

Filton Bank Four Tracking - A Rail Renaissance

On the morning of Monday 3 December Network Rail successfully completed the installation of two new railway lines between Filton Abbey Wood and Bristol Temple Meads – doubling the number of lines into Temple Meads from two to four. This is marvellous news for which we have been waiting a long time.



Narrowways Junction (30/12/18) - IEP train travelling on new tracks towards Filton Abbey Wood

These two new train lines will help improve reliable services for passengers because they enable local stopping services to run on separate lines to faster intercity services – which is often why trains are delayed into and out of Bristol Temple Meads and makes journeys longer. The two new tracks will also help get services up and running faster when

incidents occur and critically the new lines pave the way for an increase in direct London – Bristol Parkway – Bristol Temple Meads services that will be introduced at the end of 2019.

Engineers started on the £130m upgrade programme in 2015 and this culminated in up to 350 engineers on the tracks at any one time during an intensive three-week upgrade in November 2018, with the final testing being done in the last two weeks of weekend closures. The works included:

- Station upgrade works at two stations (Stapleton Road and Filton Abbey Wood) - including platform extensions and a new Platform 4 at Filton Abbey Wood, footbridge construction, mechanical and electrical works, information/ security systems and external lighting
- Installation of 15 km of new track, including drainage, new high speed switches and crossings and signalling
- Extensive earthworks, cutting & embankment stabilisation to increase track bed width
- Upgrade of 17 existing railway structures, including four bridge reconstructions



Stapleton Road station

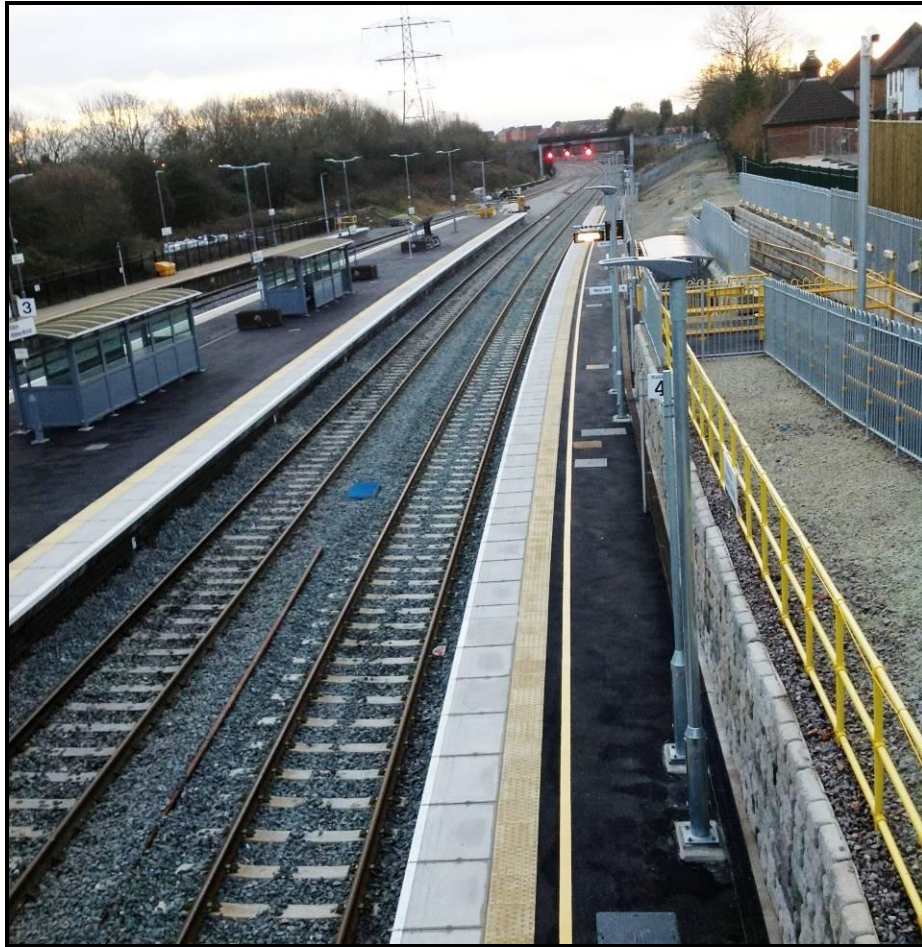
(30/12/18)

Picture taken from the footbridge which now goes across all four tracks.

Showing an IEP train travelling towards Temple Meads on the new tracks.

The ramp (at left of photo) leads from the middle of the footbridge down to Platform 2.

The original two tracks are to left of this ramp.



Filton Abbey Wood station - showing the new Platform 4 (30/12/18)



Looking north from Constable Road when works nearly completed (9/11/18)

Make no mistake, this is a very important and exciting milestone towards improving rail provision around Bristol. This and the earlier BASRE (Bristol Area Signalling Renewal & Enhancement) works, completed over Easter, has provided a good base upon which new services can follow. What we need now is the remodelling of Bristol East Junction. **This leads us on to**

Party on the Platform - Filton Abbey Wood Station

You are cordially invited to attend a FOSBR event to celebrate the completion of Filton Bank four tracking and what this means for the future of our network.

When: Friday 22nd February 2019

Time: starting 11 am (and lasting about half an hour)

Where: Filton Abbey Wood station

Filton Bank (from Dr Day's Junction to Filton Abbey Wood) last had four tracks in 1984, at which time British Rail removed two to save money. Ten years ago many of us responded to a Network Rail consultation to urge that extra tracks be reinstated between Bristol Temple Meads and Bristol Parkway. In the following years we, MPs and other decision makers put pressure on Network Rail and the government. Some of you may remember a FOSBR photo call on 17 May 2013 when we got many of the 'great and good' to pose on the newly installed Stapleton Road station footbridge - to urge funding support for the scheme.

Following a blockade of the line in October and November 2018, the Filton Bank tracks were re-opened. This is a **game changer** for it will allow extra services to run in the future and permit greater flexibility in both regional and local services.

We particularly want to remember that this resulted from people *coming together* to campaign for rail, people from all political parties across the West of England, alongside those working within the rail industry - the unions, train operators and Network Rail.

We want to say thank you to all those involved, celebrate the MetroWest rail projects and consider other potential local rail schemes.

Refreshments will be provided at Filton Abbey Wood with a photo call on the new platform.

Trains:

From Temple Meads: Depart Temple Meads 10:45, via Stapleton Road 10:52*, arriving at Filton Abbey Wood 10:57

*FOSBR representatives travelling from Stapleton Road will meet on Platform 1 from 10.30, to look at the progress of the step-free access to the footbridge on Platform 2 (due spring 2019). Then catch the 10.52 to FAW.

