



# TraCC Highways Prioritised Programme for Investment 2012-2017

December 2012

---



**Hyder Consulting (UK) Limited**

2212959  
HCL House  
Fortran Road  
St Mellons Business Park  
St Mellons  
Cardiff CF3 0EY  
United Kingdom  
Tel: +44 (0)29 2092 6700  
Fax: +44 (0)29 20  
www.hyderconsulting.com



# TraCC Highways Prioritised Programme for Investment 2012-2017

December 2012

---

<b>Author</b>	Janice Hughes	
<b>Checker</b>	Liam Scott	
<b>Approver</b>	Janice Hughes	
<b>Report No</b>	002-UA003900-UE31-02	
<b>Date</b>	December 2012	

This report has been prepared for TraCC in accordance with the terms and conditions of appointment under the Ceredigion Framework contract dated June 2010. Hyder Consulting (UK) Limited (2212959) cannot accept any responsibility for any use of or reliance on the contents of this report by any third party.



# CONTENTS

---

1	Introduction .....	1
1.1	TraCC .....	1
1.2	The Highways Strategy.....	1
1.3	Prioritised Programme for Investment .....	1
2	Recent and Current Projects .....	2
2.1	Regional Transport Grant Funding .....	2
2.2	Other Funding Sources.....	2
3	Highway Improvement Schemes.....	4
3.1	Potential Schemes.....	4
3.2	Scheme Evaluation.....	6
4	Recommendations.....	9
4.1	Trunk Road / Out of Region Schemes .....	9
4.2	County Schemes .....	10

## Tables

Table 2.1: Highways Capital Final Allocation 2010/11

Table 2.2: Highways Capital Allocation 2011/12

Table 3.1: Evaluated Trunk Road / Out of Region Schemes

Table 3.2: Evaluated County Led Highway Schemes

Table 3.3: Evaluation Scores of Trunk Road / Out of Region Schemes

Table 3.4: Evaluation Scores of County Led Schemes

Table 4.1: County Road Highway Scheme Comments and Recommendations

## Figures

Figure 3.1: Trunk Road and Out of Region Schemes

Figure 3.2: County Schemes



# 1 Introduction

## 1.1 TraCC

1.1.1 The Highways Strategy and Programme for Investment for Mid Wales has been developed by TraCC with the assistance of Hyder Consulting. Trafnidiaeth Canolbarth Cymru (TraCC) is the Regional Transport Consortium for the Mid Wales region, made up of the counties of Ceredigion, Powys and part of Gwynedd (the former Meirionnydd district) and includes parts of the Snowdonia and Brecon Beacons National Parks. The Consortium seeks to work together and with partners to deliver improvements to the transport system in and to the TraCC region.

1.1.2 The prioritisation of the National Transport Plan and the continual pressure on Regional Transport Plan (RTP) resources has led TraCC to develop a highways strategy and prioritised investment programme. The strategy and programme will put in place a coherent approach for highways in the Region which can be used to:

- guide RTP investment;
- ensure regional priorities are fully represented in national spending programmes; and
- support the Local Authority programmes for highways investment and maintenance.

## 1.2 The Highways Strategy

1.2.1 A strategy for highways has been developed and is contained in a separate document. The purpose of the strategy is to provide a framework for highways investment, providing a long-term direction. It establishes the policy context, the highways context, the problems and opportunities and then derives objectives and strategy elements to meet the objectives. In summary the strategy elements are:

- Improving and managing highway network infrastructure;
- Promoting road safety;
- Reducing and managing freight movements; and
- Monitoring and Evaluation.

## 1.3 Prioritised Programme for Investment

1.3.1 This document accompanies the Strategy and provides a 'Prioritised Programme for Investment 2012-2017'. It details recent and current expenditure on highways and through an evaluation of potential schemes, leads to a five year programme of schemes, prioritised using the evaluation framework at the Strategy. The separation of the Highways Strategy into two parts will enable the five year programme to be updated regularly, depending on funding and delivery issues.

