

- 2tph Peterborough-London Core-Gatwick Airport-Horsham
- All stations Peterborough-Stevenage then fast to Finsbury Park. Key improvement; 2tph fast rather than current 1tph south of Stevenage and to Gatwick Airport. Key drawback; change necessary at Stevenage for Welwyn GC and Hatfield. Not a good connecting timing in one direction
- 2tph Cambridge North-Cambridge-Royston-Letchworth-Hitchin-Stevenage (not Baldock) then fast to Finsbury Park-London Core Stations-Gatwick Airport-Brighton. Key improvement; 2tph rather than current 1tph and to Gatwick Airport and Brighton
- Key improvement; 2tph rather than current 1tph and to Gatwick Airport and Brighton
- Key drawback: unable to stop at Baldock (as this will seriously slow down fast Kings Lynn services)
- 2tph Cambridge-all stations (including Baldock) to Potters Bar then Finsbury Park and London Core Stations to Maidstone. 6 days a week
- Sunday 1tph to Kings Cross, but may be 2tph. Key improvement; 2tph rather than current 1tph
- (All services run via London Bridge except on Sunday, as above)
- 2tph (Kings Lynn)-Ely-Cambridge-London Kings Cross and fast Cambridge-KX. Good news is that these services will be 12 cars in the peak, 8 cars otherwise. Hard lobbying by GTR obtained 29 new trains of Class 387 instead of the 17 older Class 377, as originally intended by the DfT
- Note the removal of a semi-fast service stop at Baldock to enable this Cambridge express service to keep to the fastest feasible commercial timing. (The photo shows a brand new Class 387 on the left with our familiar 'bug-eyed' Class 365 opposite. The new stock is already infiltrating services)



The first Siemens Class 700 train to visit (on test) Cambridge returning through Foxton on 17 October.

Currently connections between evening peak Kings Cross-Cambridge commuter trains and Ipswich and Norwich services can be unreliable. GTR-GN team maintain that an increased number of services to Cambridge will make connections easier to achieve. Railfuture says, half hourly services on those routes would be even better!

Turn-back problems again, this time at Watton-at-Stone, a problem indicating how hard the network is being stretched and yet which, in theory, could scupper the Thameslink programme in East Anglia. The service from London Moorgate to Stevenage via Hertford North and Watton at Stone is planned to operate at 2tph but implementation has raised a serious problem.

To accommodate the extra service it was planned to build a turn-back spur, ie, an extension of the Down Hertford line, to a new platform 5 at Stevenage station completely independent of the Down ECML Slow line. The funding was a part of the Stevenage town centre and station master-plan rebuild. But as a result of the NR Henty Review, this funding has been deferred to an unstated date.

Without this project, each Moorgate train must turn back in Platform 4 at Stevenage, which effectively blocks the down slow line up to 24 minutes every hour. Sending trains on to Letchworth to turn round (as now) would take an extra 48 minutes in an hour. Apart from eating up scarce track capacity, there will not be enough trains in the new train order to cover this extension.

In spite of a huge amount of work the timetable planners have not been able to come up with a workable solution. Hence the Watton line services will have to stick to the current timetable with separate bus connections substituted pro tem from Hertford to Stevenage and Watton to Stevenage. Clearly this will be unacceptable to users and local authorities, and needs to be resolved now rather than at some vague future date. Railfuture will continue lobbying. PW



Class 387 on the left is to largely replace our bug-eyed Class 365 on the right.

Thameslink Timetable Consultation

You'll be glad to know therefore that GTR is still consulting on the proposed Thameslink timetable until 17.00 hrs 8 December 2016. The final version will operate from December 2018 when Cambridge and Peterborough join the Thameslink network. Then Cambridge North and Cambridge will be linked by a half-hourly semi-fast service to Gatwick Airport and Brighton. In a change of plan, stopping services from Cambridge will head to Maidstone East rather than the previously suggested Tattenham Corner. It is proposed to link Peterborough to Horsham every half hour. The changes to the planned timetable are largely the result of difficulties finding train paths through Windmill Bridge Junction south of East Croydon. PW

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Phil Smart summarises the recent Meetings with Abellio Bid Team and Stakeholder Events

On 26th September representatives from Railfuture East Anglia met with Edward Funnel and Gordon Dudman from Abellio to discuss the recent franchise award. Among the items we took up on behalf of members were:

Rolling Stock

In welcoming the transformative investment in new trains, with every train being replaced, Railfuture added suggestions for improving some of the seating layout detail. In particular we questioned the reduction in the number of toilets (just 5) on the Norwich to London rolling stock, and the smaller area devoted to the buffet.

