



Cyngor Gwynedd

WELTAG STAGE ONE REPORT

Llanbedr Transport Improvements - WelTAG
Stage One





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1 INTRODUCTION

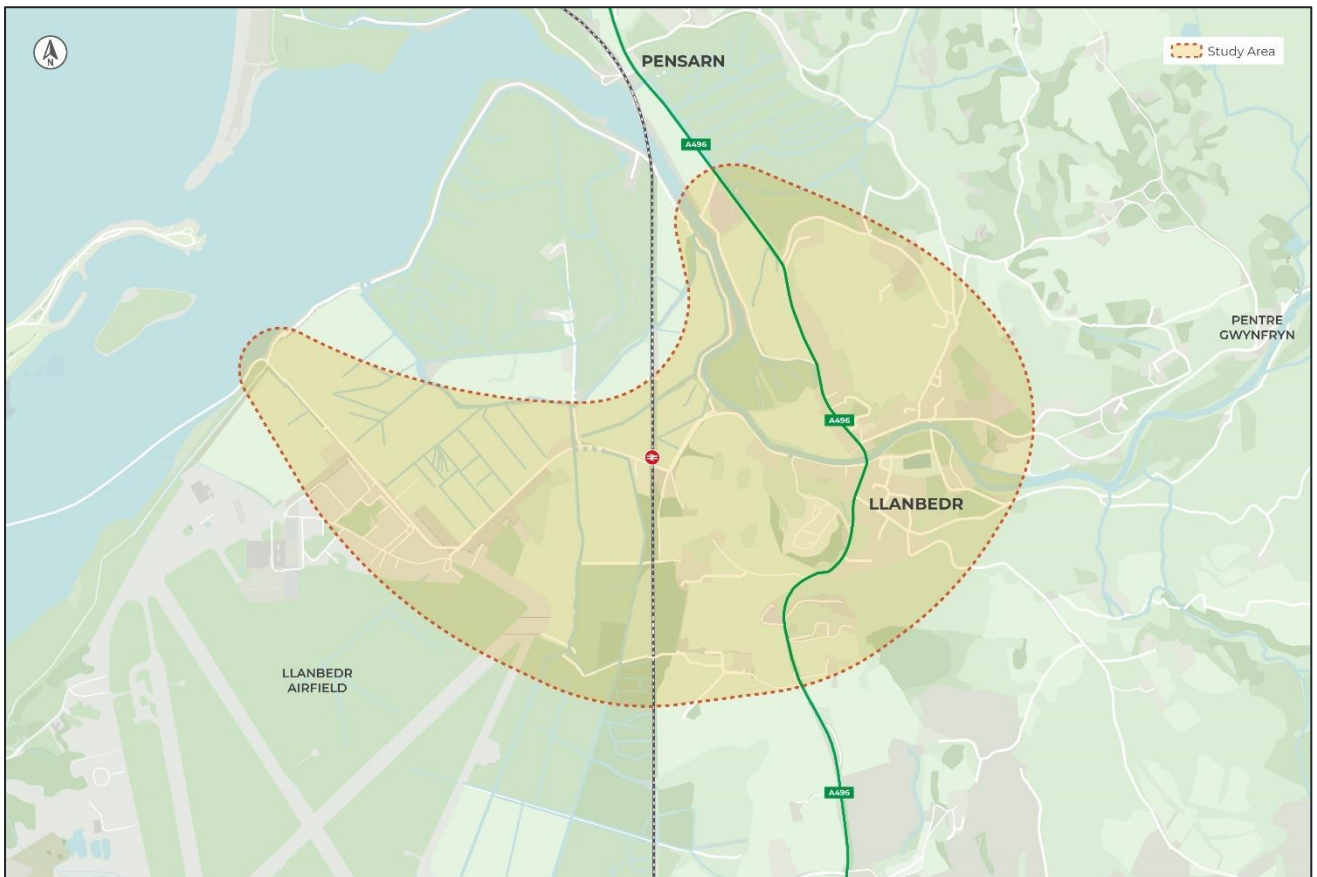
1.1 STUDY CONTEXT

Cyngor Gwynedd (CG) have commissioned WSP to develop a WeITAG Stage One and Two study to investigate potential transport interventions that could be implemented to improve the transport network in the village of Llanbedr.

The primary aim of the Stage One phase of the study is to develop and explore a long-list of potential options that will help to achieve this ambition, before short-listing options for further consideration and development at WeITAG Stage Two. The study has been delivered in line with the WeITAG 2024 guidance and includes an accompanying Integrated Well-Being Appraisal (IWBA) (70115176-WSP-GEN-LBR-RP-TR-0006).

Whilst being considerate of the wider region, potential options have been developed to improve the transport situation within Llanbedr, with the study area illustrated in **Figure 1-1**.

Figure 1-1 Llanbedr Transport Improvements – Study Area



1.2 BACKGROUND

Llanbedr is a small rural settlement of around 650 residents, located in the coastal Ardudwy region of Gwynedd, approximately 2.5 miles south of Harlech and 6.5 miles north of Barmouth. The village is served by the single-carriageway A496, which is a principal route in the region linking a number of settlements along the Ardudwy coast, as well as an hourly bus service during the day and two-hourly rail services along the Cambrian Coast Line.

In 2015, a WelTAG Stage One study was completed by Ymgynghoriaeth Gwynedd Consultancy (YGC) that considered a proposal for a 1.5km bypass to the west of Llanbedr. The study was undertaken in line with the latest WelTAG guidance at the time of writing and set out the benefits of a bypass in this location to support development of Llanbedr Airfield, and to address the negative impact of traffic on the community in Llanbedr.

Following this, a planning application for the construction of a new road was submitted, with consent granted in 2020. This planning consent remains valid until early 2025.

In 2021, the Roads Review Panel reviewed the Llanbedr Access Road and Bypass¹, focusing on two specific questions:

1. Has sufficient consideration been given to non-transport solutions and solutions other than those increasing private car capacity on the road network?; and
2. Has sufficient consideration been given to whether the road proposal will lead to increased CO₂ emissions on the road network, or cause significant impediment to achievement of our decarbonisation targets?

The review concluded that the scheme did not align well with new Welsh Government transport and climate policy and advised that the scheme should not be progressed. Despite recommending that the scheme should not be taken forward, it was suggested that there would be benefit in further discussion between CG and Welsh Government about an alternative package of measures to reduce the negative impact of traffic in Llanbedr.

This has culminated in the development of this study, which has considered options to improve the transport situation in the village of Llanbedr. Although the focus of the study is on sustainable transport interventions, the study has also considered the development of a package of measures that could include a low-speed relief road. This is only to be considered further if a case can be made through WelTAG which meets the new road-building tests².

¹ <https://www.gov.wales/roads-review-panel-llanbedr-access-road-and-bypass-html>

² <https://www.gov.wales/welsh-government-response-roads-review-html>

1.3 STAKEHOLDER ENGAGEMENT

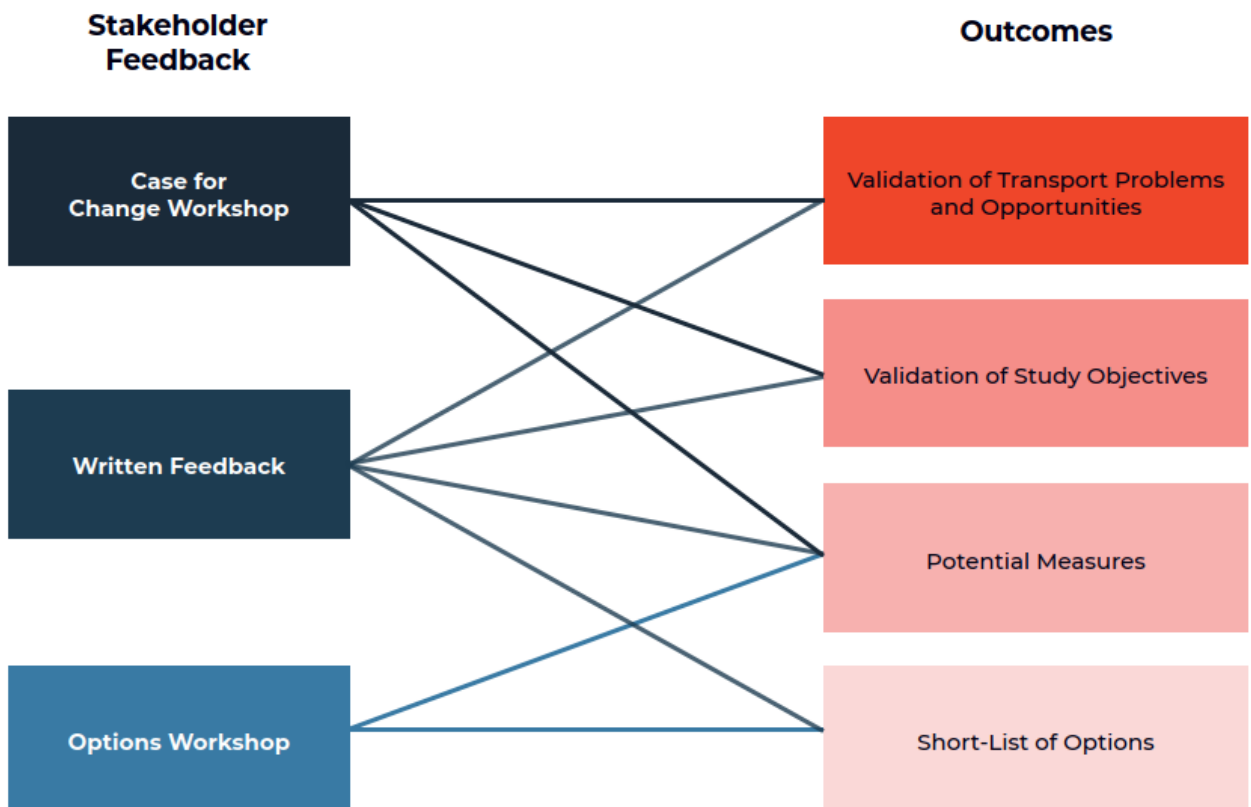
The development of this study has been informed by engagement undertaken with key stakeholders and the local community. The engagement undertaken was centred around two stakeholder workshops:

- **Case for Change Workshop** – where the transport problems, opportunities, constraints, and interdependencies affecting the study area were discussed, in combination with the proposed study objectives; and
- **Options Workshop** – where the potential measures identified were discussed, as well as the recommended short-list of options for progression to WelTAG Stage Two. This was supported by a short survey seeking the views of stakeholders on the proposals and the findings of the appraisal.

Additional written feedback has also been provided by stakeholders throughout the development of this study, with the full findings of the stakeholder engagement activities outlined in the Engagement Summary Report (70115176-WSP-GEN-LBR-RP-TR-0003).

A summary of how the feedback received from stakeholders has been utilised within this study is illustrated in **Figure 1-2**.

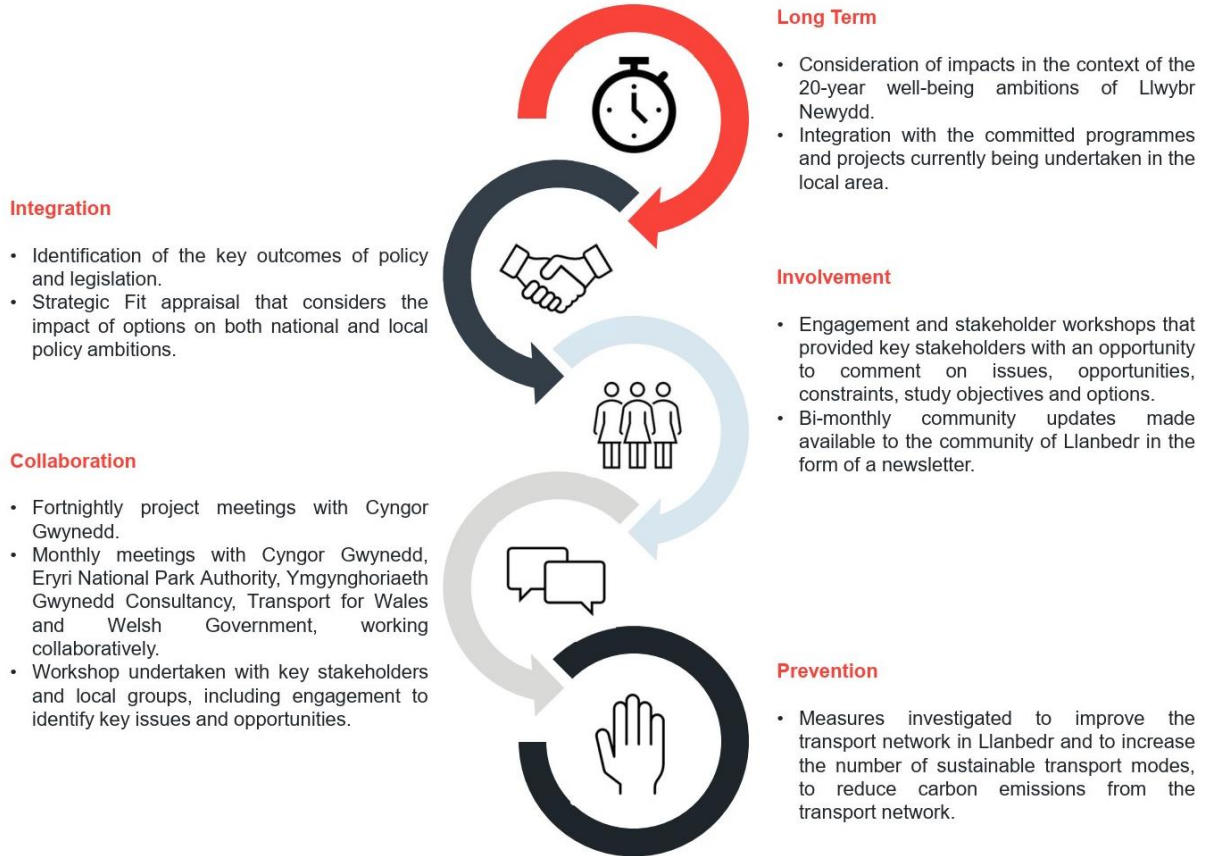
Figure 1-2 Stakeholder Engagement Process – WelTAG Stage One



1.4 FIVE WAYS OF WORKING

In line with the requirements of WeITAG and the Well-being of Future Generations Act, the five ways of working have been central to the development of this study, as shown in **Figure 1-3**.

