

SAFER COMMUNITIES OVERVIEW AND SCRUTINY COMMITTEE

24 October 2018

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HIGHWAYS MAINTENANCE

Report Summary

This paper seeks to address the committee's request to consider the prioritisation of capital funding for highways maintenance adequately to manage the risks associated with keeping the highway safe. The paper will advise on the council's responsibilities (as Highway Authority) related to maintaining the highway, and will advise on how the capital investment in maintaining the highway network is prioritised and allocated.

1 Introduction and Scrutiny Activity

- 1.1 TCBC have always embraced the benefits of taking a safety risk based approach when dealing with the highway, as under Section 41(1) of the Highways Act, 1980, provides as follows:

"The authority who are for the time being the Highway Authority for a highway maintainable at the public expense are under a duty ... to maintain the highway."

- 1.2 Torfaen County Borough Council is the Highway Authority so we are responsible for the adopted highway network, (which can be viewed on the Council's GIS system Stratus). This system is an internal system and is available to Council Officers and Ward Members.
- 1.3 Current case law has extended this duty to establishing a reasonable level of safety, and judges will refer to well known cases to help them adjudicate on the specific facts of any highway liability claim.

Section 58(1) of the Act provides a defence to the absolute duty created by Section 41(1) as follows:

"In an action against a highway authority in respect of damage resulting from their failure to maintain a highway maintainable at the public expense it is a defence ... to prove that the authority has taken such care as in all the circumstances is reasonably required to secure that the part of the highway to which the action relates was not dangerous to traffic."

This means that by proving to a court that TCBC have an agreed method of maintaining the highway, and can prove that that method has been followed we have a defence against highway related insurance claims, this is commonly known as a Section 58 defence.

- 1.4 It was recognised by the County Surveyors Society (Wales) (CSSWales) around 2000 that an all Wales approach to highway asset management would prevent the legal

profession exploiting variations in highways levels of service between Highway Authorities when dealing with highway related insurance claims. All 22 local authorities in Wales have been involved in creating their own Highway Asset Management Plans (HAMP) which is heavily based on a central theme and national guidance, originally published in 2006 and supported by CSSWales. TCBC have had an agreed HAMP as their highway policy document since 2013, which was given a life span of 5 years before requiring an update in 2018.

- 1.5 In 2016 the national guidance was rewritten, changing the focus to a risk based approach, from the original prescriptive advice. Whilst the guidance was published in October 2016, it allowed Highway Authorities 24 months to alter their existing policies to match the new guidance. This coincided with the lifecycle of the policy document and so the rewriting of the HAMP operational plan. This has allowed engineers to revisit the criteria for identifying sites where capital funding should be allocated to maintain highway asset condition.
- 1.6 A precis of TCBC's HAMP describes how we react and record reports of highway safety issues, how we assess the condition of any given part of the highway network, in a consistent way, and how we use data to evidence the allocation of funding to the various parts of the network.
- 1.7 **The Safer Communities Overview and Scrutiny Committee are invited to scrutinise the processes and principles of how we utilise the capital allocation for highways maintenance and;**
 - **Determine whether those principles are fit for purpose in minimising the risks associated with keeping the network safe**
 - **Assess whether the detail provided within the proposed HAMP 2018-2023 (highway maintenance manual para 5.4) to identify those sites that qualify for capital investment is sufficient;**
 - **Ascertain whether the methods of and level of communication is appropriate based on the constraints of the nature and complexity of both safety investigated and condition risk work**

2 Information/Results

- 2.1 The allocation of funding for highway maintenance can be split into two areas: revenue and capital allocation:
- 2.2 Revenue allocation covers the reactive work that the council carries out with its in-house workforce which is primarily **safety risk** driven
- 2.3 Capital allocation covers the planned maintenance that the council considers necessary to minimise the degradation and extend the life span of the highway and is primarily **condition** driven. This is based heavily on the potential that any site will, within a 12 month period, become a significant safety risk area. Appendix 2 shows the historic capital allocation since 2011 to the highways network, of which over 90% during this period has been focused on carriageway refurbishments.

Figure A Total Annual Highway Capital Allocation

2011/12	2012/13	2013/14	2014/15	2016/17	2017/18	2018/19
£460,000	£1,090,000	£1,867,341	£1,570,000	£1,570,000	£1,400,000	£400,000

- 2.4 The **safety risk** of the highway is the potential to cause harm, injury or danger to a highway user.
- 2.5 The **condition** of the highway relates to the husbandry of the highway to maintain its quality and lifespan in order to reduce more expensive (in the long term) reactive patches and repairs.
- 2.6 Whilst the condition of a road will eventually affect the safety risk, the HAMP operational plan deals with and identifies **safety risk** and **condition** separately.
- 2.7 TCBC carry out annual Welsh Government grant funded surveys of certain sections of road, (Class A, B and C – detailed in appendix 6) which are reported to Welsh Government as a means of gauging the **condition** of similar roads throughout Wales. Appendix 1 shows a copy of the all Wales data since 2011/12 showing position of Torfaen County Borough Council in comparison to other local authorities, and the lengths and locations of the Class A, B and C roads are provided as Appendix 6. The information informs the performance indicator that reports the percentage lengths of road that are considered as requiring attention (known as ‘Red Sections’). These lengths produce the lowest readings over an agreed set of parameters – surface cracking, texture depth, longitudinal ride and rutting.
- 2.8 Torfaen record and report the percentage of highway safety defects repaired/ completed within a timeframe, as set out in the HAMP against the number of defects reported.
- 2.9 Torfaen record and report the percentage of scheduled inspections carried out by our highways inspectors against the number as set out in the agreed schedule contained in the HAMP.
- 2.10 Under Section 58 of the Highway Act 1980 the council can by establishing an inspection, recording and repair scheme prove that the highway is being maintained in a safe manner. Details of such claims are held by the council’s Insurance department.
- 2.11 Where **safety** issues are reported by persons outside the Council’s Highway Inspectorate (a member of the public, blue light services, ward member etc...) the details of the problem are recorded on the council’s database system and where requested any information relating to the resolution of that issue is reported back to the person in line with council policies. Where safety issues are identified by the inspectorate these are also recorded, but are not routinely made available but are subject to the freedom of information criteria.
- 2.12 The Highway Network Section correlates annual reports and data from various sources that relate to the **condition** of the carriageway. This will include any accident data attributed to road condition, wet skid data, and condition reports from highway inspectors and a final visual check to confirm the accuracy and location of sites where data from these sources correspond.
- 2.13 An annual report including the schemes chosen, funded by the capital allocation is produced and signed off by the Chief Officer for Neighbourhoods, Planning and Public Protection, after consultation with ward members. Where these schemes affect the use of the network by local residents or the general public, the re-surfacing contractor is tasked with erecting temporary signage and/or carrying out a letter drop.

3. Discussion

- 3.1 There is an (un-evidenced) perception that the condition of the roads in Torfaen are in a poor state, but the published data shows an improvement that mirrors the all Wales data. Currently TCBC routinely report the condition of the classified roads to Welsh Government, but do not expand on this or report this separately to residents.
- 3.2 The committee will note, that Appendix 3 indicates that the proportion of unclassified roads in Torfaen is higher than the all Wales figure. Therefore, as the reported condition of our A,B and C classified roads mirrors the all Wales reduction, since 2011, then it could be argued that the perception of poor roads in Torfaen must relate to the condition of the unclassified roads.
- 3.3 Officers have recognised that Torfaen's A, B and C class roads are, relative, to all authorities in Wales, in a condition that can allow the focus of capital allocation to be directed toward the unclassified roads. This was reported in the Highway Maintenance Needs Based Capital and Welsh Government Grant Works Programme 2018/19. Targets for the **condition** of the A, B and C class roads are set annually in the council's Ffynnon database and are set at 2%, meaning that TCBC would look to not exceed this figure in any year. This figure is based on historical performance and is below the all Wales level and has been a factor in the high percentage of highway related insurance claims being successfully defended.
- 3.4 Currently the road network is assessed yearly and a ranked list of sites is produced based on CSS(Wales) guidance and as set out in Paragraph 11 and 17 of the Highway Maintenance Manual 2013 to 2018 (this document is reproduced in Appendix 4 with the relevant paragraphs highlighted).

It is proposed that for the next 5 years this list will be compiled in accordance with CSS(Wales) guidance and paragraph 5.4 of the HAMP Operational Plan 2018-2023, (this document is reproduced in Appendix 5 with the relevant paragraph highlighted), which matches the current safety risk based Code of Practice.

Each scheme has been/will be, priced using the South East Wales framework set of standard costs based on the type of construction deemed most cost effective over time. The annual capital allocation is then matched to the highest ranked schemes, which it is proposed may include agreed non ranked schemes as per para 5.4 mentioned above. It is this list of schemes that is presented to the Chief Officer for the Environment.

- 3.5 The committee will note from Appendix 2 that since 2011 the capital allocation of £3.6 M for highway schemes has consistently been bolstered by prudential borrowing in the sum of nearly £7.5M, over double the annual TCBC core capital. It would be logical to deduce that the fall in roads in poor condition in Torfaen would be as a result of this annual level of investment. It would also be logical to deduce that removal of this additional money will lead to a significant decline in the performance indicators removing the ability of engineers to focus on the unclassified network.
- 3.6 Interrogation of the insurance data reveals that since 2011 TCBC has had 593 highway related insurance claims, which by having a robust HAMP in place has enabled us to successfully defend 490 claims saving a potential £3.3M.

- 3.7 Currently the reported performance indicator that identifies the percentage of highway inspections carried out and the percentage of reactive **safety** defects repaired or completed are used to inform managers of any issues that may affect the Council's highway insurance liability.
- 3.8 Notwithstanding the advice and guidance given by CSS(Wales), TCBC have offered the draft HAMP to our Insurers, Zurich, for their comments and advice, the following is their draft assessment of TCBC's HAMP:

Torfaen County Borough Council, through the Highway Asset Management Officer, has been proactive in reviewing and updating its Highway Asset Management Plan and arrangement, to take account of the shift in emphasis in the new code to a risk based approach throughout the whole planning and implementation cycle.

There remain a number of strands of evidence and matters of record that need to be captured but, overall, the view would be that the review process that has been undertaken appears robust, follows the theory and logic of a risk based approach and should place TCBC in a position to be robust in defence of claims after implementation of the new HAMP.

- 3.9 Ward members and those officers involved in or affected by highways maintenance procedures or policies have been offered the opportunity to comment on the draft HAMP and together with any comments made by the committee will be recorded, and where appropriate, be included in the draft document before being placed before the Executive Member for the Environment.

4 Implications

- 4.1 As has been stated previously in the report, the council have a statutory obligation to maintain and keep the highway network in a safe condition. The method for carrying out this is set out in the Well Maintained Highway Infrastructure - A Code of Practice which is the legal guidance for highway maintenance. Whilst this allows Highway Authorities to locally contextualise the Code, where this is required or agreed locally, then the authority must provide the evidence and data to support this to convince a Court of its necessity and justification.
- 4.2 Therefore, it is argued that significant divergence from the Code of Practice, would, however evidenced or justified, open the Council to the uncertainty and expense of contesting the content of its HAMP in Court.
- 4.3 This has been recognised by CSS(Wales) who have commissioned a project providing professional guidance, based on the Code of Practice to Welsh councils and it are these templates and supporting systems that TCBC has used in producing its proposed HAMP 2018 to 2023.
- 4.4 It has been explained that the whilst the **safety** risk associated with the highway network is an area of highway maintenance which the legal system concentrates, the **condition** of the network if under-financed will in a short period of time (within 2 to 5 years) lead to increased spending being required to match the national levels of service suggested by CSS (Wales) and the Code of Practice. It is argued that the current and historic level of core capital investment is not enough to maintain the condition of TCBC's A, B and C classified roads in line with the all Wales trends as since 2011/12 this has required an

additional 200% top up to maintain this level. By implication, any alteration to the current level of capital investment will lead to an inverse variation in the level of investment required to keep the highway safe by carrying out reactive work. This could lead to a credible scenario that the reactive funding required to keep the highway safe to the agreed policy quickly becomes more than the Council is able to provide.

