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# North Somerset Council Local Development Framework

## Sites and Policies Development Plan Document

### Evidence Paper Re-opening Portishead Railway Line and Options for the Location of Portishead Railway Station

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## **Evidence Paper Policy Reference PH3**

### **Re-opening Portishead Railway Line and Options for the Location of Portishead Railway Station**

#### **1. Overview of the Portishead to Bristol Transport Corridor**

The Portishead to Bristol corridor (A369) suffers congestion and journey time reliability problems. This not only causes delays and lost productivity for car drivers and goods vehicle operators but also presents a major hurdle for providing an attractive public transport mode along the corridor. The problems and context of the A369 corridor are summarised as:

- The A369 is the only transport corridor directly linking Portishead with Bristol which is just 10 miles to the east.
- The capacity constraints on the A369 are exacerbated further by the fact that the A369 crosses junction 19 of the M5. Junction 19 of the M5 is one of the busiest parts of the M5 with the Avonmouth Bridge immediately to the north towards junction 18.
- The A369 continually suffers from the knock on effects of incidents on the M5 with traffic high volumes of traffic over spilling onto a constrained local road corridor with very few alternative route options.

This lack of transport network resilience and limited travel choices could be addressed by utilising the heavy rail corridor between Portishead and Bristol which is a strategic transport network asset and re-instating passenger train services. The objectives of re-opening the Portishead railway line for passenger train services are to:

- Reduce traffic congestion on arterial roads and reduce journey times for commuters and business to and from Bristol, supporting economic growth,
- Improve transport network resilience through the utilisation of a strategic transport alignment, which is independent from the highway network,
- Deliver a sustainable transport corridor and improve air quality

The project will also:

- Assist in the delivery of wider social wellbeing and quality of life objectives,
- Provide through rail services from Portishead to destinations beyond Bristol Temple Meads, across the sub-region, and
- Form the basis of a medium to long term sub-regional programme of rail projects to deliver a major uplift to the local the local rail network offer.

The project would increase the UK's passenger rail network by 10 miles and connect an additional 30,000+ people to the network. There is a great amount of interest and support for the project within the local community, based on the frequency with which the project is raised positively by business, members of the public and community organisations, to the council.

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## 2. Overview of the Project

The Portishead rail branch line was closed in 1964 as part of the Beeching cuts. In 2002 a major part of the line was reopened between Royal Portbury Dock and Bristol as a freight only line. This project involves re-instating the remaining 4 miles of track between Portishead and Pill and upgrading the branch line infrastructure to meet passenger train standards, and providing sufficient line capacity to enable both passenger and freight train to operate to the required service patterns.

Re-opening the Portishead rail branch line now forms part of a larger sub-regional project known as Greater Western Metro Phase 1. GW Metro Phase 1 includes half hourly train services for the Severn Beach line, local stations between Bristol Temple Meads and Bath Spa and the reopened Portishead line. In addition there is a wider programme of local rail schemes, also being taken forward by the four West of England councils; North Somerset, Bristol City, South Gloucestershire and Bath & North East Somerset. GW Metro Phase 1 is being led by North Somerset Council on behalf of the West of England councils.

## 3. Brief History of the Project

- 1964 Line was closed
- 2002 Line partly re-opened for freight trains only between Parsons Street junction and Portbury Dock
- 2005 Portishead Quays Master plan - identified location for station (option 1)
- 2006 Joint Local Transport Plan 2 - policy basis and stakeholder support for taking project forward
- 2006 North Somerset Replacement Local Plan - safeguarded disused railway alignment between Portishead and Pill
- 2008 Project feasibility study by consultants Halcrow
- 2010 Engineering feasibility by Network Rail GRIP3 Option Selection
- 2011 Joint Local Transport Plan 3 - policy basis, programme prioritisation and stakeholder support for taking project forward
- 2011 Sub-regional rail conference - project selected by over 70 delegates as 2<sup>nd</sup> highest rail priority for delivery
- 2011 Sub-regional rail study recommends combining Portishead rail project into the GW Metro project with it included in GW Metro Phase 1
- 2012 Joint Transport Executive Committee endorse including re-opening Portishead line in GW Metro Phase 1 and response to GW Franchise for its inclusion in franchise specification as a priced option
- 2012 Department for Transport confirm the inclusion of GW Metro Phase 1 as a priced option in GW Franchise
- 2012 Governance and mobilisation of sub-regional rail programme and identification of resources for mobilisation of GW Metro Phase 1 project