1.3.2 The programme comprises capital schemes put forward by the Local Authorities. Schemes have been evaluated and prioritised in one list regardless of eventual funding sources. For example, schemes which primarily to address road safety issues and might be eligible for road safety grant are included alongside schemes corridor improvements to address a range of issues.

## 2 Recent and Current Projects

### 2.1 Regional Transport Grant Funding

2.1.1 The capital funding allocation for TraCC in 2011/12 was £2.85m. During the year the focus of expenditure on highways projects was on schemes totalling £1.081m and representing 37.9% of the monies allocated to the region (see **Table 2.1**).

**Table 2.1 Highways Capital Final Allocation 2011/12**

Project	2011/12 Final Allocation (£'000's)
A486 Post Bach to Synod Inn	536
Pont Briwet Bridge Replacement	311
A493 Bompren to Nant y Gwenli	163
B4520 Brecon new traffic signals	45
Trunk Roads Dyfi Bends Project	24
Dyfi Junction	2
<b>TOTAL</b>	<b>1,081</b>

2.1.2 In addition, a total of £262k was spent on road safety capital projects and £287k on road safety revenue projects.

2.1.3 The capital programme submitted and approved by the Welsh Government for 2012/13 is for £2.47m and included a total of £1.18m of funding (48.8%) for highways projects, as shown in **Table 2.2**.

**Table 2.2 Highways Capital Allocation 2012/13**

Project	Allocation (£'000's)
Pont Briwet Bridge Replacement	939
A493 Aberdyfi to Machynlleth	242
<b>TOTAL</b>	<b>1,181</b>

2.1.4 In addition, a total of £310k of capital and £193k of revenue has been allocated to road safety schemes for the 2012/13 financial year.

### 2.2 Other Funding Sources

2.2.1 Other funding for highways schemes comes from a range of sources including:

- Welsh Government (Trunk Roads);
- Local Authority capital or maintenance budgets or prudential borrowing;
- Developer contributions;
- EU Convergence Funds (Ceredigion, Gwynedd);
- EU Competitiveness Funds (Powys); and



- Other sources such as Network Rail where the highway improvement is jointly with rail infrastructure.

#### 2.1.5

Finance is also available to Local Authorities under the Local Government Borrowing Initiative for three years to support schemes which reduce on-going maintenance costs. Approvals have been made to each authority for the current financial year as follows:

- Powys - £320,741 revenue; £4.680m capital
- Gwynedd - £264,768 revenue; £4.362m capital
- Ceredigion - £162,806 revenue; £3.580m capital

## 3 Highway Improvement Schemes

### 3.1 Potential Schemes

- 3.1.1 Consultation with each of the Local Authorities identified an initial list of 32 potential highway related projects and a further 15 were submitted following further discussion. Of these projects, a number put forward by Powys County council were studied and these have not been evaluated as highways schemes as they are being taken forward in other ways.
- 3.1.2 The 42 schemes taken forward for evaluation for the TraCC Highways Programme include improvements to schemes on the trunk roads. These schemes are considered to be important by the Local Authorities but have not been prioritised by Welsh Government in the National Transport Plan. Schemes that are already included in the NTP (e.g. Newtown Bypass) have not been evaluated as they are already prioritised for investment.
- 3.1.3 The trunk road schemes evaluated are shown in **Table 3.1**. The reference letter refers to the Local Authority area (C=Ceredigion, P=Powys, G=Gwynedd). The A487 Dyfi Crossing scheme is primarily in Powys but on the boundary with Gwynedd.
- 3.1.4 In addition to trunk road schemes in Mid Wales, there are other schemes which lie on or over the border of the TraCC region put forward for evaluation given their significance in providing access to Mid Wales. The A483 Llanymynech-Pant Bypass lies on the border with Shropshire and is a Highways Agency led scheme. The A485 / B4459 scheme is within Carmarthenshire. **Figure 3.1** shows the location of the Trunk Road and Out of Region schemes.