- 4.5 Once the list of proposed highway schemes has been agreed and signed off, by the Chief Officer for the Environment it is communicated to all ward members. Due to the specialised nature, network implications and any other considerations of the sites included in the schemes negotiations have to be conducted with the contractors to get these works completed within the financial year. This can and has meant that some schemes will, for operational reasons (e.g. weather, contractor commitments etc.) become delayed or even deleted from the list. Where this is the case the list will be revised to ensure that capital allocation is fully utilised, it does not mean that the scheme deleted will automatically be included in subsequent years' lists, as its needs and qualifying criteria will be assessed against the following year's crop of sites.
- 4.6 As there is the possibility for change to the list of schemes, time of commencement and completion is subject to factors outside TCBC 's control, any communication of the proposed list of schemes before all these factors are confirmed could lead to significant reputational consequences and associated strain on available officer time.

5 Conclusions

- 5.1 The Council have a statutory duty to maintain the highway in a safe condition.
- 5.2 This duty has been split by a legally recognised Code of Practice into **safety** risk and **condition** risk.
- 5.3 The Council will update its HAMP policy to mitigate both risks.
- 5.4 Capital allocation to address the **condition** risk has been bolstered since 2011 by prudential borrowing.
- 5.5 The current method of communicating safety risk reported by the public is similar to neighbouring Authorities
- 5.6 The current ability to communicate condition risk includes factors outside TCBC control.

6 Scrutiny Activity

- 6.1 The Committee are tasked with considering:

Do we manage the allocation of capital monies for highway maintenance adequately and is it proportionate to the risks associated with keeping the highway safe?

6.2 **The Safer Communities Overview and Scrutiny Committee are invited to scrutinise the processes and principles of how we utilise the capital allocation for highways maintenance and;**

- **Determine whether those principles are fit for purpose in minimising the risks associated with keeping the network safe**
- **Assess whether the detail provided within the proposed HAMP 2018-2023 (highway maintenance manual para 5.4) to identify those sites that qualify for capital investment is sufficient;**
- **Ascertain whether the methods of and level of communication is appropriate based on the constraints of the nature and complexity of both safety investigated and condition risk work**

Appendices	Appendix 1 – Transport & Highway THS/012 – Roads in Poor Condition (5) Appendix 2 – Highway Capital Allocation Appendix 3 – Total Road Lengths Appendix 4 – TCBC Highway Maintenance Manual for the Adopted Highway 2013 - 2018 Appendix 5 – TCBC Highway Maintenance Manual for the Adopted Highway 2018 – 2023 Appendix 6 – Table of classified roads
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Background Papers	Note: Members of the public are entitled, under the Local Government Act 1972, to inspect background papers to reports. The following is a list of the background papers used in the production of this report.
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For a copy of the background papers or for further information about this report, please telephone:

Mark Strickland – 01495 766756

Appendix 1

Transport and Highway THS/012 - Roads in poor condition(%)

Local Authority	2011/12	Local Authority	2012/13	Local Authority	2013/14	Local Authority	2014/15	Local Authority	2015/16	Local Authority	2016/17
Gwynedd	6.4	Flintshire	5.4	Flintshire	4.3	Flintshire	4.5	Flintshire	4.0	Flintshire	3.4
Torfaen	7.7	Swansea	6.7	Torfaen	6.4	Neath Port Talbot	5.6	Neath Port Talbot	4.3	Neath Port Talbot	3.9
Swansea	7.9	Torfaen	7.0	Swansea	6.7	Torfaen	5.7	Blaenau Gwent	4.8	Blaenau Gwent	4.5
Neath Port Talbot	8.3	Gwynedd	7.7	Neath Port Talbot	6.7	Merthyr Tydfil	5.9	Swansea	5.1	Torfaen	4.6
Flintshire	8.6	Monmouthshire	7.8	Bridgend	6.9	Blaenau Gwent	6.4	Merthyr Tydfil	5.1	Swansea	5.1
Merthyr Tydfil	8.9	Merthyr Tydfil	7.9	Cardiff	6.9	Cardiff	6.8	Cardiff	5.2	Merthyr Tydfil	5.1
Caerphilly	8.9	Neath Port Talbot	8.0	Blaenau Gwent	7.5	Caerphilly	7.0	Newport	5.3	Newport	5.7
Newport	9.0	Bridgend	8.6	Merthyr Tydfil	7.6	Swansea	7.8	Torfaen	5.4	Cardiff	6.1
Cardiff	9.2	Caerphilly	8.6	Newport	8.6	Bridgend	7.8	Pembrokeshire	6.6	Monmouthshire	6.3
Monmouthshire	9.4	Newport	8.8	Caerphilly	8.8	Newport	7.9	Caerphilly	6.6	Caerphilly	6.5
Conwy	9.9	Cardiff	9.4	Gwynedd	9.4	Denbighshire	8.7	Bridgend	7.0	Bridgend	6.6
Bridgend	9.9	Conwy	9.6	Denbighshire	9.6	Pembrokeshire	9.1	Denbighshire	8.4	Isle of Anglesey	6.9
Rhondda Cynon Taff	11.0	Denbighshire	10.0	Monmouthshire	9.8	Gwynedd	9.2	Rhondda Cynon Taff	8.6	Pembrokeshire	6.9
Denbighshire	11.2	Rhondda Cynon Taff	10.0	The Vale of Glamorgan	9.9	Rhondda Cynon Taff	9.3	Isle of Anglesey	8.9	Denbighshire	7.0
Isle of Anglesey	11.5	The Vale of Glamorgan	10.3	Rhondda Cynon Taff	9.9	Monmouthshire	9.7	The Vale of Glamorgan	9.2	Rhondda Cynon Taff	7.2
Blaenau Gwent	11.6	Isle of Anglesey	11.1	Conwy	10.7	The Vale of Glamorgan	9.9	Monmouthshire	9.2	The Vale of Glamorgan	8.5
The Vale of Glamorgan	13.5	Blaenau Gwent	11.6	Isle of Anglesey	11.7	Conwy	10.7	Conwy	9.4	Carmarthenshire	9.2
Pembrokeshire	14.2	Pembrokeshire	12.6	Pembrokeshire	12.0	Isle of Anglesey	10.9	Gwynedd	10.7	Conwy	10.0
Wrexham	14.8	Wrexham	14.7	Ceredigion	15.6	Carmarthenshire	11.9	Carmarthenshire	10.7	Gwynedd	11.0
Carmarthenshire	15.4	Ceredigion	15.2	Carmarthenshire	15.7	Wrexham	13.8	Wrexham	12.8	Wrexham	12.0
Ceredigion	15.6	Carmarthenshire	17.2	Wrexham	16.7	Ceredigion	15.0	Ceredigion	13.2	Ceredigion	13.4
Powys	19.6	Powys	20.1	Powys	20.4	Powys	19.7	Powys	19.0	Powys	18.8
Wales	13.5	Wales	13.4	Wales	13.2	Wales	11.9	Wales	11.2	Wales	10.7

Appendix 2

Highway Capital Allocation

	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	Total
	£	£	£	£	£	£	£	£		£
Core Capital	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	3,600,000
TCBC PB (part of £5m allocation)	60,000	690,000	300,000							1,050,000
WG LGBI			1,167,341	1,170,000	1,170,000					3,507,341
TCBC PB						1,000,000		1,250,000		2,250,000
WG Grant								596,527		596,527
Total	460,000	1,090,000	1,867,341	1,570,000	1,570,000	1,400,000	400,000	2,246,527	400,000	11,003,868

Appendix 3

Total road lengths 2017/18

Total 34800 Kms

All Wales

Motorways

A Class Roads

B and C class Roads

Unclassified Roads

4.90% Total 458 Kms

7.90% Torfaen

36.90% Motorways

50.20% A Class Roads

B and C class Roads

Unclassified Roads

0%

8.80%

22.60%

68.60%

TORFAEN COUNTY BOROUGH COUNCIL
HIGHWAY MAINTENANCE MANUAL
FOR THE ADOPTED HIGHWAY
2013 TO 2018

Date	May 2015
Author	Mark Strickland
Issued to	
Version No	1.2

TORFAEN COUNTY BOROUGH COUNCIL

HIGHWAY MAINTENANCE MANUAL

1. Consistent Standards

- 1.1 TCBC recognise that to effectively manage the maintenance requirements of the network within stringent budget limits, differing conditions must be set for assets accounting for their use, e.g. a single track road taking 10 vehicles a day will have a lower level of maintenance than a main arterial road into a town centre. This road hierarchy is set out in Appendix 1a and will be reviewed at the commencing date for this document. However, where the Council are responsible for any asset similar in nature, or use, to the Highway network, the levels of service and maintenance regimes contained within this document will be used, unless there is specific legislation, local bylaws or existing Council policy to demand otherwise.

2. Managing Compliments, Complaints and Claims

- 2.1 All public enquiries or complaints that are highway related are dealt with by either the Council's customer call centre or Corporate Communications Section. These include contacts using telephone, e-mail or social media platforms and face-to-face and are recorded and logged onto a database, currently HEAT and Mayrise, and these are electronically transferred to the relevant sections and officers for action or comment. Their effectiveness and efficiency is monitored and reviewed both within that section and by the Network Management Section on a monthly basis, with any problems with the system being addressed and actioned as they arise. When the Council is contacted with a highway related it will record the nature and type of contact. This is then passed to a Council Officer to action, (where appropriate) and the result of that action is entered close that record.
- 2.3 Claims against TCBC which are related to the highway are recorded and dealt with by the Authorities in house Insurance Section. All claims, from whatever source will be directed through this Section.
- 2.4 TCBC offer an 'out of hours' standby service which utilises an in house 24 hour operated call centre, supported by a voluntary group of experienced highway practitioners, and the entire support group have had both winter maintenance and winter forecasting training.
- 2.5 Neighbourhood Services Department also operate an internal system for dealing with highway related Members enquiries with agreed response times and protocols.

3. Network Hierarchy

- 3.1 In TCBC the length of 'adopted' carriageway which the Council is responsible for as a Highway Authority is split into a ranking system or hierarchy is set out in Appendix A. This hierarchy incorporates the principals of Well-Maintained Highway Code of Practice for Highway Maintenance together with the relevant Section within The Highways Act 1980.
- 3.2 The same has been carried out for the Footways and Cycleways in TCBC that form part of the adopted highway network and their hierarchy is also included in Appendix A

4. Maintenance Categories

TCBC recognise the following categories for highway maintenance works:

4.1 Reactive

All assets – sign and make safe for safety purposes

All assets – provide initial temporary repair for safety purposes

All assets- provide permanent repair for safety purposes

4.2 Routine

Carriageways, footways and cycle routes – minor works and patching

Drainage systems – cleansing and repair

Embankments and cuttings – stability

Landscaped areas and trees – management

Verges – grass cutting

Fences and barriers – tensioning and repair

Traffic signs and bollards – cleansing and repair

Road markings and studs – replacement

Lighting installations – cleansing and repair

Bridges and structures – cleansing and minor works

4.3 Programmed

Carriageways – minor works, resurfacing or reconstruction

Footways – minor works, resurfacing or reconstruction

Cycle routes - minor works, resurfacing or reconstruction

4.4 Regulatory

Maintenance of Highway Register of Streets and Definitive Map for Public Footpaths

Co-ordination of road and street works

Permits for highway occupation and skips.

