**WELSH GOVERNMENT LOCAL TRANSPORT CAPITAL GRANTS FY2021-22**

**APPLICATION FORM**

**LOCAL TRANSPORT FUND, RESILIENT ROADS FUND AND ULTRA LOW EMISSION VEHICLE TRANSFORMATION FUND**

*Local Authorities shall complete one form per scheme. A scheme may comprise a single project or package of associated projects*

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| **Local Authority** | Vale of Glamorgan Council |
| **Scheme Name** | Dinas Powys Transport Network |
| **Scheme Priority Rank Number** | 2 (Joint) |
| **Existing or New Scheme** | Existing |
| **Grant (please select one)** | Local Transport Fund / Local Transport Network Fund / Resilient Roads Fund / Ultra Low Emission Vehicle Transformation Fund |
| **Date of Scheme** | Start April 2017 Estimated Completion Unknown at this stage |
| **Funding required for 2021-22** | £470,000 |
| **Project Manager Contact Name** | Kyle Phillips |
| **Contact Telephone** | 02920 673130 |
| **Contact email** | kwphillips@valeofglamorgan.gov.uk |
| **Authorised by (e.g. Head of Finance or Transport Services)** | Name: Emma ReedJob Title: Head of Neighbourhood Services and TransportSignature: cid:image003.jpg@01D169A2.17DA5CA0 |

**WELTAG CHECKLIST**

1. Which WelTAG Stages have you completed? Please tick all that apply.

X

Stage 1 Stage 2 Stage 3 Stage 4

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| For packages please list each project below and state the WelTAG Stages completed for each project:n/a |

1. What level of **risk** is your study? Please tick one (See WelTAG page 34 for definitions).

X

Low Medium High

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| For packages please list each project below and state the level of risk for each project:n/a |

1. Who is or will be on your **Review Group**? Please give job title and department/ organisation representing.

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| --- | --- |
| Economic  | The Vale of Glamorgan Council including officers and local councillors |
| Social | The Vale of Glamorgan Council including officers and local councillors |
| Cultural | The Vale of Glamorgan Council including officers and local councillors |
| Environmental | The Vale of Glamorgan Council including officers and local councillors |
| Active Travel Expert | Sustrans, TfW |
| Others (please specify) | Welsh Government, Dinas Powys Community Council, Llandough Community Council, Barry Town Community Council, Cardiff Capital Region, Cardiff Council |
| Others (please specify)Transport | Cardiff Bus, Network Rail, New Adventure Travel, Easyway, First Cymru, Taxi/ PHV Association, Freight Transport Association, Road Haulage Association |

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| For packages, where there are different Review Groups, please list the projects below and provide information on who is or will be on the review group for each project:n/a |

1. What WelTAG Stages do you plan to have completed by the end of 2021-22? Please tick all that apply

X

Stage 1 Stage 2 Stage 3 Stage 4

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| For packages, please list the projects below and state the WelTAG Stages completed for each project:n/a |

**SCHEME DESCRIPTION**

Please provide a brief description of the scheme. If your application is for a scheme that will take longer than a financial year to complete, we require a description of the whole scheme and the elements to be delivered in each financial year. Applications for a package of schemes should contain a costed list of the associated projects in priority order.

Attach A4 location maps, project(s) drawing(s) and any other supporting information separately.

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| OS GB grid reference: ST 15724 71350 | 51.434855 -3.2137688 |
| **Dinas Powys Transport Network**The scheme encompasses the consideration of potential options for improving the strategic transport network encompassing corridors from Biglis roundabout (Barry) through Dinas Powys, to Cardiff via Leckwith, Cogan and Penarth. The appraisal of options has been undertaken in accordance with the Welsh Government’s latest version of WelTAG (December 2017) including advice on the appraisal in relation to the Future Generations of Wales (2015) Act Well-being Goals.Following consideration of the scheme’s original WelTAG Stage Two study in October 2018, several recommendations were agreed by the Review Group for undertaking in a further study (entitled WelTAG Stage Two Plus) including:* Engagement with Network Rail to understand the constraints and potential costs associated with the construction of a bypass and junction in the vicinity of the railway tunnel.
* Undertake concept design, modelling and costing of suggested improvements to the Merrie Harrier junction to improve capacity.
* Commission strategic traffic modelling of the bypass proposals using the South East Wales Transport Model (SEWTM).
* Consider costs in context of the bypass scheme (Green route) and update the economic appraisal for the Green route.

The purpose of the additional work was to provide further information to inform the appraisal. The WelTAG Stage Two Plus study has since considered four options, including:* Option A | Bypass – Green Route
* Option B | Bypass – Pink Route
* Option C | Multi-modal
* Option D | Bypass (Green Route) and Multi-modal

