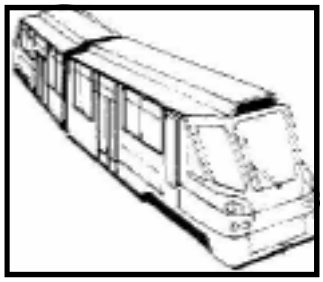


The Wensleydale Connection

ISSUE No 1 *A special issue of Parry News published by JPM Parry & Associates Ltd* September 2005

KEY ROLE FOR DALES IN TRANSPORT INNOVATION

Transport Innovation Fund application to support radical approach to railway operation

THE WENSLEYDALE RAILWAY in North Yorkshire has been identified as a suitable candidate for a series of innovations in public transport. A package of measures aimed at improving the economic and environmental performance of traditional railways will be the subject of a funding application to central government.

Signs are that the third term of the Blair administration is having to get to grips with transport. There is really no longer any option: if the race winners in the London Olympics are just the ones who emerge from the traffic jams, or the Office of the Deputy Prime Minister's Thames Gateway new towns just add to economically-damaging road congestion, it will be red faces all round.

On the railways, the era of Three-Dogs-One-Bone management is over. The new national route areas look suspiciously similar to the territories of the great railway companies of the 1930s. Control centres are being established where problems or priorities are worked out by people in the same room, trying to keep trains running rather than transfer blame and penalties to others. A single company, Network Rail, now operates the network for the benefit of the

passengers and freight which the train operators carry. Efforts are being made to control costs across the whole railway. Over the summer months of 2005, there has been a historic decision by the Wensleydale Railway to join forces with the 'Parry' companies – while also accommodating the aspirations and priorities of North Yorkshire County Council, the Yorkshire Dales National Park, and the lessors of the line: Network Rail. The WR's drive to preserve and extend rural lines using innovative measures to raise the support both of local people and international well-wishers is being associated with PPM's performance-enhancing and cost-saving approach being pioneered at Stourbridge in the West Midlands. Success at Wensleydale could transform the way that many rural lines are operated in Britain and abroad.

The race is now on to bring a far more innovative approach to the running of smaller, quieter rural and suburban lines. This will lead to the introduction of 'lightweighting' and improved energy efficiency of vehicles, simplified operations and much closer community involvement in local situations. The 'Wensleydale' and 'Parry' organisations are ready to respond to the challenge.

Opportunity spotted by Park officials, page 6

BRIDGING THE GAP AT NORTHALLERTON

FREIGHT AND CHARTER trains occasionally visit the Wensleydale Railway, so track, sleepers, bridges and crossing places remain in place between Leeming Bar on the A1 and the outskirts of the county town of Northallerton, coming within a mere 600 metres of the platforms at Northallerton railway station (see map). This gap can be closed by reinstating the chord of track to bring Wensleydale services to Northallerton instead of terminating six miles away at Leeming Bar. North Yorkshire County Council is currently looking into the possibility of running a shuttle bus service connecting to the station, high street and County Hall at a convenient transfer point, should it only be possible to extend Wensleydale Railway services to the town's outskirts.

The missing link between the Wensleydale Railway (top left) and central Northallerton

Also In This Issue...

The Wensleydale Connection

By John Parry

Comment

THE PROVISION OF a fixed rail connection from the end of current Wensleydale Railway train operations at Leeming Bar to the town of Northallerton sounds like very much a local issue, not figuring too highly among the major opportunities before the 'Parry' family of companies.

To rebuild what was taken away years ago, a rail line from the equally-modest western terminus at Redmire to connect to the remote station at Garsdale on the Settle-Carlisle line sounds like the dreams of the railway equivalents of Jeremy Clarkson-style petrolheads who think the five minute walk to the paper-shop justifies getting out the Aston Martin. *But please read on to consider the wider implications.*

The role of the railway mode is going through a revolution in Britain as well as elsewhere in the world. After World War II planners decided – correctly but controversially – that there were too many local railways because better roads and vehicles could enable people to make the same journeys more quickly and cheaply. Few envisaged the possibility that residential roads in which, at the time, only one household owned a car would change to the extent that there might be two cars outside each house, or that cars would be used to take children to school, families to the shops, husband and wife to work – or even to go and buy a newspaper.