Other regulatory functions.

4.5 Winter Maintenance

Pre-treatment

Clearance of snow and ice

Filling and maintenance of salt bins

4.6 Weather and Other Emergencies

Flooding

High winds

High temperatures

Other emergencies

5. Inspection, Assessment and Recording (IAR) Regime

- 5.1 TCBC carry out the IAR which supplies the base data to demonstrate that the highway network reaches the national and local standards for safety, serviceability and sustainability. Where appropriate, this regime will supply and update the necessary basic condition data for inclusion in the HAMP. The timing and frequency of the IAR regime is set by the database management software, (currently Mayrise) which dictates when, where and the extent of the assets to be surveyed. The criteria for setting these IAR schedules are set out in Appendix B.

6. Safety Inspections

- 6.1 TCBC carry out regular safety inspections that identify all defects that, based on the national guidance, locally agreed investigatory levels and statutory duties, (as set out in Well-Maintained Highway Code of Practice for Highway Maintenance), constitute a danger or serious inconvenience to any highway user. TCBC have modified the safety inspection frequency based on a risk assessment carried out by a suitably qualified officer based on the principles as set out in the Highway Asset Risk Register i.e. Legislation, Safety, Environmental, Service Loss, Asset Damage, Cost and Level of Service.
- 6.2 The risk assessments for the network are currently held in a paper based file, the keeper being the Senior Highways Inspector. In 2013/14 is intended that, these risk assessments will be revisited, reassessed and where circumstances have altered will be modified based on the Highway Asset Risk Register. All Safety inspections are undertaken on foot by a suitably qualified officer, however, where there is a perceived danger to the person, inspections will be carried out from a slow moving vehicle. Driven inspections will be recorded separately with the suitably qualified officer conducting the survey not driving. The current minimum frequency of safety inspections are set out in Appendix B. During all safety inspections the personnel carrying out the survey will record the information pertinent to that carriageway, such the road hierarchy, any defects and the response to those defects. If after the period of time that is set out in Appendix B the inspector identifies the same defect and its risk factor has not increased, then this defect could be classed as 'stable' and may be added to the database for planned maintenance.

7. Safety Inspection Priority

- 7.1 Where carriageway and/or cycleway and/or footway hierarchies intersect, such as pedestrian crossings, bollards or other defined crossing points, the footway hierarchy, investigation level and response time will always take precedence.

8. Safety Defect Categories

- 8.1 TCBC use the guidance included in Well-Maintained Highway Code of Practice for Highway Maintenance as the minimum requirement for identifying and addressing Category 1 defects and target these defects to be repaired within 24 hours of discovery, this information will be logged on the highway database management system, and regular reports run off, to monitor performance against the target. All other defects will at the time of inspection be assessed by a qualified officer and with reference to the Highway Asset Risk Register and will include those defects within the appropriate database. TCBC will aim to address these defects within 28

working days and will, from time to time, as appropriate run off reports to monitor performance against target.

9. Safety Inspection of Electrical Installations, Lighting, Illuminated Signs and Signals.

- 9.1 TCBC, through competitive tender, employ private contractors to carry out these functions, and the parameters and criteria are included in the contracts which adhere to current statutory obligations.

10. Service Inspections

- 10.1 TCBC do not carry out specific service inspections, but where an asset or part of an asset is observed as falling outside the criteria to be included as a safety defect, but based on its and/or use, could improve the service life of that asset, details are recorded and logged onto a database. This information is built up over the period of 12 months and at the beginning of each financial year an allocation is provided to address these issues. At present, and for the foreseeable future, it is not expected that the financial provision allocated to the highway network will be sufficient to address the 'backlog' of work. So based on traffic use, condition, statutory undertakers projected work patterns and type of works to be carried out, the database is interrogated to provide a short list of those areas to be rectified matched to the funding allocation, within that financial year.

11. Condition Surveys

- 11.1 TCBC carry out the statutory condition surveys to satisfy the performance indicators required by WG, this is carried out by a term contractor (currently Yotta DCL) appointed under the South East Wales Framework Agreement. The Contractor maintains and updates the data required for the upkeep and reporting from the UK Pavement Management System (UKPMS) for the Authorities in the Greater Gwent area. Each year after the required surveys (TCBC Coarse Visual Inspection / Detailed Visual Inspection, see Appendix B) and machine based, are undertaken they supply an Annual Highway Condition Report to TCBC via their Horizons web based application. It is from these surveys combined with any other valid considerations that TCBC generate a planned programme of highway maintenance to address any problems raised by the surveys. As stated above the financial allocation for the highway network is not sufficient to rectify every site identified by the survey. So based on traffic use, condition, statutory undertakers projected work patterns and type of works to be carried out, the condition report is interrogated and assessed by suitably qualified highway officers to provide a short list of those areas to be rectified matched to the funding allocation, within that financial year. The works identified thus become the planned highway structural maintenance programme.

12. Skid Policy

- 12.1 TCBC have produced a skid, or highway grip policy and carry out an annual SCRIM survey based on the agreed parameters. Suitably qualified highway officers will then interrogate this survey to ensure that any future planned structural maintenance incorporates works that will the targets of the skid policy are met. A

copy of this policy is held on TCBC M: NS\TS\Highways Network\Highway Asset Management Plan 2013-2018.

13. Safety Standards

- 13.1 This document will form the 'operational arm' of the HAMP and as such any network serviceability or network sustainability standards will not be included in this document, but in the HAMP. The minimum safety standards relating to the highway network in TCBC and the modified intervention threshold applied to satisfy these are provided in Appendix B. This Plan defines the intervention level as the point at which a suitably qualified highway inspector on observing a defect with a depression or protrusion over 40mm (on a carriageway) or 25mm (on a footway) will commence the process to assess the works (if any) that the defect warrants. Well-Maintained Highways Code of Practice for Highway Maintenance Management outlines examples of defects in its Table B1, and recommends that the system adopted by Westminster Council is used as the standard. It is agreed that the investigatory threshold is not consistent with the level of service that Torfaen CBC can offer its highway users. Thus it has been agreed locally to increase the intervention threshold to reflect the level of service that TCBC offer. It is accepted that there will be instances where due to the risk associated with the defect that the highway inspector will commence this process where the investigatory level is not exceeded.

14. Normal Working Hours Priorities for Reactive Maintenance

- 14.1 In TCBC reactive maintenance is safety based and the authority has set a target that all safety defects as identified in paragraph 8 on the highway network will be assessed and addressed within a maximum of 24 hours. During the working week, (8:00am to 3:30pm –Mon to Fri) this will initially comprise of signing and protection to the defective asset to prevent the danger to the general public and highway users. TCBC will then effect a temporary repair, where this is deemed adequate, to minimise the disruption to the freedom of movement on the network. A final permanent repair will then be carried out within the timescale set by the highway inspector or equivalent officer, based on the complexity of the operation concerned and the needs of the network.

15. Outside Normal Working Hours Priorities for Reactive Maintenance

- 15.1 Outside normal working hours (8:00am to 3:30pm –Mon to Fri) including Bank Holidays, TCBC operate an emergency standby system. When a safety defect is identified on the highway network an experienced highway officer is informed and he will then instruct standby operatives to initially, sign and guard the defect. Then depending on the location and extent of the defect, the officer will instruct the standby operatives to carry out a temporary repair or inform the relevant officer at the beginning of the next working day so that the procedures outlined in paragraph 14 can be instigated.

16. Priorities for Routine Maintenance

- 16.1 Areas on the highway network that are identified, by a suitably qualified highway inspector, as being above the intervention threshold for that asset, but not a sufficient risk to warrant reactive maintenance, will be recorded and added to a

database of sites to receive routine maintenance. Within the data inputted for each area will be an assessment by the inspector as to the priority ranking for that defect. The database will then be interrogated at the start of each working day and the areas with the higher ranking will be addressed first.

17. Programmed Maintenance

17.1 If, after visual inspection, in the opinion of a suitably qualified officer, an asset or part of an asset, does not fall below the investigatory level, but if suitable works were carried out, would have its service life extended, then it will be included into a database of schemes to be carried out as programmed, or 'needs based'. This database will be built up over a period of 12 months, and at the beginning of each financial year, this database will be investigated and a list of schemes that match the financial allocation will be undertaken during that year.

18. Winter Maintenance

18.1 Statutory Basis

Section 111 of the Railways and Transport Act 2001 amended Section 41(1A) of the Highways Act 1980 (duty of a highway authority to maintain the highway) which reads:

- a) *The authority who are for the time being the highway authority for a highway maintainable at public expense are under a duty, subject to subsection (2) and (3) below, to maintain the highway.*
- b) *(1) In particular, a highway authority is under a duty to ensure, so far as is reasonably practicable, that the safe passage along the highway is not endangered by snow and ice.*

18.2 This is not an absolute duty, given the qualification of 'reasonable practicability', but it does effectively overturn previous legal precedence, albeit with not with retrospective effect. Well-Maintained Highways Code of Practice for Highway Maintenance Management states that it is not practical or possible to provide the service on all parts of the network, and ensure that running surfaces are kept free of ice and snow at all times, even on treated parts of the network. To comply with the legislation TCBC have formulated a Winter Maintenance Plan, which is included held on TCBC M: NS\TS\Highways Network\Highway Asset Management Plan 2013-2018.

19. Weather and Other Emergencies

19.1 Heavy Rain

The historical basis for dealing with and the location of flooding to the highway network is well known and as such have been recorded and where practicable been mitigated using the Streams and Culverts Maintenance Schedule. All roads within the Borough have some method of transporting rain water from their surface, this ranges from a channel at the side of the carriageway through a formal system of gullies and outfall pipes to the large storage systems associated with Sustainable Urban Drainage Systems (SUDS). The most common type of highway drainage system employed in TCBC is of the gully and outfall pipe system. It is recognised

that in times of storm the highway can flood and cause a danger to highway users, to reduce the risk of this TCBC carry out routine cyclical gully maintenance. Gullies located in the adopted highway are inspected, and where necessary cleansed to ensure the drainage system is functioning correctly.

It must be noted that the primary function of a highway drainage system is to reduce the risk of flooding to the highway; it is not to protect adjacent landowners. It is accepted that by cleansing the highway drainage system some landowners adjacent to the highway gain a benefit from this operation, however, road safety is the only consideration when prioritising operations during storm events.

TCBC realise due to the unique topography of 'the Eastern Valley' that watercourses feeding the Afon Lwyd have in the past caused severe flooding to the highway network. A schedule of culvert entrances and known or likely to cause such flooding is held by TCBC and these are inspected and cleansed as per The Maintenance Schedule for Streams and Culverts.

20. Statutory Undertakers

- 20.1 The works carried out by Statutory Undertakers are co-ordinated by a TCBC officer dedicated to dealing with the New Roads and Street Works Act 1991. All non-emergency works are presented to the South East Wales Highway Authorities and Utilities Committee, where suitable timings and working practices are agreed in order to resolve any local conflicts. TCBC have a list of traffic sensitive streets and protected streets reproduced as Appendix C together with a list of streets and their reinstatement types.