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#### 4. The Safeguarded Alignment

The alignment has been subject to local planning polices for many years to protect encroachment of development that would prevent the line from being re-opened. The only location where development has created an obstacle to the re-opening of the line is at Quays Avenue, which is a new road crossing over the railway alignment. At the time of the master planning of Portishead Vale development, the design standards for road easements across railway branch lines allowed for level crossings. However, the rail industry design standards have since changed and level crossings are no longer acceptable to Her Majesties Railway Inspectorate. Therefore a road over rail bridge will be needed in order for the railway line to serve Portishead town centre (station location option 1 only).

#### 5. Timescales Taking Forward the Project as part of GW Metro Phase 1

late 2012 - 2015	Scheme Case and Powers to Build and Operate
2015 - 2016	Detailed Design and Scheme Procurement
2016 - 2017	Construction
late 2017 / early 2018	Scheme Opening and Commencement of Train Services

#### 6. Options for the Location of Portishead Railway Station

While a site for the Portishead railway station was identified on Harbour Road as part of the Portishead Quays master planning, the delivery of a station at this location has a number of challenges and there is now a need to review the merits of this location and consider options for other locations.

There are a wide range of factors that need to be considered in respect of identifying the best location for a railway station, these include the transport network, the environmental impact, the strategic land uses both current and future use as set out the councils Core Strategy and wider community considerations. Furthermore the site must also be able to meet technical specifications, accessibility regulations and safety requirements of rail industry and national legislation.

We have commenced initial analysis on the merits and impacts of alternative station locations. Further more detailed analysis will be needed, as the project is taken forward. There are broadly eight high level transport criteria relevant to selecting the location for Portishead railway station:

1. walking and cycling catchment and access,
2. highway access,
3. car parking provision and bus interchange facilities,
4. the extent of supporting infrastructure required for each location eg highway bridges, pedestrian bridges, new highway accesses etc
5. likely wider environmental impact
6. fit with project objectives
7. overall cost of station location
8. EQIA considerations

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We have used the above criteria to identify and compare three short listed locations for Portishead railway station, as follows:

Option 1 - Town Centre location on Harbour Road. Provision for 100 car parking spaces has been made adjacent to the station site. This option requires the construction of a new road bridge over the rail alignment at Quays Avenue. This option also includes provision for a footbridge south east of Trinity Anglican Methodist Primary School. This station site is approximately 0.3 km from the town centre.

Option 2 – Peripheral Town Centre location on Quays Avenue. There is space for at least 200 car parking spaces on land west of Quays Avenue. This option does not require a new road bridge at Quays Avenue. This option also includes provision for a footbridge south east of Trinity Anglican Methodist Primary School. The remaining length of redundant track bed to the town centre would be used to provide a high quality ‘Gateway’ shared use pedestrian/ cycle path. The ‘Gateway’ path would have the effect of extending the western pedestrian entrance of the station closer to the town centre. The rail alignment here is 15 to 20 meters wide, so there is considerable potential to create a very attractive public realm enhancement as well as serving as a functional pedestrian/ cycle ‘Gateway’. A new pedestrian / cycle crossing on Quays Avenue (Toucan crossing or similar) would be provided to give a through route between the station and the ‘Gateway’ path and car park. There is also potential to create a wider station forecourt/frontage using a small parcel of land adjacent to Quays Avenue, which is currently part of the Pumping Station yard. This station site is approximately 0.7 km from the town centre.