Figure 1-3 Five Ways of Working – Llanbedr Transport Improvements



2 CASE FOR CHANGE & STUDY OBJECTIVES

2.1 CASE FOR CHANGE

2.1.1. OVERVIEW

A Stage 0 – Case for Change Report (70115176-WSP-GEN-LBR-RP-TR-0002) has been completed for the proposed Llanbedr Transport Improvements, setting out the need for intervention and a clear rationale for the study.

As part of developing the Case for Change, consideration was given to existing transport trends and statistics, key transport policies and programmes of relevance to this study, and stakeholder feedback. Further detail of these elements are provided within the following reports:

- Study Area Context Report – 70115176-WSP-GEN-LBR-RP-TR-0007;
- Policy and Legislative Context Report – 70115176-WSP-GEN-LBR-RP-TR-0008; and
- Engagement Summary Report – 70115176-WSP-GEN-LBR-RP-TR-0003.

2.1.2. LOCAL CONTEXT

As part of developing the Case for Change, a review of the local area has been undertaken identifying the following key transport trends and statistics, supported by the infographic provided in **Figure 2-1**:

- Private car use is the dominant mode of transport in Llanbedr (80%), likely due to the rurality of the area and how access to key services and employment requires long distance travel;
- There is little incentive to undertake journeys by sustainable modes given that the public transport network and active travel infrastructure is limited;
- The village is severed by the A496 with pedestrians required to share the road space with vehicles due to a lack of available footways, which causes safety issues, as indicated by the comparably high collision rate and six collisions recorded between 2018 and 2022;
- The road network is constrained, inducing stop-start movements, some congestion and journey time inconsistencies. This is exacerbated by parked cars in the village, although these vehicles are used as physical barriers by pedestrians to assist movement through the village;
- The existing transport and traffic issues in Llanbedr are exacerbated during the summer months when there is a large influx of visitors to the area, increasing average weekday daily traffic to more than 5,000 vehicles, compared with less than 2,000 during December and January. Due to the type of journeys being made to the area as part of the visitor economy (primarily weekend trips), the propensity for travelling by public transport to the region is low;
- Visitors to the area travel long distances, so they cannot rely on the public transport network as it is disjointed. There is also limited awareness of specific service offerings for tourists;
- Potential development of Llanbedr Airfield, which is part of the Snowdonia Enterprise Zone, is constrained by the existing highway layout, with safety concerns with any larger vehicles requiring use of Mochras Road to access the site;
- Any improvements within the village are severely constrained by the presence of direct frontages onto the road, with no footways, and the Grade II listed A496 Afon Artro bridge; and
- The A496 is located in a flood risk area to the north of the village, with instances of flooding likely to be of increased frequency in the future due to the impacts of climate change.

Figure 2-1 Key Statistics and Transport Trends – Llanbedr

6 collisions recorded in Llanbedr from 2018-2022.



Llanbedr has a collision rate of **888 per billion vehicle miles** compared with 170 for **typical rural A-roads**.

Car ownership levels in Llanbedr are broadly similar to rural areas, with both being **higher than the national level**.



Parked cars are present along the A496 throughout the day.

Only **9,782** passengers used Llanbedr Railway Station in 2022/2023.



The population of Gwynedd declined by **3.7%** between 2011 and 2021.



70 listed buildings and structures within 2km of Llanbedr.

Daily weekday traffic demand in August (>5,000 vehicles) is **more than 3x** December and January (approx. 1,600).



On average, **there are 14% more journeys of more than 20km made to work** from Llanbedr, compared to the national rural average.

80% of people travel by private car to work. This is higher than the national average of 77%, but slightly lower than the average for rural areas in Wales (82%).

29% of people work from home in Llanbedr, compared to 28% across all rural areas in Wales.

Travel times through Llanbedr are slightly higher and **more variable during August**. 95th percentile travel times in peak periods exceed 150s in August, compared with 100s in Autumn.



- The A496 crosses a **Grade II listed bridge of the Afon Artro** in Llanbedr.
- Surrounding settlements are **beyond a reasonable walking distance** for Llanbedr residents.

2.1.3. POLICY & LEGISLATIVE CONTEXT

To understand the transport policies and programmes of relevance to potential transport improvements at Llanbedr and the extent to which the current transport network contributes to the identified aspirations, a review of key transport policy and legislation has been undertaken. The policy and legislation considered as part of developing the Case for Change are illustrated in **Figure 2-2**, with the key outcomes summarised as follows:

- **Llwybr Newydd: the Wales Transport Strategy** supports the implementation of sustainable transport improvements, with a target of 45% of journeys to be made by sustainable modes;
- **Net Zero Wales** sets out a target for Welsh Government to reduce emissions from passenger transport by 22% in 2025 and 98% by 2050, alongside an increase in the proportion of sustainable modes to 35% by 2025 and 39% by 2030;
- The **Well-being of Future Generations (Wales) Act 2015** outlines how well-being should be at the centre of decision-making and development of transport schemes;
- The **Active Travel (Wales) Act 2013** requires the Welsh Government and Local Authorities in Wales to actively promote, provide, and develop walking and cycling routes;
- **Future Wales: The National Plan 2040** outlines Welsh Government's commitment to supporting sustainable and proportionate economic growth in rural towns (Policy 5). Whilst public transport and active modes are strongly supported, Welsh Government recognises that car travel may be the only realistic mode for some;
- The **Roads Review Panel** recommended that further consideration be given to non-transport solutions to address issues in Llanbedr, alongside improvements to sustainable transport;
- The **National Transport Delivery Plan 2022-2027** sets out Welsh Government programmes, projects, and policies that will be delivered, including a number of measures to improve the active travel and public transport network across Wales;
- **Welcome to Wales: Priorities for the Visitor Economy 2020 – 2025** outlines how good transport connections and infrastructure are key to the visitor economy in North Wales, with a goal to encourage sustainable transport to replace car journeys where possible;
- The **Gwynedd and Eryri Sustainable Visitor Economy Plan 2035** aims to establish a sustainable visitor economy which gives priority to the well-being and prosperity of its communities;
- The **Programme for Government 2021-2026** sets out a goal to make cities, towns and villages better places in which to live and work across Wales, including delivering a range of transport measures to enable and encourage travel by sustainable modes;
- The **Mid Wales Joint Local Transport Plan 2015-2020** sets out a vision to develop an integrated and affordable transport system across the region that facilitates economic development and access to services. It also supports development of Llanbedr Airfield through the implementation of an access road to the site, defined as a 'Regional Priority Project';
- The **North Wales Transport Commission** recommends solutions are developed to realise a sustainable, integrated and multi-modal transport system in North Wales;
- The **Cyngor Gwynedd Plan 2023-2028** outlines CG's priorities for the 2023-2028 period, which includes ambitions to improve active travel connectivity and the local and visitor economy; and
- Both the **Anglesey and Gwynedd Local Development Plan 2011-2026** and **Eryri Local Development Plan 2016-2031** support the implementation of transport solutions that facilitate sustainable economic growth across the region and develop places where people choose to live, work and visit. Both Local Development Plan's (LDPs) also outline support for the development of Llanbedr Airfield, as part of the Snowdonia Enterprise Zone.

Figure 2-2 Key Policy and Legislation – Llanbedr Transport Improvements

Area	Legislation	National Policies & Plans	Regional & Local Policies & Plans
Transport	Active Travel (Wales) Act (2013) Bus Services (Wales) Bill	National Transport Delivery Plan 2022-2027 Llwybr Newydd: the Wales Transport Strategy (2021) Roads Review Panel: The Future of Roads Investment in Wales & the Welsh Government Response (2023)	Mid Wales Joint Local Transport Plan (2015) North Wales Transport Commission (2023)
Development		Future Wales: the National Plan 2040 (2021)	Anglesey and Gwynedd Local Development Plan 2011-2026 Eryri Local Development Plan 2016-2031
Visitor Economy		Welcome to Wales: Priorities for the Visitor Economy 2020-2025	Gwynedd and Eryri Sustainable Visitor Economy 2035 (2023)
Other	Net Zero Wales: Carbon Budget 2 2021-2025 Well-being of Future Generations (Wales) Act (2015)	Net Zero Wales (2022) Programme for Government 2021-2026	Cyngor Gwynedd Plan 2023-2028

2.1.4. TRANSPORT PROBLEMS, OPPORTUNITIES & CONSTRAINTS

The review of the local context and key transport policies and programmes has identified a significant safety concern associated with the existing A496 through Llanbedr, with six collisions recorded within the village between 2018-2022. The A496 severs the village due to the lack of footway provision, restricting the ability of local people to walk and cycle safely within the village, whilst also reducing safety for accessible users, particularly at the A496 Afon Artro bridge. These issues are exacerbated by a large increase in traffic demand during the peak months for the visitor economy, with daily traffic demand more than double the winter months in August.

Access by sustainable transport is also considered to be poor, which is largely driven by the rural nature of Llanbedr and the sparsity of key services within a reasonable walking or cycling distance to the village. Without an effective public transport network, most people in the local area are required to own a car in order to travel for work and to key services, which conflicts with national aspirations to reduce the number of journeys being made by private car.

Taking the above into account, it is evident that an intervention is required within the study to improve the safety of the transport network within the study area, whilst also improving access by sustainable transport modes to employment and key services, and improving the resilience of the transport network.

It has also been identified that there are significant development proposals for Llanbedr Airfield, which is located approximately 1.5km to the west of the Llanbedr village, as part of the Snowdonia Enterprise Zone. Potential development of the site is constrained by the existing highway layout, with potential safety concerns with any larger vehicles requiring use of Mochras Road to access the site, alongside highway capacity. It is however noted that development of this site is only an opportunity associated with addressing existing transport problems in Llanbedr and the surrounding area, and is not the sole driver of the Case for Change in this location.

The key transport problems, opportunities, and constraints of relevance to the study area are summarised as follows:

Transport Problems

1. Safety;
2. Reliance on the Private Car;
3. Access to Services & Employment;
4. Community Severance & Sense of Place;
5. The Visitor Economy; and
6. Resilience.

Opportunities

1. Active Travel;
2. Public Transport;
3. Employment;
4. Reducing the Need to Travel;
5. Safety Improvements; and
6. Sense of Place.

Constraints

1. Eryri National Park;
2. Flooding;
3. Historic Environment; and
4. Road Alignment.

2.2 DO-NOTHING

Before further developing options as part of the WeITAG process, consideration was given to the 'Do-Nothing' scenario. It was considered that not intervening in the transport network at Llanbedr would continue to ensure that journeys by car are prioritised within the local environ, which conflicts with the aspirations of the Sustainable Transport Hierarchy, set out within Llwybr Newydd.

Furthermore, the 'Do-Nothing' scenario was not considered to be suitable for the additional reasons:

- The community and visitors to Llanbedr will continue to be negatively impacted by traffic that is required to travel along the A496 through the village;
- The road network will remain constrained and limited and on-street parking will continue to occur, contributing to safety issues and inconsistent journey times through the village. This will be significantly exacerbated if development comes forward at Llanbedr Airfield;
- The high collision rate within the village will likely remain, on the basis that the issues with the absence of footways, parked cars, and poor visibility will not change;

- Journeys by active travel within the village will remain unattractive, primarily due to the A496 and the poor footway provision at the A496 Afon Artro bridge;
- The lack of accessible infrastructure will remain a challenge for accessible users to travel safely within Llanbedr;
- Journeys by public transport will remain unattractive until access is improved to services at bus stops and the local rail station, as well as services;
- The issues within the village will likely be exacerbated if aspirations to increase the visitor economy are realised;
- The existing transport network constrains the development of the Llanbedr Airfield site, which could provide a significant number of high-quality jobs for local people, if developed;
- The A496 Afon Artro bridge is a Grade II listed structure and therefore continuing to utilise this as a narrow road bridge risks its future integrity through increasing the potential for vehicle strikes; and
- The A496 and areas surrounding Llanbedr, are within a coastal and river flood risk area, which is likely to worsen with climate change.