Returning to Temple Meads: Depart Filton Abbey Wood 11:22, via Stapleton Road 11:28, arriving at Temple Meads 11:34. Or catch any number of direct trains to Temple Meads.

Temple Meads - New Ticket Gates



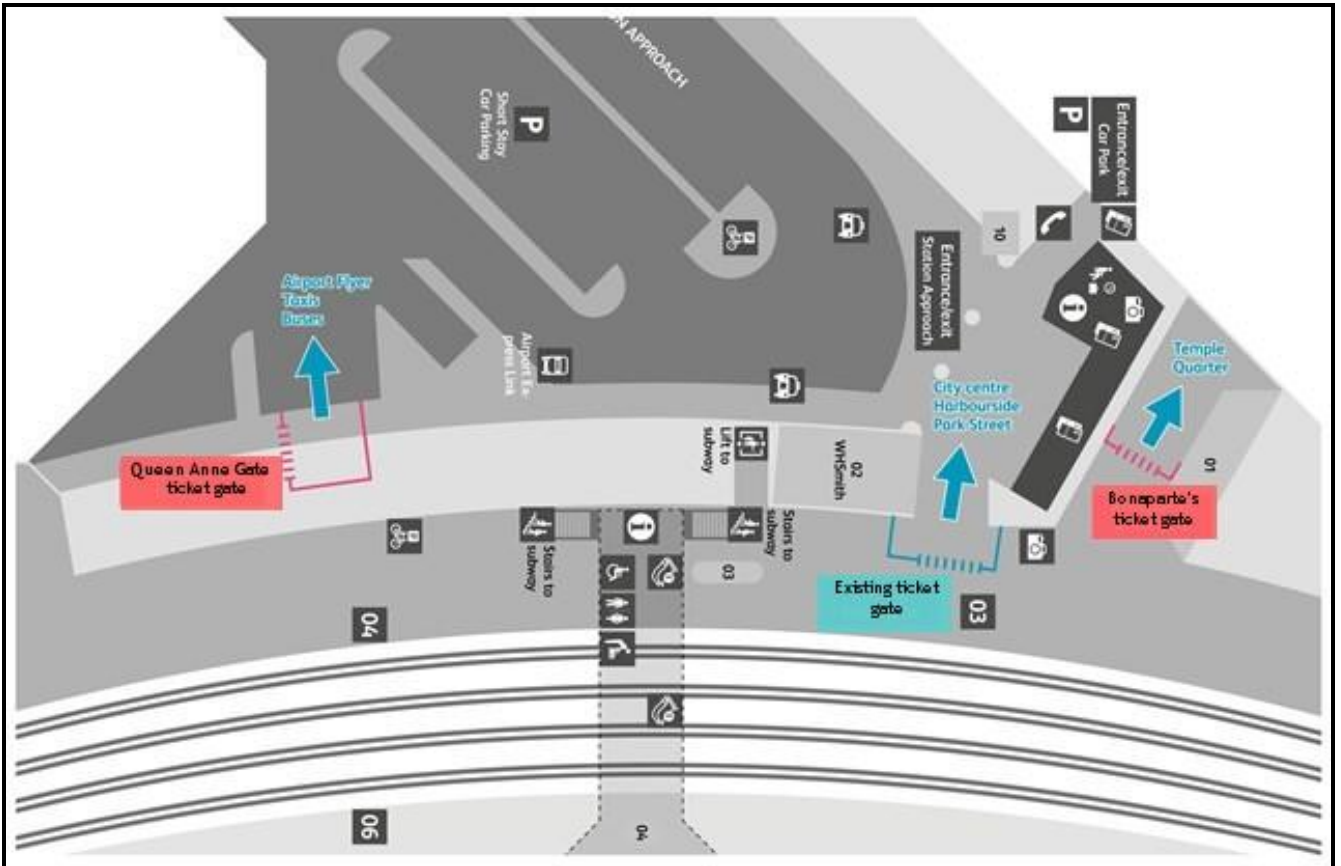
Two brand new ticket gate locations at Temple Meads were officially opened on Monday 17th December 2018

Mayor Tim Bowles (WECA) and Mark Langman (Network Rail) cutting the ribbon

The new ticket gates are located at Queen Anne Gate and beside Bonapartes café and will be open for passenger use during peak times on week days, from 7am to 10am in the morning, and from 4pm to 7pm during the evening.

Eight new ticket gates have been installed at the new Bonapartes entrance on platform three, passengers being able to access them directly from the Friary. There are also six new gates acting as an exit only at Queen Anne Gate, which will take passengers out onto the Station Approach next to the British Transport Police office. Both locations include two wide aisle ticket gates to improve accessibility.





Plan of new ticket gate locations (Network Rail)

Currently, 11.3 million passengers pass through the station each year, with that number set to rise following significant upgrades to the railway in the Bristol area.

Mark Langman, route managing director at Network Rail said: “The introduction of the new ticket gates at Bristol Temple Meads will greatly improve the passenger experience for those who use the station by reducing the bottleneck that builds up at peak times. “The number of ticket gates has more than doubled and as well as reducing congestion it will also improve safety”.

Pilning

We are aware that many people, including FOSBR supporters, think that campaigning for Pilning station is a “waste of time”. We strongly disagree. Only five years ago, the West of England authorities urged the government to include more regular services at Pilning in the franchise because of its proximity to Westgate and Western Approaches in the Severnside industrial area. Recent years have seen a huge increase in those getting the train to Avonmouth and Severn Beach and then cycling or walking to their workplace, despite services not aligning with shift times and employers seeing as unreliable. It is intended that up to 25,000 new jobs will be created at Severnside in the years ahead. Pilning also benefits from being on the line to South Wales, allowing commuting from

there to Severnside. It would also provide a fast link to the North Fringe (7 minutes to Filton Abbeywood) and Temple Meads (21 minutes).