The Council in conjunction with Arcadis Consulting are in the process of completing the WelTAG Stage Two Plus study. The recommended next steps for assessment, location maps, project drawings and other supporting information will be included as part of the WelTAG Stage Two Plus Outline Business Case (10033783-ARC-XX-XX-RP-TP-0001), together with the accompanying Impacts Assessment Report (10033783-ARC-XX-XX-RP-TP-0002). Once the reports have been finalised, the study will require the necessary approvals to progress to the next stages of appraisal, the scope/ content of which is outlined within this funding application.Consultation Stage 2 PlusThe Stage 2 plus report has been technically considered by the Review Group (January 2021) and changes as a result of this Review are due to be considered by the Council’s Cabinet in February/ March 2021. **Subject to agreement by the Council’s Cabinet a consultation on the Stage 2 plus report would be required to consider the issues** and that consultation reported back and considered by Cabinet in late Summer in order that a decision can be made as to whether to proceed to Stage 3.WelTAG Stage Three Full Business CaseThe purpose of Stage Three is to make a full and detailed assessment of the preferred option to inform a decision as to whether or not to proceed to implementation. Funding is therefore requested for a WelTAG Stage Three: Full Business Case for providing transport network improvements. The preferred option/s will address the transport issues affecting the Dinas Powys corridor and should include multi-modal solutions, including a fully compliant Active Travel routes and public transport enhancements. The study will take account of all existing commitments within the Vale of Glamorgan’s emerging LDP and Adopted LTP and process will encompass the tasks referred to in Stage Three: Full Business Case, WelTAG 2017. The work undertaken will as a minimum include objectives in line with the Well-being of Future Generations (Wales) Act 2015 and the Active Travel (Wales) Act 2013. Consultation, communication and stakeholder engagement will be carried out throughout. Subject to a decision on moving forward for further work on the recommended option, the tasks associated with the Stage Three study are anticipated to encompass:* Review the case for change, taking into further consideration the Welsh Government and Vale of Glamorgan Council climate emergency declarations and emerging impacts of Covid-19, as a minimum.
* Health Impact Assessment.
* Equality Impact Assessment.
* Environmental Impact Assessment (EIA), including a full programme of environmental surveys and investigations (to be agreed through the EIA scoping process).
* Landscape Architecture.
* Surveys (topographical surveys; condition surveys; ecological, environmental and arboricultural surveys; drainage surveys).
* Ground Investigation/ Report.
* Assessment of Cogan Railway Tunnel.
* Records searches (asset records, utility records).
* Land referencing (ownership boundaries and constraints).
* Updated SEWTM Modelling.
* Local junction traffic modelling.
* Designing out Carbon Workshop and Carbon Assessment and Climate Resilience Report.
* Design and Project Management.
* Sustainability (including lifecycle costing) and Scheme Cost Estimation.
* Economic appraisal, encompassing a value for money assessment and consideration of changes to TAG Databook v1.14 and the July 2020 Office for Budget Responsibility forecasts, which considers Covid-19 impacts. SEWTM Base Year and Reference Case should be used to test a refined scheme taking account of updated developments and transport schemes.
* WelTAG Stage Three Full Business Case report.
* WelTAG Stage Three Impacts Assessment Report.
* Stakeholder engagement and public consultation.

\*\* To date the WelTAG Stage One and Two studies has been funded by WG (£96k) and more recently Council has funded the Stage Two Plus study (£30k)Cost SummaryEstimated feasibility and design costs (excluding VAT) will be:* Consultation for Stage 2 plus: **£20k** 2021/22
* **£900,000** for the WelTAG Stage Three Full Business Case deliverable in 2021/22 and 2022/23
* **TOTAL £470 000 for 2021/22 and £450 000 for 2022/23**

WelTAG costs will be confirmed and reported back to Welsh Government as part of the reporting process once tendered. |
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**SCHEME BUSINESS CASE**

**1. STRATEGIC CASE**

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| **The Case for Change** |
| **Fit with draft new Wales Transport Strategy**Please indicate how this scheme fits with the priorities set out in the draft new Wales Transport Strategy  | The scheme demonstrates a positive fit with the five-year priorities set out within the emerging draft Wales Transport Strategy (WTS).For the purposes of this Local Transport Fund application and to outline this relationship, the five-year priorities set out in the draft WTS have been assessed against the scheme’s existing objectives using the WelTAG seven-point scoring scale, as detailed in the following table.* Objective 1 (OBJ1)
* Support Sustainable Connectivity in the Cardiff Capital Region
* Objective 2 (OBJ2)
* Facilitate and Support Economic Growth
* Objective 3 (OBJ3)
* Improving Health and Wellbeing
* Objective 4 (OBJ4)
* Improved Safety and Security
* Objective 5 (OBJ5)
* Benefits and Minimised Impacts on the Environment

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| Five-Year Priority | OBJ1 | OBJ2 | OBJ3 | OBJ4 | OBJ5 |
| Reduce greenhouse gas emissions by planning ahead for better physical and digital connectivity, more local services, more home and remote working and more active travel, so that fewer people need to use their cars on a daily basis. | ++ | ++ | ++ | + | ++ |
| Grow public transport use in Wales by providing services that everyone can use, wants to use, and does use. | ++ | ++ | ++ | ++ | ++ |
| Safe, accessible, well-maintained and managed transport infrastructure, that is also future proofed to support sustainable transport choices, especially walking and cycling, public transport and electrification. | ++ | ++ | ++ | +++ | ++ |
| Making sustainable transport choices more attractive and affordable to more people and businesses, whilst respecting the fact that many people including those in rural areas or disabled people, may not have options. | ++ | ++ | ++ | +++ | ++ |
| Support digital, technological and operational innovations that help more people and businesses adopt more sustainable transport choices. | + | + | + | + | + |

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| **Current and Future Situation and Issues**What are the local and wider issues that this scheme will address in the short and long term? Include baseline data where available. What will happen if no action is taken? | The identified issues and problems that require addressing are summarised below, which have been identified through analysing local data, reference to previous feasibility reports and policy, and consultation with stakeholders and members of the public.

| Ref | Heading |
| --- | --- |
| P01 | Poor quality bus stops with limited facilities. |
| P02 | Poor interchange facilities at railway stations (including poor parking opportunities). |
| P03 | Overcrowding on peak rail services. |
| P04 | Overcrowding on peak bus services. |
| P05 | Poor infrastructure and local connectivity by walking and cycling. |
| P06 | A4055 creating severance within the community |
| P07 | High local traffic flows leading to congestion, capacity issues at junctions, environmental impacts and unreliable journey times. |
| P08 | High use of the car for local and regional trips (e.g., journeys to work). |
| P09 | Occurrence of accidents along key strategic routes, especially the A4055. |
| P10 | Residential land use development within Vale of Glamorgan will compound existing traffic issues and increase pressure on public transport services. |

The corresponding opportunities of the study area have been identified to assist in ensuring that the identified objectives and options are realistic as well as maximise opportunities and consider the context of the study area. Following feedback from the stakeholder workshop and public consultation.