Railway routes – whether still used, for freight only, in mothballs, or with the rails and sleepers removed – are beginning to look increasingly valuable for passenger transport as roads become more and more clogged with traffic.

Meanwhile, high speed main line railways and busy commuter lines dealing with thousands of passengers each hour are coming to be managed by systems similar to those used by airlines, with combined control centres staffed by the infrastructure operator and representatives of the train operating companies.

For local lines with light traffic to have to follow suit under Group Standards would obviously add costs to already heavily-subsidised operations and increase the clamour for further closures. Work is in progress to simplify the operation of such lines under the Community Railway programme. This began as a small private initiative, then gained the support of rural agencies such as DEFRA and the CPRE with the formation of the Association of Community Rail Partnerships (ACoRP), and in 2004 was adopted by the Strategic Rail Authority. Now, it has become embedded in national policy under new railway legislation with a special unit within the Department for Transport. All well and good – everyone now accepts the case for simpler operation on rural railways and quieter suburban branches, but nothing happens without the experience of *pilot* or experimental services.

There is already one of these on the brink of becoming established after years of negotiations and trials in the context of massive organisational changes in Britain's railways in the period 2001-2005. The first pilot is for the Stourbridge Town branch (see centre pages). This is a short shuttle journey of less than a mile lasting under three minutes each way, and is not typical of rural lines and short suburban systems which are predominantly 5-8 miles in length.

The Wensleydale Railway is every bit as much a pioneer as PPM and has been subjected to similar delays in decision making and funding due to circumstances outside its control. As described on the facing page and on page 7, the directors, supporters and volunteers have achieved the near impossible: seven-day-a-week services over 17 miles of railway through the North Yorkshire countryside, linking the communities along the route.

The next objective at Wensleydale, supported by the local authorities, is to forge the missing link at the eastern end of the railway between Leeming Bar and the nearby county town of Northallerton, which has a station on the East Coast mainline. PPM railcars have been identified as a potential mode to run this connecting service. And in the future, should the next 'impossible task' be achieved by rebuilding the line to Garsdale via the hugely attractive Yorkshire Dales market town of Hawes, there will be an opportunity for PPM's lightweight units to link this and the rest of the railway to the busy Settle-Carlisle line at Garsdale.

Wensleydale Railway officers say they need the PPM railcar – and PPM need the Wensleydale Railway to show the world the true potential of the Community Light Rail vision.

It all begins to make sense.

The route of the Wensleydale Railway

Garsdale Station on the Settle-Carlisle line

Northallerton station on the East Coast Main Line

WENSLEYDALE & PARRY DIRECTORS ANNOUNCE COLLABORATION

THE WENSLEYDALE RAILWAY first publicly indicated its interest in the concept of a light railcar powered by flywheel energy in Issue 23 of 'Relay', the official magazine of the Association, published in 1999. PPM was one among several rolling stock options which were being investigated at the time. As the commencement of public rail services in 2003 approached, the decision was taken to obtain what could be readily and cheaply obtained: 'heritage' diesel multiple units. The wish not to convey an old-style image but to be a modern system had to give way to the practicalities of what rolling stock was readily available. In the early months of the new Millennium, discussions took place involving a mainframe manufacturer, Clayton Equipment, who would have joined forces with PPM, but at the time it looked as if the German manufacturer Siemens would be able to produce a railcar which best met the Wensleydale Railway's needs. This has not however happened due to other orders.
Further contact was made, including a visit by two WR directors who visited the Chasewater Railway in 2004 to experience demonstration runs on the PPM 50 light railcar. The major advances made since they first encountered a PPM vehicle in 1999 at Bristol led to a recommendation to collaborate with the Parry companies to develop a larger, faster vehicle to suit the railway's needs.
In July 2005, the relationship was further consolidated following a meeting between Ruth Annison, Chairman of Wensleydale Railway plc, and John Parry (representing the 'Parry' companies) leading to a confirmation of the collaboration at the end of the month.
Profiles of the collaborating partners, page 7

RAILWAY'S STEP-BY-STEP APPROACH SEES AYSGARTH AS NEXT WESTERN DESTINATION

The Wensleydale Railway is re-establishing rail transport through the beautiful Yorkshire Dales