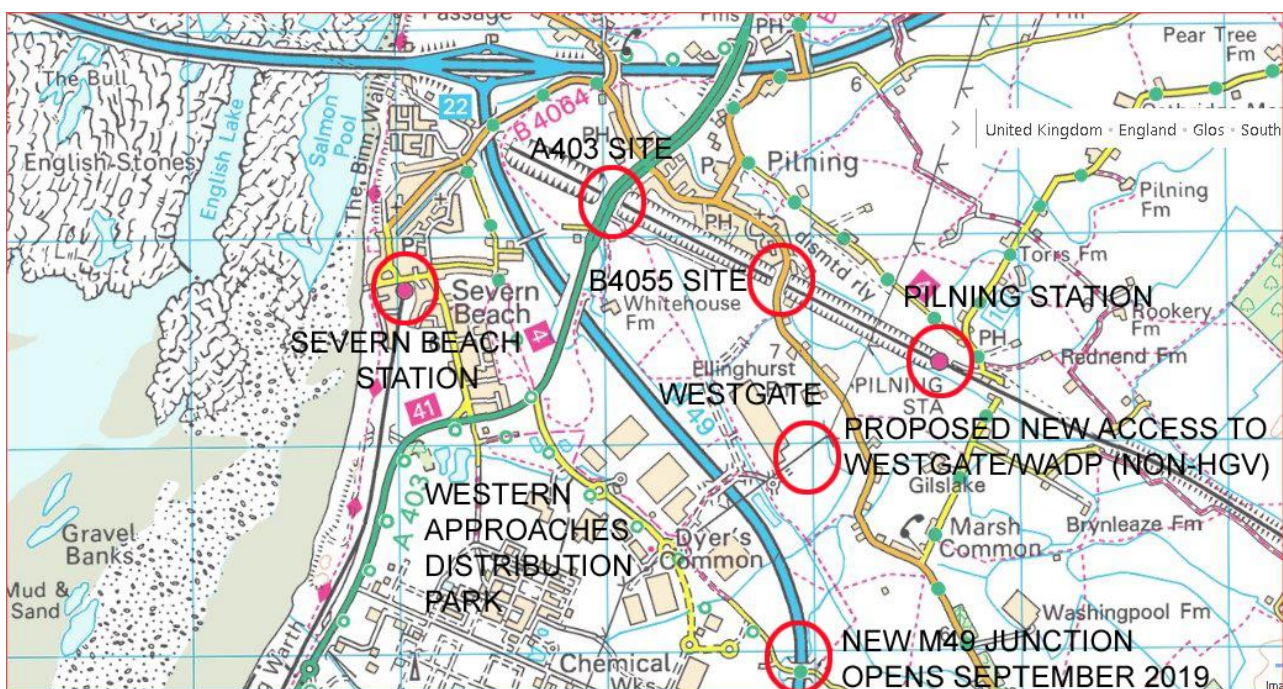
In our October newsletter we discussed the SEWWEB campaign to improve transport links in the South Gloucestershire and North Bristol areas, on the corridor between North Somerset, Temple Meads, the Bristol inner-city residential areas and the South-East Wales commuter belt. These proposals include stations at Aztec West and Pilning Gateway, and improved services to Patchway.

On 10th November 2018, the SEWWEB team won the "Best New Group" award at the RailFuture National award and attracted a lot of interest as a result.

SEWWEB suggest a possible re-location of Pilning station from the existing station site to the point where the Cross Hands Road (B4055) crosses the four-tracked railway. This location could allow easy access to both Pilning village and local business parks. Another proposal suggests moving Pilning station to the point where the main A403 crosses the (two-tracked) railway and creating a combined rail/coach interchange.

Any location needs to tie in with planned new road developments. The new motorway junction on the M49/Farm Lane site will be complete by end-2019 with stubs "to support future development".

A representative from SEWWEB will be attending the FOSBR AGM on Friday 18th January so there will be further discussion around the proposals.



Some more notes from Pilning

Olga Taylor

We here at Pilning have been concentrating on improving passenger numbers and ensuring that we stay in the news. As a result, our footfall figures went up to 478 this year, which is doubling last year's numbers, but also - in statistical terms - a 939% increase from the meagre 46 in 2016 (AFTER Pilning Legend Jonathan King passed away, and BEFORE the footbridge went down).

To increase the numbers we used "Pilning Challenges" to attract young railway enthusiasts to the station. We also created an IT system that logs all services stopping at Pilning, including arrival / departure times, unit class and DMU numbers, number of passengers on / off, purpose of travel (selectively - e.g. challenges), service destination, routes taken by challengers, and the mileage completed by them. It is interesting stuff and I need to spend some time analysing and reporting on it. Essentially, it proves the station's versatility.

We ran a campaign whereby we requested that the DfT and NR let Pilning Station receive the footbridge from Angel Road Station, which is due to close in May 2019. The footbridge is high enough to clear the OHLE, but also compact enough to be used at Pilning. We are currently awaiting feedback from the DfT consultation and the campaign.

Pilning Station featured in a couple of railway related books - "Railway Adventures" by Vicki Pipe and Geoff Marshall (a.k.a. AllTheStations project) and "Remote Stations" by Peter Caton. All helps the publicity.

Our future plans are to continue to grow passenger numbers, campaign for extra services, platform lighting and the reinstatement of the footbridge.

One current concern is the position of an OHLE (overhead line equipment) mast on Platform 2. We are worried that, if there were plans to reopen Platform 2, the mast would obstruct the path as it's placed less than a meter away from the platform's edge. I am planning to write to NR to clarify.



Severn Beach Line update

In recent newsletters, we have discussed ongoing problems on the Severn Beach Line (SBL):

- July 2017 – issues with introduction of Turbo 166s
- March 2018 – SBL problems due to snow
- April 2018 – Network Rail (NR) complete Bristol Area Signal Renewal & Enhancement with some disruption to SBL services
- Spring/Summer 2018 – GWR introduce measures to improve Turbo 166 performance on SBL, e.g. intermediate door controls
- July 2018 – Network Rail complete BASRE/ARS tweaks to improve SBL regulation
- Summer 2018 – several weekends of engineering bustitution
- Autumn 2018 - Filton Bank blockade 27th October to 18th November plus weekends of 13th/14th Oct, 24th/25th Nov, 1st/2nd Dec
- December 2018 – services are routed via four-tracks on Filton Bank

The first complete month of Severn Beach Line operation after the Filton Bank four-tracking showed a marked improvement in the numbers of late-running trains and cancellations.

SBL services are now using “relief up”/”relief down” tracks as far as Narrowways whilst inter-city (CrossCountry) services are usually routed via “main up”/”main down”. SBL services still need to interleave with other services on relief lines such as local/regional services calling at Stapleton Road/Lawrence Hill, e.g. Gloucester-Westbury.