It is therefore considered that an intervention in Llanbedr and the surrounding area is essential to improve the well-being of the local community and future-proof the local transport network.

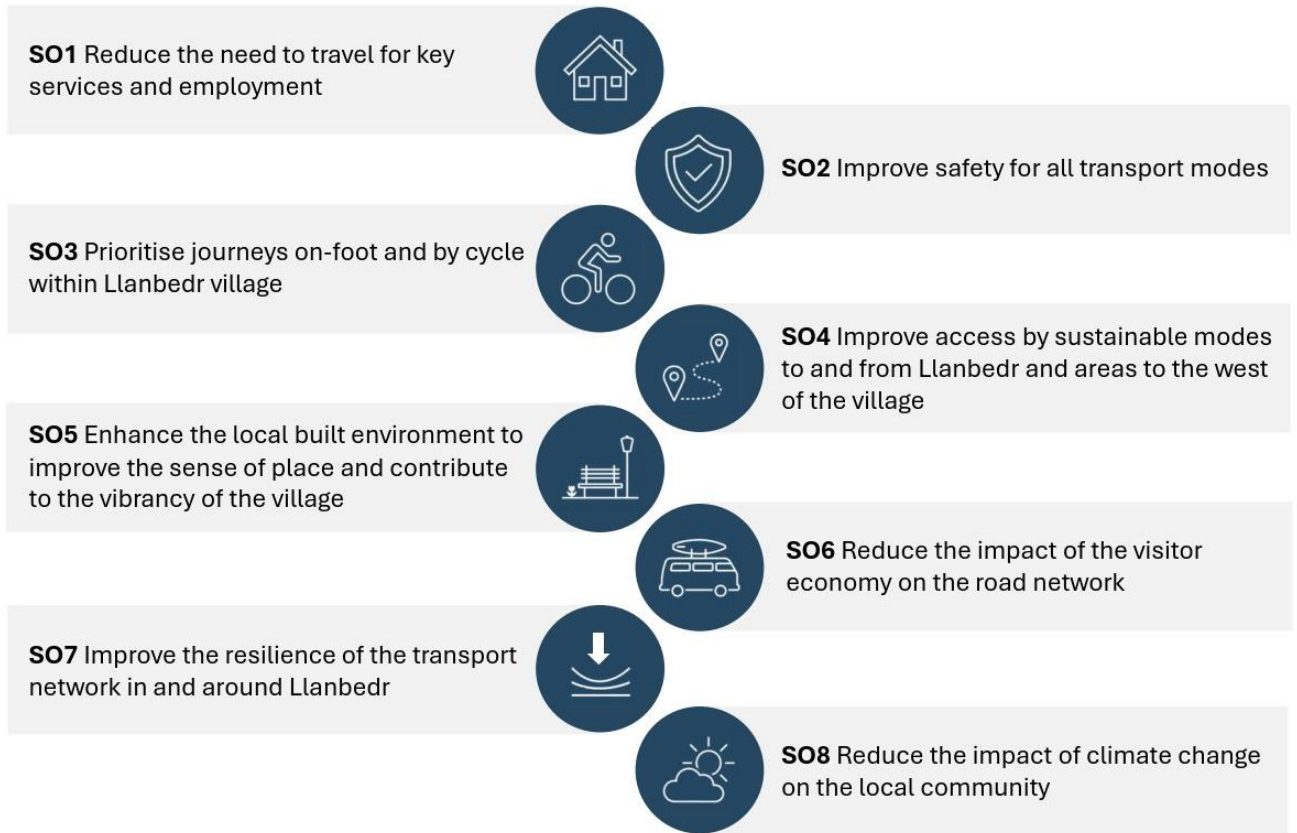
2.3 STUDY OBJECTIVES

In collaboration with stakeholders, a set of study objectives have been established for the Llanbedr Transport Improvements project. To ensure the study objectives are relevant to Llanbedr and support the delivery of wider policy objectives, the study objectives have been assessed in the context of:

- The identified transport problems within the study area;
- The Well-being of Future Generations (Wales) Act 2015;
- Llwybr Newydd: the Wales Transport Strategy 2021; and
- The Cyngor Gwynedd Plan.

The study objectives are outlined in **Figure 2-3**.

Figure 2-3 Study Objectives – Llanbedr Transport Improvements



3 POTENTIAL OPTIONS

3.1 OVERVIEW

In line with WeITAG 2024 guidance, the Menu of Options has been utilised to develop a long-list of potential measures that could provide a benefit to the village of Llanbedr and address the identified transport problems and opportunities.

The long-list of potential measures has been developed with reference to the following previous work and information:

- Previous A496 Llanbedr Access Improvements WeITAG Stage One study (2015);
- Llanbedr Access Road and Bypass Roads Review Panel findings³ (2021);
- Quick-Wins Options identified by Transport for Wales (TfW) (2022)⁴;
- Feedback received from the local community and stakeholders; and
- Best practice examples elsewhere.

The measures have been developed to reflect each category within the WeITAG 2024 Menu of Options, which are summarised as follows:

- **Land-Use Planning Options (LP)** – measures that seek to reduce the need for people to travel and locate key services and employment close to where people live;
- **Behaviour Change Options (BC)** – measures that attempt to encourage people to switch to more sustainable transport modes;
- **Options for More Sustainable Services (SS)** – measures that could improve existing or create new sustainable transport services;
- **Options to Make Better Use of Existing Infrastructure (BU)** – measures to improve the operation of the existing transport network and reinforce the Sustainable Transport Hierarchy; and
- **Options for New Infrastructure (NI)** – using the Sustainable Transport Hierarchy, new infrastructure to improve the transport network.

As part of this, the potential timescale for delivery of each measure was outlined, to potentially identify measures that could be delivered in the shorter-term if required. The delivery timescales were broadly estimated based on the following:

- Short-Term (ST) – deliverable within 18 months;
- Medium-Term (MT) – deliverable between 18 months and 3 years; and
- Long-Term (LT) – unlikely to be deliverable in less than 3 years.

A total of around 100 measures have been identified within the Llanbedr Transport Improvements Menu of Options (70115176-WSP-GEN-LBR-RP-TR-0004), as provided in **Appendix A**.

³ <https://www.gov.wales/roads-review-panel-llanbedr-access-road-and-bypass-html>

⁴ Following this report, CG have been working with the local community to provide improvements to the bus stops within Llanbedr, referred to as the 'Quick-Wins' project. TfW have also been progressing with small-scale improvements to Llanbedr Railway Station, including a new shelter, repainting, and upgrading the station to the latest TfW branding.

3.2 INITIAL SIFT OF MEASURES

3.2.1. PURPOSE & APPROACH

Following identification of the long-list, an initial appraisal and sift of the measures was undertaken to identify the suitability of individual measures for further consideration. The measures were assessed qualitatively in the context of the five dimensions of a good business case: Strategic Fit, Well-being, Affordability, Deliverability, and Management, in order to identify if the measures are:

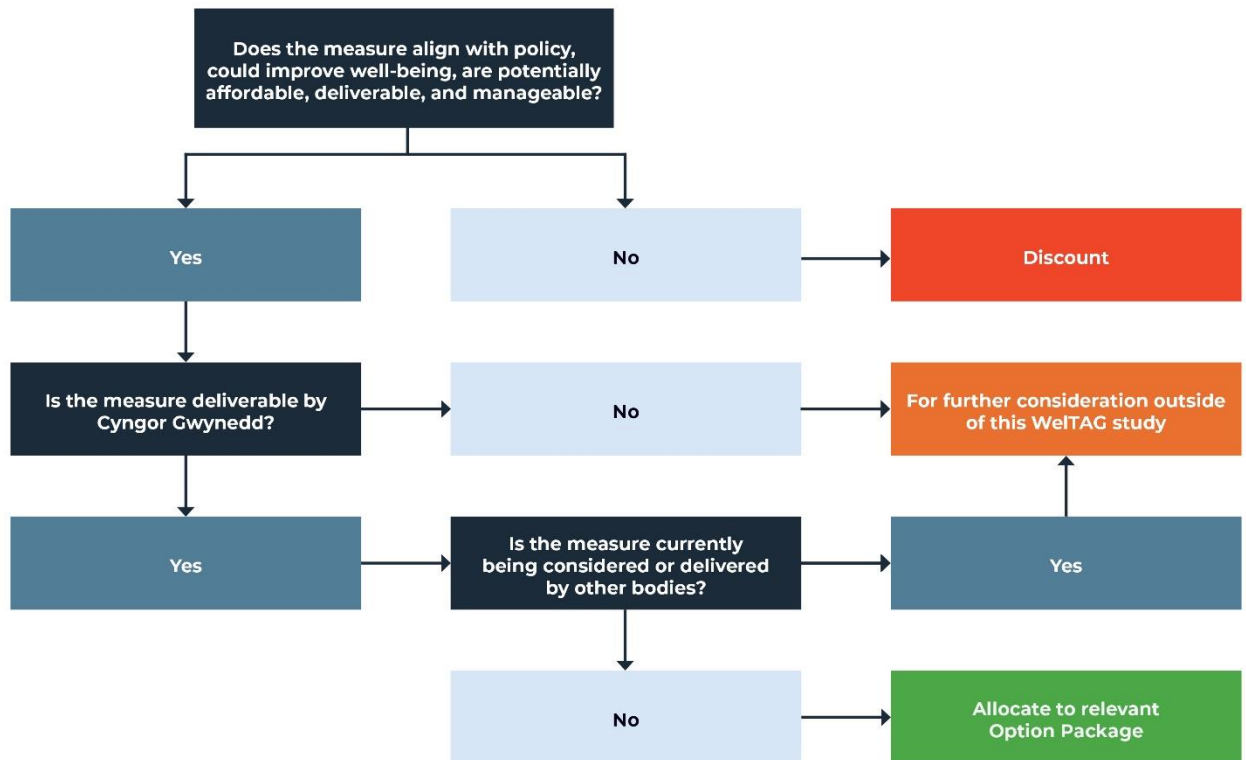
- In line with local and national policy [**Strategic Fit**];
- Likely to improve well-being [**Well-being**];
- Potentially affordable [**Affordability**];
- Potentially deliverable [**Deliverability**]; and
- Able to be managed [**Management**].

Depending on the outcome of the initial appraisal, measures were either combined into distinct option packages, assigned for consideration as part of wider workstreams, or discounted.

Through undertaking this initial sifting exercise, it is considered that each of the individual measures included in each of the options packages are in line with local and national policy, could improve well-being, and are potentially deliverable, on their own merit. The measures, if taken forward to WeITAG Stage Two following the assessment undertaken of the option packages as part of this study, will be further designed and developed alongside key stakeholders at the next stage.

The process of sifting measures is summarised in **Figure 3-1**.

Figure 3-1 Process of Sifting Measures – Llanbedr Transport Improvements



3.2.2. SCENARIOS

The initial appraisal and sifting of measures was undertaken for two scenarios:

1. Without a low-speed relief road at Llanbedr (existing situation); and
2. With a low-speed relief road at Llanbedr.

The two scenarios outlined above were considered as some measures within the village may be suitable in the scenario where a low-speed relief road is provided at Llanbedr, as opposed to the existing situation, and vice versa.

This approach enables consideration of potential options to address the transport problems and opportunities within the study area without the need for a low-speed relief, as per the recommendations of the Roads Review Panel⁵. The Roads Review Panel recommended that an option to 'move the road sideways' (referred to as a low-speed relief road within this study) is further considered as 'a last resort once other solutions have been tried'. Through considering both the with and without a low-speed relief road scenarios, the WeITAG process will be able to consider the success of addressing the known transport problems and opportunities without a low-speed relief road.

3.2.3. OUTPUTS

Further detail of the considerations given as part of the initial appraisal of measures is set out in the accompanying IWBA (70115176-WSP-GEN-LBR-RP-TR-0006), with the outputs of the appraisal provided as follows:

- Strategic Fit Appraisal – **Appendix B**;
- Well-being Appraisal – **Appendix C**; and
- Affordability, Deliverability, and Management Appraisal – **Appendix D**.

As part of the initial appraisal, a number of potential measures were either discounted or assigned for wider consideration as part of other workstreams, as detailed in **Appendix E**. It should be noted that this included measures that were specifically associated with potential development of the Llanbedr Airfield site.