| Ref | Opportunity |
| --- | --- |
| O1 | Proximity to major employment and services means large volume of transport movements to and from Cardiff, from Dinas Powys and Barry and the Vale. |
| O2 | Significant facilities and services in close proximity with potential for access by sustainable modes. |
| O3 | Dinas Powys has good potential accessibility by non-car means. |
| O4 | Metro improvements, including more frequent rail services. |
| O5 | Bus priority and service enhancements. |
| O6 | Walking and cycling improvements. |
| O7 | Highway junction/ off-line capacity improvements. |
| O8 | Road safety improvements. |
| O9 | Interchange improvements in services and facilities. |
| O10 | New Wales and Borders Rail Franchise |
| O11 | Park and Ride facilities. |
| O12 | Promotion and marketing of all transport modes. |
| O13 | Reduce the adverse environmental impacts of the transport system. |
| O14 | New development to be accessible by sustainable transport modes. |

Under the Do-minimum scenario considered within the existing WelTAG appraisal, this assumes:* Continued delivery of transport enhancements via the LTP and utilising existing sources of funding but assumes no step change in the level of funding or delivery of any major transport enhancements within the study area (assumes current levels of investment).
* The continuation of rail services, local bus services and community transport at a similar level as present utilising funding at similar levels to existing.
* Continued work by local authorities and stakeholders to deliver improvements to the transport network.

Overall, the do-minimum option is considered to have an adverse effect at meeting the objectives, due to the modest levels of funding currently able to be invested in transport infrastructure and public transport services. It assumes that background increases in population and traffic growth exceed investment provision to mitigate increasing impacts and pressure on the existing transport network. It should be noted that policies and programmes are in place to facilitate improved transport services, but limited funding means that beneficial enhancements are currently difficult to achieve.A negative impact on the environment is also forecast as the traffic levels through Dinas Powys would continue to increase, whilst the limited funding means that there is currently poor to moderate accessibility to services and a moderate road safety record, as well as a limited promotion and delivery of transport schemes to promote health and well-being. The increased traffic at the key junctions of the Merrie Harrier, Barons Court and Murch Road is anticipated to lead to increased delay on the corridor, with all junctions operating over capacity in the do-minimum scenario. The additional delay and congestion may lead to an impact on economic growth in the south east Vale. These problems cannot be addressed without sufficient committed funding and sources to have a beneficial impact.To deliver the vision of the Cardiff Capital Region City Deal, it is accepted that excellent transport connectivity can act as a catalyst for new development and regeneration. These proposed improvements will help serve economic growth, when planned in tandem with the Cardiff Capital Region City Deal social and environmental programmes, by widening labour markets, unlocking the identified sites for development, providing attractive centres for business location, giving people access to skills, education and training, encouraging high value growth clusters and agglomeration, and reducing costs for links from suppliers to producers to markets.This bid is in anticipation of a positive outcome and aims to seek funding to progress to WelTAG Stage Three on all options under consideration in 2021/22. The schemes being proposed will reduce the impact to the local communities, provide the transport connectivity required to serve employment opportunities, and encourage modal shift to Active Travel modes for localised movements, the necessary infrastructure is required to make the routes attractive and safe. To provide off-road walking and cycling facilities along the line of route, would encourage and offer a facility to a wide population including some of the most vulnerable members of the public, as well as vulnerable road users.On this basis it would be remiss of the Council, the wider region and Welsh Government (WG) not to consider this corridor and make the necessary improvements to access the Capital City. |
| **Scheme objectives**What are the objectives of the scheme? (there should be up to 5 or 6 and should be Specific, Measureable, Achievable, Realistic and Time-limited) | * Support Sustainable Connectivity in the Cardiff Capital Region
* Facilitate and Support Economic Growth
* Improving Health and Wellbeing
* Improved Safety and Security
* Benefits and Minimised Impacts on the Environment
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| **Scheme outputs**What are the specific outputs that the scheme will deliver?  | * Improved efficiency, reliability, resilience, and connectivity of movement (people and freight by sustainable modes) and reduced community severance in Dinas Powys including improvements to local connectivity.
* Improved inclusive, integrated and affordable access to key services and employment and reduced issues of over-capacity on travel modes.
* Greater uptake of active travel (both recreation and necessary trips) and improved air quality/ reduced noise pollution within the community.
* Improved actual and perceived safety and security of travel by all modes.
* Reduction in the negative impacts on the local and global environment (natural and built) and reduced air and noise pollution within the community and adaptation to the effects of climate change.
 |
| **Fit with Policies and Plans**Please indicate where this scheme fits with local policies and plans such as the Local Well-being Assessment, Local Transport Plan and any other related policies and plans.  | The key policy and strategy documents at the local, regional and national levels highlighting the policies and proposed delivery programmes and schemes (subject to the availability of funding) that are relevant to this study are presented in the project’s Impacts Assessment Report. Of particular relevance is the alignment with national, regional and local policies, as follows: * Improvements to the strategic transport network from Biglis roundabout (Barry) through Dinas Powys, to Cardiff via Leckwith, Cogan and Penarth have good potential to contribute to the One Wales: Connecting the Nation – Wales Transport Strategy. In particular, improvements to the network would improve links and access between key settlements and sites including for journeys between Barry and Cardiff.
* The study also contributes to the key sustainable transport themes as set out within the Wales Transport Strategy including ‘*achieving greater use of the more sustainable and healthy forms of travel.’* The study area currently lacks an effective and encouraging sustainable transport network with limited rail capacity and a basic bus network, and poor walking and cycling connections. As such, options aimed at improving sustainable travel would contribute to the key sustainable transport themes of the strategy.
* The study is committed to investigating and establishing sustainable options which will improve the social, economic, environmental and cultural well-being of Wales. Investment in improved connectivity within the region would make a significant contribution to the goals of the Well-being of Future Generations (Wales) Act 2015. In particular, the study aims to put forward options for further assessment which contribute to the prosperity, safety, cohesiveness, resilience, health and equality of Wales.
* The Vale of Glamorgan Local Transport Plan (LTP) specifically targets bus priority and highway improvements schemes as key actions for Dinas Powys. The Vale of Glamorgan Council seeks to secure better conditions for pedestrians, cyclists and public transport users and to encourage a modal shift away from the single occupancy car.