21. Verge Maintenance

- 21.1 The Highway Authority utilise TCBC in-house grounds maintenance resource to cut and manage the highway verge, visibility splays and any associated shrubs or trees contained therein. Grass cutting is carried out from April until September each year on a rolling programme with the whole of the asset cut on a ten working day cycle. The extents of the asset are recorded and held on the Council's GIS database. Weather permitting this gives a maximum number of 13 cuts per year, and the grass is cut to a length not exceeding 25mm. All arising's are removed from the highway via mechanical sweeper and from footways by air blower, these being returned where possible to the verge to supply natural composting. On high speed or traffic sensitive streets where traffic management is deemed to be required the cutting regime will be organised on a risk basis up to a maximum of 6 cuts per year. Depending on location the grass and vegetation is cut using a variety of mechanical methods appropriate to the site and time of year.

TORFAEN COUNTY BOROUGH COUNCIL
HIGHWAY MAINTENANCE MANUAL
FOR THE ADOPTED HIGHWAY
2018 TO 2023

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1 Introduction

1.1 Scope

This manual is part of a suite documents that comprise Torfaen County Borough Council's (TCBC) policy in managing highway maintenance. It details how the adopted highway network is categorised into a hierarchy and how this network is inspected and repaired.

1.2 Purpose

This document will detail how the Highway Authority (HA) carries out its duties, and demonstrate that the safety risks to users are appropriately managed with regard to both local and national guidance.

1.3 Legal Requirements

The HA has a duty to meet the requirements of the Highways Act 1980, The New Roads and Streetworks Act 1991 and The Traffic Management Act 2004. These acts require the HA to maintain the highway at public expense, to co-ordinate all works in the Highway and to ensure the expeditious movement of traffic.

1.4 Guidance

TCBC has reviewed, refreshed and aligned its policies, procedures and this manual in line with the guidance set out in the 'Well Managed Highway Infrastructure: A Code of Practice, UK Roads Liaison Group 2016' (WMHI 2016), and guidance produced by the County Surveyors Society (Wales), (CSS Wales).

2 Roles, Responsibilities and Competencies

2.1 The Chief Officer has delegated the Highway Asset Management Officer to review and update the processes contained within this manual.

2.2 The table below identifies the structure of responsibility and competencies of those involved in implementing the policy and this manual and are full outlined in the individual job descriptions.

Table 2

Role	Responsibility
Executive Member for Neighbourhood Services	Approve the policy and standards in this manual
Chief Officer	Power to identify and prioritise the mitigation of safety risk on the highway network
Highway Network Manager	Delegated power to identify and prioritise the mitigation of safety risk on the highway network

Role	Responsibility
Highway Asset Management Officer	Delegated powers to develop the manual and standards to be used and to ensure that these are implemented, monitor the results and ensure that an annual risk assessment is undertaken
Highways Inspector/On-Call (Standby) Officer	Undertake highway inspections/surveys recording and actioning works to ensure highway safety
Highways On-Call (Standby) Officer	To record, inspect and or assess any highway safety related report ensuring that this risk is mitigated until working hours
Highway Operative	Carry out and record all work as required by the highways inspectorate in line with the appropriate service levels and to record
Contractor	Carry out and record all work as required by the highways inspectorate in line with the appropriate service levels and to record

Competencies, Training and Accreditation

Highway Asset Management Officer - this Officer will hold education qualification(s) of the equivalent of HND, or higher, in an engineering discipline and demonstrate relevant experience in highway asset management, as required by TCBC's job description. The Officer will also be in possession, or working toward accreditation under the CSS Wales highway asset accreditation scheme, or a similar standard.

Highway Inspector - a Highway Inspector will hold education qualification(s) of the equivalent of ONC, or higher in an engineering discipline and/or demonstrate relevant experience in highway inspection, maintenance or administration as required by TCBC's job description. The Officer will also be in possession, or working toward accreditation under the CSS Wales highway inspector accreditation scheme, or a similar standard.

Highway Operative - in TCBC Highway Operatives will work in gangs of two or more and the lead operative will hold the Street works qualification relevant to the module of work being undertaken.

Highway On-Call (Standby) Officer - TCBC operate an out of hours standby system, whereby anyone can be put in contact with an experienced officer via the Council's main telephone number. Officers undertaking this role will be chosen for their experience and knowledge of the Borough and have been instructed to always act to preserve highway safety in the first instance.

3 Network Hierarchy

Within the guidance of WMHI 2016 road hierarchy should be based on use, function and the exposure to safety risk, at present the hierarchy is exclusively based on the road classification, which does not reflect this in all cases. Unlike in England, the process to alter the road classification is time consuming and costly, so it has been determined that the road classification need not be altered. TCBC in conjunction with CSS Wales have produced a revised road hierarchy based on the actual or estimated traffic flows. This,

when inputted into a suitable model will produce the safety risk that a user can expect to be exposed to when passing any condition variation in a carriageway's surface. Therefore, all roads have been divided into network hierarchy categories that reflect their use, function and the exposure to safety risk, this enables the creation of inspection and repair regimes that mitigate this.

3.1 Carriageways

The following have been developed and will be utilised when defining the hierarchy:

Table 3.1 Carriageways	
Category	Description (maximum daily traffic volume)
Strategic Route	Route enabling travel between regionally important locations. (in this document these routes are based on local significance and not on traffic volumes)
Main Distributor	Route between locations (10K – 20K movements per day)
Secondary Distributor	Route between locations (5K – 10K movements per day)
Link Road	Route between locations (1K – 5K movements per day)
Local Access Road	Route between locations (up to 1K movements per day)

WMHI 2016 suggests that a category of 'minor road' be included for traffic flows of below 200 movements per day. TCBC have included this category into the Local Access Road definition, on the basis the traffic movements are so small that it offers no discernible benefit to determining highway safety risk within the Borough.

As of July 2018 there are 1401 roads on the adopted network with Unique Street Reference numbers (USRN) that are maintained at public expense but, as traffic flow data has not been routinely collected since 2012, to establish vehicular flows for each street an estimation exercise has been undertaken based on local knowledge, engineers estimates and where possible, cross referenced with any ad hoc data that is available to the HA.

Each street has been the subject of a desktop exercise to determine the maximum vehicular movements per day split into 6 hour periods: 00:00 to 06:00, 06:00 to 12:00, 12:00 to 18:00, and 18:00 to 00:00. This allows engineers to have a better understanding and therefore more accurately model the usage profile of any given road. Until more accurate data is available this method will be used and revisited annually as set out in the Highway Asset Management Plan (HAMP) to ensure that traffic flows for any given street remain as consistent as the method allows.

The table below gives the maximum expected movements:

Table 3.1.1 - Estimated Maximum Traffic Flow									
	00:00-06:00	Total	06:00-12:00	Total	12:00-18:00	Total	18:00-00:00	Total	Daily Total
	Movement every		Movement every		Movement every		Movement every		
Very High	2.5 seconds	8640	1.25 seconds	17280	1.25 seconds	17280	2.5 seconds	8640	51840
High	5.seconds	4320	2.5 seconds	8640	2.5 seconds	8640	5 seconds	4320	25920
Medium	30 seconds	720	7.5 seconds	2880	7.5 seconds	2880	10 seconds	2160	8640
Low	90 seconds	240	30 seconds	720	30 seconds	720	60 seconds	360	2040
Very Low	5 minutes	72	2 minutes	180	2 minutes	180	5 minutes	72	504

In June 2108 all relevant highway data was inputted into the computer model provided by CSS Wales, and, based on the traffic flows, road classification, HGV usage and existing hierarchy, a revised hierarchy was established. This information has then been transferred to the Council's GIS section for inclusion as metadata associated with each adopted street. It is this hierarchy that is then utilised as the foundation for the inspection regime.

3.2 Footways

The following hierarchies have been used:

Table 3.2 Footways	
Category	
Pedestrian Areas in City Centre Shopping/Business Areas	Pedestrianised zones and footways used by thousands of people per day. Very high use areas in cities such as Newport and Cardiff
Pedestrian Areas in Town Centre Shopping/Business Areas	High use pedestrianised zone and footways in town centres
Footways Outside Public Buildings or Facilities	Footways outside busy public buildings such as train/bus stations, hospitals, schools and colleges or small parades of shops etc. that experience significantly higher levels of use than the adjacent footways
Link Footways	Footways linking housing or industrial estates to other centres or routes
Local Access Footways	Footways in housing areas
Minor Footways	Rural footways with infrequent use

The WMHI 2016 suggests that a category of 'minor footway' be included where footfall is described as 'little used rural footways serving very limited numbers of properties', TCBC have included this category into the Local Access Footway on the basis the footfall counts are so small to offers no discernible benefit to determining highway safety risk.

TCBC has not historically collected routine pedestrian footfall figures, and only has two sites within the World Heritage site of Blaenavon where permanent counters are located. To establish a base figure for pedestrian footfall an estimation exercise has been undertaken based on local knowledge and where possible cross referenced with any ad hoc data that is available to the HA. Initially this exercise counted the number of properties on a street multiplied this by 3 to represent the average number of occupants per property and then doubled the figure to allow each person one movement into and out of the property to give a base figure for footfall on any given footway.

Each footway has been the subject of a desktop exercise to determine the maximum pedestrian movements per day split into 6 hour periods: 00:00 to 06:00, 06:00 to 12:00, 12:00 to 18:00, and 18:00 to 00:00. This allows engineers to have a better understanding and therefore more accurately model the usage profile of any given footway. Until more accurate data is available this method will be used and revisited annually as set out in the Highway Asset Management Plan (HAMP) to ensure that pedestrian footfall flows for any given footway remain as consistent as the method allows.

The table below gives the maximum expected movements:

Table 3.2.1 - Estimated Maximum Pedestrian Footfall									
	00:00-06:00	Total	06:00-12:00	Total	12:00-18:00	Total	18:00-00:00	Total	Daily Total
	Pedestrian every		Pedestrian every		Pedestrian every		Pedestrian every		
Very High	5 min	72	10s	2160	5s	4320	15s	1440	7992
High	30 min	18	15s	1440	10s	2160	30s	720	4338
Medium	1 hr	6	90s	240	30s	720	1m	360	1326
Low	3 hrs	2	3m	120	90s	240	3m	120	482
Very Low	6 hrs	1	10m	36	6m	60	10m	36	133

3.3 Structures

The following hierarchies have been used:

Table 3.3 Structures	
Category	Description
Vital Structure	A structure that is vital to the network and if required to have restricted use or removed from service would result in significant adverse disruption/delay to traffic movement
Important Structure	A structure that is deemed important to the functioning of the networks and restricted use or loss would cause disruption to traffic movement
Standard Structure	All other highway related structures

3.4 Street Lighting

In 2008 TCBC agreed to reduce the Council's Carbon footprint and adopted a policy of switching off or part night lighting street lights to achieve this. Historically the safety hierarchy of street lights has been based on the

electrical safety of individual columns, however, to ensure that there was no increased safety risk or legal issues by deactivating lights a safety risk exercise was undertaken to identify those lights that were to remain in lighting during the hours of darkness. This included roundabouts, junctions, roads with traffic calming and lights within 30 mph areas to meet the requirement of the Road Traffic Regulation Act 1984, Section 82(1)(a).

Maintenance of the asset is carried out via a Term Contract which includes times for attendance for faults and outages.