Option 3 – Edge of Town location on land north of Moor Farm. There is space for at least 200 car parking spaces on land adjacent to the railway station site, together with a new highway access from Sheepway. This option does not require a new road bridge at Quays Avenue or provision for a footbridge south east of Trinity Anglican Methodist Primary School, however it would require a new highway access and link road from Sheepway. This option would operate more like a ‘Parkway’ station than a conventional station, due to its edge of town location. This station site is approximately 1.3 km from the town centre.

Table 1 below sets out a high level comparison of the three station location options for Portishead Rail station.

Figure 1 below shows a map of the three station location options for Portishead Rail station.

We are seeking feedback as part of our Sites and Policies DPD Consultation Version, on all three station location options, to inform decision making on which location is best overall for Portishead. Please refer to the front of the DPD document on how to provide feedback.

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Table 1. Comparison of the Three Short Listed Locations for Portishead Railway Station

	<b>Walking &amp; Cycling Catchment and Access</b>	<b>Highway Access</b>	<b>Car Parking Provision &amp; Bus Interchange</b>	<b>Extent of Supporting Infrastructure Required</b>	<b>Likely Wider Environmental Impact</b>	<b>Fit with Project Objectives</b>	<b>Overall Cost of this station location</b>	<b>EQIA considerations</b>
<b>Station Location Option 1</b>  Town Centre location on Harbour Road	<p>Large catchment of housing within 800m radius of station location. Any potential re-development of Old Mill Road Industrial Estate could improve access to town centre from station.</p> <p>This station site is approximately 0.3 km from the town centre.</p>	<p>Relatively good highway access via Harbour Road, however requires a road bridge at Quays Avenue.</p>	<p>Provision for 100 car parking spaces has been secured as part of the Quays development however this is unlikely to be sufficient to cater for the forecast passenger demand.</p> <p>Bus stops are located on Harbour Road and there is potential for buses to operate via the station car park.</p>	<p>This location requires a new road over railway bridge at Quays Avenue and one pedestrian bridge east of Trinity school.</p>	<p>The road over railway bridge would entail replacing the existing roundabout at Quays Avenue, Phoenix Way &amp; Harbour Road, with an elevated signal controlled T junction. This would have a visual and environmental impact on a number of residential properties adjacent to Quays Avenue and retirement apartments on Harbour Road.</p>	<p>This option would meet all the project objectives to reduce congestion, improve transport network resilience and deliver a sustainable transport corridor.</p>	<p>The estimated cost of the road bridge is £6m. The estimated cost of the pedestrian bridge ranges from £500k to £1.5m depending upon whether it includes mobility impairment ramps.</p>	<p>The road over railway bridge would mean the roads and pavements would entail gradients that some people may find more difficult than the current layout.</p>