BY 2003, the Wensleydale Railway had negotiated a 99-year lease to operate its namesake branch of the national rail network in North Yorkshire and raised a million pounds from backers committed to this historic railway re-opening project. Train services began between Leeming Bar, half a mile from the A1, and the market town of Leyburn in the summer of 2003, and have since been extended to include both the larger regional town of Bedale and the current western terminus at Redmire, just short of the historic Bolton Castle and the popular visitor attraction of Aysgarth with its waterfalls and delightful landscape.
Once the line reaches Aysgarth, eyes will look further west to the 'jewel' of this part of the Yorkshire Dales: the charming riverside town of Hawes where time seems to have stood still since the trains stopped running 50 years ago – except for the fact that the thousands of visitors now have little option but to use their cars to get there. How much more pleasant to arrive by train!
The next western destination is almost within sight, with most land ownership and rights of way issues resolved, the station yard at Aysgarth secured and the signal-box restored. Beyond that, the task becomes more formidable – there are embankments and a river bridge needing reinstatement. But compared with the task undertaken by the Victorians who built the original line 150 years earlier, the objective is surely attainable.
How different it will be when the final destination is reached - the former junction station at Garsdale high in the moors and served by main line trains on the spectacular Settle to Carlisle line. Even this railway was once headed for closure until a committed lobby group achieved its reprieve in 1989. The project to reopen the Wensleydale Railway grew from the successful campaign to save the Settle-Carlisle line. Some of the same determined team are now at work recreating the 40 mile east-west connection from Northallerton on the East Coast Main Line to Garsdale on the Settle-Carlisle. This prize is attainable, particularly if technical innovation can succeed in bringing down both the capital and the operating costs of the Railway. Enter PPM.

FAREWELL TO CHASEWATER – FOR NOW

IN JULY 2003, the PPM 50 railcar needed to be moved at very short notice (just one day) from the Great Central Railway in Leicestershire, when vandals from the local estates who had been regularly trashing the exteriors of carriages had also, to our misfortune, discovered the Parry vehicle. There can be few organisations as responsive as the Chasewater Railway in the West Midlands and on hearing of PPM's predicament the General Manager, Steve Organ, made immediate arrangements to receive the vehicle and put it inside the headquarters compound at Brownhills West station. What was intended to be a brief stopover then turned into two years of activities, all of which have been entirely beneficial to the company's programme. The Chasewater Railway's two mile long line has been ideal for driver training, vehicle shakedown and demonstrations for visitors. Many distinguished people from far and wide – including Australia, Argentina, South Africa and Malaysia – have ridden on the PPM 50 railcar during its stay, as well as a galaxy of senior figures from Britain's transport industry.
And what next?
The convenience of the location and the facilities offered by the railway, within 20 miles of Parry Associates' base, and the flexible and co-operative attitude of the Chasewater Railway managers has made this an ideal resource for an R&D partnership.
The next big project for PPM is the development of the bogie-mounted passenger vehicle, particularly with reference to potential future needs of community railways. This work will need facilities for the development running of test beds and complete vehicles. One way to accommodate a need of the Chasewater Railway itself is for a special 'Permanent Way Vehicle', in effect a crew cab pick up truck on rails, which PPM may be able to create using the existing technology.
The amicable, informal partnership between the Parry companies and the Chasewater Railway has opened many possibilities to develop the important new sector of lightweight rolling stock for community railways and the export market. For the future there is even the prospect for the Chasewater Railway and PPM to join forces with local interest in promoting and executing the vision of a railway-reopening project – the former line from Brownhills to Walsall.

The PPM 50 railcar departs from Brownhills West on 24th August 2005

THE LONG MARCH TO STOURBRIDGE AND BEYOND

THE CONCEPT OF using simpler and less costly means of running rail services on short branches where patronage, complexity, and risk are all relatively low was initiated by the West Midlands Passenger Transport Executive - Centro - in 1993. A feasibility study was commissioned to look into how the strategically important but very short and simple Stourbridge Town branch might be operated with the type of technology conceived by Parry Associates two years earlier, at the time in basic proof of concept form. The Centro interest stimulated a research programme leading to the first standard gauge operating trials of the technology beginning in Bristol in 1998.