The Plan also considers traffic congestion as a key problem in the region, and that highway improvements should be made for those commuters who may need to travel by car. The Plan therefore highlights a combination of improvements as needed to address all elements of the existing inefficiencies of the transport system. * Investment in connectivity will make substantial contributions to the desired outcomes of the Vale of Glamorgan Local Development Plan (LDP). Various objectives outline the desire for the development of sustainable communities and places which are effectively underpinned by the need for accessibility and connectivity within the region. The Plan also highlights the need for the required infrastructure to be identified to meet the growth anticipated in the Vale of Glamorgan up to 2026. Cycle and bus improvements within the study area are identified within Policy SP7 – Transportation.
* The Plan further notes how *‘…the South East Wales Transport Alliance (Sewta) Highway Strategy Study (2008) identifies the A4055 through Dinas Powys as a key problem area of the regional road network as a consequence of the scale of traffic and associated congestion. Barry Waterfront to Cardiff Link Road (Dinas Powys Bypass) was viewed as having dual benefits, helping to alleviate traffic congestion and improve road safety on the A4055 through Dinas Powys, while having the potential to improve access to the wider road network. Issues at the Cogan Spur and Merrie Harrier junctions, however, would be difficult to overcome.’*

The Active Travel and sustainable transport elements of the proposal are being promoted as short and medium term schemes to be delivered within the Vale of Glamorgan Local Transport Plan and the Council’s Local Development Plan. * Consultation was carried out via Community public exhibition sessions in November 2013 for the LDP and at numerous times during the Active Travel ERM and INM processes.
 |
| **Community Engagement and Consultation**Please summarise how you have engaged local communities and consulted on your proposals. How have you involved those with protected characteristics? How has this process informed the scheme design?  | The strategy has been to incorporate community engagement and consultation throughout the WelTAG stages and subsequently the scheme has been subject to an extensive programme of stakeholder and public consultation. Comprehensive Review Groups have been set up containing a number of stakeholders including representation from Welsh Government, Cardiff Capital Region, community councillors, transport operators, and transport professionals from both neighbouring authorities and internal. The WelTAG reports have also been taken through the political process, involving presentation to Cabinet and the Environment and Regeneration Scrutiny Committee of the Vale of Glamorgan Council. Subsequent feedback has led to additional work being carried out as part of the WelTAG Stage Two Plus study, namely:* Engaging with Network Rail to understand the constraints and potential costs associated with constructing a bypass and junction in the vicinity of the existing railway tunnel.
* Undertaking concept design, modelling and costing of suggested improvements to the Merrie Harrier junction to improve capacity. These will be considered in the context of costs associated with the pink and green route options.
* Commissioning Transport for Wales to carry out strategic modelling using the South East Wales Transport Model of the bypass proposals.
* Updating the economic appraisal for the green route alignment and updating the transport case along with the Stage Two report.
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**Fit with Grant Purpose/ Objectives**

Please outline below how your scheme contributes to the relevant grant purpose/ objectives. Please only fill in for the grant that you are applying for and leave the other blank.

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| **Grant name** | **Grant purpose/ objectives** | **Scheme Contribution** |
| **Local Transport Fund** | * Reduce economic inactivity by delivering sustainable access to employment
* Improve quality of life particularly those living in disadvantaged and rural communities by delivering sustainable access to key facilities and services
* Connect communities and enable access to key services
* Improve public transport journey time reliability
* Reduce public transport journey times
 | For access to employment, the traffic modelling completed to assess the bypass route option has quantified user and provider benefits (£000’s PVB 2010 prices discounted to 2010) for the new link totalling £24.19M for commuters, £20.24M for business and £25.33M for other consumers than commuters or business. The implementation of a DMRB compliant single carriageway road with a national speed limit and integral walking and cycling infrastructure also demonstrates positive change with regard to social impacts.The benefits of multi-modal measures would offer more travel options and potential for sustainable travel. The multi-modal option considers the delivery of short (up to five years), medium (up to ten years) and long (more than 10 years) term improvements within the study area across a range of sustainable modes. The option includes a range of enhancements to the existing public transport network including enhancements to bus and rail services and associated infrastructure/ interchanges. In the short term, this could encompass quick win deliverables (subject to funding), including robust enhancements to passenger facilities which have the potential to have a measurable impact on transport provision within the study area, alongside a programme of active travel improvements.Improving this corridor and sustainable transport opportunities will subsequently improve access to major employment sites within the Vale of Glamorgan and Cardiff and will help reduce economic inactivity in Barry (some communities in Barry are amongst the highest areas of deprivation). These proposals include walking and cycling infrastructure, and improvements for passenger transport modes that encourage sustainable travel and will connect Barry to Dinas Powys, and Dinas Powys to Cardiff and Penarth, connecting all of the communities and enabling resident’s access to key services within Barry, Cardiff and Penarth. This corridor is one of the primary corridors to access employment in Cardiff, Llandough Hospital and the Vale of Glamorgan, who are all major employers.Dinas Powys currently suffers from congestion at peak times and throughout other parts of the day as one of the main accesses to Cardiff from the Vale of Glamorgan. Any interventions will focus on improving journey times and reliability for all modes of transport and importantly serve to reduce severance impacts for local communities and enhance connectivity. Concerns have also been raised on the corridor with regards air quality, particularly outside Dinas Powys Primary School, issues which the interventions could serve to address. |
| **Resilient Roads Fund** | * Address disruptions caused by severe weather to the highway network, especially to the public transport network
 |  |
| **Ultra-Low Emission Vehicle Transformation Fund** | * Provision of charging infrastructure for electric vehicle, targeted at users without access to off-street parking.
* Provision of charging infrastructure in public car parks.
* Electric vehicle charging hubs – focused on areas with potential to support a variety of electric vehicle charging needs
* Provision of charging infrastructure for taxis, private hire vehicles and buses
* Provision of Green Fleet for taxis, private hire vehicles and buses
* Provision of micro mobility (ie. support to participate in DfT e-scooter trials, promotion of e-bikes and e-cargo bikes)
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**2. TRANSPORT CASE**

**Contribution to Well-being Goals**

Transport schemes must seek to maximise their contribution to the well-being goals. Please provide a summary of the impacts of the scheme to the well-being goals. This should be informed by the statutory and non-statutory impact assessments of the scheme.