3.5 Traffic Signals

The following hierarchies have been used:

Table 3.5 Traffic Signals	Description
Vital Junction	Due to the limited number of traffic signal controlled junctions in the Borough all illuminated traffic signals at any junction in the Borough are classed as vital
All other Signals	This will include all illuminated pedestrian signal crossings

TCBC maintain their traffic signal assets via a term contract in which the hierarchy is set as per table 3.5 and maintenance and call out regimes are included in this document.

3.6 Regional Consistency

Consultation has been undertaken prior to adopting this policy with Caerphilly, Blaenau Gwent, Monmouth and Newport HA's and nationally with all Local Authorities in Wales via the CSS Wales HAMP project, to ensure that a broadly consistent approach to Highway Asset Management is taken. TCBC has confirmed that where routes cross into neighbouring Authorities hierarchies and so inspection regimes have a high level of commonality.

3.7 Update and Review

The carriageway hierarchies will be reviewed annually for the lifecycle of this plan, and will only be altered if:

- evidence is available to prove that the current traffic flow data has changed
- case law is cited to which the CSS Wales HAMP project accept is relevant
- new statute or guidance is issued

4 Inspection Regime

4.1 Detailed Visual Inspection (DVI)

Unless a safety risk assessment precludes it, all inspections in TCBC will be walked and carried out by a qualified Highways Inspector using the accredited CSS Wales DVI standards and guidance, and include both footway and carriageway.

4.2 Coarse Visual Inspection (CVI)

Where a safety risk assessment has been carried out highlighting that a walked inspection is inappropriate a CVI, driven inspection will be made from a slow moving vehicle in accordance with the National standards and guidance, and include both footway and carriageway.

4.3 Types of Inspection

To monitor the condition and repair needs of any highway asset TCBC employs a regime of inspections made up of the following types:

4.3.1 **Condition Inspections (CI's):** These proactive inspections are carried out to identify and record the condition of the asset so that a programme of preventative maintenance can be generated and will include DVI's, manual or machine based inspections depending on the nature of the asset.

4.3.2 **Planned Inspections (PI's):** These proactive DVI's are carried out to identify, record and where required, programme works to mitigate actual or potential safety risks to highway users.

4.3.3 **Reactive Inspections (RI's):** These site specific DVI's are carried out in response to reports of potential safety risks generated by persons outside the Highways Inspectorate.

4.4 Carriageway Inspection Frequencies

4.4.1 **Planned Inspections:** The frequency of inspection will be based on the safety risk factor that a highway user could be exposed to, based on the traffic flow past a point on a carriageway, that may have a condition variation. A model has been produced and the results are held within the TCBC Highway Assets Risk Review Method report. Based on this methodology, and initially using the Main Distributor traffic flows as a datum the following frequencies have been determined.

4.4.2 **Reactive Inspections:** When a report is received by TCBC Highway Network Section from a third party regarding the condition of the carriageway, it will be recorded and assessed by a qualified and/or experienced officer within 24 hours. Any remedial work deemed required will be programmed in line with the HA's repair regime for that asset. It is accepted that there will be a wide variation in the quality of the data that these reports will provide,

however, TCBC regards these reports as potentially significant risks and so does not distinguish between safety and maintenance reports.

4.5 Carriageway Inspection Frequencies

The following Routine planned inspections are carried out on the carriageway:

Table 4.5 Hierarchy	TCBC F	Inspection Method
Strategic Route	1 month (30 Days)	Walked*
Main Distributor	1 month (30 Days)	Walked*
Secondary Distributor	2 month (60 Days)	Walked*
Link Road	4 month (120 Days)	Walked*
Local Access Road/Minor Road	12 month (360 Days)	Walked*

*Unless the risk assessment for the road identifies that due to the nature or use of the road the safety of the highway inspector would be at risk if a walked inspection were carried out.

The TCBC inspection frequencies mirror those recommended by the CSS Wales HAMP project.

4.6 Footway Inspection Frequencies

4.6.1 **Planned Inspections:** The frequency of inspection will be based on the risk factor that a highway user could be exposed to, based on the traffic flow past a point on a footway, that may have a condition variation. A model has been produced and the results are held within the TCBC Highway Assets Risk Review Method report. Based on this methodology, and initially using the Main Distributor traffic flows as a datum the following frequencies have been determined.

4.6.2 **Reactive Inspections:** When a report is received by TCBC Highway Network Section from a third party regarding the condition of the footway, it will be recorded and assessed by a qualified and/or experienced officer within 24 hours. Any remedial work deemed required will be programmed in line with the HA's repair regime for that asset. It is accepted that there will be a wide variation in the quality of the data that these reports will provide, however, TCBC regards these reports as potentially significant risks and so does not distinguish between safety and maintenance reports.

4.7 Footway Inspection Frequencies

The following Routine planned inspections are carried out on the footway:

Table 4.7 Hierarchy	TCBC Frequency	Inspection Method
City Centre Pedestrian Areas	19 days	Walked*
Town Centre Pedestrian Areas	1 month (30 Days)	Walked*
Footways Outside Public Buildings	2 month (60 Days)	Walked*
Local Footway/Low Use Rural Footway	12 months (360 Days)	Walked*

Where Carriageway and footway hierarchies intersect, or can be inspected simultaneously, the higher frequency (shortest interval) level will be applied.

Where carriageway and/or cycleway and/or footway hierarchies intersect, such as pedestrian crossings or other defined crossing points, the footway hierarchy, investigation level and response time will always take precedence.

4.8 Inspection Tolerance

TCBC will allow an inspection date variation of up to a 10% working day flexibility either side of the scheduled inspection date (excluding bank holidays) to the level of inspection frequency. This allows for unforeseen circumstances that prevent inspection, such as bad weather or employee sickness, with the reason and length of extension being recorded.

4.9 Planned Interruptions

Where a planned interruption of the inspection frequencies can be predicted, (Christmas 'shut-down', prolonged adverse weather etc.) the Chief Officer of Neighbourhoods, Planning and Public Protection (NPPP) or the delegated officer will advise the Executive Member, record the event and instigate an agreed, modified inspection and repair programme:

1. Highway inspectors will only assess and record Category 1 and 2 condition variations (CV's) as set out in Tables 5.1 and 5.2.
2. Highway gangs will be allocated areas and will systematically carry out and accurately record temporary repair work to any variations in the condition of the carriageway or footway in line with Table 5.2 and 5.3, street by street, until cessation of the interruption is agreed.
3. During this period any CV's identified before the start of the interruption will be suspended for the duration of the interruption.

4.10 Inspected Assets

The assets inspected during a routine inspection shall include, but not limited to:

Carriageways

Footways

Covers Gratings and Frames (including Statutory Undertakers apparatus)

Kerbs, Edgings and Channels

Drainage assets

Guardrails, Fencing and Restraint Systems

Verge, Trees and Hedges

Road Studs and Markings

Traffic Signals, Controlled Crossings

Street Furniture

4.11 Inspection Records

Both Highway Inspectors and Highway Operatives are required to, and will, record all relevant details relating to any actionable CV, either manually or electronically in accordance with the requirements of the Council's Mayrise asset management database.

5 Repair Regime

5.1 Condition Variation (CV) Categories

The assessment and data recorded during highway inspections is used to determine the CV category, CV categories are then used to prioritise any repairs required. The following CV categories as recommended by CSS Wales have been adopted by TCBC.

CV Category	Description (indicative)	Time Response
Category 1 CV 1	Condition Variations that pose an immediate safety risk to highway users, such as, collapsed cellar light, missing utility cover, fallen tree, or unprotected excavation.	2 hours from time of first assessment by TCBC
Category 2 CV 2	Condition Variations that pose an imminent safety risk to highway users such as, a loose kerb edge, damage to the surface of a carriageway where by its location and use an accident is probable, damage to an asset which if left for more than 24 hours will cause a Cat 1 CV.	24 hours from time of first assessment by TCBC
Planned Maintenance PM 1	Condition Variations that on assessment, and which if left, will degrade into a Cat 2 CV prior to the next scheduled inspection and are greater than the dimensional criteria in Tables 5.2, 5.3, 5.4 and 5.5	Prior to next routine inspection or 59 days whichever is shorter
Planned Maintenance PM 2	Condition Variations that on assessment, warrant treatment to prevent them degrading to the point where additional works or cost is incurred	To be included in annual programmed maintenance schemes

5.2 Condition Variation types and Investigation Level

The following tables list a non-exhaustive CV type and investigation level, and are meant as an initial guide to establishing the safety risk of a CV in an asset. Each specific CV may have factors that do appear below and will require the experience and knowledge of TCBC officers to dynamically determine the safety risk to highway users.

Critical Condition Variation (CV)1					
Asset Type	CV Description	Hierarchy	Dimension Criteria		Time Response
			Depth/Height	Extent	
All	Major debris or spillage on the highway; carriageway/footway/cycleway collapse with high risk of	All	Not applicable, critical CV's are defined by the potential to	Not applicable, critical CV's are	2 hours from time of first assessment by TCBC

Table 5.2					
Critical Condition Variation (CV)1					
Asset Type	CV Description	Hierarchy	Dimension Criteria		Time Response
			Depth/Height	Extent	
	accident or loss of control; unstable overhead wire, trees or structures; exposed live wiring; isolated standing water with very high risk of loss of control; missing of seriously defective ironwork with high risk of injury to highway users		cause immediate injury not by CV size	defined by the potential to cause immediate injury not by CV size	

Table 5.3					
Critical Condition Variation (CV)2					
Asset Type	CV Description	Hierarchy	Dimension Criteria		Time Response
			Depth/Height	Extent	
Carriageways	Pothole	Strategic Route Main Distributor Secondary Distributor	Greater than 50mm average depth	Maximum horizontal dimension greater than 150mm	
	Pothole	Link Road Local Access Road Minor Road	Greater than 75mm average depth	Maximum horizontal dimension greater than 150mm	
Footways	Pothole	All	Greater than 50mm average depth	Maximum horizontal dimension greater than 75mm	24 hours form time of first assessment by TCBC
	Pothole	Town Centre Public Facility	Greater than 25mm average depth	Maximum horizontal dimension greater than 75mm	
	Crack or Gap	All	Greater than 50mm average depth	Maximum horizontal dimension greater than 25mm	
	Crack or Gap	Town Centre Public Facility	25mm to 50mm average depth	Maximum horizontal dimension greater than 25mm	
	Trip	All	Greater than 50mm average height	Not applicable	24 hours form time of first assessment by TCBC
	Trip	Town Centre Public Facility	25mm to 50mm average height	Not applicable	
	Rocking Slab	All	Greater than 50mm variation in height	Not applicable	
	Rocking Slab	Town Centre Public Facility	25mm to 50mm variation in height	Not applicable	
Kerbing	Dislodged, Loose, Missing, Damaged	All	Greater than 50mm variation across or between units	Not applicable	
	Dislodged, Loose, Missing, Damaged	Town Centre Public Facility	Greater than 25mm variation across or between units	Not applicable	

Table 5.3					
Critical Condition Variation (CV)2					
Asset Type	CV Description	Hierarchy	Dimension Criteria		Time Response
			Depth/Height	Extent	
Traffic Signals	Any Fault	Vital Junction	Not applicable	Not applicable	Included in TCBC term contract specification
Illuminated Highway Signage	Any Fault	Vital Junction	Not applicable	Not applicable	Included in TCBC term contract specification