Acknowledging the need to comply with the Invitation to Tender (ITT) specification for extra seating, we offered possible compromise solutions. We asked be consulted again before the February 2017, the deadline for design changes.

Timetable

Of greater concern has been the timetable. In contrast to the Northern and Trans-Pennine awards that included doubling of frequencies on most routes, there was very little in the Greater Anglia award that was not already in the ITT. The most notable gain was the hourly service between Ipswich/Colchester and Peterborough (currently alternate hour).

Railfuture challenged the decision to offer just one train per hour between Ipswich and Cambridge. Their response blamed the lack both of platform capacity at Ipswich and junction capacity at Haughley. Railfuture presented them with an alternative proposal of running the second train from Cambridge as far as Bury St. Edmunds. This would give 2 trains per hour between Bury and Cambridge with the added possibility of transferring the 'intermediate stop' to the second service (west of Bury) and the Ipswich-Peterborough service (to the east) and make the Ipswich-Cambridge train a limited stop service, taking just an hour end-to-end. This would be easier to effect if Cambridge crews drove this route too.

They took this idea away for further scrutiny. The Norwich to Cambridge service will be completely recast when it is extended to Stansted Airport, although finding new pathing slots through Cambridge, Ely North Junction and over Trowse swingbridge are, as ever, challenging. But the good news is that travelling time on all the non-London routes will reduce because of the greater acceleration offered by the Stadler units. PS

West Anglia

We have made various suggestions for improvements to the draft timetable including: 2tph Stratford to Bishops Stortford to be extended to Cambridge calling at Stansted Mounfitchet. And possible extension of the Stansted-Norwich trains to Yarmouth

GEML

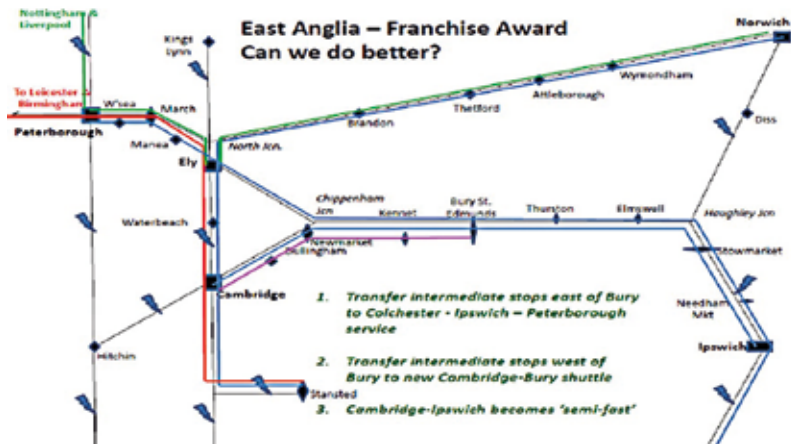
Various minor amendments have been suggested: to balance the calling patterns in both directions between London and Norwich especially those stopping at Diss, whose proposed 2tph left London within two minutes of each other! It was agreed that swapping these was desirable and probably easy to achieve.

Top Ten

Discussion both at our private meeting and later at the stakeholder events centred on the constraints in the East Anglian infrastructure that prevent further timetable development. Various ‘bottlenecks’ such as, primarily, Ely North and Haughley junctions; at Trowse (Norwich) and on the Felixstowe branch; single line sections between Soham and Ely and Cambridge and Newmarket, were identified.

Probably at the front of the queue would be more track on those critical sections into Liverpool Street from 15 or so miles out on both routes. It is likely that Abellio will be drawing up their own list of improvements and Railfuture asked to be involved in this process.

Diagram of alternative ‘Mid-Anglia’ line timetable proposal follows. PS



A Seat with a View?

The news in August 2016 that East Anglia's trains were to be completely replaced during this new franchise, was indeed wonderful news, and for which much Railfuture and passenger gratitude. From the passengers' viewpoint though, not necessarily wholly good news: yes, reliability ought certainly to rise and acceleration will be greater; but will comfort be maintained? A moot point, as the relentless pressure to make tomorrow's trains



lighter on the track and thereby more energy efficient tends to bear down heavily on seat design. And not just here in the United Kingdom, but in fact increasingly across the whole of Europe.

For the truth is that virtually every train design currently at work in East Anglia does offer comfortable seating, usually appropriately related to journey length and generally with a good outlook.