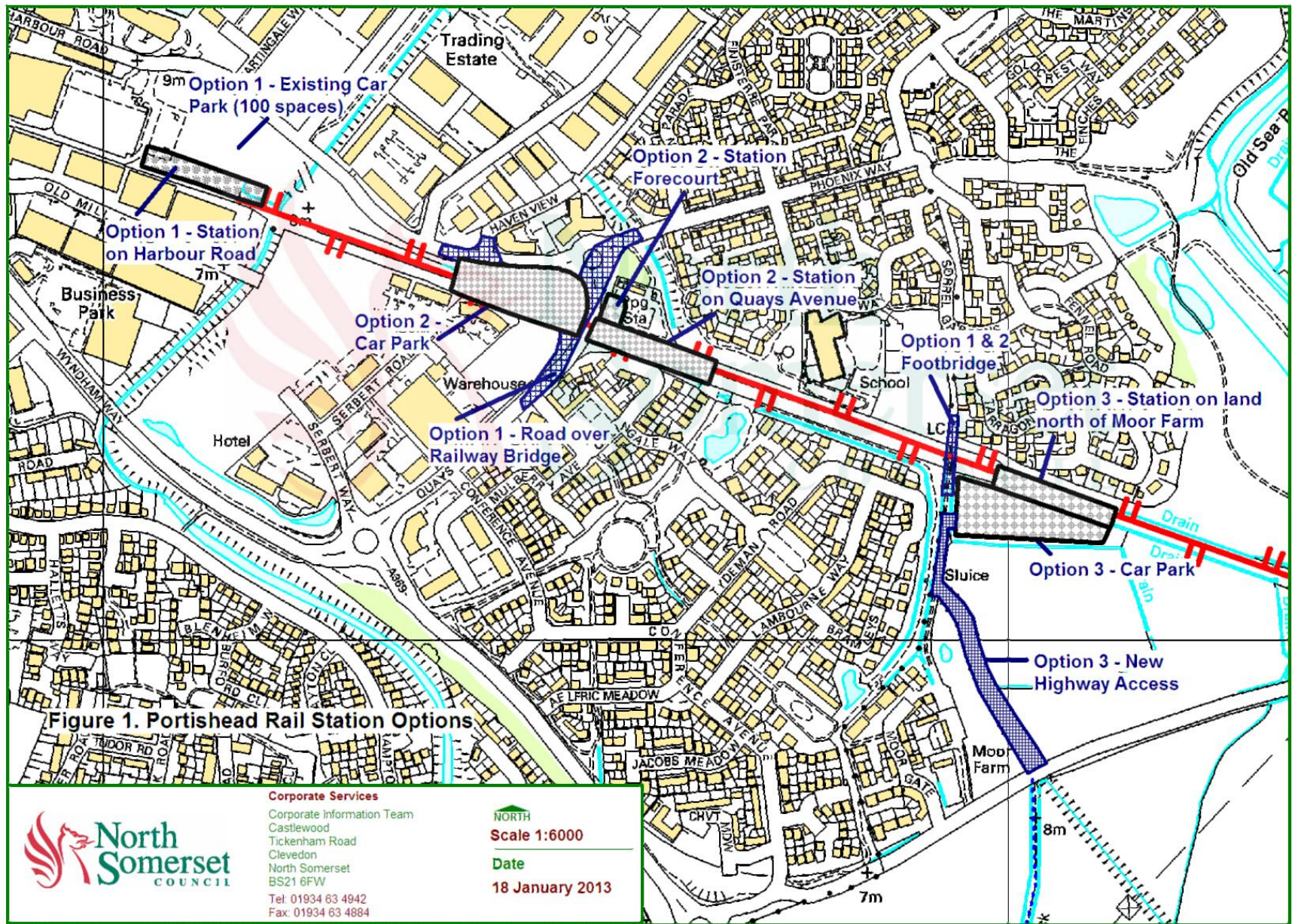
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	<b>Walking &amp; Cycling Catchment and Access</b>	<b>Highway Access</b>	<b>Car Parking Provision &amp; Bus Interchange</b>	<b>Extent of Supporting Infrastructure Required</b>	<b>Likely Wider Environmental Impact</b>	<b>Fit with Project Objectives</b>	<b>Overall Cost of this station location</b>	<b>EQIA considerations</b>
<p><b>Station Location Option 2</b></p> <p>Peripheral Town Centre location on Quays Avenue</p>	<p>Large catchment of housing within 800m radius of station location.</p> <p>The remaining length of redundant track bed to the town centre would be used to provide a high quality 'Gateway' shared use pedestrian/ cycle path. The 'Gateway' path would have the effect of extending the western pedestrian entrance of the station closer to the town centre. The rail alignment here is 15 to 20 meters wide, so there is considerable potential to create a very attractive public realm enhancement as well as serving as a functional pedestrian/ cycle 'Gateway'.</p> <p>This station site is approximately 0.7 km from the town centre.</p>	<p>Good highway access via Quays Avenue / Harbour Road, and good access from both directions via Wyndham Way.</p>	<p>There is space for provision of at least 200 car parking spaces. A pedestrian crossing would be needed on Quays Avenue to link the car park with the station.</p> <p>There are bus stops on Quays Avenue and there is potential for buses to operate via the station car park or from new bus stops / lay-bys near to the main station entrance.</p>	<p>This location requires a high quality 'Gateway' shared use pedestrian / cycle path, a new car park on land west of Quays Avenue, a new pedestrian / cycle crossing on Quays Avenue (Toucan crossing or similar) and one pedestrian bridge east of Trinity school.</p>	<p>This option does not require a road over railway bridge, therefore it would have a more limited environmental impact on Quays Avenue, in comparison with option 1.</p> <p>The need for a new 200 space car park would however result in some environmental impact.</p> <p>The proximity of the station to housing could result in some localised environmental impact, however there is potential to design mitigation measures reduce these impacts.</p>	<p>This option would meet all the project objectives to reduce congestion, improve transport network resilience and deliver a sustainable transport corridor. While the station location is not as central as option 1, this option still has a very high walking catchment.</p> <p>Access to the town centre could be enhanced by the provision of a high quality 'Gateway' shared use pedestrian/ cycle path on the remaining length of redundant track bed.</p>	<p>The estimated cost of the 'Gateway' shared use path is £250k. The estimated cost of a new car park is £850k. The estimated cost of the Toucan crossing is £50k. The estimated cost of the pedestrian bridge ranges from £500k to £1.5m depending upon whether it includes mobility impairment ramps.</p>	<p>No major changes are needed to the road layout, other than a new access to a new car park west of Quays Avenue. The station car park and station platform would meet all statutory accessibility standards.</p>