3.3 OPTION PACKAGES

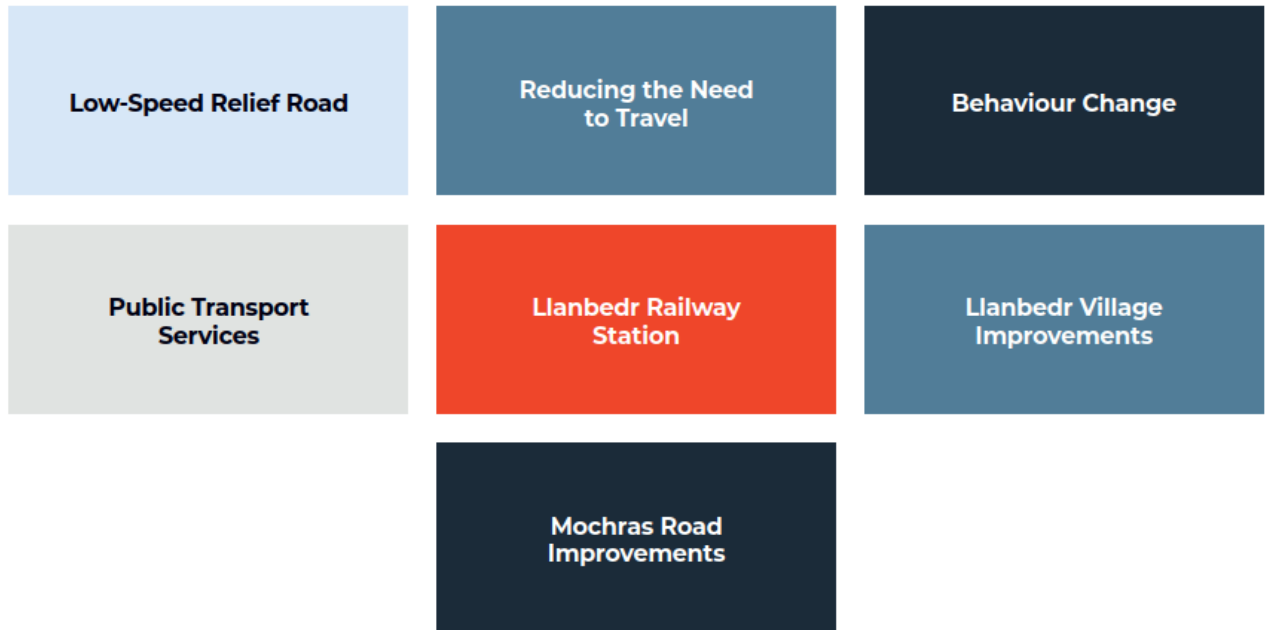
Based on the initial appraisal undertaken, seven Option Packages have been identified for both the with and without low-speed relief road scenarios.

The Option Packages combine measures that have passed the initial appraisal and sift into common intervention types by both mode and/or location. It should be noted that there are some conflicting measures within the Option Packages that will be considered further at the next stage to determine the preferred solution, if the Option Package is taken forward.

The seven Option Packages identified are summarised in **Figure 3-2**.

⁵ <https://www.gov.wales/roads-review-panel-llanbedr-access-road-and-bypass.html>

Figure 3-2 Option Packages – Llanbedr Transport Improvements



A summary of the Option Packages is provided ahead, with further detail of the specific measures included within each package, alongside the appraisal in the context of the study objectives is provided in **Appendix F**.

3.3.1. LOW-SPEED RELIEF ROAD

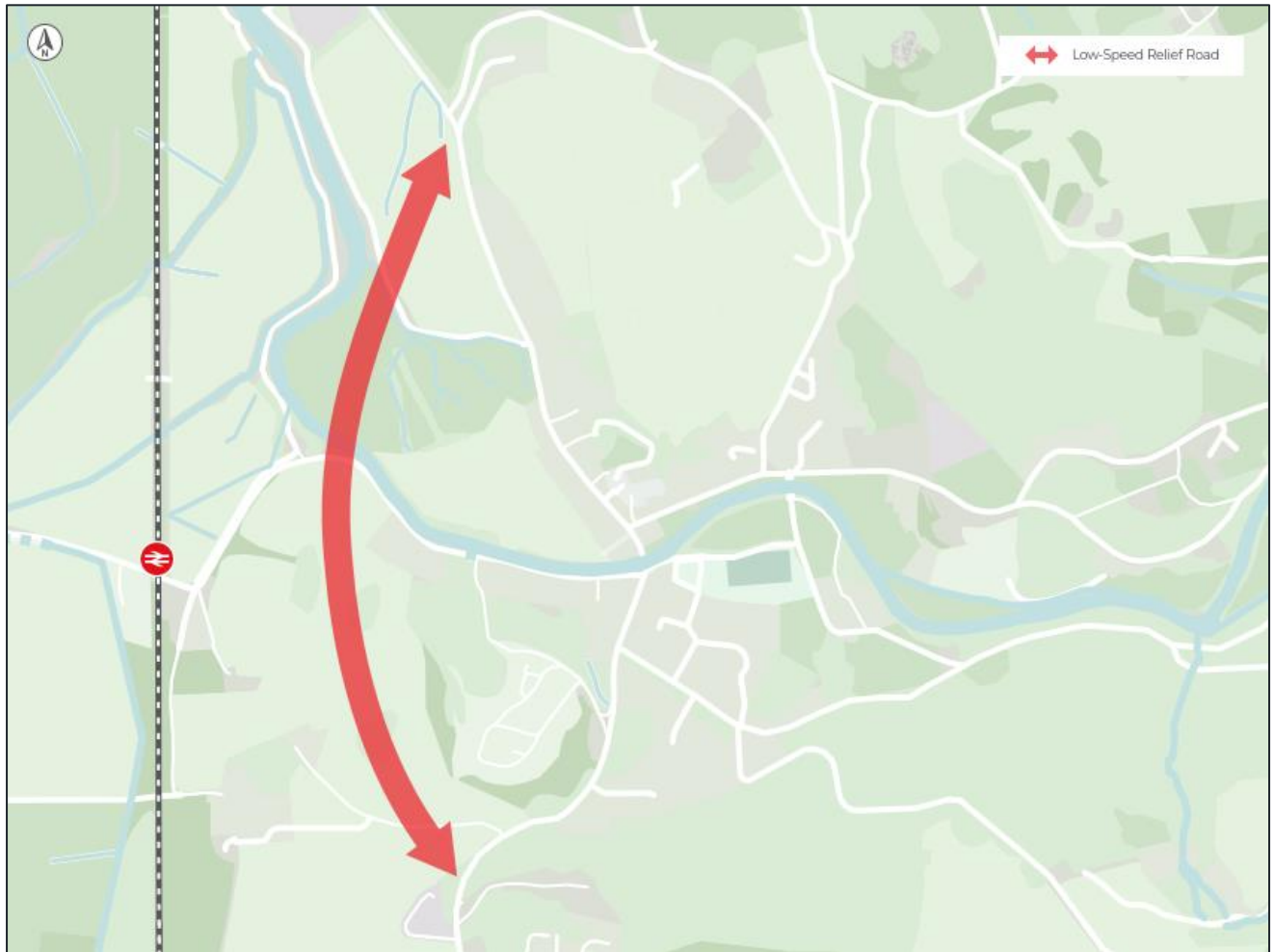
This Option Package proposes a new low-speed relief road to the west of Llanbedr, linking the A496 to the north and south of the village, as well as a new junction providing access to the west (Llanbedr Airfield and Shell Island).

As is detailed further in the Low-Speed Relief Road Option Package note provided in **Appendix F**, a validation exercise has been undertaken to ensure that the broad alignment to the west of Llanbedr remains the most suitable location for a new road. This validation exercise took into account the five dimensions of WeITAG, as well as feedback from stakeholders to ensure that this should be the location for the proposed low-speed relief road.

It should be noted that further design considerations, such as the actual design speed and alignments, will be undertaken as part of WeITAG Stage Two, if this Option Package is taken forward.

The broad location for the proposed low-speed relief road is illustrated in **Figure 3-3**.

Figure 3-3 Low-Speed Relief Road – Option Package



3.3.2. REDUCING THE NEED TO TRAVEL

This Option Package reflects the aim of Priority 1 of Llwybr Newydd, which supports bringing services to people in order to reduce the need to travel, proposing:

- Remote working hubs in nearby locations;
- Encouraging remote working practices in local workplaces;
- Secure delivery lockers within Llanbedr; and
- A mobile GP surgery held within the village.

The same measures have been identified for both the with and without low-speed relief road scenarios for this Option Package.

3.3.3. BEHAVIOUR CHANGE

This Option Package includes measures that could encourage more people to travel by sustainable modes, as per Priority 3 of Llwybr Newydd, including:

- Travel planning at Ysgol Gynradd Llanbedr and Shell Island;
- Public transport and journey planning information in the local community;
- Public transport services departure boards within the village;
- Community Transport scheme for the Ardudwy coast, including a car club;
- Rural Mobility Hub, including incentives such as Car Free Days;
- Public realm improvements;
- Electric vehicle charging points within the village;
- Allocated car parking locations for Shell Island visitors during high-tide; and
- Residential parking permit scheme.

The same measures have been identified for both the with and without low-speed relief road scenarios for this Option Package.

3.3.4. PUBLIC TRANSPORT SERVICES

This Option Package proposes the following measures to improve the public transport services through Llanbedr and in the wider area:

- Public transport incentives for local people and visitors;
- Increased bus service frequency and operating hours;
- Summer timetables for bus services;
- Coordinated bus timetable with the rail network;
- Fflecsi bus service; and
- Shell Island shuttle bus.

The same measures have been identified for both the with and without low-speed relief road scenarios for this Option Package.

3.3.5. LLANBEDR RAILWAY STATION

This Option Package includes measures that could improve access to Llanbedr Railway Station and user experience of rail services, to encourage and enable more people to travel by rail.

The same measures have been identified for both the with and without low-speed relief road assessment scenarios, summarised as follows and as illustrated in **Figure 3-4**.

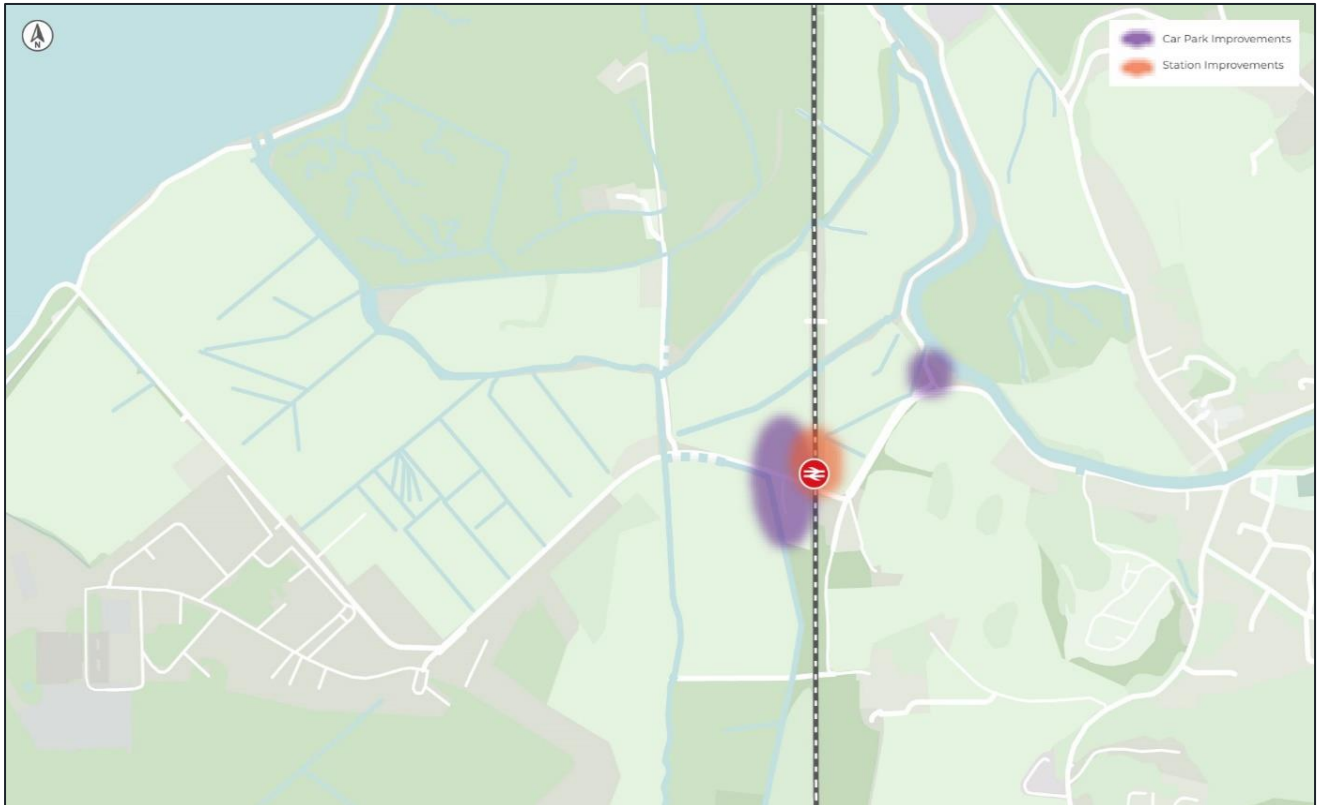
Station Improvements

- Improve the current facilities at the station, including improvements to accessibility;
- Provide cycle parking spaces; and
- Rename Llanbedr Railway Station and/or add details such as 'for Shell Island' to branding.

Car Park Improvements

- Provide disabled car parking bays at the station; and
- Improve the existing car park, including connectivity to the station and electric vehicle charging facilities, or provide a new car park facility at the station.