For example, you'll be stretched to discover better riding and seat comfort than on those carriages presently forming Norwich to Liverpool Street services (as in picture). And the two or three-carriage units (Class 170s) running over several of our routes offer, in my estimation anyway, reasonable leg room, firm yet well-shaped seating, a good view, and fine riding qualities.

So one hopes these attributes will be largely maintained in the new designs from Bombardier and Stadler. Thus far, we do know that all the trains will be equipped with double glazing/air-conditioning, free Wi-Fi and power sockets, and will be much smarter in acceleration, which are splendid starting points. But let the powers that be never forget: the train is always competing with the car and long-distance coach. CB

Cambridge 3 December: Guest Speaker will be Mr Jamie Burles, Managing Director of Greater Anglia

so it's your opportunity to ask your question. We meet at 14.00 hrs in the Friends' Meeting House, 12 Jesus Lane CAMBRIDGE CB5 8BA.

Full details on the Flier with the printed Rail East, or at:

<http://www.railfuture.org.uk/east/meetings/Railfuture-East-Anglian-Branch-Meeting-03-Dec-2016-Cambridge.pdf>

Cambridgeshire 50% discount student rail fare: could this become a national standard, asks County Councillor, Susan Van de Ven?

Anyone searching on the Govia Thameslink website for information about student rail fares will soon discover an anomaly: the Cambridgeshire Student Connect offer. This is a unique 50% discount fare available to 16-18 year-olds in education or training, within Cambridgeshire. It means that access to these critical years of education and training is that bit more affordable. Everywhere else in the country, the standard student rail discount is 33%. Why is there an exceptional offer in Cambridgeshire? Can the Train Operating Company (TOC) afford it?

The fare originated in 2010 in Meldreth, ten miles south of Cambridge and like many good inventions, this one happened somewhat by accident. In 2009, the TOC at the time, First Capital Connect, announced sweeping adverse changes to services at Meldreth. Free parking was to be replaced with a prohibitive charge; the booking office was to close on Saturdays; and the student fare to Cambridge – the destination for all 16-18 year-olds in education or training – was to be hiked off-the-charts.

First Capital Connect explained that it was ‘aligning’ its business operations. To many people, this meant that travel by train was going to become unaffordable. People have settled and built their lives around it. Commuting to London King’s Cross is a draw, but so is getting around locally: to Cambridge, Royston and the nearby villages of Shepreth and Foxton. Over the years, bus services have dwindled to one commuter per day, while footfall at Meldreth Station has grown steadily at 10% annually, now serving a quarter of a million people every year. Since the 50% student discount was introduced, a modal shift to rail has been tracked and evidently contributed to that growth.

A ferocious campaign took off and the non-existent relationship with the TOC was replaced with a new and adversarial one. Petitions, packed public meetings and TV cameras saw the Meldreth booking office service saved. Student fares and parking charges were the next line of battle.

Out of the fray, some key constructive relationships were established. At First Capital Connect, Larry Heyman (in this picture with Susan) took an interest in the student fare issue: ‘Shall we meet up to discuss?’ he asked.



As Cambridgeshire County Councillor for the village, this was an opportunity for me to bring in the County Council Education Transport team, and our meeting was held together with council officers at Shire Hall in Cambridge. Larry and his team proposed a 50% discount, as opposed to the standard 33% off the adult fare. The premise was that students should be entitled to a greater proportional discount. For Meldreth students, this would reduce the annual cost by about £140 – a significant saving. But the offer went further: First Capital Connect suggested this be a Cambridgeshire-wide offer, and that was how it was set up. Very quickly, the other main TOC in the county, running the Liverpool Street-Cambridge line, offered to match the discount, which became the county standard.

The fare came into force in September 2010, as the bite of national recession began to hit local authorities hard. The council had long provided a discretionary subsidy for post-16 bus travel, but the rail discount now undercut the cost of bus travel, even with council subsidy. Students opting for rail, with its half-hourly peak or hourly off-peak service, paid significantly less than those opting for the once-per-day bus run. By not tapping into council bus subsidy, every student who opted for rail saved the local authority £110. A couple of years in, using data from student rail pass lists and sixth form college registrations, it was possible to see that for Hills Road Sixth Form College in Cambridge, the entire intake from Meldreth had opted for the rail pass over the subsidised bus pass. While this was not helpful to bus ridership, it set out certain clear parameters.