Table 5.4					
Planned Maintenance (PM) 1					
Asset Type	CV Description	Hierarchy	Dimension Criteria		Time Response
			Depth/Height	Extent	
Carriageways	Pothole	Strategic Route Main Distributor Secondary Distributor	Greater than 40mm average depth	Maximum horizontal dimension greater than 150mm	Prior to next routine inspection or 59 days whichever is shorter
	Pothole	Link Road Local Access Road Minor Road	Greater than 50mm average depth	Maximum horizontal dimension greater than 150mm	
	Crowning/Depression	All	Greater than 100mm	Less than 2m in any direction	
Footways	Pothole	Local Footway Low Use Rural Footway	25mm to 50mm average depth	Maximum horizontal dimension greater than 75mm	
	Crack or Gap	Local Footway Low Use Rural Footway	25mm to 50mm average depth	Maximum horizontal dimension greater than 25mm	
	Trip	Local Footway Low Use Rural Footway	25mm to 50mm average depth	Not applicable	
	Rocking Slab	Local Footway Low Use Rural Footway	25mm to 50mm average variation in height	Not applicable	
	Badly cracked or damaged ironwork	All		Not applicable	
Kerbing	Dislodged, Loose, Missing, Damaged	Local Footway Low Use Rural Footway	25 to 50mm variation across or between units	Not applicable	
Drainage	Water on the carriageway or footway	All			Detailed in TCBC Gully Cleansing Service 2018 to 2023 V 2.3
	Broken Drain cover or frame	All			Prior to next routine inspection or 59 days whichever is shorter

Table 5.4					
Planned Maintenance (PM) 1					
Asset Type	CV Description	Hierarchy	Dimension Criteria		Time Response
			Depth/Height	Extent	
Traffic Signals	Any Fault	Non Vital Junction	Not applicable	Not applicable	Included in TCBC term contract specification
Illuminated Highway Signage	Any Fault	Non vital Junction	Not applicable	Not applicable	Included in TCBC term contract specification

Table 5.5					
Planned Maintenance (PM) 2					
Asset Type	CV Description	Hierarchy	Dimension Criteria		Time Response
			Depth/Height	Extent	
Carriageways	Pothole	Strategic Route Main Distributor Secondary Distributor	25mm to 40mm average depth	Maximum horizontal dimension greater than 150mm	Details to be added to database and used as evidence to inform the annual prioritisation of capital works programme
	Pothole	Link Road Local Access Road Minor Road	25mm to 50mm average depth	Maximum horizontal dimension greater than 150mm	
Footways	Pothole	Local Footway Low Use Rural Footway	15mm to 25mm average depth	Maximum horizontal dimension greater than 75mm	
	Crack or Gap	Local Footway Low Use Rural Footway	15mm to 25mm average depth	Maximum horizontal dimension greater than 25mm	
	Trip	Local Footway Low Use Rural Footway	15mm to 25mm average depth	Not applicable	
	Rocking Slab	Local Footway Low Use Rural Footway	0mm to 25mm average variation in height	Not applicable	
Kerbing	Damaged, Cracked	Local Footway Low Use Rural Footway	Not applicable	Not applicable	

Important Note: The data contained in the tables above are a guide to aid highways inspectors in making their assessment of risk and are in no way strict intervention or investigation levels. The highway inspector will make an assessment of either the safety risk or maintenance risk at each point where the condition of the asset varies, and will then programme any remedial action based on the site conditions and other relevant factors, of which the condition variation only forms part.

5.3 Works Ordering and Repair Records

Works ordering is undertaken utilising TCBC's Mayrise highway management system, after data has been inputted from highway inspections. Works are only deemed complete, and signed off as such, once full repair data has been added to the works record.

5.4 Annual Planned Maintenance Assessment Scheme

Annually any capital budget allocated for planned maintenance of the highway will be allocated in the following manner:

1. All sites demonstrating high levels of safety risk to users will be considered first
2. All sites demonstrating high levels of condition risk will be considered second
3. All sites demonstrating high levels of life-cycle risk will be considered last

A site or asset with high safety risk will have a combination of some or all of the following conditions; high levels of use (hierarchy), high levels of vulnerable users (proximity to schools, hospitals surgeries etc.), subject to high speeds or where speeds have been deemed by investigation to be a safety issue, sites where vehicles and or pedestrians can be expected to be in conflict (junctions, roundabouts, pedestrian crossing etc.), high levels of reported near-misses or accidents.

A site with a high level of condition risk will have a combination of some or all of the following; sites where the condition of the surface based on the annual SCANNER survey of the road falls into the lowest two UKPMS categories (red 1 and red 2), where the annual SCRIM survey indicates lowest levels of resistance but have no reported accidents have occurred, high levels of reactive repairs and high levels of PM2 reports.

A site with a high level of life-cycle risk are sites or assets that have a known life span and construction date and either the end date is approaching or has been exceeded.

Each of the three categories must be considered and sites graded and ranked into an agreed annual list, which once produced will be costed using the most appropriate estimates. The capital highway budget together with any Government Grants available will then be allocated to the highest ranked schemes on the list before being signed off by the Executive member or a delegated Officer. If, for any reason, a scheme or schemes is(are) considered for works in any year, (or subsequent years due to forward planning) do not follow the above criteria, then these will be the subject of an Executive Member report and agreed before being added to the annual ranked list.

6 Working Hours

6.1 Reactive Maintenance - Normal Working Hours

In TCBC reactive maintenance is safety based and the authority has set a target that all CV's assessed as meeting the criteria as set out in Table 5.2 and 5.3. Any report of a CV on the highway network will be assessed by a qualified and/or experienced officer within a maximum of 24 hours. During the working week, (8:00am to 3:30pm – Mon to Thurs and 8:00am to 3:00pm Fri) any required action will, as appropriate, sign and/or protect the CV to mitigate the immediate safety risk to the general public and highway users. TCBC will then affect a temporary repair, where this is deemed adequate and appropriate, to minimise the disruption to the freedom of movement on the network. A final permanent repair will then carried out within the timescale set by the highway inspector or equivalent officer, based on the complexity of the operation concerned and the needs of the network.

6.2 Reactive Maintenance - Outside Normal Working Hours

Outside normal working hours (7:30am to 3:30pm – Mon to Thurs and 7:30am to 3:00pm Fri) including Bank Holidays, TCBC operate an emergency standby system. When a CV is reported on the highway network an experienced officer (as set out in Table 2) is informed and he/she will then instruct standby operatives to initially, appropriately sign and/or guard the defect. Then, depending on the location and extent of the defect, the officer may instruct the standby operatives to carry out a temporary repair or he/she will inform the Senior Highway Inspector at the beginning of the next working day so that normal hours procedures can be instigated.

7 Winter Maintenance

7.1 Statutory Basis

Section 111 of the Railways and Transport Act 2001 amended Section 41(1A) of the Highways Act 1980 (duty of a highway authority to maintain the highway) which reads:

- a) *The authority who are for the time being the highway authority for a highway maintainable at public expense are under a duty, subject to subsection (2) and (3) below, to maintain the highway.*
- b) *(1) In particular, a highway authority is under a duty to ensure, so far as is reasonably practicable, that the safe passage along the highway is not endangered by snow and ice.*

This is not an absolute duty, given the qualification of 'reasonable practicability', but it does effectively overturn previous legal precedence, albeit with not with retrospective effect. Well-Managed Highway Infrastructure recognises that it is not practical or possible to provide the service on all parts of the network, and ensure that running surfaces are kept free of ice and snow at all times, even on treated parts of the network. To comply with the

legislation TCBC have formulated and agreed a Winter Maintenance Plan, which is updated annually.

8 Flooding

8.1 Heavy Rain

TCBC have an extensive historic database of the possible locations of flooding to the highway network, and have formulated a system of pre-inspection and cleansing using the Streams and Culverts Maintenance Schedule. All roads within the Borough have some method of transporting rain water from their surface, this ranges from a channel at the side of the carriageway through a formal system of gullies and outfall pipes to the large storage systems associated with Sustainable urban Drainage Systems (SuDS). The most common type of highway drainage system employed in TCBC is of the gully and outfall pipe system. It is recognised that in times of storm the highway can flood and cause a danger to highway users, to reduce the risk of this TCBC carry out routine cyclical gully maintenance in accordance with the agreed Gully Cleansing Service 2018-20123 policy document. Gullies located in the adopted highway are inspected, and where necessary cleansed on an annual basis by dedicated highway operatives to ensure the drainage system is functioning correctly.

It must be noted that the primary function of a highway drainage system is to reduce the risk of flooding to the highway; it is not to protect adjacent landowners. It is accepted that by cleansing the highway drainage system some landowners adjacent to the highway gain a benefit from this operation, however, road safety is the primary consideration when prioritising operations during storm events.

TCBC realise due to the unique topography of 'the Eastern Valley' that watercourses feeding the Afon Lwyd have in the past caused severe flooding to the highway network. A schedule of culvert entrances and known or likely to cause such flooding is held by TCBC and these are inspected and cleansed as per The Maintenance Schedule for Streams and Culverts.

9 Statutory Undertakers

The works carried out by Statutory Undertakers are co-ordinated by a TCBC Officer dedicated to dealing with the New Roads and Street Works Act 1991. All non-emergency works are presented to the South East Wales Highway Authorities and Utilities Committee, where suitable timings and working practices are agreed in order to resolve any local conflicts. TCBC have a list of traffic sensitive streets and protected streets reproduced as Appendix A together with a list of streets and their reinstatement types.

10 Verge Maintenance

The Highway Authority utilise TCBC in-house grounds maintenance resource to cut and manage the highway verge, visibility splays and any associated shrubs or trees contained therein. Grass cutting is carried out from April until September each year on a rolling programme with the whole of the asset cut on a ten working day cycle. The extents of the asset are recorded and held on the Council's GIS database. Weather permitting this gives a maximum number of 12 cuts per year, and the grass is cut to a length not exceeding 25mm. All arising's are removed from the highway via mechanical sweeper and from footways by air blower. On high speed or traffic sensitive streets where traffic management is deemed to be required the cutting regime will be organised on a risk basis up to a maximum of 6 cuts per year. Depending on location the grass and vegetation is cut using a variety of mechanical methods appropriate to the site and time of year.