Figure 3-4 Llanbedr Railway Station – Option Package



3.3.6. LLANBEDR VILLAGE IMPROVEMENTS

This Option Package includes measures that could improve safety, active travel connectivity, and access to public transport services within Llanbedr. The measures included within this Option Package are summarised as follows and illustrated in **Figure 3-5** and **Figure 3-6** for the without and with low-speed relief road scenarios, respectively.

A496 Improvements

- Additional parking restrictions, alongside off-street residential car parking (including electric vehicle charging infrastructure);
- 20-mph speed limit extension to the north and south;
- Speed management and traffic calming measures;
- Additional pedestrian crossings where possible; and
- Accessibility improvements at bus stops.

A496 Afon Artro Bridge Improvements

- Give-way to oncoming vehicles signage and arrangement;
- Raised table, incorporating the Mochras Road and Unnamed / Ysgol Gynradd Llanbedr Road junctions;
- Traffic signals; and
- Yellow-box markings at both the Mochras Road and Unnamed / Ysgol Gynradd Llanbedr Road junctions.

Active Travel Improvements

- Improvements to existing footways, including lighting;
- Cycle hire scheme, including e-cycles;
- Cycle parking in the village centre;
- Upgrade Public Rights of Way to active travel standards to the north-west, south-west, and east of the village;
- Implement part of the aspirational Arudwy Green Corridor long-distance cycle route through Llanbedr by either upgrading the NCN8 route or the Public Rights of Way;
- Active travel bridge to the east of the A496 Afon Artro bridge or upgrade the existing private bridge, alongside improvements to the connecting routes; and
- Wayfinding improvements within the village.

Unnamed / Ysgol Gynradd Llanbedr Road Improvements

- School street on the Unnamed / Ysgol Gynradd Llanbedr Road;
- New pedestrian crossings, tying-in with active travel improvements; and
- Footway provision to The Mill Caravan Park and Camping Site.

With Low-Speed Relief Road

A total of 30 potential measures have been identified as part of the Llanbedr Village Improvements Option Package in the without low-speed relief road scenario. The following additional measures have been identified for the with low-speed relief road scenario only, in addition to the measures outlined for the without low-speed relief road scenario:

- Amend the A496 to be a one-way route through the village [**A496 Improvements**];
- Restrict HGV movements, except for access, along the existing A496 [**A496 Improvements**];
- Close the A496 Afon Artro bridge for general traffic [**A496 Afon Artro Bridge Improvements**]; and
- An active travel route parallel to the existing A496 and/or a route parallel to the proposed low-speed relief road forming part of the aspirational Arudwy Green Corridor long-distance cycle route [**Active Travel Improvements**].

Figure 3-5 Llanbedr Village Improvements – Option Package (Without Low-Speed Relief Road)

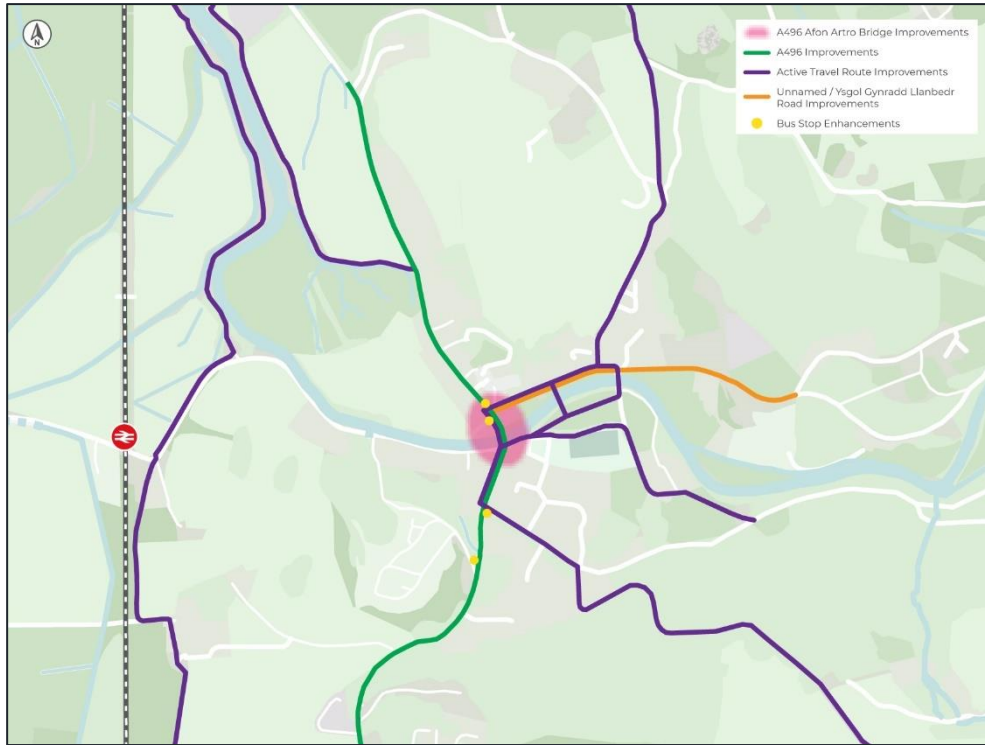
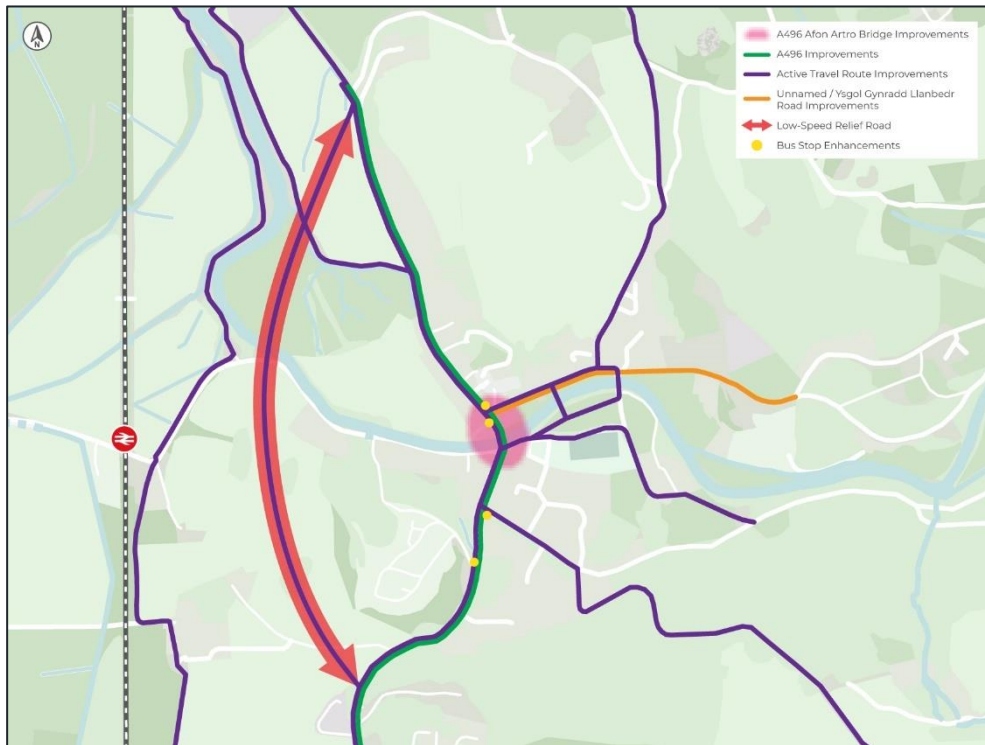


Figure 3-6 Llanbedr Village Improvements – Option Package (With Low-Speed Relief Road)



3.3.7. MOCHRAS ROAD IMPROVEMENTS

This Option Package proposes measures that could improve connectivity along Mochras Road by active travel modes, whilst also improving safety. The measures included within this Option Package are summarised as follows and illustrated in **Figure 3-7** and **Figure 3-8** for the without and with low-speed relief road scenarios, respectively.

Safety Improvements

- 20-mph speed limit extension to Llanbedr Railway Station;
- Speed limit reduction to the west of Llanbedr Railway Station;
- Additional parking restrictions in the vicinity of the A496 junction; and
- Traffic calming measures, such as kerb build-outs and speed humps.

Active Travel Improvements

- Active travel route between Llanbedr Railway Station and the village, either adjacent to Mochras Road or parallel to the road on the northern side of the Afon Artro;
- Active travel route through the Artro Lodges site, linking Mochras Road to the A496; and
- Active travel route between Shell Island and Llanbedr Railway Station, either adjacent to Mochras Road or parallel to the road through adjacent fields.

With Low-Speed Relief Road

The following additional measures have been identified for the with low-speed relief road scenario only, in addition to the measures outlined for the without low-speed relief road scenario:

- Closure of Mochras Road between the proposed low-speed relief road and village centre; and
- An additional option to provide an active travel route between Llanbedr Railway Station and the village centre through reallocating road space wherever possible.

Figure 3-7 Mochras Road Improvements – Option Package (Without a Low-Speed Relief Road)

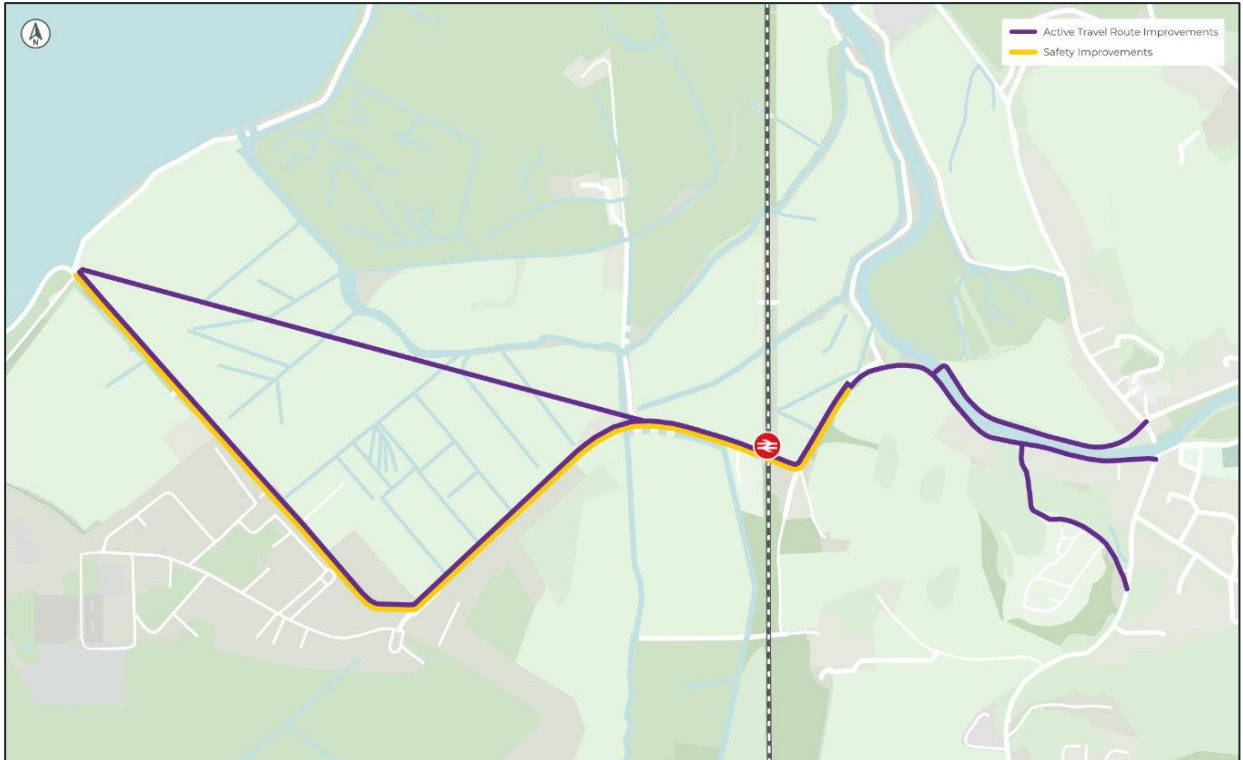
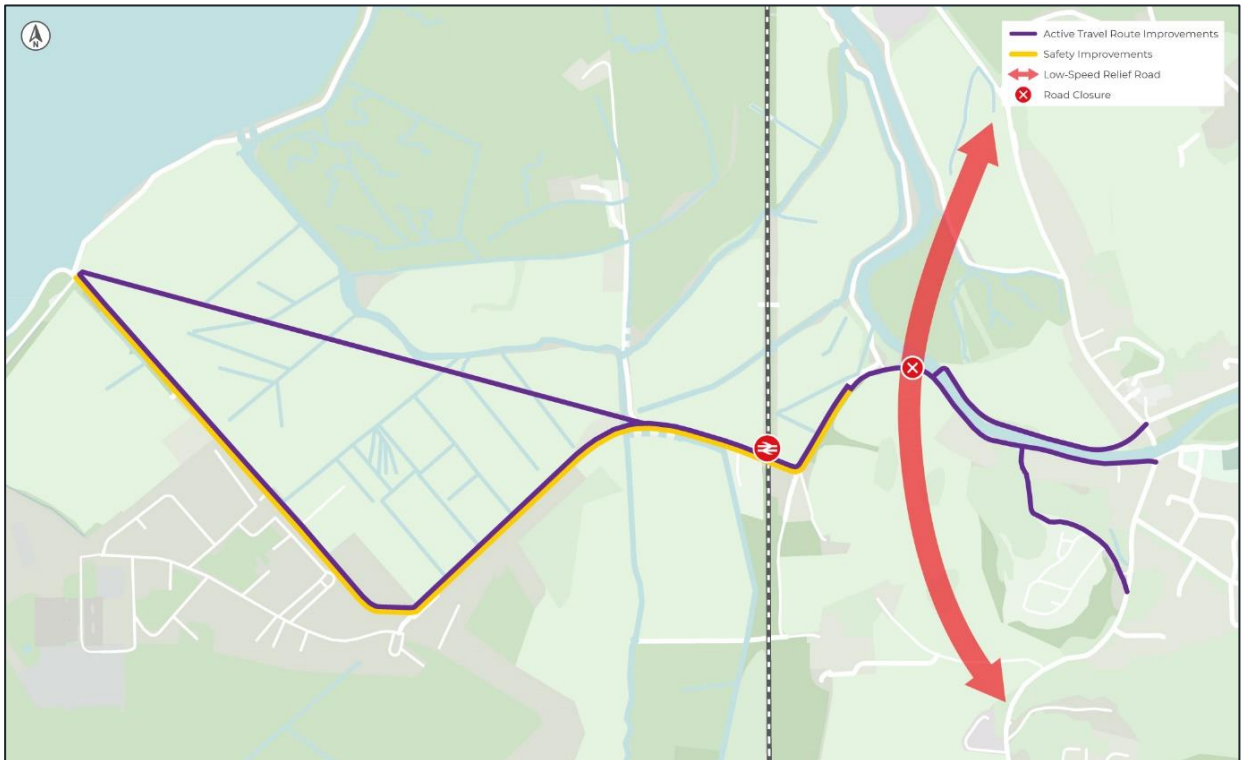