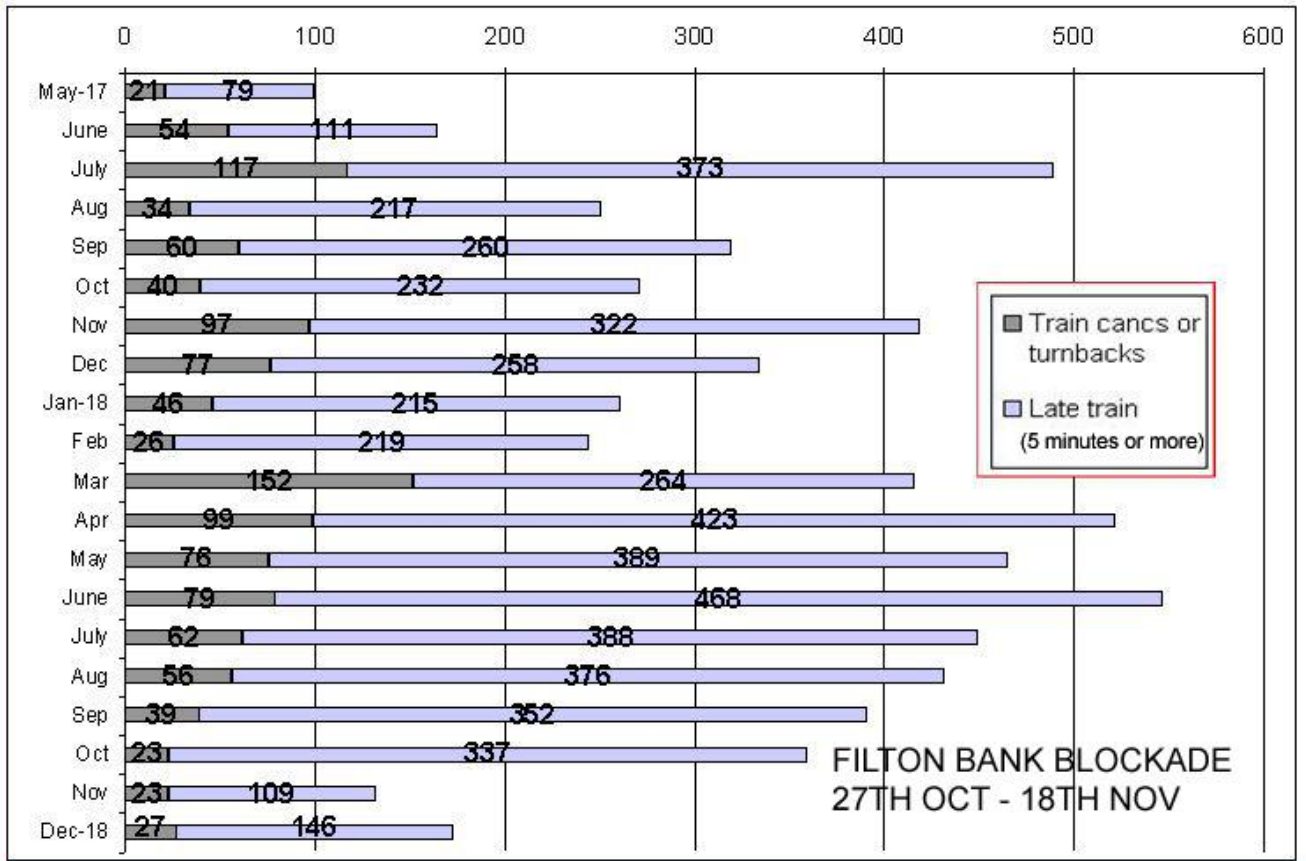
The SBL performance improvement was marred by 2 incidents: on Tuesday 4th December a lorry hit the barriers at Avonmouth Dock level crossing causing 5 cancellations, and on Sunday 30th December a points failure caused 18 cancellations.

The two histograms below show

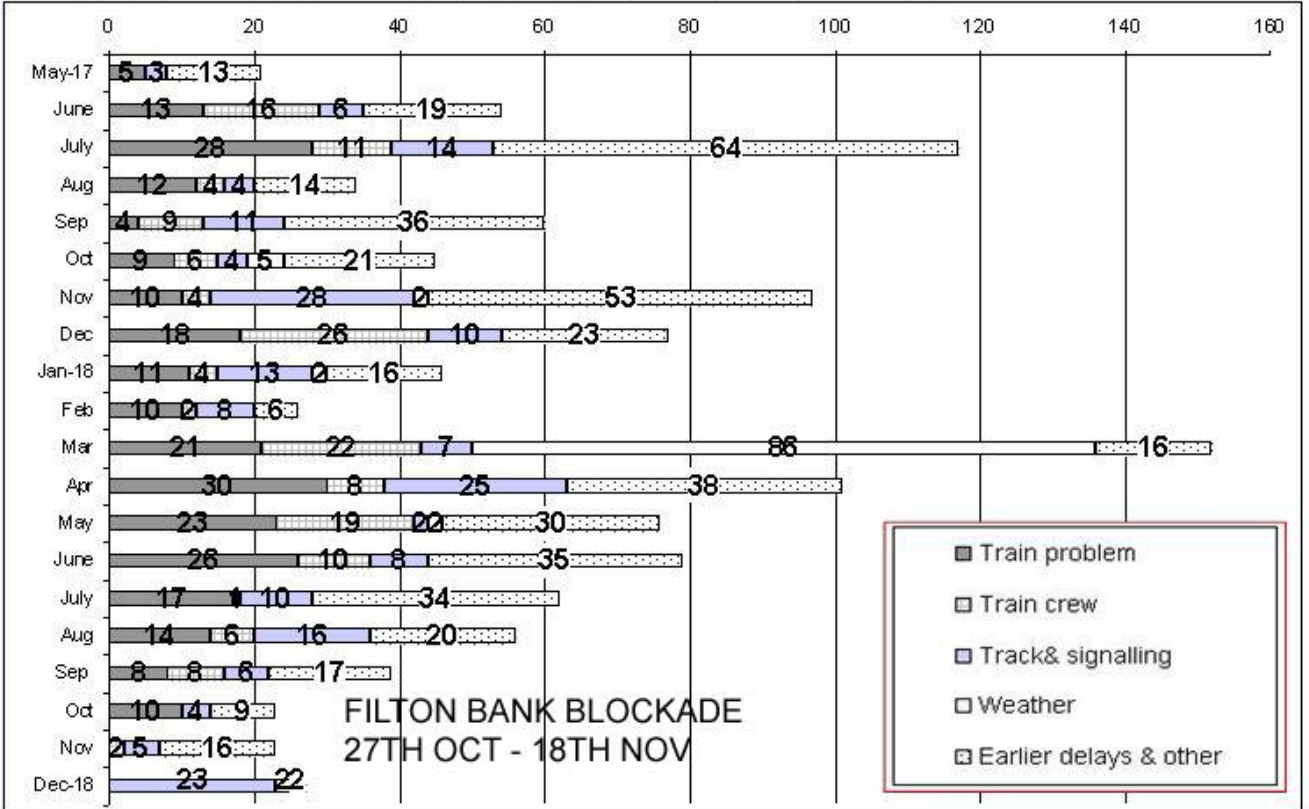
- (a) number of cancelled/late trains from Turbo introduction to end 2018
- (b) reasons for train turnback/cancellation from Turbo introduction to end 2018

Let's look positively forward towards 2019 and hope that the performance improvement survives the mass return to work/University - and that a quality service is maintained on the Severn Beach line and across the network.