PPM Car 1: the first flywheel passenger vehicle built and tested by JPM Parry & Associates in 1991.

Car 4: the first PPM vehicle to be approved to carry the public at the specially constructed test track at Himley in the West Midlands in 1993.

Getting bigger: Car 6, with capacity for carrying 12 seated passengers, ran at Himley from 1992 until 1995 carrying tens of thousands of passengers.

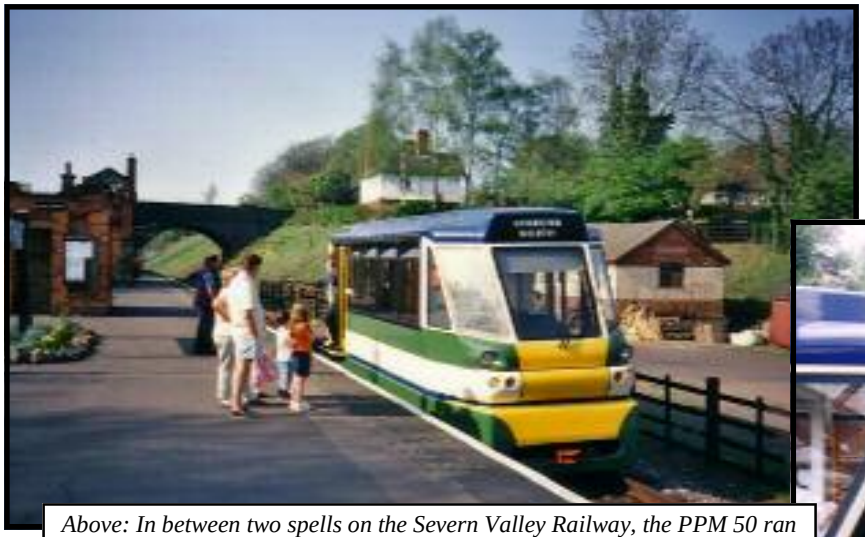
The first excursion on to a 'real' line: Car 7, a tram style version of Car 6, at the Welshpool & Llanfair Light Railway prior to providing demonstrations of the system in four city locations.

PPM 30 District Tram: approved for passenger carrying during demonstration services at the Welsh Highland Railway (pictured) and now providing short trips for visitors to the Cambrian Railways Society in Oswestry.

Fifty thousand fare-paying passengers were carried on the Bristol Harbour Railway in 1998-2001 using a PPM 35, described by its operator as an 'Electric Railbus'. The vehicle is now being used in a research programme at Wirksworth in Derbyshire.

Meanwhile, the process to introduce an experimental service on the national rail network at the Stourbridge Town Branch in the West Midlands had begun. A brand new 50-passenger vehicle was built and commissioned. With negotiations taking place in the difficult environment of the corporate collapse of the infrastructure company and other upheavals, three privately-owned standard gauge lines in the East and West Midlands provided facilities for training and demonstration services.

Left and below: PPM 50 Light Railcar providing short demonstration trips out of Kidderminster station on the Severn Valley Railway.



Above: In between two spells on the Severn Valley Railway, the PPM 50 ran in public service between Loughborough Central and Rothley on the Great Central Railway in Leicestershire. At the request of local schools a number of school special services were operated as an alternative to buses.

Right: Grammar school pupils board the light railcar.

In anticipation of the final approval, the railcar was permitted to undertake 90 route proving runs on the Stourbridge Town branch itself under Engineer's Possession.

PPM 50 MOVES TO NORTH YORKSHIRE

Shuttle service for six-mile section of line between Northallerton and Leeming Bar

FINAL PREPARATIONS are being made for the PPM 50 Light Railcar to run in demonstration service along six miles of the Wensleydale Railway during September. The section of line, not currently available to passengers, will show the potential for the railway to serve Northallerton. The vehicle was delivered to Leeming Bar yard on 25th August.

North Yorkshire County Council are assisting with the provision of a bus for the final stretch into the town, with a bus/rail interchange point near Romanby: currently the closest point of the Wensleydale Railway to the town centre and main line station.

As well as providing an opportunity for PPM technology to be showcased to a new audience in a new environment, the planned operation will permit the Wensleydale Railway to demonstrate the case for extending the line into central Northallerton as described on the front page of this newsletter.