Figure 3-8 Mochras Road Improvements – Option Package (With Low-Speed Relief Road)



4 ASSESSMENT OF OPTIONS

4.1 OVERVIEW

The seven Option Packages identified have been appraised in the context of their Strategic Fit and Well-being, in order to ensure that the proposed interventions are aligned with transport policy and programmes and contribute positively to well-being. The appraisal has been undertaken utilising a seven-point scale between large potential beneficial impacts / alignment with policy (+++) through to large potential adverse impacts / non-alignment with policy (- -).

High-level consideration has also been given to the potential Affordability, Deliverability, and Management dimensions of each Option Package, in order to ensure the proposals are deliverable and there are no insurmountable risks. This is in line with WelTAG 2024, which sets out that priority should be given at WelTAG Stage One to assessing options against Strategic Fit and Well-being.

Further detail of the assessment undertaken is provided in the accompanying IWBA (70115176-WSP-GEN-LBR-RP-TR-0006).

4.2 STRATEGIC FIT

4.2.1. TRANSPORT POLICIES & PROGRAMMES

A summary of the appraisal undertaken in the context of key transport priorities set out in national, regional and local policy and programmes is provided in **Table 4-1**, with the full Appraisal Summary Table provided in **Appendix G**⁶.

⁶ Due to the timing of the study, the options have not been assessed for Strategic Fit against the North Wales Regional Transport Plan (RTP). If the RTP is released in time, this will be considered at Stage Two.

Table 4-1 Summary of Appraisal – Strategic Fit

Option Package	Scenario	Llwybr Newydd: the Wales Transport Strategy			Net Zero Wales	Future Wales: The National Plan 2040	Mid Wales Joint Local Transport Plan 2015	Cyngor Gwynedd Plan 2023-2028	Eryri LDP 2016-2031
		Priority 1	Priority 2	Priority 3					
Low-Speed Relief Road	Without Low-Speed Relief Road	-	-	-	-	-	-	-	-
	With Low-Speed Relief Road	0	++	0	+	+++	+++	++	+++
Reducing the Need to Travel	Without Low-Speed Relief Road	++	0	0	++	+	+	+	+
	With Low-Speed Relief Road	++	0	0	++	+	+	+	+
Behaviour Change	Without Low-Speed Relief Road	0	+	++	+	+	+	+	+
	With Low-Speed Relief Road	0	+	++	+	+	+	+	+
Public Transport Services	Without Low-Speed Relief Road	0	++	++	++	++	++	++	++
	With Low-Speed Relief Road	0	++	++	++	++	++	++	++
Llanbedr Railway Station	Without Low-Speed Relief Road	0	++	+	+	+	+	+	+
	With Low-Speed Relief Road	0	++	+	+	+	+	+	+
Llanbedr Village Improvements	Without Low-Speed Relief Road	0	++	+	+	+	++	+	+
	With Low-Speed Relief Road	0	+++	++	++	++	+++	++	++
Mochras Road Improvements	Without Low-Speed Relief Road	0	++	+	+	+	++	+	+
	With Low-Speed Relief Road	0	+++	++	++	++	+++	++	++

Based on the analysis undertaken, it is clear that all Option Packages have a strong Strategic Fit and could contribute positively to both national and local policies and programmes. The Option Packages are closely aligned with relevant policies and programmes as they could all contribute to the following:

- Enabling more journeys to be made by sustainable transport through improvements to the active travel and public transport network;
- Encouraging local people and visitors to travel by sustainable modes by providing incentives, journey planning support, safety improvements, improving rail and active travel facilities, and encouraging shared solutions;
- Reducing the total miles travelled by car by either reducing the need to travel or contributing to a modal shift, which could in turn reduce carbon emissions from transport;
- Improving access to the transport network for accessible users, removing physical barriers to sustainable transport;
- Improving placemaking and the sense of place in Llanbedr and in the wider area;
- Improving user experience of the public transport network through improving access to the network and services; and
- Supporting sustainable economic growth both within Llanbedr, particularly at Llanbedr Airfield, and along the Arduwy Corridor.

Of particular note, the Low-Speed Relief Road Option Package could significantly contribute to the Future Wales outcomes, the Mid Wales Joint Local Transport Plan, and the Eryri LDP, due to its ability to meet objectives such as supporting access to employment and key destinations in the region, including the Snowdonia Enterprise Zone at Llanbedr Airfield, as well as improving road safety. A new road in Llanbedr is identified as a regional priority project within the Mid Wales Joint Local Transport Plan, and the Snowdonia Enterprise Zone is included as a specific policy within the Eryri LDP.

Despite this, it is expected that the Low-Speed Relief Road Option Package would only have a moderate beneficial impact on Priority 2 of Llwybr Newydd and would not impact either Priority 1 or 3. It is therefore evident that, if a low-speed relief road is to be developed, supplementary Option Packages will need to be implemented to ensure a transport intervention at Llanbedr meets all three of the Priorities set by Llwybr Newydd.

It is also noted that both the Llanbedr Village Improvements and Mochras Road Improvements Option Packages are expected to provide a more significant beneficial contribution to the policies and programmes in the with low-speed relief road scenario, compared to if a low-speed relief road is not implemented, due to the additional measures that can be provided within the village if a low-speed relief road is delivered.

Whilst all Option Packages are aligned with national and local transport policy, it is noted that no individual Option Package meets all policies and programmes considered. It is therefore considered that a combination of Option Packages would be required at Llanbedr to meet all transport policies and programmes considered.

4.2.2. STUDY OBJECTIVES

A summary of the appraisal undertaken in the context of the study objectives is provided in **Table 4-1**, with the full Appraisal Summary Tables provided within **Appendix F**.

Table 4-2 Summary of Appraisal – Study Objectives

Option Package	Scenario	Study Objectives							
		SO1 – Reduce the need to travel for key services and employment	SO2 – Improve safety for all transport modes	SO3 – Prioritise journeys on-foot and by cycle within Llanbedr village	SO4 – Improve access by sustainable modes to and from Llanbedr and areas to the west of the village	SO5 – Enhance the local built environment to improve the sense of place and contribute to the vibrancy of the village	SO6 – Reduce the impact of the visitor economy on the road network	SO7 – Improve the resilience of the transport network in and around Llanbedr	SO8 – Reduce the impact of climate change on the local community
Low-Speed Relief Road	Without Low-Speed Relief Road	-	-	-	-	-	-	-	-
	With Low-Speed Relief Road	0	+++	0	+	++	+++	+++	++
Reducing the Need to Travel	Without Low-Speed Relief Road	++	0	0	0	0	+	0	+
	With Low-Speed Relief Road	++	0	0	0	0	+	0	+
Behaviour Change	Without Low-Speed Relief Road	0	+	0	++	++	+	+	+
	With Low-Speed Relief Road	0	+	0	++	++	+	+	+
Public Transport Services	Without Low-Speed Relief Road	0	0	0	++	0	++	0	+
	With Low-Speed Relief Road	0	0	0	++	0	++	0	+
Llanbedr Railway Station	Without Low-Speed Relief Road	0	+	0	++	+	+	0	+
	With Low-Speed Relief Road	0	+	0	++	+	+	0	+
Llanbedr Village Improvements	Without Low-Speed Relief Road	0	++	++	++	++	++	0	+
	With Low-Speed Relief Road	0	++	+++	++	+++	+	+	+
Mochras Road Improvements	Without Low-Speed Relief Road	0	+	+	++	0	+	0	+
	With Low-Speed Relief Road	0	++	++	++	0	++	0	+

Although there are no Option Packages expected to have an adverse impact on meeting any of the study objectives, no individual Option Package meets all study objectives. This being said, the Llanbedr Village Improvements and Low-Speed Relief Road Option Packages are most successful in meeting the study objectives, contributing positively to all but two of the objectives.

The Low-Speed Relief Road Option Package could be potentially significantly beneficial in improving safety (SO2), reducing the impact of the visitor economy on the local road network (SO6), and improving resilience of the transport network (SO7). These benefits could be most likely derived from this Option Package significantly reducing traffic demand through Llanbedr, which would improve conditions significantly within the village.

It is also noted that, although it could contribute to meeting a number of study objectives in the without low-speed relief road scenario, the Llanbedr Village Improvements Option Package could contribute further towards the study objectives if a low-speed relief road is implemented. Alongside the Mochras Road Improvements Option Package, implementing a low-speed relief road could enable either a closure for general traffic or significant amendment to the A496 Afon Artro Bridge and Mochras Road within Llanbedr, which could enable more people to travel by active modes for local journeys.

In particular, it is considered that the Llanbedr Village Improvements Option Package could enable active travel modes to be fully prioritised within the village (SO3), whilst also enhancing the local built environment through public realm enhancements (SO5). It is not considered likely that these study objectives could be as significantly benefitted if a low-speed relief road is not implemented.

Despite this, it is acknowledged that the Option Packages, if combined, could contribute to all study objectives in both the with and without low-speed relief road scenarios.

4.2.3. FUTURE ROAD BUILDING TESTS

As it is the only Option Package that includes new road building, the Low-Speed Relief Road Option Package has been considered in the context of the Future Road Building Tests⁷.

A summary of the potential impact of the Low-Speed Relief Road Option Package on the Future Road Building Tests is provided in **Table 4-3**, with further detail of appraisal undertaken provided in the Low-Speed Relief Road – Option Package note provided in **Appendix F**.

⁷ <https://www.gov.wales/welsh-government-response-roads-review.html>

Table 4-3 Future Road Building Tests – Low-Speed Relief Road Option Package

Ref	Test	Adherence	Summary
1	Support Modal Shift and Reduce Carbon Emissions.	✓	Alongside improvements delivered within Llanbedr by other Option Packages, a low-speed relief road could support modal shift by improving access to public transport services, whilst also prioritising walking and cycling within the village. Although there could be some carbon impacts associated with construction, these can be minimised through scheme development and measures further explored at the next stage of WelTAG.
2	Improve Safety through Small-Scale Changes.	X	Whilst a low-speed relief road could significantly improve safety, it is not considered to be a small-scale change and therefore does not meet this Future Road Building Test.
3	Adapt Roads to the Impacts of Climate Change.	✓	A low-speed relief road to the west of Llanbedr could improve the resilience of the A496 to future flood events, which are likely to be more likely as the impacts of climate change become more prominent.
4	Provide Access and Connectivity to Jobs and Centres of Economic Activity in a way that Supports Modal Shift.	✓	A low-speed relief road could support development of Llanbedr Airfield, which has been allocated as part of the Snowdonia Enterprise Zone. It is however noted that the proposed low-speed relief road should not be considered as an access road to Llanbedr Airfield, as its primary purpose is to improve safety and community cohesion within the village of Llanbedr, and resilience of the transport network.

The analysis undertaken identified that the Low-Speed Relief Road Option Package would meet three of the four Future Roads Building Tests through supporting modal shift, adapting the road network to reduce the impact of climate change, and through supporting development at Llanbedr Airfield.

It is therefore considered that the Low-Speed Relief Road Option Package is in line with Welsh Government policy on constructing new roads.

4.2.4. SUMMARY

It has been identified that all Option Packages fit with national and local transport priorities and programmes, as well as the study objectives for the Llanbedr Transport Improvements WelTAG Stage One. With this in mind, it is not considered that any of the Option Packages should be discounted on the basis of their Strategic Fit at this stage, with further analysis and consideration required as part of WelTAG Stage Two to assess and quantify their potential impacts on the study objectives.