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| **Well-being Goal** | **Impact (select one for each goal)** |
| A prosperous Wales | Positive |
| A resilient Wales | Positive |
| A healthier Wales | Positive |
| A more equal Wales | Positive |
| A Wales of cohesive communities | Positive |
| A Wales of vibrant culture and thriving Welsh language | Positive |
| A globally responsible Wales | Positive |

**Value for Money**

Please explain what steps have been taken to ensure costs have been kept as low as possible and to quantify if the funding requested will represent value for money. Include Benefit Cost Ratio (BCR) if known:

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| The analysis completed to date suggest that a bypass may offer value for money. On the basis of greatest economic benefits, the Green route was assessed given this represents the greatest potential for improved journey times in comparison to the Pink route. The alignment produces a total PVB of £63.17M and a cost of £31.37M under the Core TUBA scenario. This results in a Net Present Value of £31.80M and an initial Benefit Cost Ratio of 2.01, suggesting that the scheme would represent high value for money.The sensitivity test results which take account of recently released traffic forecasts as a result of the Covid-19 pandemic, show that the Green alignment produces a total PVB of £53.55M and a cost of £31.37M. This results in a Net Present Value of £22.18M and a reduced Benefit Cost Ratio of 1.71 suggesting that the scheme would still represent medium value for money, should traffic levels in the main forecast be overestimated. In addition, the level of journey time savings to users’ totals £68.53M (sensitivity test = £58.79M). Of the two options considered, the green by-pass combined with the multi-modal option may offers the highest potential benefits.The value for money results do not reflect the qualitative and quantitative information such as reliability and wider economic impacts, which contribute to the calculation of the Adjusted Benefit Cost Ratio and may increase the Value for Money of the scheme further. A full business case would be needed to further consider the economic impact of the scheme, although it is recognised that economic performance is only one of the elements which must be accounted for in decision making.All consultant led work is tendered on Sell2Wales which ensures quality standards are met and each bid is then assessed and awarded based on a stringent assessment criterion. |

**Impact Assessment**

Please provide a summary of the expected impacts of the scheme, who is affected, how, and key qualitative/ quantitative supporting evidence. The impacts shown below should always be considered, but the list is not exhaustive and other impacts may be relevant. Impacts may be positive, negative or neutral, and should consider all users including those with protected characteristics.

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| --- | --- | --- |
| **Well-being Goal** | **Impacts** | **How does the scheme reduce negative impacts and maximise positive impacts?** |
| **A prosperous Wales***An innovative, productive and low carbon society which recognises the limits of the global environment and therefore uses resources efficiently and proportionately (including acting on climate change), and which develops a skilled and well-educated population in an economy which generates wealth and provides employment opportunities, allowing people to take advantage of the wealth generated through securing decent work.* | * Changes in productivity: availability of suitable labour for employers, and changes in agglomeration effects.
* Transport costs: monetary costs paid by those travelling e.g. vehicle operating costs, tolls, and public transport fares.
* Accidents: the cost of accidents.
* Land: does the scheme reduce the amount of agricultural land? Does it open up development sites?
* Capital costs: to the public sector, to the private sector from the scheme itself and from the impacts
* Revenue costs: to the public sector, to the private sector, and to end users from the scheme itself and from the impacts
* Journey time changes: across all affected modes for users and non-users of the scheme.
* Journey time reliability changes: changes in the variation in journey times between times of days and between journeys made at the same time each day.
* Local economy: how does the scheme affect the sectors in the local economy?
* Access to services: impact on journeys to key services such as health facilities, schools
* Access to employment: how many jobs can people reach and what is the journey time
 | This scheme will support the Welsh Government’s Programme for Government outcomes with a focus on maximising the benefits from future transport improvements in Wales. Any proposed improvements will serve economic growth and **productivity**, by widening labour markets, unlocking the identified sites for development, providing attractive centres for business location, giving people access to skills, education and training, encouraging high value growth clusters and agglomeration, and reducing costs for links from suppliers to producers to markets.Analysis of bypass **transport costs** identified a neutral impact as the benefits recognised are likely to be offset by the proposal encouraging trips to be made by car as opposed to more sustainable, affordable means. In contrast, a slight beneficial impact has been applied as the provision of an enhanced multi-modal network has the potential to make travel more affordable for some sections of society, most notably the young and elderly.The DfT’s program COBALT (COst and Benefit to Accidents Light Touch) has been used to undertake the analysis of the impacts on **accidents** as part of the economic appraisal of the road scheme. The accident impact assessment has been performed using the method set out in the COBALT manual. It is used to forecast changes in the number of accidents and casualties and estimate the monetary value of these impacts. Initial analysis indicates a slight disbenefit following implementation of the bypass although for assessment will be needed once the detailed design stage is completed. In contrast through the delivery of improved walking and cycling infrastructure and enhanced public transport services and interchange facilities, there is the potential to improve road safety through the removal of pinch points, severance, improving the standard of the highway network, and encouraging people to travel by more sustainable means of transport.Implementation of a bypass and junction modifications will require significant areas of **land**, in addition to land adjacent to existing routes to facilitate the on-line highway improvements. The exact extent and potential costs are unknown at this stage and would require further exploration. Three houses have been identified as affected by virtue of close proximity, although again this would require detailed consideration during WelTAG Stage Three. The bypass would cross over the tunnel for the railway line to the south of the Merrie Harrier junction, which is anticipated to require property agreements with Network Rail. It is also anticipated that land would also need to be purchased in order to deliver sustainable infrastructure improvements, the exact extent and potential costs of which are unknown at this stage and would require further exploration. The WelTAG Stage Two Plus report outlines the estimated **capital costs** at this stage of the appraisal. The current day estimated total scheme costs are:* **£46.320M** Option A | Bypass – Green Route
* **£45.610M** Option B | Bypass – Pink Route
* **£16.807M** Option C | Multi-modal **(excluding rail enhancement costs)**
* **£63.127M** Option D | Bypass (Green Route) and Multi-modal