Number of cancelled or late train services on the Severn Beach Line by month



Reasons for cancelled (or turnbacked) train services on Severn Beach Line by month



Summer walks with the Ramblers 2019

Joy Harrison, Wessex Wanderers Coordinator

Wessex Wanderers Railway Walks was the brainchild of Peter Gould in 1994. The first programme came out in 1995 and in 2020 we shall be celebrating our 25th anniversary.

During 2019, the preparations of special walks and events in 2020 will take place for this great achievement. This programme is a unique, award winning initiative that combines the benefit of walking with the use of green transport - trains.

If you have not enjoyed these walks before, then please join us on one of the many varied walks on offer. The 2019 programme of events will be available on the website from mid-February.

Website: www.wessexrailwaywalks.org.uk

One of the walks that you will certainly want to put in your diary:

from **Temple Meads Station to Clifton Suspension Bridge on Wednesday 22 May 2019.**

Meet at Temple Meads Station and the walk starts after the arrival of the train from Weymouth - this time is not yet available.

The walk will be approximately 4 miles (6.1 km). We will walk through St Mary Redcliffe churchyard, past the Ostrich pub, Merchants Quay, Industrial Museum and the National Trust woodland to Clifton Suspension Bridge. Then return by bus or walk to Bristol. This is part of Bristol Triangle route funded by Bristol City Council as part of their 'car free' strategy. The route was designed, and has been maintained, by Bristol Ramblers from 2000 until now!



FOSBR on the streets – Coalpit Heath & Portishead

FOSBR have been taking the FOSBR Rail Plan out onto the streets to raise the FOSBR profile and get signatures from local residents. The campaign cards contain a space for residents to write in a personal priority for local transport. These campaign cards will be returned to Tim Bowles, MetroMayor of WECA, as part of the FOSBR response to the Joint Local Transport Plan (JLTP4) which closes on Sunday 17th February 2019.

Coalpit Heath

Rob & Barbara went out to Coalpit Heath on Monday 3rd December to gauge attitudes to the FOSBR idea of re-opening Coalpit Heath or Winterbourne station.

They were pleased by the very positive response. People said they would use the service and were keen to sign cards to send to WECA. As well as getting about 25 people to sign cards (in about an hour) Rob and Barbara also left cards at a supportive local social club. People also gave us ideas about how to spread the message more widely on specific local Facebook groups and by contacting key people in the community. It is clear that this is an issue that has local support (and good arguments for doing it!) and that FOSBR will be mobilising that support in the months to come

Portishead

Julie & Carol went out to Portishead on Friday 14th December to chat to the people of Portishead about the much delayed and as yet under-funded Portishead line re-opening. We got a great response from the locals to the “WHERE’S MY TRAIN?” sign - Julie even got a cheer when she modelled it in the Shaniccatti café!



We stood in Portishead Precinct for an hour and heard various “horror commute” stories from members of the public. One gentleman has to travel 2 hours each way by two buses from Portishead to Filton Abbey Wood. When he moved to Portishead the North Somerset Council-Bristol Northern Fringe “commuter coach” was running. It ceased operation one month after he started using it.

One couple who spoke to us moved to Portishead in the belief that the train service would be up & running by 2017. They are considering moving away as they see little evidence of progress.

Older people remembered the line in operation up to 1964. Many pupils from Portishead went to school in Bristol via train. Two ladies remembered changing at Bristol Temple Meads to catch the Severn Beach Line to Montpelier for Colston Girls School. A gentleman told us how easy it used to be to hop on the train and visit his cousins in Bedminster.

We met members of the Portishead Railway Group who showed us recent coverage in the North Somerset Times. North Somerset Council have committed £1.4m to pay for the

submission of a Development Consent Order in April. West of England Combined Authority (WECA), North Somerset Council and the Transport Secretary Chris Grayling have commissioned a study into light-rail and tram-train options for the line “without the need for heavy rail infrastructure”. The Portishead Railway Group position on tram-trains is here: <https://www.portisheadrailwaygroup.org/tram-trains.html>

Other than chatting, the FOSBR team did get 50 campaign cards signed. The FOSBR Rail Plan for Bristol & environs, including Portishead, can be found on the front page of the FOSBR website: www.fosbr.org.uk. Please look at the FOSBR Rail Plan and write to Tim Bowles of WECA with your priorities for public transport.

Electrification through to Bristol Parkway

Since New Year, GWR trains are now operating in electric mode from Bristol Parkway to Swindon and thence to Paddington. The next step is to electrify the lines through to Cardiff - perhaps by the end of this year? No news yet on any wires to Temple Meads!



Here is an IEP train at Bristol Parkway with its pantograph up. Apparently by the time these trains clear the end of the platform, they are travelling at 40 mph - whoosh!

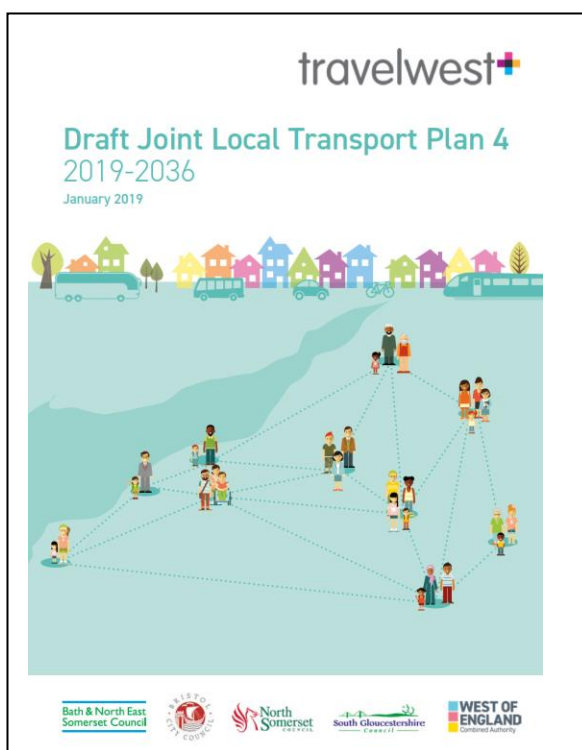
WECA (West of England Combined Authority) Consultations

(a) JSP Emerging Findings

By the time this newsletter is printed, FOSBR will have already responded to the WECA consultation on the Joint Spatial Plan Emerging Findings (deadline 7th January 2019). This document provides supplementary transport evidence in support of the JSP, generated by a series of technical studies into the feasibility and costings of transport issues that support the delivery of the Strategic Development Locations identified in the Joint Spatial Plan.

The FOSBR response can be found on our website. FOSBR are concerned that many of the Strategic Development Locations are inappropriate as they are not in locations where development and transport modes are sustainable. Alternative locations would be more effective in meeting the stated aims of the spatial plan. It is also the case that sustainable transport schemes only account for 25% of total estimated costs while road schemes take 58% of the budget.