**Table 3.1: Evaluated Trunk Road / Out of Region Schemes**

Scheme
C2 -A487 between Llanrhystud and Aberystwyth
C3 - A485/B4459 Ceredigion Link Road in Carmarthenshire
G1/P - A487 Dyfi Crossing
G9 - A494 Bala to Llanwchllyn Improvements
P21 - A483 Llanymynech-Pant Bypass
P22 - A470 Moat Lane junction to Cemmaes Road
P23 - A483 Severn Valley Newtown to Welshpool
P24 - A489 Moat Lane (Caersws) to Newtown
P25 - A470 Caersws to Llangurig
P26 - A44 Llangurig to Aberystwyth
P27 - A458 Buttington Roundabout to Middletown
P28 - A483 Newtown to Crossgates
P29 - A483 Dolfor to Newtown
P30 - A483 Crossgates to Llandrindod Wells
P31 -A40 on-line improvement at Scethrog junction
P32 - A40 on-line improvement at The Kestrel Inn junction
P33 - A40 localised realignment at Cellar bends

3.1.5 There are also schemes which might be expected to become trunk roads if delivered including the A486 Post Bach to Synod Inn and the Llanbadarn Relief Road in Aberystwyth. These are included as county schemes given their current status.

3.1.6 **Table 3.2** lists the 25 county led projects which have been evaluated. **Figure 3.2** shows the location of each of the schemes.

**Table 3.2: Evaluated County Led Highway Schemes**

Scheme
C1 - A486 Ceredigion Link Road: Post Bach to Synod Inn Improvements
C4 - A44/A4120 Llanbadarn Fawr Relief Road
G2 - A493 Aberdyfi to Machynlleth
G3 - A493 Abertafol Highway Road Safety and Highway Improvement Scheme
G4 - A493 Dolgellau to Tywyn
G5 - A496 - Blaenau Ffestiniog to Dolgellau Highway Improvements
G6 - A4212 Rhyd Y Fen, Llyn Celyn Road Safety Scheme
G7 - A496 Rhyd y Sarn, Maentwrog to Tan y Grisiau
G8 - A496 North of Barmouth
P1 - C1206 Elan Valley Passing Places
P2 - B4358 Troedrhiwdalar Improvement
P3 - A438 Lower House Clyro
P4 - A490 Raven Square - Groes Pluan Route Study
P5 - A481 Llanelwedd to Fforest Inn
P6 - B4568 Llanllwchaearn Road, Newtown
P7 - A488 Penybont to Knighton & A4113 Knighton to Heartsease Route Study
P8 - B4567 Erwood Bridge
P9 - B4393 Llansantffraid Bridge
P10 - A490 Ysgawrhud Bridge
P11 - A495 Llanfair Caereinion to CB Route Strategy
P13 - A44 Radnor Forest Bends
P16 - A4081 Llandrindod to A470(T) Route Study
P17 - A489 Newtown to Churchstoke
P34 - A44 Greenway Manor Lodge west of Crossgates
P35 - A44 East of Crossgates

3.1.7 For each project, standard information has been obtained through use of a completed proforma from the Local Authorities, supplemented where available with:

- plans of scheme locations;
- feasibility studies;
- route designs;
- budget costs; and
- constraints / issues to resolve.

## 3.2 Scheme Evaluation

3.2.1 The schemes have been evaluated by Hyder using two evaluation frameworks. The first framework assesses the potential contribution to meeting TraCC's priorities and the second framework assesses the environmental issues that are likely to need to be addressed. The evaluation scoring frameworks are available as electronic files (**Appendix A** and **Appendix B**) and these contain the full results of the evaluation for each of the schemes in **Tables 3.1** and **3.2**.