There would be on-going **revenue** support required for each of the options, although these are expected to be greatest for the public transport options (but the extent of each is currently unknown).The implementation of a bypass designed to current DMRB standards is anticipated to result in measurable improvements in **journey time** and **journey time reliability**. As a result of increased average speeds between Biglis roundabout and the Merrie Harrier junction, a nine minute time saving for northbound journeys has been forecast during the AM peak and a three minute saving in the PM peak (analysis of the Green route). For southbound journeys, time savings of 3 minutes in the AM peak and 13 minutes in the PM peak have been calculated. The scheme user and provider benefits are subsequently estimated to have a total discounted value in 2010 prices and values appraised over 60 years of £69.76M which represents a significant beneficial improvement. The implementation of active travel and public transport measures could also establish significant additional benefits through enhanced infrastructure provision.The transport user benefits for a new bypass have been quantified (£M PVB 2010 prices) at £24.19M for commuters, £20.24M for business and 25.33M for other consumers (excluding commuters and business) indicating robust benefits could be realised for **access to services and employment**. Combined with enhancements to sustainable transport opportunities (services and infrastructure) then a significant benefit could be realised. |
| **A resilient Wales***A nation which maintains and enhances a biodiverse natural environment with healthy functioning ecosystems that support social, economic and ecological resilience and the capacity to adapt to change (for example climate change).*  | * Noise: does anyone experience a change in noise levels
* Biodiversity: is there an impact on wildlife and the number of species
* Water Environment: is there an impact on water courses
* Option and non-use values: does the scheme provide alternatives for current journeys and does it change the resilience of the transport system
 | The review of **noise** impacts is not yet quantifiable in the absence of quantitative data, but an adverse impact is considered reasonable to assume for a new bypass at this stage of the appraisal, whilst also noting the impacts from short-term construction noise associated with the new route. In most cases mitigation measures should be available to alleviate any associated short and long-term noise pollution, but this would need to be considered against the potential to establish adverse landscape impacts (e.g., implementation of noise bunds). The traffic noise impacts would need to be modelled in accordance with DMRB to quantify the noise impacts and consider the detailed propagation path for the options. This would allow for a detailed comparison of the proposed alignments against the existing road layout (do-minimum) and quantify the number of properties that are adversely affected, as well as the number of properties that benefit from the respective options. Further subjective analysis is included with the existing WelTAG documentation.An impact assessment of **biodiversity** using WebTAG guidance was completed for a bypass indicating an adverse impact could be realised, predominantly due to the potential loss and damage of ancient woodland and Pop Hill SINC. The impacts vary between the bypass and sustainable options, although it is anticipated that the impacts can be mitigated via the implementation of standard techniques in accordance with best practice guidelines. Further ecological surveys would be required at the next stage of assessment to fully establish baseline conditions within the study area, allowing for the accurate and complete assessment of impacts and the design of an appropriate mitigation strategy for the scheme.For the **water environment**, impacts are recognised to existing floodplains and the potential impacts to the main rivers and ordinary water courses as a result of accidental spillage, construction activities and routine run-off. A construction environmental management plan should be put in place during the construction of the multi-modal option which will minimise the risk of pollution to watercourses during construction. Further detailed analysis is required at the next stage of assessment to determine actual impacts.With regard to **Option and non-use values**, this option includes for a range of specific measures to enhance public transport. Moreover, the implementation of integral walking and cycling infrastructure also affords opportunity for alternate modes of travel away from use of the private car. The option also includes for an additional route option for highways. A score of moderate beneficial is therefore considered reasonable given the range of additional opportunities from the proposed option. |
| **A healthier Wales***A society in which people’s physical and mental well-being is maximised and in which choices and behaviours that benefit future health are understood.*  | * Physical activity: the amount of walking, cycling and other physical exercise undertaken by people
* Accidents: the number and severity of injuries
* Security: how safe do people feel
* Journey quality: for example, the comfort of the vehicle and access to information
* Air quality: are there changes in air quality
* Health impact assessment
 | It is expected that a new bypass will establish a beneficial impact on **physical activity** with the integral provision of segregated walking and cycling infrastructure. It could also improve conditions for walkers and cyclists along the A4055 existing transport corridor through Dinas Powys as a reduction in traffic flow are experienced. In addition, it is also anticipated that the multi-modal option would establish an excellent benefit on physical activity with the potential to encourage sustainable travel throughout the study area.The DfT’s program COBALT (COst and Benefit to Accidents Light Touch) has been used to undertake the analysis of the impacts on **accidents** as part of the economic appraisal of the road scheme. The accident impact assessment has been performed using the method set out in the COBALT manual. It is used to forecast changes in the number of accidents and casualties and estimate the monetary value of these impacts. Initial analysis indicates a slight disbenefit following implementation of the bypass although for assessment will be needed once the detailed design stage is completed. In contrast through the delivery of improved walking and cycling infrastructure and enhanced public transport services and interchange facilities, there is the potential to improve road safety through the removal of pinch points, severance, improving the standard of the highway network, and encouraging people to travel by more sustainable means of transport.With regard to **security**, a broadly qualitative assessment has been completed to date using the journey quality elements noted within TAG Unit A4.1.6 (Security Impacts). The implementation