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	<b>Walking &amp; Cycling Catchment and Access</b>	<b>Highway Access</b>	<b>Car Parking Provision &amp; Bus Interchange</b>	<b>Extent of Supporting Infrastructure Required</b>	<b>Likely Wider Environmental Impact</b>	<b>Fit with Project Objectives</b>	<b>Overall Cost of this station location</b>	<b>EQIA considerations</b>
<p><b>Station Location Option 3</b></p> <p>Edge of Town location on land north of Moor Farm</p>	<p>More limited catchment of housing within 800m radius of station location. Approximately 60% of the 800m radius is green belt - open fields. This station site is approximately 1.3km from the town centre, if the remaining length of track bed is used as a pedestrian path. This distance is beyond a reasonable walking distance for many people.</p>	<p>Highway access could be provided via Quays Avenue using the rail alignment to the station, however this could prevent any future extension of the line into the town centre. A new highway access could be formed off Sheepway.</p>	<p>There is space for provision of at least 200 car parking spaces, either on the rail alignment or on land north of Moor Farm.</p> <p>Additional bus stops could be provided on Sheepway and there is potential for buses to operate via the station car park.</p>	<p>This location requires a new car park and a new highway access and link road from Sheepway.</p>	<p>This option would entail locating the station, station car park and highway access in the Green Belt and would result in some environmental impact. This option would require a sequential test and robust evidence to support a case for development in the Green Belt</p> <p>The proximity of the station to housing could result in some localised environmental impact, however there is potential to design mitigation measures reduce these impacts.</p>	<p>This option would not fully meet all the project objectives to reduce congestion, improve transport network resilience and deliver a sustainable transport corridor.</p> <p>This option does not provide easy access to and from Portishead Town centre. The walking catchment of the station is relatively poor, thereby access for the majority of people would be via a car trip, bus or cycle. This option would operate more like a 'Parkway' station than a conventional station, due to its edge of town location.</p>	<p>The estimated cost of a new car park is £850k. The estimated cost of the new highway access and link road is £1m.</p>	<p>No major changes are needed to the highway layout, other than a new highway access and link road from Sheepway and a new car park. The station car park and station platform would meet all statutory accessibility standards.</p> <p>The edge of town centre location would limit its accessibility and usability for some people, particularly those with mobility impairments.</p>





**Fig 1. Map of the Three Station Location Options for Portishead Railway Station**

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