3.2.2 TraCC's priorities are those identified in the Highways Strategy, as set out below.

### TraCC Priorities

TraCC will **prioritise** investment in highway network schemes which:

- significantly reduce the distance and time travelled compared to the existing route;
- reduce fuel consumption by allowing for improved consistency of journey speed;
- reduce the traffic impact on a key settlement (as defined in the Wales Spatial Plan);
- have a beneficial or neutral impact on landscape, biodiversity, water resources and heritage;
- include measures to raise awareness or promote road safety issues;
- aim to address highway locations with a high rate of casualties;
- improve accessibility to a significant part of the region;
- upgrade a core/ strategically important route to an appropriate standard;
- reduce an on-going maintenance problem or address a significant infrastructure failure;
- part of a coherent approach to a route corridor;
- improve the core network; and
- improve key freight routes.

3.2.3 The environmental matrix assesses the likely impact on biodiversity, landscape, water resources and heritage, together with other issues such as air quality. The matrix identifies where there are statutory designations and scores the environmental risks or possible benefits in each category.

3.2.4 The scores for each trunk road scheme are shown in **Table 3.3** and those for county schemes in **Table 3.4**. The score for contribution to objectives and the environmental matrix score should not be combined to give a total score as they have a different basis. Nevertheless, looking at the two scores together does give an overview of degree of opportunity of achieving objectives and environmental risks or benefits.

3.2.5 It should be noted that these scores are based on potential outcomes, rather than on likely level of cost or issues of deliverability. Many of the proposals require initial investigations to determine if they are feasible as well as their likely level of cost and information on the schemes is very limited at present. The purpose of the evaluation is to determine which schemes have the potential to best meet TraCC's objectives, prior to assessing which could be taken forward within a five-year programme.

**Table 3.3: Evaluation Scores of Trunk Road / Out of Region Schemes**

Scheme	Contribution to TraCC Priorities	Environmental Matrix Score
C2 - A487 between Llanrhystud and Aberystwyth	25	-10
P27 - A458 Buttington Roundabout to Middletown	23	-18
C3 - A485/B4459 Ceredigion Link Road in Carmarthenshire	22	-16
P22 - A470 Moat Lane junction to Cemmaes Road	22	-8
P23 - A483 Severn Valley Newtown to Welshpool	22	-20
P21 - A483 Llanymynech-Pant Bypass	21	-18
P24 - A489 Moat Lane (Caersws) to Newtown	21	-14
P26 - A44 Llangurig to Aberystwyth	20	-27
G1/P - A487 Dyfi Crossing	19	-12
P25 - A470 Caersws to Llangurig	19	-18
P30 - A483 Crossgates to Llandrindod Wells	19	-16
P28 - A483 Newtown to Crossgates	16	-15
P29 - A483 Dolfor to Newtown	16	-10
P33 - A40 localised realignment at Cellar bends	14	-21
P31 - A40 on-line improvement at Scethrog junction	12	-16
P32 - A40 on line improvement at The Kestrel Inn junction	12	-12
G9 - A494 Bala to Llanuwchllyn Improvements	12	N/A

**Table 3.4: Evaluation Scores of County Led Schemes**

Scheme	Contribution to TraCC Priorities	Environmental Matrix Score
C4 - A44/A4120 Llanbadarn Fawr Relief Road	23	-17
G2 - A493 Aberdyfi to Machynlleth	19	-16
G5 - A496 - Blaenau Ffestiniog to Dolgellau Highway Improvements	19	-18
C1 - A486 Ceredigion Link Road: Post Bach to Synod Inn Improvements	18	-3
G4 - A493 Dolgellau to Tywyn	18	-18
G8 - A496 North of Barmouth	17	-8
P2 - B4358 Troedrhiwdalar Improvement	17	-8
P3 - A438 Lower House Clyro	17	-7
P13 - A44 Radnor Forest Bends	17	-6
P17 - A489 Newtown to Churchstoke	17	-11
G7 - A496 Rhyd y Sarn, Maentwrog to Tan y Grisiau	16	-14
P6 - B4568 Llanllwchaiarn Road, Newtown	16	-10
G3 - A493 Abertafol Highway Road Safety and Highway Improvement Scheme	15	-14
P34 - A44 Greenway Manor Lodge west of Crossgates	15	-17
P11 - A495 Llanfair Caereinion to CB Route Strategy	14	-11
P16 - A4081 Llandrindod to A470(T) Route Study	14	-12