Appendix A - TCBC Protected Streets

A472	Jct. A4042 (T)Pontypool R/A to Caerphilly County Boundary	New Crumlin Road A472 <i>[part 5299m]</i>
A4051	Jct. Croes-y-Mwlach R/A to Jct. A4042 (T)New Inn R/A	Croes y Mwyalch dual Link Cwmbran Drive Llantarnam Cwmbran Drive Pontnewydd
R99	A4042 Cwmbran R/A to R98 R/A Usk Road	Newport Road New Inn <i>[part 974m]</i> The Highway New Inn
R270	Llewellyn/Caradoc Rd R/A to Upper Cwmbran Rd	Maendy Way
R272	A4051 Greenforge Way R/A to Community Farm R/A	Greenforge Way
R273	R350 Llantarnam Road R/A To Hollybush R/A Henllys Way plus Link road from A4051 Henllys Way R/A to Fire Station R/A Henllys Way	Henllys Way <i>[part 728m]</i>
R274	R/A at Hollybush to R/A at Fairwater(R275/R276)	Penylan Way Coed Eva
R275	R/A @ Fairwater to R273 Henllys Way	Fairwater Way
R276	R/A at Fairwater to Community Farm R/A	Ty Gwyn Way Fairwater Ty Gwyn Road Fairwater <i>[part 832m]</i> Ty Gwyn Way St Dials
R277	R273 Henllys Way to Community Farm	Greenmeadow Way
R290	A4042 (T)R/A to Cul – de – sac Springfield Close	Turnpike Road <i>[part 907m]</i> The Highway Croesyceiliog
R291	R350 St. David's R/A to R290 The Highway Croesyceiliog plus Edlogan Way Extension	Edlogan Way Chapel Lane <i>[part 278m]</i> Edlogan Way Extension
R292	R290 Turnpike Road to R350 Avondale Road	Woodland Road Avon Terrace Pontnewydd Station Road Pontnewydd <i>[part 263m]</i>
R296	A4042 (T)to R350 R/A	Llanfrechfa Way
R297	Llanyrafon Way Croesyceiliog	Llanyrafon Way
R298	R350 R/A to R299 R/A	Llewellyn Road (south) <i>[part 590m]</i>
R299	R350 St. David's R/A to Jct. R299	Tudor Road Llewellyn Road (north) <i>[part462m]</i> Caradoc Road Glyndwr Road
R350	Jct. A4042 (T)to A4051 R/A	Avondale Road <i>[part1471 m]</i> St David's Road Llantarnam Road
R390	A4051 Woodlands R/A to A4042 (T)Crown R/A (old Newport Road)	Newport Road Llantarnam
U148001 U158003	Hollybush Way	Hollybush Way
U150501	Thornhill Rd, upper Cwmbran	Thornhill Road
	Junction with R276 to junction with Henllys Way	Ty Canol Way
	From Edlogan Way R/A R291 to Avondale Road Junction R350	Chapel Lane
	Henllys Way from R/A near Fire Station to R/A (R274/R278/U158003)	Henllys Way <i>[part 3637m]</i>

Appendix B - TCBC Reinstatement Types (To DFT Road Note 35)

Type 1

A472	Jct. A4042 (T)Pontypool R/A to A 4043 R/A Albion Road	New Crumlin Road A472
A4051	Jct. Croes-y-Mwlach R/A to Jct. A4042 (T)New Inn R/A	Croes y Mwyalch dual Link Cwmbran Drive Llantarnam Cwmbran Drive Pontnewydd
A4043	A472 (Albion Road R/A) to B4246 Junction Pontnewynydd	A 4043 Pontypool Western By Pass
R390	A4051 Woodlands R/A to A4042 (T)Crown R/A (old Newport Road)	Newport Road Llantarnam

Type 2

A4043	Jct. A472 to B4246, Blaenavon	St Luke's Road Pontnewynydd Snatchwood Road Pontnewynydd [part 923m] Broad Street Abersychan Station Street Abersychan Cwmavon Road Blaenavon
B4236	Newport CC Boundary to A4042 (T)Turnpike R/A	Caerleon Road
R350	Jct. A4042 to A4051 R/A	Avondale Road [part 1471 m] St David's Road Llantarnam Road
R298	R350 R/A to R299 R/A	Llewellyn Road (south) [part 590m]
R299	R350 St. David's R/A to Jct. R299	Tudor Road Llewellyn Road (north) [part 462m] Caradoc Road Glyndwr Road
R291	R350 St. David's R/A to R290 The Highway Croesyceiliog plus Edlogan Way Extension	Edlogan Way Chapel Lane [part 278m] Edlogan Way Extension
R273	R350 Llantarnam Road R/A To Hollybush R/A Henllys Way plus Link road from A4051 Henllys Way R/A to Fire Station R/A Henllys Way	Henllys Way [part 728m]
R287	R289 Station Rd to A472 Pontymoile	South Street Sebastopol Greenhill Road Sunnybank Road Stafford Road New link road to Cwmynyscoy R/A [296m] Cwmynyscoy Road [part 188m]
R289	A4051 (Avondale Road R/A) to R287 Sunnybank Rd	Avondale Road [part 491m] Station Road Griffithstown Coed y Gric Road
UC	Blaendare Road And Blaendare Link Road	
UC	Henllys Way from R/A near Fire Station to R/A (R274/R278/U158003)	Henllys Way [part 3637m]

Type 3

B4246	Jct. A4043 to Monmouthshire County Boundary at R50	Hill St [part 49.5m](Pontnewynydd) George St (Pontnewynydd) Freeholdland Road Limekiln Road Snatchwood Road [part 100m] Union Street Abersychan Foundry Road Abersychan Lodge Road Abersychan Church Road Talywain Commercial Road Talywain Albert Road Talywain New Road Garndiffiath Emlyn Road Talywain Varteg Road Abersychan Prince Street Blaenavon Church Road Blaenavon North Street Blaenavon Abergavenny Road Blaenavon
B4248	Jct. B4246 to Monmouthshire County Boundary	Garn Road
R270	Llewellyn/Caradoc Rd R/A to Upper Cwmbran Rd	Maendy Way
R271	A4051(Maendy Way R/A) to R350 Pontrhydyrun	Chapel Street Pontnewydd Richmond Road Russell Street [part 63m] New Street Pontnewydd [part 69m] Commercial Street Pontnewydd [part 38m] Lowlands Road Grove Park
R272	A4051 (Greenforge Way R/A) to Community Farm R/A	Greenforge Way
R273	R350 (R/A Llantarnam Road) to (R/A Hollybush Way)plus Link road from A4051 (R/A Henllys Way) to (R/A near fire station) Henllys Way	Henllys Way [part 728m]
R275	R/A at Fairwater to R273 Henllys Way	Fairwater Way
R276	R/A at Fairwater to Community Farm R/A	Ty Gwyn Way Fairwater Ty Gwyn Road Fairwater [part 832m] Ty Gwyn Way St Dials
R277	R273 Henllys Way to Community Farm R/A	Greenmeadow Way
R290	A4042 (T)R/A to Cul – de – sac Springfield Close	Turnpike Road [part 907m]The Highway Croesyceiliog
R291	R350 St. David's R/A to R290 The Highway Croesyceiliog plus Edlogan Way Extension	Edlogan Way Chapel Lane [part 278m] Edlogan Way Extension
R296	A4042 to R350 R/A	Llanfrechfa Way
R297	Llanyrafon Way Croesyceiliog	Llanyrafon Way
R350	Jct. Newport Road to A4051 R/A	Avondale Road [part 1471m] St David's Road Llantarnam Road
U150501	Thornhill Rd, upper Cwmbran	Thornhill Road
U152513	Upper Cwmbran Rd	Upper Cwmbran Road [part 415m]
U153021	5 Locks Road, Pontnewydd	Ty Pwca Road Five Locks Road Lowlands Crescent
	Oakfield Road Oakfield	Oakfield Road
	Wesley Street Old Cwmbran	Wesley Street
U150501	Thornhill Rd, Upper Cwmbran	Thornhill Road

Type 4

All remaining adopted highways within Torfaen County Borough Council.

Appendix C - TCBC Traffic Sensitive Streets

TCBC Traffic Sensitive Streets

Area	Route No	Street Name	Location
Blaenavon	B4246	Prince Street, Church Road, North Street, Abergavenny Road, Blaenavon (Part 2140m)	Junction A4043, Blaenavon to Monmouthshire CC Boundary
Blaenavon	B4248	Garn Road, Blaenavon (Part 3709m)	Junction B4246 to Monmouthshire CC Boundary
Coed Eva	R274	Penylan Way, Coed Eva (Part 1044m)	R/A at Hollybush to R/A at Fairwater (R275/R276)
Croesyceiliog	R290	Turnpike Road, Croesyceiliog (Part 907m) The Highway, Croesyceiliog (Part 925m)	A4042 (T) Turnpike R/A to Old Newport Road junction
Croesyceiliog	R291	Edlogan Way, Croesyceiliog (Part 1783m) Edlogan Way Extension, Croesyceiliog	R350 St David's Road R/A to R290 The Highway Croesyceiliog plus Edlogan Way Extension including the Link Road to A4042 (T) Crematorium R/A
Croesyceiliog	R292	Woodland Road, Afon Terrace, Croesyceiliog. Station Road, Pontnewydd (Part 1027m)	R290 Turnpike Road to R350 Avondale Road
Croesyceiliog	Unclassified	Chapel Lane, Croesyceiliog (Part 1158m)	From Newport Road junction to R350 Avondale Road junction
Cwmbran	R273	Henllys Way (Part 4192m)	From R350 R/A Llantarnam Road to R/A Hollybush Way including the Link Road from A4051 R/A Henllys Way to R/A near The Fire Station to the junction of R303 Henllys Lane
Cwmbran	R350	Llantarnam Road, Llantarnam (Part 1140) St David's Road, Cwmbran (Part 1349m) Avondale Road, Pontnewydd (Part 1471m)	Junction Newport Road to A4051 R/A Near Rechem
Fairwater	R275	Fairwater Way, Fairwater (Part 1285m)	R/A at Fairwater to R273 Henllys Way
Fairwater	R276	Ty Gwyn Way, Ty Gwyn Road, Fairwater (Part 832m) Ty Gwyn Road, St Dials	R/A at Fairwater to Community Farm R/A
Griffithstown	R287	South Street, Greenhill Road, Sunnybank Road, Stafford Road including Link Road to Cwmyrnyscoy R/A, Pontypool (Part 2500m) Cwmyrnyscoy Road, Pontypool (Part 828m)	R289 Station Road to A472 Pontymoile
Henllys	R303	Henllys Lane (Part 3219m)	Newport CC Boundary to R278 Henllys Way Junction
Hollybush	Unclassified	Hollybush Way, Cwmbran (Part 1984m)	A4051 Llantarnam Parkway R/A to Henllys Way R/A
Llanfrechfa	R296	Llanfrechfa Way, Llanyravon (Part 1640m)	A4042 (T) Crown R/A to R350 St David's Road R/A
Llantarnam	R390	Newport Road, Llantarnam (Part 3432m)	A4051 Woodlands R/A to A4042 (T) Crown R/A
Llantarnam	A4051	Cwmbran Drive, Llantarnam & Pontnewydd (Part 5230m)	A4042 (T) Croes Y Mwylach R/A to A4042 (T) New Inn R/A, including the A4042 (T) link between the Woodlands R/A and Croes Y Mwylach R/A
Llanyravon	R297	Llanyravon Way, Llanyravon (Part 807m)	R290 Turnpike Road to R296 Llanfrechfa Way
New Inn	R98	Usk Road, New Inn (Part 1870m)	A472 Rockhill Road to A4042 (T) Court Farm R/A
New Inn	R99	Newport Road, New Inn (Part 974m) The Highway, New Inn (1746m)	A4042 (T) New Inn R/A to R98 R/A Usk Road
Ponthir	B4236	Caerleon Road, Llanfrecha/Ponthir (Part 3679m)	Newport CC Boundary to A4042 (T) Turnpike R/A
Pontypool	A4043	A4043 Pontypool Western Bypass, Osborne Road, St Luke's Road, Snatchwood Road, Pontnewynydd (Part 923m) Broad Street, Station Street, Abersychan. Cwmavon Road, Blaenavon (Part 5607m)	A472 New Crumlin Road R/A to B4246, Blaenavon
Pontypool	R380	Clarence Road, Clarence Street (Part 169m), Hanbury Road, Commercial Street, Park Road (Part 116m), Riverside, Pontypool	Clarence Road to A4043 R/A
Pontypool	A472	New Crumlin Road A472 (Part 5299m) Plus access ramps at Pontymoile	A4042 (T) Heron R/A to Caerphilly CC Boundary
Pontypool	Unclassified	Race Road, Blaendare Road including Link Road to Cwmyrnyscoy R/A, Pontypool (Part 1192m)	From Cwmyrnyscoy Link R/A to A472, Upper Race
Sebastopol	R289	Avondale Road, Sebastopol (Part 491m) Station Road, Coed Y Gric Road, Griffithstown (Part 1800m)	A4051 Avondale Road R/A to R287 Sunnybank Road
Southville	R298	Llewellyn Road, Caradoc Road, Glyndwr Road, Tudor Road including Maendy Way Link Road to Cwmbran Drive (Part 2602m)	R350 St David's Road R/A Llanfrechfa Way to A4051 R/A Cwmbran Drive outside Sainsbury's inclusive of One Way System through Cwmbran Town Centre
St Dials	R277	Greenmeadow Way (Part 1070m)	R273 Henllys Way to Community Farm R/A
St Dials	R272	Greenforge Way (Part 957m)	A4051 Greenforge Way R/A to Community Farm R/A

Traffic Sensitivity

- A). Peak Hours: 7:30 - 9:30 & 15:30 - 18:30 (See Note)
- B). Night Hours Only: 18:30 - 07:30
- C). Sunday Hours: All Day

Note: Where traffic control is being used at (A) Peak Hours (traffic sensitive routes) 24 hour working, they must be manually operated and authorised by TCBC Highway Network Section, Normal working hours - 9:30 - 15:30 only.