The interchange involves the provision of a platform, for which Parry Associates has developed a new design based on the low-level boarding point for PPM operation at Oswestry (see page 8). HM Railway Inspectorate have been involved in approving solutions proposed to address issues such as boarding arrangements and level crossings.

As with previous PPM moves, the light railcar was moved from its previous home on the Chasewater Railway by Factory Plant Removals, a specialist road transport firm based in the West Midlands.

The railcar arrives at Leeming Bar on 25th August 2005

NETWORK RAIL SPEEDS PPM APPROVAL

Rail industry specialists engaged for accelerated vehicle acceptance task for breakthrough at Stourbridge

IN A RAPIDLY unfolding situation, the operation of public passenger services using a PPM 50 light railcar on the Stourbridge Town branch line of the national rail network has suddenly become very much closer. The provisional plan discussed with the LNW Route Director's office is for the PPM 50 railcar to move to Stourbridge in late September.

Key to the progress made have been Network Rail, the national rail infrastructure owner, and CORREL Rail Ltd, a specialist rail firm accredited as a Vehicle Acceptance Body (VAB).

Working with Network Rail's safety engineers, CORREL Rail has devised solutions to the process of approval in close co-operation with the private sector promoters of the project: the licensed train operator Pre Metro Operations Ltd and vehicle designer and constructor Parry People Movers Ltd.

The PPM concept of lightweight, fuel efficient, environmentally-friendly railcars is based on an evolution of light rail technology – as used in urban centres such as Manchester and Croydon – but adapted for non-electric heavy rail lines. However, acceptance of vehicles on to the Network Rail system (of which the Stourbridge Town branch is a part) has traditionally depended on meeting all of the strict requirements of Railway Group Standards.

Network Rail has proposed means for ensuring safe operation through appropriate measures – assessing the risks presented and the proposed safety systems in full accordance with the industry's safety responsibilities but without the application of requirements intended for controlling main line operations. This is to be achieved by a derogation from Group Standards recognising that the Stourbridge Town branch can be run separately from the rest of the network and most sources of incompatibility with existing equipment are therefore not present. Network Rail is currently guiding the deviation application through the industry's Subject Committees, with every sign of their positive and helpful engagement as a response to the strong lead being taken by Network Rail's safety engineers.

CORREL Rail is providing the necessary VAB scrutiny, including a safety examination of the PPM 50 railcar in order to issue a Certificate of Engineering Acceptance in the context of the specific circumstances at Stourbridge. Along with other evidence from PPM and Pre Metro Operations, the Network Rail Acceptance Board will then assess the proposed operation, taking full account of its particular nature.

The run-up to public operation is now following standard rail industry processes including the fixed timetables of the committees involved. A successful trial will support a case for expansion of the PPM lightweight rail vehicle concept to many other situations, including line re-openings such as the proposed extensions of the Wensleydale Railway.

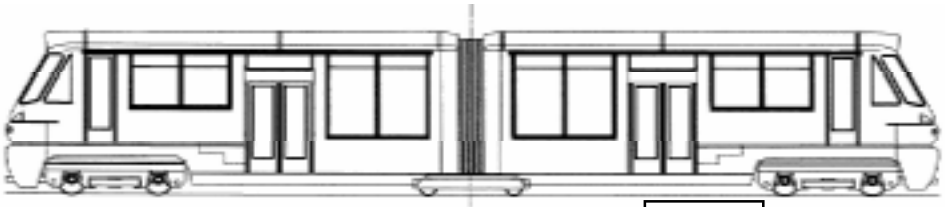
STRONG RESPONSE TO SYNDICATE ANNOUNCEMENT

ANNOUNCED IN July 2005, the syndicate to raise funds for construction of the first Community Railcar to operate in Wensleydale has generated considerable interest amongst potential supporters. PPM Ltd has received numerous enquiries from supporters of the project to design and build a full-size railcar to be used for tourist and commuter traffic in the Yorkshire Dales.

Building on the previous achievements in developing a performance specification and a new patent application for the PPM bogie, the new railcar will be based on an articulated design with high- and low-floor sections, with level access from platforms (see drawing below).