<b>Scheme</b>	<b>Contribution to TraCC Priorities</b>	<b>Environmental Matrix Score</b>
P35 - A44 East of Crossgates	14	-5
P8 - B4567 Erwood Bridge	13	-10
P5 - A481 Llanelwedd to Fforest Inn	12	-11
P7 - A488 Penybont to Knighton & A4113 Knighton to Heartsease Route Study	12	-17
G6 - A4212 Rhyd Y Fen, Llyn Celyn Road Safety Scheme	11	-7
P4 - A490 Raven Square - Groes Pluan Route Study	11	-12
P10 - A490 Ysgawrhud Bridge	10	-8
P9 - B4393 Llansantffraid Bridge	9	-7
P1 - C1206 Elan Valley Passing Places	8	-12

## 4 Recommendations

### 4.1 Trunk Road / Out of Region Schemes

4.1.1 The priorities for investment in the trunk road network and schemes out of the Region, has emerged from the scoring against TraCC Priorities (as summarised in **Table 3.3**). It is recommended that this list of schemes is used as a basis for discussions with Welsh Government and the North and Mid Wales Trunk Road Agency regarding future programmes. Other schemes will need to be discussed with the relevant Local Enterprise Partnerships and Highways Agency in England.

4.1.2 The schemes are listed in a priority order based on the scoring. It is recognised however, that the order of priority will be influenced by issues of deliverability (including environmental issues to be addressed). Schemes are at various stages. Some of these schemes are advanced, but are on hold subject to being a funding priority. Others require development work such as the undertaking of a WelTag study of potential options.

#### **Trunk Road and Out of Region Priorities**

TraCC's **priorities** for investment in the Trunk Road network in Wales and England and schemes out of the region comprises the following schemes:

- A487 between Llanrhystud and Aberystwyth
- A458 Buttington Roundabout to Middletown
- A485/B4459 Ceredigion Link Road in Carmarthenshire
- A470 Moat Lane junction to Cemmaes Road
- A483 Severn Valley Newtown to Welshpool
- A483 Llanymynech-Pant Bypass
- A489 Moat Lane (Caersws) to Newtown
- A44 Llangurig to Aberystwyth
- A487 Dyfi Crossing
- A470 Caersws to Llangurig
- A483 Crossgates to Llandrindod Wells
- A483 Newtown to Crossgates
- A483 Dolfor to Newtown
- A40 improvements at Cellar bends, Scethrog junction and The Kestrel Inn junction
- A494 Bala to Llanuwchllyn Improvements

TraCC will seek prioritisation of these schemes in the National Transport Plan and the English funding programmes and continue to work closely with Welsh Government and its' agencies, and highway authorities in England, in addressing these priorities.

## 4.2 County Schemes

- 4.2.1 The scoring of County led schemes was previously shown in **Table 3.4**. **Table 4.1** provides a commentary on each scheme, including the current scheme status and the likely level of cost. The table also includes a recommendation as to how each scheme might be included in the five-year programme.
- 4.2.2 There are considerable uncertainties at present over the extent of available funding for both scheme implementation and development work in forthcoming years. The recommendations for priorities are therefore provided, but a future programme of expenditure cannot be provided at this stage. The recommendations are intended to provide TraCC and the Local Authorities with a means to determine which schemes to bring forward for development work or implementation in accordance with available funding.

### County Scheme Implementation Priorities

- 4.2.3 Six of the county led schemes are considered to be advanced in terms of development and design work and, subject to funding from available sources, could potentially be implemented in the five-year programme. In some cases the potential for funding through road safety grant could be considered (such as the A4212 Rhyd y Fen scheme).
- 4.2.4 The priorities for implementation are set out in below. It should be noted that development work on other schemes may bring them forward as implementation priorities before some lower down this list, based on their contribution to TraCC objectives. The implementation priorities should therefore be reviewed on an annual basis.