Despite this, it is considered unlikely that any of the Option Packages will contribute to all transport priorities and programmes, as well as the study objectives, and therefore the preferred solution will likely need to be formed by a combination of different Packages.

The appraisal undertaken has also demonstrated that it is likely that the Option Packages will have a greater contribution to transport policy and programme aspirations and the study objectives if a low-speed relief road is implemented at Llanbedr. It is however noted that this contribution requires further consideration at the next stage to understand if the potential additional benefits provide effective value for money of the likely additional investment required.



Finally, a review was undertaken of the Low-Speed Relief Road Option Package in the context of the Welsh Government's Future Road Building Tests. Based on this review, it is considered that the Low-Speed Relief Road Option Package, in principle, is aligned with Welsh Government policy on constructing new roads.

4.3 WELL-BEING

A summary of the appraisal undertaken in the context of well-being is provided in **Table 4-4**, with the Well-being Appraisal Summary Tables provided in **Appendix H**.

Table 4-4 Summary of Appraisal – Well-being

Option Package	Scenario	People and Communities	Environment	Economy and Places	Culture and the Welsh Language
Low-Speed Relief Road	Without Low-Speed Relief Road	-	-	-	-
	With Low-Speed Relief Road	+++	-	+++	++
Reducing the Need to Travel	Without Low-Speed Relief Road	+	+	+	0
	With Low-Speed Relief Road	+	+	+	0
Behaviour Change	Without Low-Speed Relief Road	++	+	++	+
	With Low-Speed Relief Road	++	+	++	+
Public Transport Services	Without Low-Speed Relief Road	+	++	++	+
	With Low-Speed Relief Road	+	++	++	+
Llanbedr Railway Station	Without Low-Speed Relief Road	++	0	+	+
	With Low-Speed Relief Road	++	0	+	+
Llanbedr Village Improvements	Without Low-Speed Relief Road	++	+	+	+
	With Low-Speed Relief Road	+++	++	++	++
Mochras Road Improvements	Without Low-Speed Relief Road	++	+	+	+
	With Low-Speed Relief Road	+++	++	+	+

It is evident that all Option Packages could have an overall beneficial impact on well-being through both improving access by sustainable modes and improving community cohesion within Llanbedr.

In particular, it is noted that the Behaviour Change and Public Transport Services Option Packages could have a moderate beneficial impact on the economy and places, as well as people and communities / the environment, respectively. This is primarily driven by the Option Packages proposing a Community Transport scheme and public transport incentives that could improve access by sustainable modes, particularly for more vulnerable people, alongside measures to encourage further travel by public transport.

Despite this, it is acknowledged that the Low-Speed Relief Road Option Package, if delivered in isolation, could have a slight adverse impact on environmental well-being. Although it is not expected that this Option Package would have an impact on greenhouse gas emissions post-implementation, due to the limited induced demand and potential wider benefits to sustainable transport (as detailed further in **Appendix F**), it is acknowledged that significant construction is required to deliver this scheme, which could impact on the environment. Despite this, the impact on the environment can be minimised through effective planning – such as the production of Carbon and Construction Management Plans – as part of the WeITAG process.

The potential slight adverse environmental impact should also be considered in the context that the Low-Speed Relief Road could have the largest benefit to other well-being ambitions, particularly people and communities and the economy and places. It is considered that the removal of through-traffic from the village centre could significantly improve confidence in using the local network, improving equality, whilst also significantly enhancing the local built environment.

In addition to this, the assessment suggests that both the Llanbedr Village and Mochras Road Improvements Option Packages could have greater benefits if a low-speed relief road is implemented, compared to the existing situation. These additional benefits could be derived through further measures being delivered to prioritise and enable journeys on-foot and by cycle through the village, as well as changes to the operation of the A496 Afon Artro bridge and Mochras Road to restrict vehicle movements.

With this in mind, it is considered that the Low-Speed Relief Road Option Package should not be discounted at this stage due to its potential environmental impacts. It is however considered highly likely that any final preferred solution would need to include a combination of Option Packages to ensure that all well-being ambitions are met.

In line with the findings of the Roads Review Panel, further consideration should also be given at the next stage to understand the potential success of the Option Packages in delivering well-being benefits in the scenario without a low-speed relief road. If the level of well-being benefits are considered to be comparable with the scenario with a low-speed relief road, the scenario where a new road is not implemented should be prioritised.

4.4 AFFORDABILITY

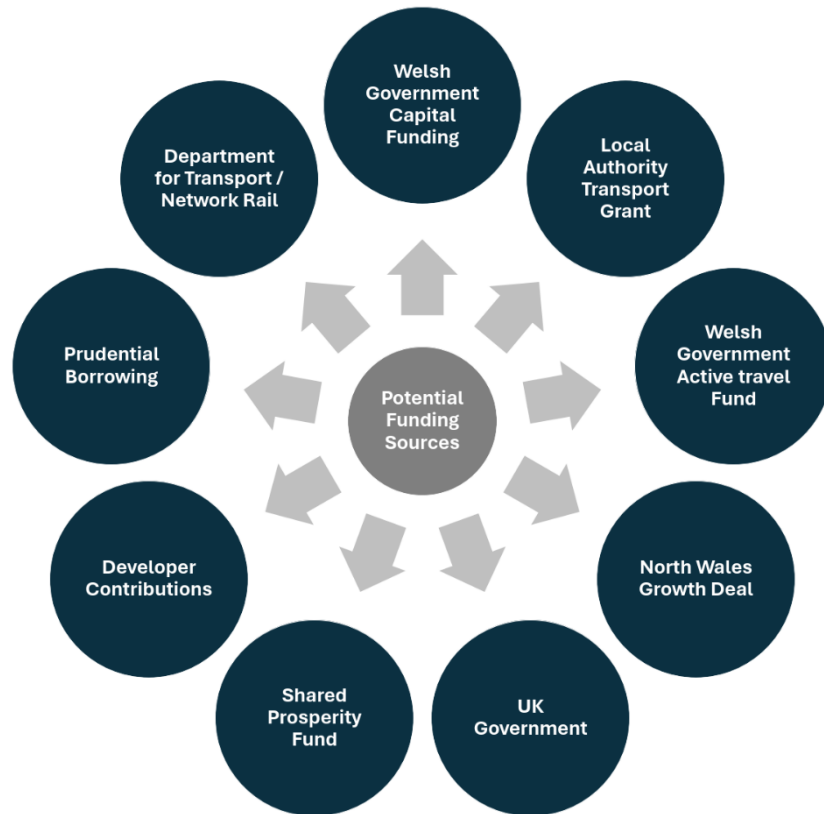
Due to the nature of a WeITAG Stage One study and the early stage of development of each of the Option Packages, affordability is not required to be considered in detail at this stage.

This being said, the potential cost of each individual measure was estimated as part of the initial appraisal process in the context of whether the options were associated with ‘Low’, ‘Moderate’ or ‘High’ costs; as shown in **Appendix D**. This enabled measures that were likely to have a large cost and limited benefits to be discounted at this early stage, if relevant. The estimated costs of the Option Packages individually and cumulatively will be calculated as part of the WeITAG Stage Two process.

Further consideration has also been given to the potential sources of funding the Option Packages. Due to the scale of the options, it is likely that they will require investment from a range of sources, which should be further explored at WeITAG Stage Two.

The potential sources of funding for delivering the proposed Option Packages are illustrated in **Figure 4-1**⁸.

Figure 4-1 Potential Funding Sources – Llanbedr Transport Improvements



⁸ Note that although not published at the time of writing, in future, the North Wales Regional Transport Plan could be a potential source of funding.

4.5 DELIVERABILITY

At this stage, consideration has been given to key deliverability risks, as part of the initial appraisal process of the measures (**Appendix D**), in order to identify if there are any major barriers to delivery.

Alongside the risk of a lack of funding for implementation of a scheme in this location, the following key risks to project delivery have been identified at this stage and will be further considered, developed, and allocated throughout the WeITAG process:

- The location of the study area within the Eryri National Park increases the risk of potential assessments required associated with scheme development, including Heritage Impact Assessments and/or Listed Building Consent;
- There are also listed buildings and structures within Llanbedr, including the A496 Afon Artro bridge;
- There are several Protected Sites, including two Sites of Special Scientific Interest (SSSI) and Ancient Woodland areas, in Llanbedr and the surrounding area;
- Planning permission may be required to facilitate a number of the Option Packages. It is noted that planning approval for a new road to the west of Llanbedr was secured in 2020 (NP5/62/399) and therefore the Low-Speed Relief Road Option Package, if taken forward, should further consider if this planning approval can be utilised to reduce the deliverability risks to the project⁹;
- In some cases, it would not be possible to provide infrastructure to standards due to the area being limited and constrained in terms of available space. This may require more intrusive work, which could be challenging to deliver within the National Park;
- Several measures, such as changes to parking restrictions, could require Traffic Regulation Orders;
- Several measures require the purchase of third-party land or agreement to be made with landowners. It has been noted that some local landowners object to the delivery of some measures, particularly the Low-Speed Relief Road Option Package, and therefore the Compulsory Purchase Order (CPO) process may need to be followed;
- If significant improvements are not made to the local transport network, development may be constrained in the future at Llanbedr Airfield, reducing the potential for high-quality jobs to be provided in the local area;
- A number of measures will have intrusive and potentially significant construction impacts, particularly the Low-Speed Relief Road Option Package, which could increase carbon emissions from the transport network through both operational and embodied carbon¹⁰;
- Some measures require delivery and management by the local community, such as a Community Transport scheme (Behaviour Change Option Package), which would require responsibility being taken externally for this; and
- The local community are engaged on the project and require ongoing engagement to ensure they are kept informed of the delivery of the project.

⁹ It should be noted that WSP have produced a separate Planning Review (70115176-WSP-HAC-LBR-RP-TP-0001) on behalf of CG, summarising the current status of planning approval NP5/62/399. It is understood that CG are seeking to make a material start to the previously approved scheme, in order to secure the planning approval into the future. This is however separate to the WeITAG process and does not prejudice the preferred solution that could be recommended.

¹⁰ The Carbon Baseline Report (70115176-WSP-EGN-LBR-RP-TR-0001) recommended that a Carbon Management Plan is developed at the next stage to identify potential measures that could reduce the carbon impacts associated with the construction phase.

4.6 MANAGEMENT

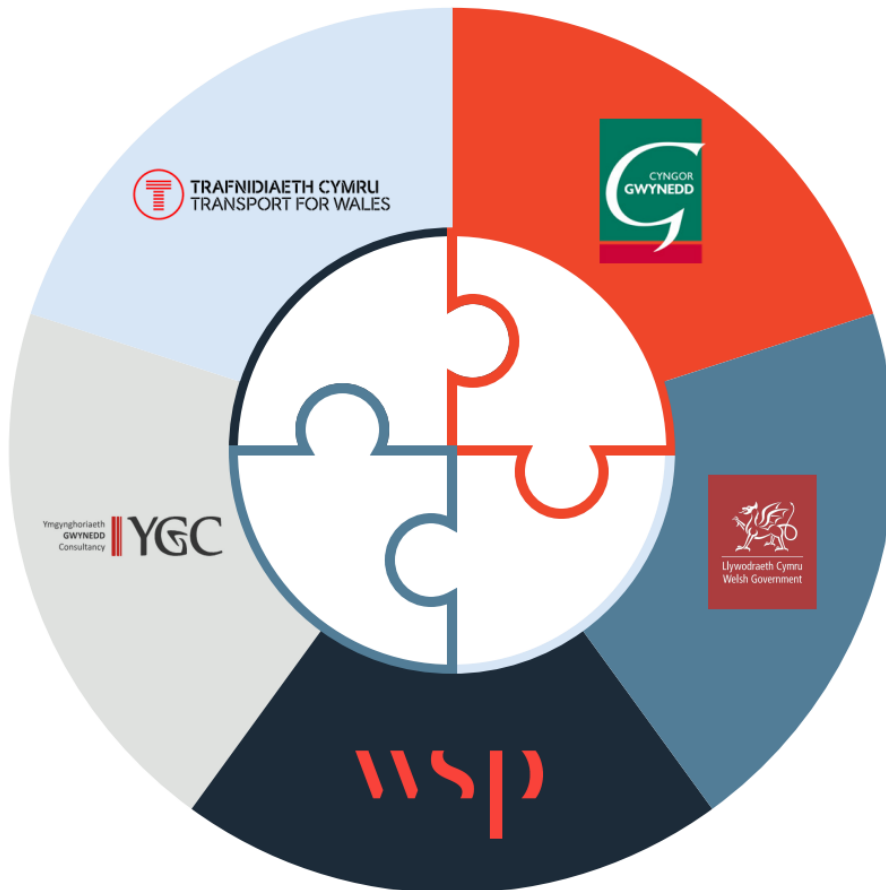
The Management dimension will be further developed through the WeITAG process. This being said, consideration was given to the potential organisations responsible for delivery and management of the potential measures as part of the initial appraisal, provided in **Appendix D**.

Further consideration has also been given to Project Governance and the Delivery Plan, set out as follows.