In 2014 the First Capital Connect franchise ended. Out of that initial confrontational contact, other good things had been achieved too, including hugely reduced parking charges, a thriving Community Rail Partnership (CRP), and outstanding communication with the TOC and the rail industry generally. Good personal relationships meant that new ideas could be explored. The community had a strong voice in the run-up to the change of franchise, with a long and clear list of objectives for the new franchise holder. All the bidders approached the CRP to discuss priorities going forward – and retaining the 50% student discount was prominent on the list.

The winning TOC was Govia Thameslink Railway. But the terms for this franchise were distinctly different from the preceding era: a ‘management contract’ with the Department for Transport meant that the TOC had less flexibility in running unique schemes and initiatives; everything had to be approved by the Department for Transport as ‘revenue generating.’ Whether a scheme was commendable for the public good was measured by strict criteria around profitability. After all, this was public money.

While the 50% discount was carried over to the start of the new Govia Thameslink Railway franchise, for continuation into each successive year it needed to demonstrate its revenue generating credentials. This was achieved, and for two successive years now the scheme has been reapproved. The fact that Govia Thameslink had made a clear commitment to support CRPs meant that communication channels have remained strong, and that has helped ensure success. Meanwhile, Cambridgeshire County Council has become so severely starved – its revenue support grant from central government is being wound down to zero – that this year, for the first time, it is unable to offer discretionary subsidy for post-16 transport, which has always taken the form of bus subsidies. Those young people living in areas of Cambridgeshire with a rail line have access to a unique discount, while now, bus users face a higher unsubsidised fare. This introduces many questions, including the means to create shuttle bus links to rural rail stations. At the same time, with the Department for Transport’s continuing approval of the Cambridgeshire Student Connect 50% discount, the question must be asked: can the discount be rolled out as a national standard? While ticking the box for Department for Transport revenue generation, it certainly ticks the box for young people in need of more affordable transport. Susan Van de Ven; Cambridgeshire County Councillor, Meldreth; Chair, Meldreth, Shepreth and Foxton Community Rail Partnership. <http://www.bettertransport.org.uk/> for fuller story.

Cross Country Franchise extension fails for East Anglia: our Branch Secretary, Paul Hollinghurst, makes a few observations on this franchise as it affects East Anglia.

Railfuture East Anglia are in the process of trying to find out why the Cross Country route running through Cambridgeshire has been completely ignored by the recent franchise extension agreement between the DfT and Arriva.

The service from Stansted to Birmingham provides important local connectivity for East Anglia linking Cambridge to March and Peterborough, but is currently very inadequate with peak-period overcrowding, no late evening service and an almost non-existent Sunday morning service.

The final trains from Cambridge on a Friday evening show the neglected service to March and Peterborough:

- 21:01 to March and Peterborough (to Birmingham)
- 22:44 to Ipswich
- 22:55 to Norwich
- 00:10 to Kings Lynn

On Sunday morning, a similar picture with the Cross Country service 2 hours adrift for the first service compared to other routes:

- 08:52 to Norwich
- 09:06 to Kings Lynn
- 09:12 to Ipswich
- 11:00 to March and Peterborough (to Birmingham)

Recently the DfT negotiated a 3-year franchise extension with Arriva, a perfect opportunity to dramatically improve the evening and Sunday morning service in East Anglia requiring no infrastructure improvements and no extra rolling stock. Railfuture responded to the DfT's franchise detailing this simple but important opportunity, so we were extremely disappointed to see it being ignored.

Railfuture is finding out more about the background to this so we can fight for it again in three years' time when the franchise is renewed, although we are at a loss to know why we should need to fight for something that should be so obvious. PH

Houses mean passengers mean railways: Ian Couzens reports on plans for a new station at Dussindale, near Norwich

Making better use of the Bittern Line to serve the expanding suburbs of north east Norwich has been talked about for many years. However, work recently undertaken under the leadership of Broadland District Council, through which the line runs, means that realising this long held ambition is brought a little nearer.

This work has been prompted by the growth of the Broadland Business Park together with strategic decisions to focus new housing development to the north east of Norwich.



A study carried out by Mouchel Consulting looked at options for increasing the frequency of trains and for the provision of a new station. The study's conclusion was that there was a strong business case for doing both.