(b) Joint Local Transport Plan (JLTP4)



FOSBR are compiling a response to the WECA consultation on the JLTP4 which is due to be submitted by midnight on **Sunday 17th February 2019**. JLTP4 has a wide ranging set of proposals including mass transit “with some underground running”, additional MetroBus routes, road and rail improvements.

WECA have a devolution fund of £1bn (£30m a year for 30 years) and the JLTP4 covers the period up to 2036. It is very important to put in responses with supporting evidence for sustainable transport infrastructure, from both new voices and the usual suspects.

MetroWest Phase 1 and 2 are included in the consultation draft as well as a mention that “during the life of JLTP4 we will consider extending services beyond Henbury and new stations to support the JSP at Charfield, St Annes Park, Saltford, Ashton Gate and Constable Road, and new links to Thornbury and Bristol Airport”.

Thornbury and Henbury Loop rail proposals are included now but are given the low priority designation of “other longer-term opportunities”. So it is important that all concerned

parties make their own consultation response, both individually and in groupings such as station or neighbourhood groups.

The JLTP4 documents can be found on:

<https://westofengland-ca.moderngov.co.uk/documents/s702/13b%20-%20Draft%20West%20of%20England%20Joint%20Local%20Transport%20Plan%20Nov%202018.pdf>

and the consultation process can be found at:

<https://www.jointplanningwofe.org.uk/consult.ti>

The FOSBR Rail Plan 2018 is available as a campaign postcard downloadable from the FOSBR website; you can request printed copies from Tina by emailing general@fosbr.org.uk. It provides the backbone of the FOSBR response to JLTP4 - If anyone else would like to join the planning team please contact Tina Biggs. We need people good at presentation and also those with technical expertise in rail infrastructure and timetabling, people who are good at costing up rail projects and finally people who are happy to hand out our FOSBR Rail Plan postcards at stations and on trains to raise public awareness and muster public, business and political support.

Could these two events increase congestion?

Various factors will increase congestion in this area, besides a general increase in car ownership. Two recent events that may have a considerable effect on traffic volumes are the scrapping of tolls on the Severn bridges and a planned, further expansion of Bristol airport.

(a) Severn Bridge Tolls

Tolls on the Second Severn Crossing Bridge (now called the Prince of Wales Bridge) and the old Severn Bridge ended on December 17th and 19th respectively. The recent tolls have been £5.60 for cars and £16.70 for lorries and coaches for vehicles travelling into Wales - but now the crossings are free.

Generally businesses have welcomed the scrapping of the Severn Bridge toll which some considered to be a barrier to trade as well as reducing costs for commuters (which may save regular commuters up to £1,400 a year). It is predicted that the toll removal will give a £100M boost to the Welsh economy But what of the downside effects?

Even before the tolls were removed, house prices in South East Wales had been climbing rapidly. Average house prices have already risen faster in the two Welsh Severnside towns of Chepstow and Caldicot than in any other UK town as more and more people decide to commute between the Bristol conurbation (with its very high property values) and the relatively cheaper property across the Severn. Locals are concerned that south Monmouthshire could become "gentrified" and make buying a house "extremely difficult"

for those who have grown up in the area. There are fears local roads and services like doctors and schools will not be able to cope with the "extra pressure" on infrastructure.

At present, the two bridges see 25 million journeys across the Severn every year. The UK Government has estimated that toll removal could see **traffic rise by six million more vehicles a year** which could increase congestion further along the M4 at Newport's infamous traffic bottleneck, the **Brynglas Tunnels**.



Athena Pictures

The Welsh Government predicts toll removal will increase traffic by 20% over the M4 bridge - adding an extra 7% of traffic at the tunnels, a stretch already dealing with double its vehicle capacity. So what will happen?

There is considerable support, but also considerable opposition from environmental campaigners, for a M4 relief road - routed south of Newport and by-passing the Brynglas tunnels. A 13 month public enquiry ended on 28th March 2018 and a final decision is awaited. Even if this road is actually built it will take several years to complete and in the meanwhile traffic on the M4 corridor will become even more congested than at present. But besides that, what will be the result of the increased number of vehicles coming to Bristol - especially around Severnside/ Avonmouth? What plans are being put in place to mitigate this?

(b) Bristol Airport Expansion

In 2011, Bristol Airport was granted outline planning permission by North Somerset Council to expand capacity for 10 M passengers per year. In 2017, the airport in fact handled 8.2M passengers per year. Passenger demand is forecast to reach 10M

passengers per year by 2021; thereafter the numbers are projected to rise to 15M by mid-2030s and 20M by mid-2040s.

Because of this, the airport is seeking outlying planning permission for a growth beyond 10M passengers per year - to 12M. This would include:

- An increase in flights (by 10,420 per year) plus an increase in night flights
- Extensions to existing terminal building
- More parking facilities (including a new multi-storey car park for 2,150 vehicles) and increase to roads within the airport
- Extending the Silver Zone car park to provide 2,700 additional spaces and removal of seasonal restrictions - to permit all year-round use.
- Highway improvements, including junction improvements on the A38.

An outline planning application was submitted to N Somerset Council on 19 Dec 2018 (Application number: 18/P/5118/OUT). The application was submitted with 129 documents, 16 of them relating to the Transport Assessment.

In essence, the reports suggest that, with the planned road improvements (re-design of the A38, Downside Road and the A38 West Lane junctions), as regards the proposed development 'no significant effects are anticipated in relation to severance, pedestrian and cyclist delay, and amenity, fear and intimidations and accidents and road safety'. As regards drivers, 'the proposed works will reduce delay times for drivers by more than 90 seconds'! The report adds that, although the proposed development will only have limited effects, a number of additional mitigation measures are planned - such as a revised Workplace Travel Plan and Airport Surface Access Strategy (ASAS).

So the Transport Assessment makes all this sounds reassuring - that there will be no significant effect on transport congestion by increasing the passenger numbers from 10M to 12M! - except of course that there will be a large increase in the number of cars and other vehicles travelling to and from the airport. And, of course, the airport's own prediction is that passenger numbers will double again by the mid-2040s.

Business West has welcomed the plans, which it says will bring economic benefits to the region. But neighbouring parish councils have said this does not outweigh the impact on the environment and local residents. Hilary Burn, chair of the Parish Councils Airport Association, said the growth of the airport would impact "us all in different ways".

She added: "Over 85 per cent of all passengers travel to and from the airport by car but there are no plans for rail or mass transit in phase one, just a tweaking of the junctions at Downside and Winters Lane on the A38. A study for Bristol Airport's own Master Plan stated that with 12 million passengers, 40 per cent of all traffic on the A38 would be airport related leading to congestion spilling over to rural lanes and the A370. This would cause severe congestion and gridlock".