The vehicle will be fully accessible for people with pushchairs, heavy luggage and wheelchairs, with the platform-level centre section extending through the connection between the two halves. It will be suitable for operation on street tramway sections as well as on the existing route and extensions into the Yorkshire Dales National Park.

To receive information about joining the Wensleydale Community Railcar Syndicate, contact:
Parry People Movers Ltd
(Wensleydale Community Railcar Syndicate)
Overend Road
Cradley Heath
West Midlands B64 7DD, UK



NATIONAL PARK OFFICIALS SPOT PROSPECT FOR INNOVATION FUND SUPPORT

THE DEPARTMENT for Transport has issued guidelines for 'pump priming' support for innovative transport projects which could be applicable to transport schemes involving 'individual smaller towns...and other generators of traffic such as airports and national parks'. Yorkshire Dales National Park officials are acutely aware of the need to develop means other than private car of reaching and entering the park through which the trackbed of the former WR passes. They have accordingly forwarded details of the Transport Innovation Fund guidelines with suggestions that a bid might be prepared.

PROFILES OF THE COLLABORATING PARTNERS

THE WENSLEYDALE AND PARRY GROUPS have been in communication for six years and have always been aware both of the unique virtues of each other's ventures and of the great similarities in spirit. The words 'determined', 'creative' and 'resourceful' come to mind, as well as a clear vision that worthwhile achievements outweigh empty promises and that objectives - though ambitious - must be realisable using the means available. The contrasting profiles below highlight the differences and similarities.

FROM SETTLE & CARLISLE TO WENSLEYDALE

The Wensleydale Railway, in North Yorkshire, is rewriting the book on the provision of public passenger transport in rural areas of the UK. After starting the reopening campaign in 1990, in 2003 the Wensleydale Railway Association and the operating company Wensleydale Railway plc reached the historic point of reopening to passenger trains the first section of a 17-mile line running east to west through the North Yorkshire countryside. The Railway now links Redmire, Leyburn, Bedale and Leeming Bar. It is emphatically a modern public service, not a heritage operation. It runs passenger trains seven days a week and operated throughout the 2004-2005 winter: the first time the line had seen such a service since the 1950s.

A Wensleydale train passing through Bedale station

The attainments of the Wensleydale Railway include:

- securing a 99-year lease of the line from Network Rail;
- obtaining all five rail operating licences: infrastructure, passenger trains, freight trains, stations and depots - the only company in the UK to do so;
- obtaining a full safety case to operate under all five licences;
- securing a three-way agreement with the Office of Rail Regulation and English, Welsh & Scottish Railway to enable EWS to operate through freight trains from the main line on to the Wensleydale route.

The aim of the Wensleydale Railway is to provide a sustainable, modern transport service that will both assist the local economy and reduce the number of visitors to the area who travel by road. The existing 17-mile operation comprises less than half of its potential length from the town of Northallerton to Garsdale in the Yorkshire Dales National Park. When the full 40-mile route is restored it will link with the intercity rail network at Northallerton and the Settle-Carlisle railway at Garsdale. It will provide a commuter route into Northallerton, transport between rural communities, a means for visitors to access the National Park and other attractions, and a way for everyone to make journeys that connect Wensleydale to the national rail network. The Railway's directors and their team have successfully motivated support both locally and nationally in their fight to re-establish rail transport in Wensleydale. Supporters and shareholders are spread around the UK and abroad, while in the area through which the line runs the local authorities and communities, as well as the Yorkshire Dales National Park Authority, have become enthusiastic backers of the project.

FROM HUMAN SETTLEMENTS TO HUMAN TRANSPORT

JPM Parry & Associates Ltd ('JPA') is an engineering and design development company founded by John Parry in 1974. Based in the Black Country of the West Midlands, the firm specialises in engineering solutions which are simple, logical, robust and affordable in their intended markets. JPA is the originator of the Parry People Movers concept - it holds the intellectual property and constructed the whole series of prototypes, since 1992 as subcontractor to PPM Ltd. The company has won a number of awards for its engineering designs, especially for its equipment for the manufacture of building materials, while the work on light rail has already won a Millennium Product award for PPM. JPA works with a small design team and prototype workshop in Cradley Heath, with support from a network of associates and a local supply chain of manufacturers.