The train frequency would be raised to half hourly for most of the day between Norwich and North Walsham, while the preferred location for the station would be

just north of the Dussindale Allotments, about a mile north of Whitlingham Junction. (The photograph shows the view over completely straight track from Salhouse toward Dussindale, about two miles distant)

The two platforms on this double-track section would be long enough to accommodate four-car trains. The footbridge linking the platforms, together with ramps or even lifts would also provide an important link between the business park and residential areas on the opposite side of the line. There would be car parking for 150 cars and some expectation here that the station would be more attractive to local residents making journeys to London or other destinations south of Norwich rather than starting from Norwich station. The journey time from the Business Park station to Norwich station would only be 7 minutes!

Total cost of the station has been assessed at a considerable £6.5 million, but calculated in accordance with the very cautious DfT guidelines. However, the Benefit Cost Ratio for the combined package is assessed at 2.67:1, representing high value for money, with the number of passengers using the line predicted to increase by 190,000 per annum.

The next step would be to carry out further feasibility work estimated at £100,000 to achieve GRIP Stage 3 - option selection, in the Network Rail project control process. Broadland Council have agreed to contribute £25,000 funds to this work on the basis that other stakeholders, including other councils, the local enterprise partnership, business park developer and rail industry also contribute. The Council have proposed the formation of a Project Board comprising the various stakeholders to take the project forward.

In common with most rail projects, the Council are cautious about the likely timescale, achieving support from stakeholders throughout the GRIP process and not least identifying the financial resources to implement the package. Mouchel state that not implementing the proposed improvements would 'constrain economic growth within the vicinity of the Bittern Line and wider economy'. So it is good to see Broadland Council taking a lead on a rail-based project which could benefit the greater Norwich area both economically and environmentally. IC

Beccles Station Beautifies!



Yes, the station itself is well worth a visit, following the regeneration which has resulted in a cafe, two meeting rooms and two small business units. It is a model for what can be achieved with a redundant building, although there are still further improvements required in the area around it.

A Leaflet at Large: A total of 12,000 copies of the “Discover The Blyth Valley” leaflet have been produced since the summer of 2014, funded by the East Suffolk Lines

Community Rail Partnership and six local voluntary bodies or charities. The leaflet was updated each year and almost all stocks had been distributed by the end of October 2016.

The leaflet promotes the rail/bus integration at Halesworth where on weekdays the 88A bus connects with most East Suffolk Line trains for journeys to and from Southwold and the villages of the attractive Blyth Valley (Your Editor can vouch for the effectiveness of this connection). It is also possible to purchase a rail ticket which includes the bus journey. It is vital that facilities like this are retained and developed under the new Greater Anglia franchise.

Halesworth station is the starting point not only for this attractive bus service but also for walks along the valley-and with a number of well sited pubs which are also on the bus route, many options exist for the more and the less energetic. Our photograph at top of page shows a large group of people gathering at Halesworth station on August 27th for a walk to the coast, which all of them completed! And also the bus and shelter right outside the station. What could be easier? TG



Abellio Pedals to Prizes



A host of high-flying innovators and operators recently received prizes and plaudits at the 2016 National Cycle-Rail Awards hosted by the Rail Delivery Group.

In the flurry of accolades to various innovators and railway operators, The Station of the Year award went to Greater Anglia’s team (see photo) who run Cambridge Cycle Point, the largest, purpose-built cycle park at a UK rail station.



Parking for 2,850 cycles is on offer, which is expected to be sufficient capacity for a 7-10 year period, based on current growth rate figures. Certainly it is being used with great enthusiasm by the many Cambridge cyclists wedded to their bike but heading for a train. The other photo shows the ramp entrance to Level 1 which continues to 2.

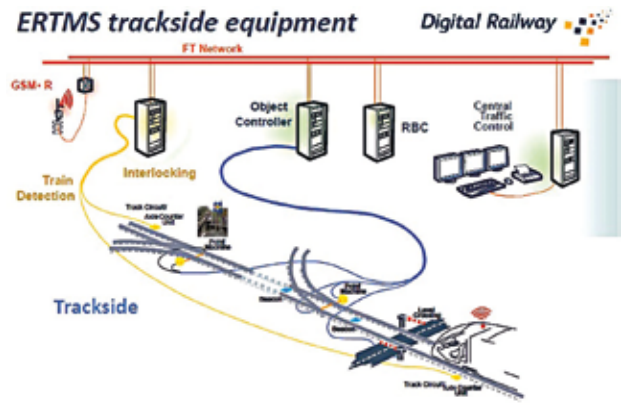
Again, a bike shop has opened (owner new to the station) providing sales, maintenance, hire facilities and advice, thus remedying the much lamented departure of Station Cycles when its premises were demolished at the start of site work. PW/CB

At our September gathering in Norwich the guest speaker was Steven Ashling, of Network Rail, who gave us an intriguing insight into the intricacies of in-cab signalling, UK style. The following is a distillation by Nick Dibben of his first-rate presentation.