Bristol Mass Transit – What’s the story?

Carol Durrant

There have been many references to Bristol mass transit schemes in recent transport planning documents and political announcements. FOSBR need to understand the options as any mass transit system will affect local rail by providing alternative travel options, through interchange opportunities, and possibly by sharing existing rail corridors. The Bristol Transport Strategy was out for consultation until November and went into some detail about ALV systems.

Automatic Light Vehicle (ALV):

These systems are in operation in Rennes, Turin, Toulouse, Lille, Taipei, and other cities outside the UK. Such systems are marketed as the backbone of the transport system in medium-sized cities such as Bristol.

Pros:

- Automated operation (no drivers) reduces costs and allows more frequent trains with very short headways, as often as every 60 seconds. This reduces crowding at stations.
- Short trains reduce costs as smaller tunnels and small stations can be used. This would allow the use of modern cheaper tunnelling techniques and prefabricated stations.
- The rubber wheels allow for tighter curves, and steeper gradients than conventional metro systems, which is well suited to Bristol’s topography.
- Sections of guideway can be elevated or run at a grade to reduce costs, although the system needs to be 100% segregated because there are no drivers.”

Cons:

- The segregation of ALV does allow faster speeds but can be obtrusive, requiring barriered-off tracks or elevated sections - difficult to imagine on local routes such as the Gloucester Road, Fishponds Road or Church Road.
- Tunnels are an alternative, but unlikely to be cost-effective, even for intermittent sections – tunnelling is expensive even with narrower bore. Both below-ground and above-ground running complicate accessibility through vertical separation.
- Unstaffed public transport is unpopular with the public.
- Finally, rubber-tyred vehicles produce toxic particulate pollution through wear on tyres and brakes (“Oslo effect”).



VAL, Lille

This was one of the options mentioned in the recent *Bristol Transport Strategy* which states that such a system could “cut peak journey times from Aztec West, Emerson’s Green and the airport to the city centre to under 25 minutes, with increased capacity and reliability with services every couple of minutes.” The cost is estimated at £3-4billion to build a system with three lines.

Bristol mayor, Marvin Rees, gave his “State of the City” address on 17th October 2018. Of mass transit he said the following:

“I announced ambitions for a new mass transit system for Bristol on this night last year. The first feasibility study was positive and we will get the results of the second more advanced study in December”. He went on to say that he was not thinking of a Bristol version of the London tube system but far simpler and cheaper systems which may not need rails or track - some automated systems around the world just run by following a simple white line painted on the road. He added "But we are clearly planning for a segregated, mass transit system using tunnels and infrastructure appropriate for Bristol’s future needs.”

Optical Guided Bus (OGB):

These are rubber-tyred vehicles (fossil fuel, biogas or electric powered) that follow on-street painted lines, often with articulated vehicles. Rouen offers an example of optical-guided busway, but Rouen also has a light rail system.

Pros: “Optical tracks” are cheap to install and extend; OGB vehicles can run in mixed traffic and steer off the optical track to housing or industrial estates. Whilst steering is automatic, a driver is still present so the segregation barriers aren’t as necessary as ALV.

Cons: Can struggle in wet or icy weather. In comparison to ALV, vehicles run more slowly and at lower frequency and there are additional costs of employing drivers. Also produce toxic particulate pollution through wear on tyres and brakes, on road.



OGB Rouen

In November the West of England Combined Authority (WECA) issued their Draft Joint Local Transport Plan Version 4 (JLTP4). Key excerpts regarding mass transit are as follows:

A feasibility study is underway to explore all options for the greater Bristol area, both above and below ground, to deliver a mass transit network on four core corridors:

- Bristol city centre via south Bristol to Bristol Airport
- Bristol city centre via north Bristol and Southmead Hospital to Cribbs Causeway
- Bristol city centre to East Fringe and east Bristol
- Bristol to Bath
- also Bath corridors and the city centre (under a separate feasibility study)

As a ball park figure, the cost of a four-line mass transit network would be approx £2.5bn and take 10-20 years to deliver. If there is a need to deliver some sections underground, the cost will rise further.

Trams and Light Rail Transit (LRT):

Trams typically run on tracks along public urban streets, some include segments of segregated right of way which reduces lanes available to general traffic. Trams are usually powered by overhead electrical power, fed by a pantograph sliding on an overhead line. They can have dual power systems, electricity in streets and diesel on urban fringes. Tram vehicles are shorter than heavy rail trains. Metal wheels have low rolling resistance so produce less particulate pollution.

Light Rail Transit is a type of fast tram system, e.g. Croydon, where there is a mixture of on-street track shared with other traffic, dedicated track in public roads, and off-street track consisting of new rights-of-way and former railway lines.

Trams/LRT systems are expensive but proponents claim they have the lowest whole-life costs of any mass transit system. True tram/LRT systems can be transformational by re-designing streets to give public transport the advantage over the car. Electric trams are iconic, visible, zero-emission, free from “Oslo effect” pollutants and passenger numbers usually beat expectations, e.g. Edinburgh.



Tram Edinburgh



LRT Croydon

Bus Rapid Transit (BRT):

WECA's JLTP4 describes MetroBus as an emerging Bus Rapid Transit system, complementary to any other mass transit system that is decided upon. Bristol already has 3 Metrobus routes (M1, M2, M3) and seven other routes are being considered.



MetroBus Bristol in guided section

The Bristol MetroBus certainly has many of the features of a true BRT system but falls short in some ways - for instance a lack of contiguous bus lanes leads to delays during congestion such as on the M32 and around Temple Meads.

BRT systems are cheaper to build than LRT and have flexibility in route planning. For instance the airport bus A1 now uses the Metrobus corridor as far as the A4174 ring road although

passengers cannot use that service for local journeys. However supporters of light rail argue that the operating costs of BRT are not necessarily lower than LRT. The typically larger light rail vehicles enjoy reduced labour costs per passenger. Furthermore, light rail vehicles have proven useful lifespans of forty years or more, as opposed to buses that often have to be replaced after less than twenty years.

Tram trains:

In October 2018, Transport Secretary Chris Grayling had meetings with WECA Mayor Tim Bowles and North Somerset Council leader Nigel Ashton about “widening the scope” of the work already underway to re-open the Portishead line. One possibility was tram trains.



Tram train, Sheffield- Rotherham

These are put forward as a way of cutting the cost of infrastructure. Any tram that runs, even partially, on national railway lines can be described as a tram train. In Manchester and Croydon trams run on **former** heavy rail lines. In Sheffield, the Sheffield-Rotherham tram pilot opened in October (3 years late, and £60m over budget) where the tram runs on a section of the national rail network **currently** in use by freight trains and also passenger trains. This “Karlsruhe model” resembles the route between Bristol Temple Meads and Portishead.