#### **County Scheme Implementation Priorities**

The following county-led schemes are prioritised for implementation:

- A493 Aberdyfi to Machynlleth (including scheme G3 A493 Abertafol);
- A486 Post Bach to Synod Inn;
- B4567 Erwood Bridge;
- A4212 Rhyd Y Fen, Llyn Celyn Road Safety Scheme; and
- C1206 Elan Valley Passing Places.

TraCC will work with the Local Authorities to seek funding for these schemes from available sources in order to implement the projects.

### County Scheme Development Work Priorities

- 4.2.5 A large number of county-led schemes are in need of WelTag studies/ development work in order to advance the schemes. Funding for development work will be limited and should be focussed on those schemes likely to contribute most greatly to TraCC priorities for highways in the Region. Moreover, the number of schemes receiving development funding must be balanced with the likely level of funding for implementation. The recommended priorities for WelTag studies and development work are set out after paragraph 4.2.7 below. Other studies can be brought forward later in the programme subject to overall funding availability.
- 4.2.6 There are two schemes which closely link to the proposed A483 Newtown Bypass and TraCC will seek, alongside Powys County Council, for the issues associated with these routes and their



relationship to the A483 to be considered in the design process for the By-pass. The schemes are:

- A489 Newtown to Churchstoke; and
- B4568 Llanllwchaiarn Road, Newtown.

4.2.7 Further study work can only be undertaken once the bypass is open and the impact on other routes can be assessed.

#### **County Scheme Development Work Priorities**

The following County Led schemes are prioritised for the undertaking of initial or further development work:

- A44 / A4120 Llanbadarn Fawr Relief Road;
- A496 Blaenau Ffestiniog to Dolgellau highway improvements (including scheme G7 Maentwrog to Tan y Grisiau improvements);
- A493 Dolgellau to Tywyn;
- B4358 Troedrhiwdalar improvement;
- A438 Lower House Clyro; and
- A44 Corridor Study (including Radnor Forest Bends, Greenway Manor Lodge west of Crossgates, and east of Crossgates).

**Table 4.1: County Road Highway Scheme Comments and Recommendations**

<b>Scheme</b>	<b>Status</b>	<b>Cost</b>	<b>Commentary</b>
C4 - A44/A4120 Llanbadarn Fawr Relief Road	Various feasibility and traffic modelling work has been undertaken. There is a need to draw together previous work and determine the most appropriate way forward in a WelTag report. Funding could be available from regeneration/ European sources.	Implementation could involve a significant scale of cost.  Assume £30k for a WelTag study.	This scheme scores highly in terms of potential impact, but finding appropriate solutions will be complex and high in cost.  <b>Recommendation: WelTag study to be commissioned in initial years of the programme.</b>
G2 - A493 Aberdyfi to Machynlleth	Feasibility work including WelTag has been undertaken. The priority schemes are ready to deliver subject to funding. Some elements of maintenance works for the A493 have been put forward under the Local Government Borrowing Initiative (LGBI).	Costs awaited.	The scheme is a priority and is ready to begin implementation subject to funding.  <b>Recommendation: Include implementation costs in the initial years of the programme.</b>
G5 - A496 - Blaenau Ffestiniog to Dolgellau Highway Improvements	No feasibility work has yet been undertaken to identify road safety and highway improvements on this corridor. A WelTag study is required.  Some elements of maintenance works for the A496 have been put forward under the Local Government Borrowing Initiative (LGBI).	Assume cost of £30k for undertaking WelTag study of improvements.	<b>Recommendation: WelTag study to be commissioned in initial years of the programme.</b>
C1 - A486 Ceredigion Link Road: Post Bach to Synod Inn Improvements	Final design work largely complete, consents in place and land acquired. The first phase of the scheme is being funded in 2012/13 under the Local Government Borrowing Initiative (LGBI).	Full scheme cost estimated as £8 million.	<b>Recommendation: Implementation of the scheme is underway and subject to other funding not being available, the second phase should be a priority in the programme.</b>
G4 - A493 Dolgellau to Tywyn	No feasibility work has yet been undertaken to identify road safety and highway improvements on this corridor.	Assume cost of £30k for undertaking WelTag study of improvements.	<b>Recommendation: WelTag study to be commissioned in initial years of the programme, following the study for the A496.</b>