Railway signalling has come a long way since trains on the first railways were controlled by policeman with flags and an egg timer, noting the time elapsed since the last train passed, so that the following train could proceed. Over the next 25 years, our railways will be transformed as the new computer-controlled railway is rolled out across the country. Network Rail's Steven Ashling explained to our Norwich Branch meeting at the end of September just how this digital railway worked.

When the invitation to Steven was sent out a few months back, it was widely expected that the Norwich to Great Yarmouth and Lowestoft lines would be converted to digital signalling in one jump from the present day system of levers, rods, wires and semaphore signals. Initially the routes were considered ideal as they were a self-contained system used by a small fleet of trains that were all based at a single depot.

However, a subsequent review of the project concluded this was not quite what was needed, so the route will now be resignalled apropos conventional coloured light signals but with future conversation to a digital system probable.



So what is a digital railway? In simple terms, and as per first diagram, a computer software controlled system where the traditional trackside signals are replaced by a display in the driving cab, and all the wires that run alongside the railway tracks are replaced by digitised communication between the train and the signalling control centre.

Within the cab the screen not only shows if it is safe to proceed but informs on the route ahead and provides guidance on the correct speed and braking when a red signal is being approached. It also provides information on the next few kilometres of track to give advance warning of speed restrictions and level crossings. The system has additional safety features so that if the train is going too fast approaching a red signal, a warning alarm will be sounded, and the brakes automatically applied if necessary.

In the signalling centre, there are a series of screens at each operator position. These show not only the track diagram and train locations within the signalling system, but also measure the performance of the timetable, thus allowing the operator/software to work out what to do with trains that are running too far out of schedule. For example, the system will identify if a freight train several kilometres away from a busy junction will need to stop to let other trains pass. If this is the case, it can advise the driver to slow down a little to get a clear path through the junction. This process not only makes the junction more efficient but can also save a lot of energy through avoiding the need to stop and restart. Here's another of Steven's diagrams.

European Rail Traffic Management System

- ETCS – European Train Control System
 - Level 2 (fixed block) for now / Level 3 (moving block) is goal
- GSM-R – Global System for Mobile communications – Railway
 - Data network provided for vital communications
 - Voice and data comms
 - Need good coverage
- European Operating Rules
- Traffic Management
 - Stock and Crew
 - C-DAS
 - Customer Information Services
 - Incident Management
 - Plan / Re-Plan



A few things to think about!

- Speed signalling V route signalling
- Most ERTMS elsewhere has been fitted to new high speed lines
- ERTMS designed as a standard product for the European network.
- ERTMS is fast becoming a global standard!
- Cambrian is still one of the few existing routes retrofitted in the world

To ensure that different systems are compatible with each other a set of standards has been developed that comprise the European Railway Train Management System (ERTMS). This is used not just in Europe but around the world. Most current installations are on new high-speed routes, but the trains revert back to conventional systems at main stations. In the UK, part of the Hertford Loop near Stevenage has a ERTMS test section and ERTMS already fully operates the Cambrian Line linking Shrewsbury to Aberystwyth and Pwllheli in Wales. This makes it one of the few existing routes in the world to have been converted to computer-led operation. In achieving this a key challenge was to get the new equipment to fit current 25-year-old rolling stock.

So why is this the future? The system, when fully implemented should allow more trains to safely run on existing tracks thereby reducing the maintenance bill of around £1bn per year for maintaining/replacing the signals and the connecting wires that are prone to vandals, and rats! New track will still be required, of course, here and there; but many routes will be able to run more trains on the existing infrastructure with absolute safety.

Following the presentation, there was a discussion on other possible benefits such as drivers no longer needing route knowledge, which would benefit occasions for service route diversions and short term-freight flows. Ultimately, indeed, the need to have a driver at all! But we won't go down that track,..... just yet!

The Road Ahead

So the new trains are, we now know, a contracted prospect: wonderful. But what of the stations, signalling and track, an intrinsic part of a railway journey, and of which so little was said at the August franchise announcement, but which has since rightfully assumed a much higher public profile? Reliability and punctuality, those familiar inseparables, are crucial to the perception and reality of an improved railway so far as the rail user is concerned.