The work of JPA and its associated firms has always focused on very tangible, even solid, items such as bricks and tiles and the buildings they construct, particularly in parts of the world which had no previous manufacturing tradition. Parry's robust, affordable, locally-based machines have been the essential tool for the creation of whole new industries in a score of tropical developing countries. In every case, modest technical advances in materials, function and ergonomic design have transformed the utility of the system and have set standards for the industry.

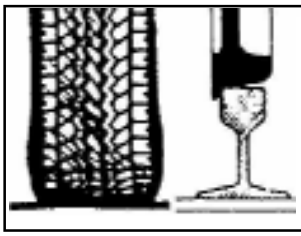
With whole new urban settlements including public buildings arising out of JPA concepts, it is perhaps unsurprising to have turned to the next great problem to solve: making the transport of people more affordable. The Wensleydale project is an entry point - an opportunity to show that the enduring demand for rail transport can be met on a tight budget.

Parry technologies are in use in over 50 countries worldwide including Africa, Asia, Latin America and the Pacific.

Above: examples of the 1,500 school classrooms being constructed in Malawi using machines designed and made in the UK by Parry Associates.

Below: the Koma Rock development near Nairobi in Kenya.

THE TECHNICAL AND ENVIRONMENTAL CASE FOR USING PPM RAILCARS AT WENSLEYDALE



Steel wheel on rail:
- *Less friction;*
- *less pollution;*
- *less space.*

The choice of rail

NOWADAYS THERE IS an increased wish to travel by rail, even when the same journey costs somewhat more. Road travel is associated with greater risks: harmful air pollution, injury due to accident and, of course, delays due to traffic congestion. Many new urban light rail passengers previously made the same journey by car, and commuter railways are having to increase services. There is growing pressure to reopen closed rail lines. Rail technology is an important tool in the government's policy of trying to reduce the use of cars for routine journeys.

The environmental benefits of rail include less take up of ground space – a railway being much narrower than a highway. The steel rails cause far less contamination of ground water than do the dirt and dust run-off from road surfaces, and the rolling friction is less.

Downsizing and 'lightweighting'

If full of passengers at peak times, a train is an energy-efficient mode, but with a weight typically in excess of 80 tonnes with large diesel power units running under the floors of each carriage, operators realise that there are situations where a smaller, lighter vehicle would be more appropriate. Parry People Movers technology has reintroduced a concept which showed great promise in the 1950s, but became one of the casualties of the railway closure programmes: small lightweight railbuses built in Britain and Germany which carried over 50 people and weighed under 12 tonnes. Such rail vehicles are now needed more than ever.

Regenerative braking for fuel economy

In a simple but effective 'hybrid' arrangement, PPM vehicles use very small automotive engines, powered by LP gas, which are powerful enough to sustain line speed. By the use of supplementary energy stored in the flywheel for the highest power-consuming part of the cycle (acceleration), the power available from the small and lower fuel-consuming engines can be boosted to more than double. As the vehicles descend hills or slow down when approaching stations, energy is recovered by the flywheel – brakes hardly need to be used – resulting in a huge efficiency gain.

The improvement in energy performance from downsizing, lightweighting and the hybrid driveline arrangement will be spectacular. Each passenger will be carried with one quarter of the fuel used by more conventional vehicles, whether bus or train.

As far as the local environment is concerned, in both countryside and town people will appreciate the low noise, lack of fumes and general cleanliness of gas/flywheel hybrid rail vehicles.

1950s diesel railbus

PPM railcar at speed

A frugal friend to the environment – the energy storing flywheel

TEMPORARY PLATFORM FOR PROPOSED TRIAL

Springwell Lane: location for the bus interchange platform

BECAUSE THERE IS at present no provision for boarding trains at the Northallerton end of the Wensleydale Railway, a platform is needed for the bus/rail interchange for the September 2005 trial (see page 6).

Parry Associates provided a design based on the temporary platform arrangement, approved by HM Railway Inspectorate, for the Cambrian Railways Society to operate a PPM 30 District Tram at their base in Oswestry.

A model of the proposed PPM articulated Community Railcar to provide clean, green transport on revived rail lines such as the Wensleydale route.

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