Scheme	Status	Cost	Commentary
	A WelTag study is required.		
G8 - A496 North of Barmouth	Feasibility work needs to be undertaken and a WelTag study is required.  Likely to require land.	Implementation costs expected to be in millions.  Assume cost of £30k for undertaking WelTag study of improvements.	This relates to a project in the walking and cycling programme to improve sustainable travel at this location.  <b>Recommendation: Given the likely high costs of implementation, undertake a WelTag study of the options in the latter years of the programme.</b>
P2 - B4358 Troedrhiwdalar Improvement	Requires a WelTag study to determine the nature of improvements, followed by design and land acquisition.	Yr 1 - £25k (pre design work and surveys)  Yr 2 - £35k (design and land acquisition)  Yr 3 - £450k (implementation)	This is a key priority of the corridor schemes in Powys as it forms a connection between the A483 and A470 avoiding Builth Wells.  <b>Recommendation: WelTag/ pre design work and surveys to be commissioned in the initial years of the programme.</b>
P3 - A438 Lower House Clyro	Requires design work for an online improvement to remove poor visibility corners.	Yr 1 - £20k (pre design work and surveys)  Yr 2 - £35k (design and land acquisition)  Yr 3 - £400k (implementation)	This scheme is the final stage in corridor improvements on the A438.  <b>Recommendation: WelTag/ pre design work and surveys to be commissioned in the initial years of the programme.</b>
P13 - A44 Radnor Forest Bends	Requires a WelTag, feasibility study/ pre-design stage to determine solutions. This could be addressed as part of an A44 corridor study.	Design costs estimated at £25k.  Implementation costs to be determined.	The scheme addresses particularly difficult alignment and road safety issues.  <b>Recommendation: WelTag/ pre design work and surveys to be commissioned in the initial years of the programme, as part of a corridor study.</b>
P17 - A489 Newtown to Churchstoke	Requires a route corridor study/ WelTag to examine options and cost solutions.	£20k feasibility study.  Implementation costs to be determined.	The scheme links to the proposed Newtown Bypass. The study should be undertaken following implementation of the By-pass scheme.  <b>Recommendation: WelTag/ pre design work</b>

Scheme	Status	Cost	Commentary
			<b>and surveys to be commissioned following the completion of the Newtown Bypass.</b>
G7 - A496 Rhyd y Sarn, Maentwrog to Tan y Grisiau	This scheme is a sub-project that may emerge from a WelTag study of the corridor.	To be determined through a WelTag study.	<b>Recommendation: WelTag study to be commissioned in initial years of the programme.</b>
P6 - B4568 Llanllwchaiarn Road, Newtown	Requires a route corridor study/ WelTag to examine options and cost solutions.	Assume a £20k cost for a WelTag study.  Implementation costs to be determined.	The scheme links to the proposed Newtown Bypass. The study should be undertaken following implementation of the By-pass scheme.  <b>Recommendation: WelTag/ pre-design work and surveys to be commissioned following the completion of the Newtown Bypass.</b>
G3 - A493 Abertafol Highway Road Safety and Highway Improvement Scheme	A WelTag study of the corridor has been undertaken and an outline design. The project may require land take.  Some elements of maintenance works for the A493 have been put forward under the Local Government Borrowing Initiative (LGBI).	Costs awaited.	<b>Recommendation: Include implementation costs in the initial years of the programme.</b>
P34 – A44 Greenway Manor Lodge west of Crossgates	This scheme is a short off-line improvement to remove bends and narrow bridge to address collision issues.  Requires a route corridor study/ WelTag to examine options and cost solutions. This could be addressed as part of an A44 corridor study.	Assume cost of £30k for undertaking WelTag study of improvements.	<b>Recommendation: WelTag/ pre-design work and surveys to be commissioned in the initial years of the programme, as part of a corridor study.</b>
P11 - A495 Llanfair Caereinion to CB Route Strategy	Requires a route corridor study/ WelTag to examine options and cost solutions.	Yr 1 - £20k study  Yr 2 - £25k pre design work  Implementation costs to be determined	<b>Recommendation: WelTag study to be undertaken if funding is available in the later years of the programme.</b>