From this and previous editions of Rail East you'll know that infrastructure improvements are something for which our Railfuture Branch actively lobbies. They are many. But the top three candidates share two factors: too little track and/or inadequate layout. These are Ely North Junction, Trowse Swing Bridge (Norwich) and the final twenty miles or so of both routes into Liverpool Street. The latter desperately need extra tracks and in some places, junctions reconfigured, to accommodate the ever increasing passenger and freight demands placed upon it. In short there are few if any spare timetable slots at any time apart from the early hours. Access to work in London is effectively being strangled.

A similar story applies to Trowse and Ely. Until there is a second track across the River Wensum at Trowse, further services to London, Cambridge and Peterborough and in certain cases, faster services, are off the agenda. Ask yourself on how many rail journeys into Norwich your train has come to a halt awaiting passage into its platform. In my personal experience, far too often.

But the big one is Ely North Junction: this is the heart and fulcrum of the East Anglia timetable dictating its pulse, flow and balance. And it is in serious need of surgery. Not only are extra services to Kings Lynn, Norwich and Peterborough linking to Cambridge and Ipswich held in abeyance until its scale and layout is improved, but the very existence of brand new services from Wisbech to Ely and Cambridge remain a dream.

We know Network Rail (NR) is deeply in the planning stage regarding Ely improvements, but hamstrung through being fully nationalised and therefore subject to a strict Treasury spending limit. Hence the project slipping to NR's 2019-24 Control Period.

The foregoing, of course, is to forget the considerable flow of freight traffic also using this Ely junction, especially connecting to Felixstowe, which is expected to generate so much more business in the next decade or so. Freight is especially inhibited, incurring far too many scheduled delays in order to regulate transit of all traffic through the various pinch-points en route. Ely generally and Ely North Junction specifically, represent two of the severest in terms of capacity (with the largely single track Felixstowe branch still worse).

Along with speed restrictions, all this impacts massively on a rail-freight carrier's operating cost efficiency, not least by bumping up fuel consumption and /or running out of drivers' hours, thereby using more of them than should be necessary. Great for the union but not for the balance sheet making rail-freight less competitive than it ought to be. And given that many container trains receive EU/government grant to prevent traffic transferring to the roads, taxpayers ultimately pick up the bill. So yes, Ely junction really does need to be sorted out for a variety of reasons, so Railfuture East Anglia is continuing to keep Ministers and local MPs regularly aware of this.

To all of this we would add another inhibiting factor: level crossings. East Anglia has over 750 of them. When NR got down to addressing the 'Norwich in 90' agenda, it quickly discovered that the 110mph potential over the largely straight track between Ipswich and Norwich was illusory. It would be too expensive. Why? Because there are around 20 level crossings of one sort or another, 14 of which were of the automatic half-barrier type without CCTV installed. Speeds beyond 100mph are prohibited over such crossings. In any case most trains stop at Stowmarket and Diss, commercial fully justified calls, thereby diminishing the return from a higher top speed.

There are other East Anglia level crossings where a full barrier would also greatly benefit services, but no one seemingly has the money for such things. Yet another matter on which to actively lobby NR, local authorities and your MP. Happily, just as Rail East went to press we learnt that three private user crossings between Ely and Norwich are to be equipped with the latest red and green lights technology to ensure users truly do know when it is safe to cross; they are at: Hockham Road, Roudham; Crown Commissioners, Thetford; and Pools No.2, Lakenheath. Good news indeed.

From recent contact with NR Railfuture has also learned that the old mantra of Like-for-Like maintenance/replacement, which too often to us in Railfuture has seemed horribly short sighted and wasteful, is being reviewed. Sure it is more expensive initially to improve beyond L-for-L, but not half so pricey as returning to do it at a later date with another team and an expensive track possession to pay for. Let common sense prevail, please. We know these projects can't all be enacted at once, even if the resources were available, as it would totally disrupt East Anglia's railway network. But over the next decade they are not just desirable, but absolutely vital. CB

Station improvements

We are pleased to see the new lifts (LH picture) installed at Manningtree. This is likely to be recognised in our 'Easy Stations' award.



Also, by the time you read this, works are at last due for completion at Ipswich where the forecourt has been remodelled to separate vehicle and pedestrian flows. The final stage can now go ahead now the ticket office has moved into its new home, as in other photograph. PS

Easy Stations awards

On October 24 Phil Smart of Railfuture East Anglia launched our Easy Stations awards at the Suffolk Rail Conference. They are funded by Clara Zilahi's legacy and will celebrate stations that have seen significant improvements to make them easy and pleasant to use especially for disabled people and families who find poor stations a challenge. Aspects including step-free routes, shelter, information, help points, cycle racks and CCTV are all desirable, with different standards for staffed and unstaffed stations.