4.6.1. PROJECT GOVERNANCE

As part of the WeITAG Stage One study, a Working Group has been established for the Llanbedr Transport Improvements project, consisting of representatives from the organisations illustrated in **Figure 4-2**¹¹.

Figure 4-2 Working Group – Llanbedr Transport Improvements



¹¹ Representatives from both the Environment and Economy departments of Cyngor Gwynedd are part of the Working Group. Eryri National Park Authority are also invited to the ongoing Working Group meetings.



The Working Group meet on a monthly basis, established in April 2024, with WSP presenting an update on the status of the WelTAG study within the calls, enabling the Group to proactively challenge the approach and findings.

Due to this ongoing working partnership between key organisations, the Working Group has formed the Review Group for this WelTAG study, and it is expected that this will continue through the WelTAG process. The findings of the Review Group meeting undertaken in August 2024 are summarised in **Appendix I**.

4.6.2. DELIVERY PLAN

As the Local Highway Authority, it is expected that CG will lead on the delivery of the preferred solution(s) recommended as part of the WelTAG process. It is however noted that due to the ongoing working relationship between the Eryri National Park Authority, TfW and CG, the delivery of some measures may be possible through either the Eryri National Park Authority or TfW, with support from CG.

It should be noted that delivery of the project through to the end of WelTAG Stage Two has been funded by Welsh Government, however further funding would be required to continue the project.

4.6.3. RISK MANAGEMENT

Due to the early stage of option development, all potential constraints and risks to delivery cannot be identified and quantified at this stage of the WelTAG process. As further development work is undertaken, a better understanding will be developed of constraints and potential risks that may impact upon project delivery. As option development progresses, a Risk Management Strategy and Risk Register will be developed as part of the project management processes.

5 CONCLUSIONS & NEXT STEPS

5.1 SUMMARY & CONCLUSION

WSP has been commissioned by CG to develop a WelTAG Stage One and Two study to investigate potential transport interventions that could be implemented to improve the transport network in the village of Llanbedr. This report sets out the findings of the WelTAG Stage One phase of the study.

As part of this, and as set out within the Stage 0 – Case for Change Report (70115176-WSP-GEN-LBR-RP-TR-0002), there is a clear Case for Change for a transport intervention at Llanbedr to improve the safety, access to sustainable modes, and the resilience of the transport network, whilst also reducing the impact of the visitor economy on the road network. There is also an additional opportunity to support and enable development at Llanbedr Airfield, which is a strategic development site that is part of the Snowdonia Enterprise Zone, that could support the creation of a large number of high-quality jobs for local people.

If an intervention is not developed, the existing issues will continue to worsen, impacting on the economy of the local area, the well-being of the community, and the setting of the historic village of Llanbedr within the Eryri National Park.

On this basis, the Menu of Options set out by WelTAG 2024, combined with previous work and stakeholder feedback, has been utilised to identify a range of potential measures to improve transport in Llanbedr. This resulted in seven Option Packages being identified, summarised as follows:

- Low-Speed Relief Road;
- Reducing the Need to Travel;
- Behaviour Change;
- Public Transport Services;
- Llanbedr Railway Station;
- Llanbedr Village Improvements; and
- Mochras Road Improvements.

The Option Packages were subsequently appraised in the context of their Strategic Fit and Well-being, as well as being considered at a high-level in terms of the Affordability, Deliverability, and Management dimensions.

The appraisal identified that all the Option Packages are aligned with transport policies and programmes (Strategic Fit) and could contribute positively to well-being. It was however noted that no individual Option Package meets all criteria and therefore a combination of Option Packages will likely be required to ensure that the preferred solution at Llanbedr maximises its contribution to transport policies and programmes and its benefits to well-being.

Whilst all Option Packages were forecast to have an overall beneficial impact on well-being, the Low-Speed Relief Road Option Package could have a slight negative impact on environmental well-being, due to the impact of construction. It is however considered that these impacts could be minimised through implementing remedial measures identified as part of the design process and therefore the Option Package should not be discounted based on its potential environmental well-being impacts at this stage. The potential impacts should however be considered further at the next stage, in the context of the potential other benefits to well-being that the Low-Speed Relief Road Option Package could have.

The Low-Speed Relief Road Option Package was also considered in the context of Welsh Government's Future Road Building Tests. The analysis identified that the Low-Speed Relief Road Option Package would meet three of the four Future Roads Building Tests through supporting modal shift, adapting the road network to reduce the impact of climate change, and through supporting development at Llanbedr Airfield. It is therefore considered to be in line with Welsh Government policy on constructing new roads in principle.

5.2 NEXT STEPS

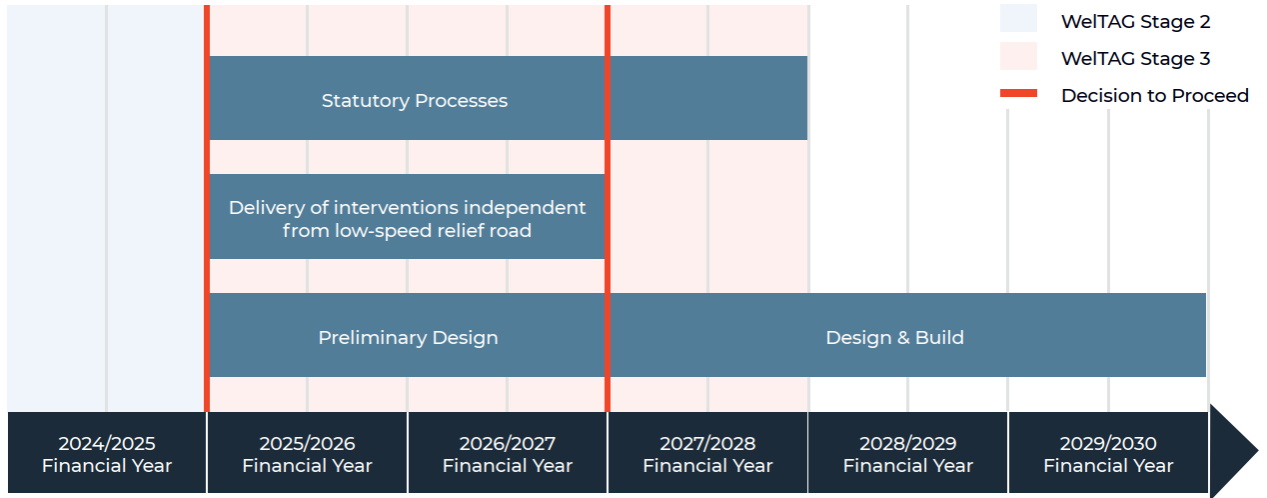
It is recommended that all seven Option Packages are taken through to WelTAG Stage Two for further development and consideration. As part of this, the following key activities should be undertaken:

- Refinement of the measures included within each Option Package and selecting a preferred measure if any conflict, such as potential differing active travel route options;
- Concept design of Option Packages;
- Public engagement to understand the views of the wider public on the range of measures being proposed;
- Focused engagement with landowners and the local community, particularly those who could be impacted by measures, or would be responsible for their management;
- Further consideration of the potential impacts of the Option Packages and quantification of the benefits where possible;
- Development of the Affordability, Deliverability, and Management dimensions to further inform the assessment undertaken;
- Consideration of a scenario with and without a low-speed relief road and demonstration of the potential benefits in both scenarios; and
- Identification of a preferred solution for progression to WelTAG Stage Three and ultimately implementation.

A high-level overview of the potential next stages to deliver a solution at Llanbedr is provided in **Figure 5-1**¹². It should be noted that this is based on the Low-Speed Relief Road Option Package being delivered, with this being the most significant potential solution in terms of scale and delivery timescales.

¹² The 'Delivery of interventions independent from low-speed relief road' task relates to measures which can be implemented in the short-term in advance of a decision on the suitability of a low-speed relief road. Further consideration will be given to these measures within the WelTAG Stage Two study.

Figure 5-1 Outline Delivery Plan – Llanbedr Transport Improvements



Appendix A

MENU OF OPTIONS



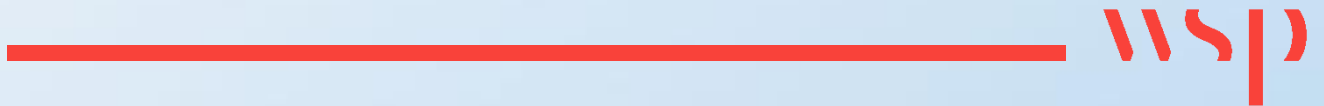
Appendix B

APPRAISAL SUMMARY TABLE - STRATEGIC FIT (MEASURES)



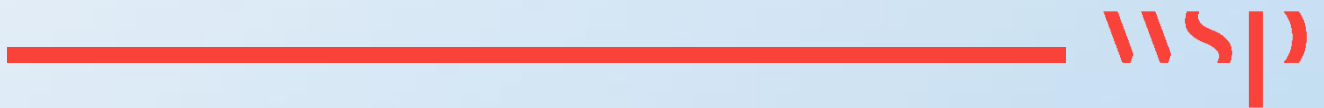
Appendix C

APPRAISAL SUMMARY TABLE - WELL-BEING (MEASURES)



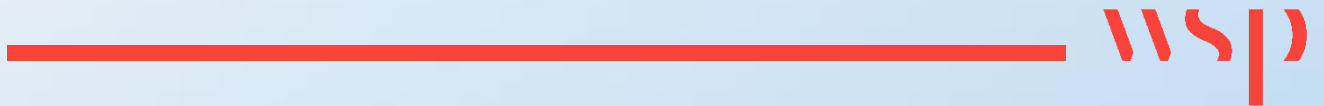
Appendix D

APPRAISAL SUMMARY TABLE - AFFORDABILITY, DELIVERABILITY & MANAGEMENT (MEASURES)



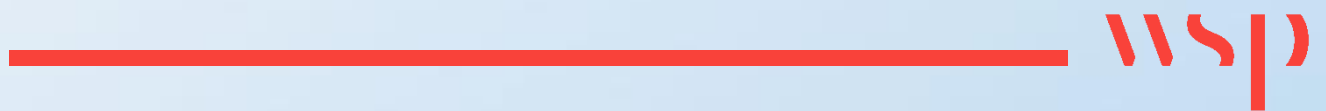
Appendix E

APPRAISAL SUMMARY TABLE – RESULTS OF INITIAL APPRAISAL



Appendix F

OPTION PACKAGES





LOW-SPEED RELIEF ROAD OPTION PACKAGE (70115176-WSP-GEN-LBR-RP-TR-0012)



REDUCING THE NEED TO TRAVEL OPTION PACKAGE (70115176-WSP-GEN-LBR-RP-TR-0013)



BEHAVIOUR CHANGE OPTION PACKAGE (70115176-WSP-GEN-LBR-RP-TR-0014)



PUBLIC TRANSPORT SERVICES OPTION PACKAGE (70115176- WSP-GEN-LBR-RP-TR-0015)



LLANBEDR RAILWAY STATION OPTION PACKAGE (70115176- WSP-GEN-LBR-RP-TR-0016)



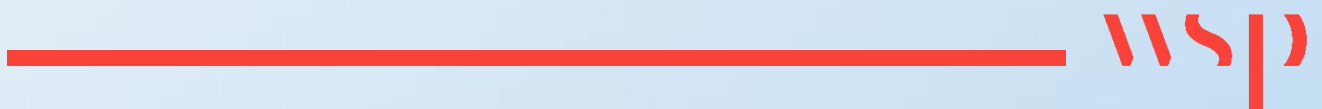
LLANBEDR VILLAGE IMPROVEMENTS OPTION PACKAGE (70115176-WSP-GEN-LBR-RP-TR-0017)



MOCHRAS ROAD IMPROVEMENTS OPTION PACKAGE (70115176-WSP-GEN-LBR-RP-TR-0018)

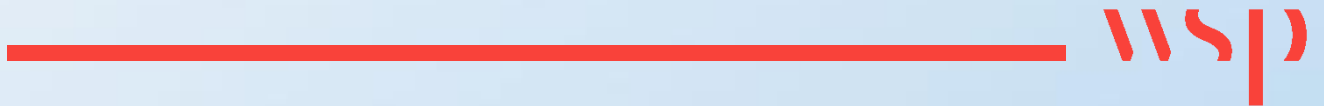
Appendix G

APPRAISAL SUMMARY TABLES - STRATEGIC FIT (OPTION PACKAGES)



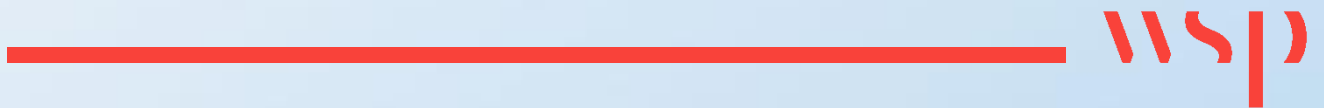
Appendix H

APPRAISAL SUMMARY TABLES - WELL-BEING (OPTION PACKAGES)



Appendix I

REVIEW GROUP MEETING MINUTES





Opus House
Yale Business Village
Wrexham Technology Park
Wrexham

wsp.com