of multi-modal design features could establish a moderate beneficial impact for travellers using sustainable modes of travel with the potential to attract users away from the dominant use of the car. It is assumed that a range of design features would be applied to current standards as part of detailed development to establish robust improvements to security including for example the provision of CCTV systems designed to encourage staff and passenger/ user surveillance; landscaping designed to maximise the potential for informal surveillance; appropriate fencing to clearly demarcate exits, entrances and site perimeters; good lighting design to maximise natural light as well as attention to lighting at signing, information, waiting/ shelter and help points; and good provision of emergency phones, public telephones/ wi-fi and information on emergency help procedures.The combination of options has the potential to establish a comprehensive transport scheme for **journey quality** with benefits to traveller care, views and reduced stress all realised. In line with the WebTAG Unit A4.1.6 guidance (Journey Quality Impacts), a high beneficial score has been retained as the number of users affected is anticipated to be more than 10,000 for users of both the bypass and enhanced/ increased use of sustainable travel options throughout the transport corridor.The implementation of an enhanced sustainable transport network has the potential to improve local **air quality** through Dinas Powys, especially along the A4055 Cardiff Road as user trips are encouraged away for the car. In addition, a new bypass could significantly reduce traffic flow through Dinas Powys and help mitigate adverse air quality especially for those situated adjacent to Cardiff Road. These benefits are somewhat mitigated by the implementation of a new bypass establishing new air quality impacts within proximity of the new route.Implementation of an enhanced integrated public transport has the potential to improve local air quality through Dinas Powys with the opportunity to transfer transport user trips from the car to public transport. This would be particularly beneficial to those situated adjacent to the A4055 Cardiff Road where existing traffic flows are high. The impact is not yet quantifiable in the absence of quantitative data. The impact of construction (in relation to the Park and Ride facility especially) on managing air quality/ dust as well as vibration impacts would also need to be considered. No formal **Health Impact Assessment** has been completed to date, although this will be completed as part of the proposed WelTAG scope of works. |
| **A more equal Wales***A society that enables people to fulfil their potential no matter what their background or circumstances (including their socio economic background and circumstances).*  | * Affordability: is there any change to the cost of travel paid by users
* Equality, diversity and human rights impact assessment
 | With regard to **affordability**, the rising cost of transport is resulting in many households struggling to afford to own and run a car. The provision of enhanced public transport and walking and cycling options has the potential to make travel more affordable for some sections of society, most notable the young and the older sections of society. Further consideration of equality and diversity is included as part of the WelTAG scope of works. |
| **A Wales of cohesive communities***Attractive, viable, safe and well-connected communities.*  | * Severance: do any groups of people become separated from others or facilities they regularly use
* Rural impact assessment
 | Both the bypass option and multi-modal option have identified potential improvements to **severance** as a result of their implementation. A new bypass could significantly reduce traffic flows through Dinas Powys with the likely requirement for mitigation to retain accessibility to properties/ buildings north and south of the bypass alignment. Improvements to sustainable modes of transport could also specifically reduce severance with improved crossing points and connectivity. The combination of options could subsequently establish large beneficial impacts. This scheme will consider all sustainable solutions to reduce congestion and improve travel journey times, as well as improve the environment and offer improved connections locally and regionally. |
| **A Wales of vibrant culture and thriving Welsh language***A society that promotes and protects culture, heritage and the Welsh language, and which encourages people to participate in the arts, and sports and recreation.*  | * Landscape: is there a visual or other impact on the landscape
* Townscape: is there a visual or other impact on the townscape
* Historic Environment: are there any changes in areas of historical interest
* Welsh Language impact assessment
 | A range of factors have been initially assessed as part of the WelTAG analysis for **landscape** and **townscape**. Any adverse impacts could be mitigated through landscape design along the route of a bypass through retention or planting of new hedges and design of an elevated road sympathetic to local landscape character. Moreover, good landscape design is needed to mitigate lighting impacts at night. Impacts on landscape would be countered by providing an improved transport link through a currently heavily traffic congested village.Ongoing consideration of the **historic environment** will be completed at WelTAG Stage Three, including the potential to directly impact on buried archaeological remains. No impact has been identified for **Welsh Language** other than the potential for increased exposure through public transport use. |
| **A globally responsible Wales***A nation which, when doing anything to improve the economic, social, environmental and cultural well-being of Wales, takes account of whether doing such a thing may make a positive contribution to global well-being and the capacity to adapt to change (for example climate change).* | * Greenhouse gases: is there a change in the amount of greenhouse gases emitted
 | The change in **greenhouse gas** emissions with the bypass compared to the Do-Minimum has been calculated as an output of the traffic modelling. This gives a benefit valued at £0.626M. The reduction in emissions will be based on the reduced overall journey distances and journey time through the corridor.The increase in buses is not expected to have an adverse impact on greenhouse gases compared to the do-minimum option, especially as vehicle fleets are concerted to electric power. The improvements in public transport have the potential to encourage a mode shift away from the private car to the bus and rail and thus has the potential to mitigate adverse levels of greenhouse gas emissions. It is therefore considered that the delivery of an enhanced integrated public transport system that benefits from highway works and improvements to public transport, walking and cycling would also have a beneficial impact on greenhouse gas emissions. No quantitative data is available at this stage. |