Gold awards will be presented for stations which include most of the desired features, and Silver awards for significant improvements. We are inviting nominations from Railfuture members, organisations including local councils, the public, and press. www.railfuture.org.uk/East+Anglia+Easy+Stations

And to conclude, Phil Smart also attended The 2016 Suffolk Rail Conference held on 24th October and here's his account of broadly what transpired.

This annual event was held at the Ipswich Town football ground and attended by MPs, councillors, representatives of the business community and local rail user groups and campaign organisations. It is usually addressed by one of the county's MPs and this year was the turn of Jo Churchill MP for Bury St. Edmunds who perhaps inevitably bemoaned the lack of services to/from the town.

She was followed by Mark Pendlington from the New Anglia Local Enterprise Partnership who gave the now familiar tale of poor services on the Great Eastern mainline but also welcomed the new franchise that carried the regions hopes for improvement. He then turned attention to the need to improve services travelling west from East Anglia and in particular the need to sort out the problems at Ely and to get this reinstated in the programme up to 2019, (Yes it is becoming something of a Railfuture East Anglia mantra – but why not, it is after a matter critical to customer satisfaction).

Next was Jane Cornthwaite, Lead Market Director for Rail at the Department for Transport. She recognised the needs of East Anglia and its under-investment problems in the past, but that the franchise premium was not ‘ring fenced’ to be spent in the region in which it was generated! The Treasury phrase is ‘Hypothecated’, we believe!

Jamie Burles, MD for Greater Anglia then gave a presentation covering the new franchise. Most of you are now familiar with its contents not least from within this edition of Rail East.

He ended by reminding everyone of the need to secure the infrastructure improvements to make it happen! Chris Rowley, Principal Strategic Planner, Network Rail then responded from the infrastructure provider. He acknowledged the Hendy Review slippage of Ely, Haughley and Bury (signalling) schemes from CP5 but that work would be carried out at Trimley (Felixstowe Branch Capacity) and works to the West Anglia line to allow 8-car trains on the Kings Lynn line. They have developed a service specification for the Ely area, including three freight trains per hour as well as passenger services to Wisbech and doubling of frequencies on other services. Up to 14 trains per hour (tph) each way would be required.

On the GEML, Bow junction was being remodelled and works to accommodate ‘Crossrail’ schemes not yet programmed include, additional loops at Witham, doubling Trowse Bridge, more platform capacity at Liverpool Street and other speed/headway improvements.

After a presentation about ‘Crossrail’ given by their Community Relations Manager, Jonathan Baggs we moved on to Patrick O’Sullivan to update on the East-West Rail Project.

He outlined options for completing the Transport and Works Act Order process for the western section and then outlined progress on the Central Section (Bedford to Cambridge). He expected the National Infrastructure Commission to report by the end of this year and confirmation of route alignment by 2021. Construction expected to start in 2026 with trains running by 2031! Already attention is now focussing on how to improve the network east of Cambridge.

After a presentation from the Transport Research Laboratory it was OUR turn to present the ‘Easy Station Awards’ which you have probably read already on page 18.

There was also opportunity for networking which we used to brief Network Rail, Jamie Burles and officers from St. Edmundsbury on our proposals for doubling service frequency between Cambridge and Bury. PS. A set of slides for the conference can be viewed on: <https://www.suffolk.gov.uk/assets/roads-and-transport/public-transport-and-transport-planning/2016-Suffolk-Rail-Conference-Programme.pdf>

And there we have to close this Rail East edition until early February next year(!) for which contributions, please, by Monday 6 February 2017. Stories with photographs are always favoured, if you can manage this. Otherwise, thank you very much for everything you have contributed over the past year, it was and is always greatly appreciated. Thanks too to John Clark who volunteers his great design skills in page layout especially as his health is rather fragile of late. To him and to all of you our very best wishes for a happy Christmas and peaceful New Year. CB

Railfuture Winter Meeting 2017

**Our Winter Meeting will take place on 3 December in the Friends Meeting House, 12 Jesus Lane, Cambridge CB5 8BA at 14.00 hrs.
Guest Speaker: Mr Jamie Burles, MD of Greater Anglia**

The next meeting after this will be our AGM on 25 February 2017
at 14.00 hrs in Bury St Edmunds IP33 1SJ

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