<b>Scheme</b>	<b>Status</b>	<b>Cost</b>	<b>Commentary</b>
P16 - A4081 Llandrindod to A470(T) Route Study	Requires a route corridor study/ WelTag to examine options and cost solutions.	Yr 1 - £10k study Yr 2 - £100k design and works to section west of Ithon Bridge.	<b>Recommendation: WelTag study to be undertaken if funding is available in the later years of the programme.</b>
P35 – A44 East of Crossgates	Scheme involves removal of a low railway bridge constraint. Requires feasibility work to investigate and cost options. This could be addressed as part of an A44 corridor study.	Assume £20k cost for a feasibility study.	<b>Recommendation: WelTag/ pre design work and surveys to be commissioned in the initial years of the programme, as part of a corridor study.</b>
P8 - B4567 Erwood Bridge	Design work has been undertaken. The scheme has been put forward under the Local Government Borrowing Initiative (LGBI).	Implementation cost estimate is £1.496m.	<b>Recommendation: The scheme is largely ready for implementation and subject to funding availability should be a priority in the programme.</b>
P5 - A481 Llanelwedd to Fforest Inn	Requires a route corridor study/ WelTag to examine options and cost solutions.	Yr 1 - £15k study Yr 2 - £75k design and works (tbc)	<b>Recommendation: WelTag study to be undertaken if funding is available in the later years of the programme.</b>
P7 - A488 Penybont to Knighton & A4113 Knighton to Heartsease Route Study	Requires a route corridor study/ WelTag to examine options and cost solutions.	Yr 1 - £10k study Yr 2 - £130k (vehicle containment at Ludlow Road and route pre-design work). Yr 3 - £35k design Yr 4 - £40k land purchase Yr 5 - £400k implementation	<b>Recommendation: WelTag study to be undertaken if funding is available in the later years of the programme.</b>
G6 - A4212 Rhyd Y Fen, Llyn Celyn Road Safety Scheme	Design work is required but not a feasibility study. This may be funded through the LGBI.	Cost to be confirmed but estimated as £100k.	<b>Recommendation: Scheme could be implemented within the programme subject to funding availability. It could be considered as a road safety capital project.</b>
P4 - A490 Raven Square - Groes Pluen Route Study	Requires a route corridor study/ WelTag to examine options and cost solutions.	Yr 1 - £20k study Yr 2 - £25k pre-design work	<b>Recommendation: WelTag study to be undertaken if funding is available in the later</b>

Scheme	Status	Cost	Commentary
		Yr 3 - £35k land acquisition and design work Yr 4 - £150k works	<b>years of the programme.</b>
P10 - A490 Ysgawrhyd Bridge	This is a discrete scheme forming part of the route corridor (scheme P4) which requires a WelTag study to examine options and cost solutions.	To be determined	<b>Recommendation: WelTag study to be undertaken if funding is available in the later years of the programme.</b>
P9 - B4393 Llansantffraid Bridge	A study is required to examine options. The listed status of the structure restricts options and may mean costs of intervention are high.	£20k pre-design work and surveys	<b>Recommendation: WelTag study to be undertaken if funding is available in the later years of the programme.</b>
P1 - C1206 Elan Valley Passing Places	Feasibility work is required. This could be undertaken as part of work with the Timber Transport Forum. Funding may be available through the LGBI.	Yr 1 - £5k surveys and design Yr 2 - £75k implementation	Although this scheme scored low overall, it would have specific benefits for tourist / timber transport. <b>Recommendation: Scheme could be implemented within the programme subject to funding availability.</b>