The key advantage that tram trains have is their routing flexibility. For instance in Bristol they could theoretically run off the main-line railway network onto street running on tramway rails through to the city centre. There is also the suggestion that existing local rail services could be made more frequent if tram-trains were introduced on these routes (through rolling stock cost savings).

There are tram train issues that need careful consideration:

- scheduling – local services have to fit around inter-city and regional services
- safety – ATP equivalent & heavier vehicle bodies that can share tracks with freight
- signalling - manual driver intervention likely needed as trains pass from tram network onto the main line network
- power – may need multiple electric voltages and the retro-fitting of overhead lines onto the existing network is likely to be expensive, e.g. the Portishead line has 4 tunnels
- platform heights – shared platforms (dual height) or exclusive platforms at shared stations
- new technology (in the UK) - Sheffield-Rotherham may iron out the difficulties in rail-tramway compatibility, e.g. new wheel profile

The references to tram trains here and in the JLTP4 indicate the underlying thinking that the tram train option would not just be for Portishead but would be the choice for the mass transit system across Bristol. Tram trains would be part-routed along existing heavy rail tracks until their routes diverge onto on-road tram running.

In summary:

Bristol City Council and WECA clearly have ambitious plans and there will be more clarity on mass transit when the feasibility studies are published. The mix of MetroBus (BRT), local rail and other mass transit in the local strategies is up for debate. The other mass transit on core (and more) corridors could take the form of ALV, OGB, LRT, tram-trains or variations upon these technologies.

Tram trains would have the most impact on the local rail network as they would share existing rail lines. If tram trains are the solution for Portishead, which many doubt, are they the right mode for the rest of the Bristol mass transit network? Having one transport technology can be an advantage in terms of rolling stock, depots and staff training but one solution may not be the best for all corridors.

Large swathes of Bristol are without adequate public transport provision and we have to remain open-minded about the infrastructure needed to achieve modal shift, improve air quality and reduce traffic jams.

More details on the mass transit technologies can be found on our website:

www.fosbr.org.uk

FOSBR ANNUAL GENERAL MEETING

You are cordially invited to the FOSBR AGM.

When: Friday 18th January 2019

Time: From 7 pm (for 7.15 pm start) until 9.15 pm

Where: Alma Church Hall, 29 Alma Road, Clifton, Bristol, BS8 2ES

Refreshments: Hot and cold drinks with snacks will be provided

Directions: The venue (Alma Church Hall) is c. 5 minutes walk from Clifton Down station. For entrance to the hall, walk 20 metres along St Johns Road from junction with Alma Road & look for FOSBR banner on the iron railings to the left.

Our keynote speaker will be **Graham Ellis – Regional Transport Campaigner**
"From Melksham to Minehead... with considerable Bristol region interest!"

Please note:

- If you wish to be nominated for any of the six Committee posts (Chair, Secretary, Membership Secretary, Treasurer, Campaigns Organiser and Press Officer), please give your nominations to Julie when you arrive.
- We will be pleased to collect membership renewals at the AGM. Individual membership is £8 (or £4 for concessions)

Suitable trains to get to meeting:

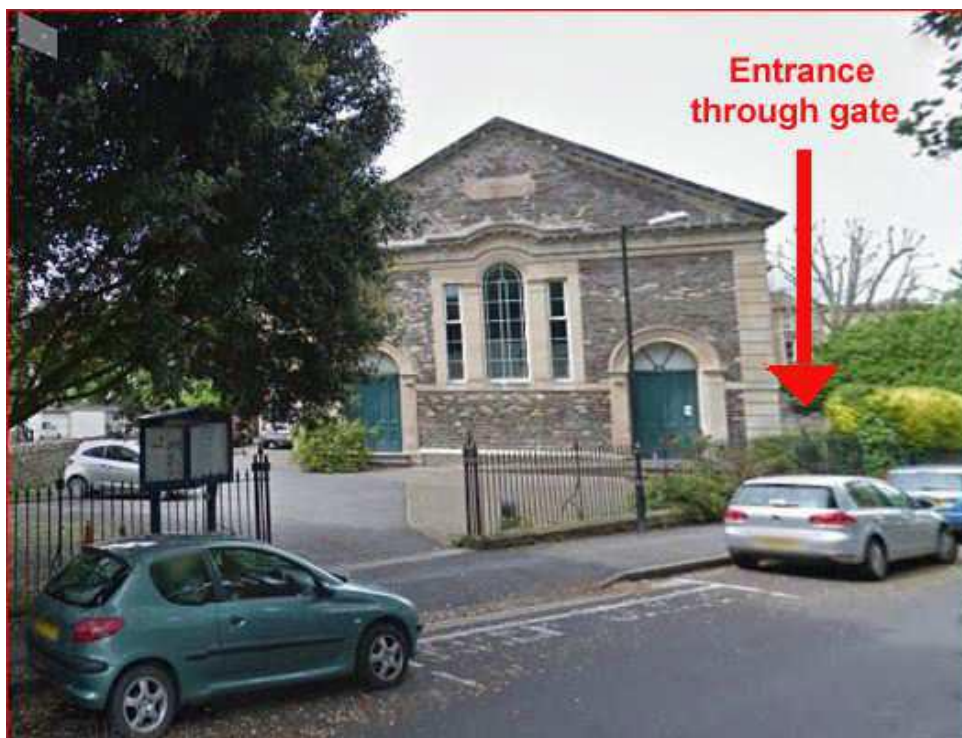
Leave Temple Meads at 18.03, arriving Clifton Down at 18.17 **or**

Leave Temple Meads at 18.46, arriving Clifton Down at 19.02

Suitable trains after the meeting:

Leave Clifton Down at 20.16, arriving Temple Meads at 19.02 **or**

Leave Clifton Down at 21.52, arriving Temple Meads at 22.07





A map of the venue

FOSBR 2019 Membership Subscriptions

Enclosed with this newsletter is a membership renewal form for the year (January to December) 2019. We hope that you will want to continue supporting FOSBR and, if so, please could you send the completed form plus subscription cheque or postal order to the address at the bottom of the form. You will receive a membership card (receipt) with the next newsletter after your subscription is received.

Next year we hope to simplify the renewal process by making an online form and PayPal payment method available to members. For this year, if you wish to pay by bank transfer, let me know (membership@fosbr.org.uk) and I will send you our account details. .

Best wishes for the New Year. Tony Lloyd (FOSBR Membership Secretary)

Our next newsletter will be in early summer 2019. If you have anything for the next newsletter (comments, photos, whinges, praise, poems, etc.), please send them in to us.

General enquiries: general@fosbr.org.uk

Facebook: www.facebook.com/FOSBR

Membership: membership@fosbr.org.uk

Twitter: www.twitter.com/FOSBR

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