**3. MANAGEMENT CASE**

Can the scheme be delivered? What are the risks?

A project plan identifying timelines for activities and key milestones must be provided for each scheme appropriate to the scale, complexity and risks associated with the scheme. Where key stages / milestones have been reached / completed, give date when reached where applicable. As a minimum, information should be provided on design; timing of statutory processes/planning consent, land acquisition, procurement, construction, scheme opening and completion where these apply to the scheme.

Information on risks to delivery and mitigation measures in place or proposed must be included.

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| How a bypass would be delivered needs to be determined at the next stage, however the two options available are to Procure an ECI Contractor or to Procure via a Design and Build Contract. Whichever procurement method is chosen, the project will need to align with the Welsh Government Approvals Process. The KSA process provides a staged financial approval system to manage the process of projects from inception, through to construction and initial maintenance and complies with the principles of PRINCE2 project management.Depending on the type of procurement method used for further design and construction, the anticipated core parties involved in the delivery of the project would be The Employer | Representing the Vale of Glamorgan Council and The Employer’s Agent | Acting as the Vale of Glamorgan Council’s representative, providing financial, project management, contract and technical advice throughout the project.To ensure the management of stakeholders and communication on the project is managed correctly, a Communications Plan should be drafted which identifies how all communications between project team members and external parties will be managed. All parties adhering to the communications plan should ensure that the needs of the Employer are met, and the project is delivered successfully.Risk will be managed on the project in accordance with the procedures set out in the latest version of the Value for Money Manual – Risk Analysis and Management. A risk workshop should be conducted early in the next stage of the project (WelTAG Stage Three). A Risk Register should then be developed and reviewed and updated (where required) as a minimum every three months throughout the project’s duration.It is anticipated that the delivery of bus enhancements, walking and cycling improvements and a new Park and Ride facility would be managed by the Vale of Glamorgan Council utilising Welsh Government grant funding where available. Subject to confirmation, it would be assumed that Welsh Government/ Transport for Wales would be responsible for the delivery of rail enhancements, with implementation of service and infrastructure improvements the responsibility of Network Rail and Transport for Wales.**The Council with the support of Arcadis Consulting are currently completing the WelTAG Stage Two Plus study. Before any progression to a WelTAG Stage Three study the Stage Tow Plus study will need to be consulted on and gain necessary approvals to progress to the next stage of WelTAG.**A potential risk is the archaeological investigations, and ground investigations will be required at this stage of the project given the risks in the local area. Routes identified will include potential land take to enable a road to be constructed. Legal advice will be sought, and procedures implemented in accordingly. Public support for scheme – work will be used to promote the intervention. Communication will be a key element to enable the public to make representations that will be used to inform the proposals. |

**4. FINANCIAL CASE**

**Financial expenditure profile**

£000s, Outturn prices (gross of grant / contributions shown separately below)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Pre 2020/21** | **2021/22 projected** | **2022/23** | **2023/24** | **2024/25** | **2025/26** | **Later** | **Total** |
| Surveys |  |  |  |  |  |  |  |  |
| Design  |  | **£470,000** | **£450,000** |  |  |  |  | **£920,000** |
| Land Purchase |  |  |  |  |  |  |  |  |
| Accommodation Works |  |  |  |  |  |  |  |  |
| Construction |  |  |  |  |  |  |  |  |
| Project Management |  |  |  |  |  |  |  |  |
| Monitoring and Evaluation |  |  |  |  |  |  |  |  |
| Promotion |  |  |  |  |  |  |  |  |
| **GROSS TOTAL** |  | **£470 000** | **£450,000** |  |  |  |  | **£920,000** |
| Match funding amount, percentage contribution and **funding source(s)*****(insert name of organisation*)**  | **£30k VOG** |  |  |  |  |  |  |  |
| **NET TOTAL** |  | **£470,000** | **£450,000** |  |  |  |  | **£920,000** |

**Quarterly Expenditure Profile**

*(Expenditure should be planned as early as possible in the financial year to ensure confidence in a full spend. Expenditure planned for Quarter 4 should be limited to minimise the risk of underspend)*

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|  | **Forecast FY2021-22 Expenditure (in £000s)** |
| **Quarter 1** | **Quarter 2** | **Quarter 3** | **Quarter 4** |
| Surveys |  |  |  |  |
| Design  | **£20,000** | **£50, 000** | **£200,000** | **£200, 000** |
| Land Purchase |  |  |  |  |
| Accommodation Works |  |  |  |  |
| Construction |  |  |  |  |
| Project Management |  |  |  |  |
| Monitoring and Evaluation |  |  |  |  |
| Promotion |  |  |  |  |
| **GROSS TOTAL** |  |  |  |  |
| Match funding amount, percentage contribution and **source(s) *(insert name of organisation*)** |  |  |  |  |
| **NET TOTAL** | **£20,000** | **£50,000** | **£200,000** | **£200,000** |

**5. COMMERCIAL CASE**

How will the scheme be procured? What is the number and experience of the likely suppliers? What are the key contractual arrangements, what is the contract length?

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| **The Council is conjunction with Arcadis Consultants are currently completing WelTAG Stage Two plus study. Before any progression to a WelTAG Stage Three study the Stage Two Plus study will need to be consulted on (the cost of which is part of this bid) and gain necessary approvals to progress to the next stage of WelTAG (anticipated Summer 2021).**Subject to the above a WelTAG Stage Three study would need to be commissioned to progress development of the full business case for the preferred option. The study would need to undertake the relevant environmental and topographical surveys, together with a ground investigation assessment to support detailed design development. With specific regard to the highway options, the business case would need to be refined with further SEWTM transport modelling to test the final scheme and junction arrangements and provide an update to the cost benefit analysis. A wider economic impact assessment should also be undertaken.For the bypass option and upon completion of a WelTAG Stage Three Study and taking the project through the statutory processes a consultant, contractor or a combination of both would be required to take the project forward through the Detailed Design, Construction and Aftercare. Alternatively, the employer could utilise one of the options below (excluding option C) to complete a WelTAG Stage Three assessment and follow up with taking the scheme through the statutory process. The different procurement options available for this are Option A – Early Contractor Involvement (ECI); Option B – Build Only (Employer’s Design); and Option C – Design and Build (Employer’s Design).The identification of risks would need to be covered in a Project Risk Register following risk workshops conducted throughout the project design stage and further in the construction stage. Allocation of risk would also be specified in the chosen contracts, utilising contract conditions and any additional clauses required by the Employer.The Council will then if successful contract consultants to carry out the WelTAG Stage Three appraisal for providing transport and highway improvements throughout Dinas Powys within the study area identified. This contract will be let in accordance with the Council’s Financial Regulations and Standing Orders as well as in accordance with procurement rules. |

**MONITORING AND EVALUATION**

Has a monitoring and evaluation plan been prepared?

If yes, please provide details below or attach relevant documents as evidence. What is the baseline data and relevant targets?

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| The process of implementation and post-implementation would also need to be captured through formal completion of WelTAG stages four and five respectively. The principal aims of Stage Four and Five is to record what happens so that lessons can be learnt. They may lead to alterations to the current scheme and will form valuable evidence for use in future WelTAG appraisals. A monitoring and evaluation plan will be produced as part of the delivery stage of any identified future project. |

Has any monitoring or evaluation work already taken place?

If yes, please provide details below and attach any relevant documents to this application as evidence.

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| n/a |