Schools

No works to be undertaken near any school without prior authorisation by TCBC Highway Network Section to co-ordinate and minimise traffic flow and pedestrian disruption.

Christmas Period

No works to be carried out, 4 weeks prior to the Christmas period which may cause congestion or affect public services and/or amenities through the borough without prior consultation and written agreement with the TCBC Highway Network Section.

Appendix D - Torfaen County Borough Council Risk Based Approach Methodology

1 Introduction

The following is based upon the 'CSSW's Risk Based Approach to Highway Management – Rationale Behind the Approach'.

Torfaen County Borough Council accepts both the 'Well Managed Highway Infrastructure: A Code of Practice, UK Roads Liaison Group 2016' (WMHI 2016), and County Surveys Society (Wales) (CSS Wales) method to use asset information to produce risk assessments, informed by usage data. This is based on the simple premise that if an asset exists and it contains a variation in its condition but no-one uses it, the safety risk is zero. As more people use the asset then it is argued that the probability of them being physically affected by the variation increases and this can be modelled mathematically.

It is now possible to acquire and analyse data regarding areas where the condition of an asset varies from its previous inspection or original state. Categorising the type size and location of the condition variation (CV) will be used as a reference in establishing the foundation for setting the Council's highway asset hierarchies and repair regimes. These records will also be used to inform and influence annual budget assessment and allocation.

The current Highway Asset Management Plan 2018-2013 will have five annual reviews to confirm and/or alter the hierarchies based on any changes to the data affecting the asset, such as increased traffic flows, changes to condition data etc.

2 Establishing Hierarchies

The WHMI 2016 requires that highway assets are split into hierarchies, but states that '*hierarchy will not necessarily be determined by the road classification, but by functionality and scale of use*', Torfaen County Borough Council have considered the examples provided in the Code of Practice (CoP) and determined that the major factor determining safety risk is use. Others factors specific to the asset are incorporated into final hierarchies and where this is the case these have been noted.

3 Carriageway Traffic Counts

TCBC does not have, and cannot be reasonably expected to have up to date use information for every street, therefore, Officers have devised methods of estimation, detailing their assumptions which are based on specific knowledge and experience of the Borough and the street concerned.

All local roads are already escribed a class; A, B C or Unclassified and historically TCBC has based its highway hierarchy exclusively on its road classification, as these were set prior to local government reorganisation in

1996, and the process for changing them is time consuming and costly, it has been decided that road classification will be only a consideration in the establishment of the current hierarchy. Whilst road class is broadly indicative of use and so safety risk, nationally and locally, there are major variations that means keeping the hierarchy based only on road classification is not appropriate in Torfaen.

The Department of Transport collects and publishes 761 traffic counts on A class roads in all local authorities in Wales, and in 2017-18 these show a range of annual traffic (AADT) from 83,000 to 431. Analysis of this data shows that approximately 29% of the counts fall in the range of 10,000 to 20,000 vehicle movements per day, with approximately 52% falling in the range of 500 to 10,000. The 19% of roads with higher counts are those feeding and linking the cities in the south east and north.

An abstract of the DfT traffic counts for Torfaen is shown in the table below

Table D 3.1

AADT Traffic Data Torfaen CBC 2017-18

From	To	All Motor Vehicles
A4043 Dreamboats R/A	A4042 Mc Donalds R/A	12,038
A4042 split Croes y Mwlach RA	A4051 Re Chem R/A	54,401
Cwmffrwd Square A4043	B4246 Keepers Pond	7,590
A4051 Re Chem R/A	A472 Dreamboats R/A	15,366
LA Boundary A472 New Crumlin Road	A4043 Dreamboats R/A	17,337
A4051 Woodlands R/A	Hollybush Way, Cwmbran Drive	10,055
A472 Dreamboats R/A	A472 Little Mill Junction	17,148
Newport Boundary A4043	A4042 split Croes y Mwlach RA	2,688
Newport Boundary Malpas Road	A4051 Woodlands R/A	927
Hollybush Way, Cwmbran Drive	A4051 Re Chem R/A	23,544
Cwmffrwd Square A4043	A472 Dreamboats R/A	21,525
A4051 Woodlands R/A	A4042 split Croes y Mwlach RA	3,525

It should be noted that in Wales Trunk roads are maintained by The South East Wales Trunk Road Agency and so the data highlighted are not TCBC maintained roads.

To establish a hierarchy based on national and local traffic counts TCBC uses the CSS Wales developed table below, with the 10,000 to 20,000 movements per day as the datum. It is this range that has been taken to represent a generic busy main distributor type road.

Table D 3.2	
Carriageway Hierarchy Level	Approximate Traffic flow
Strategic Route	Based on Local Importance
Main Distributor	10,000 to 20,000
Secondary Distributor	5,000 to 10,000
Link Road	1,000 to 5,000
Local Access Road	200 to 1,000
Minor Road	Below 200

It should be noted that CSS Wales have adopted the 10,000 to 20,000 category as the basis for the calculation for this method, TCBC recognises that there are two routes that currently exceed this figure, but as these are the busiest routes in the Borough, it is not proposed to specifically alter inspection schedules for these routes at the first iteration of this policy. TCBC have concluded that the category of Minor Road can be incorporated into the category above and inspection frequencies can be carried out at the higher level appropriate to a Local Access road. This decision has been taken, as the difference in the time gap of inspection between the superseded HAMP and the current HAMP is deemed too large a step and currently TCBC do not have the risk appetite for a change of this magnitude.

Secondary considerations, such as Road Classification and proximity to vulnerable users have been incorporated into the calculation spreadsheet Torfaen Annual Highway Risk Review.

Due to current lack of traffic flow data, a model based upon local knowledge has been developed by TCBC engineers to better describe estimated traffic movements. Based on four, six hour time segments a total number of traffic movements has been based on the combined Highway network sections experience to determine 5 categories as shown in the following table:

Table D 3.3 - Estimated Maximum Traffic Flow									
	00:00-06:00	Total	06:00-12:00	Total	12:00-18:00	Total	18:00-00:00	Total	Daily Total
	Movement every		Movement every		Movement every		Movement every		
Very High	2.5 seconds	8640	1.25 seconds	17280	1.25 seconds	17280	2.5 seconds	8640	51840
High	5.seconds	4320	2.5 seconds	8640	2.5 seconds	8640	5 seconds	4320	25920
Medium	30 seconds	720	7.5 seconds	2880	7.5 seconds	2880	10 seconds	2160	8640
Low	90 seconds	240	30 seconds	720	30 seconds	720	60 seconds	360	2040
Very Low	5 minutes	72	2 minutes	180	2 minutes	180	5 minutes	72	504

The length of time placed in the 'movement every' column was based on the engineers estimate of traffic flow based on the number of car lengths at 4m between vehicles travelling 30 mph, thus 1,25 seconds is approx. 4 car lengths, 2.5 seconds is approx. 8 car lengths, 5 seconds is approx. 17 car length etc.

4 Footways

TCBC have adopted the same principles as applied to carriageways to their footways, however, in Torfaen there are only two current footfall count, both located within the Blaenavon Heritage town which with a population of just under 5,000 is considered a rural community, despite its world heritage status. Average daily footfall over the last 12 months at both sites has been just under 1,000 pedestrian movements per day.

The data that CSS Wales has used to define the information has only two pedestrian counts in main towns which fall between the 5,000 and 10,000 pedestrian movements per day: Taff Street Pontypridd and the shopping centre Port Talbot. Whilst the sample is small both areas represent the estimated profile of Pontypool, the County town of TCBC, with a population of around 36,000.

Therefore the band 5,000 to 10,000 pedestrian movements per day has been used to define the Town Centre pedestrian areas category.

It should be noted that the estimated footfall in Cwmbran town centre is estimated to be nearer the City Centre pedestrian count but this is privately owned and maintained, and so is not included in these calculations. The following tables outlines the other categories used to define the pedestrian network:

Table D 4.1	
Footway Network Hierarchy Category	Approximate Footfall Count
City Centre Pedestrian Route	Greater than 15,000
Town Centre Pedestrian Area	5,000 to 10,000
Footway Outside Public Facilities/Local Shopping Area	1,000 to 5,000
Link Footway (between estates or areas)	500 to 1,000
Housing Estate Footway	Less than 500
Little Used Rural Footway	Less than 200

Due to current lack of pedestrian count data, a model based upon local knowledge has been developed by TCBC engineers to better describe estimated pedestrian movements. Based on four, six hour time segments a total number of pedestrian movements has been based on the combined Highway network sections experience to determine 5 categories as shown in the following table:

Table D 4.2									
Estimated Maximum Pedestrian Footfall									
	00:00 - 06:00	Total	06:00-12:00	Total	12:00-18:00	Total	18:00-00:00	Total	Daily Total
	Pedestrian every		Pedestrian every		Pedestrian every		Pedestrian every		
Very High	5 min	72	10s	2160	5s	4320	15s	1440	7992
High	30 min	18	15s	1440	10s	2160	30s	720	4338
Medium	1 hr	6	90s	240	30s	720	1m	360	1326
Low	3 hrs	2	3m	120	90s	240	3m	120	482
Very Low	6 hrs	1	10m	36	6m	60	10m	36	133

The WHMI 2016 contains a list of criteria that could be used in establishing a footway hierarchy but TCBC concur with the CSS Wales guidance in that, as yet, there is no evidence to prove that these factors increase safety risk to users and so have not been included.

5 Structures

In TCBC the structures hierarchy is calculated against the safety risk for users in association with the risk to the functionality of the network, such as loss or restriction (weight limit) of the asset. In TCBC where a structure is the primary method of gaining access to a community even though this might be for a small number of people then the structure has been categorised with regard to those users rather than the network as a whole.

The hierarchy has been defined thus:

1. Vital Structure - this is a structure that is vital to the network and if restricted or out of service would cause very significant adverse effects, such as, major traffic delays or loss of access to emergency services etc.
2. Important Structure - this is a structure that is important but not vital to the functioning of the network and if restricted or out of service would result in inconvenience to the network, such as, slower or longer routes due to diversion or longer times to access for emergency services.
3. Standard Structure - this category contains all other structures.

Initially the above categories have been matched to the hierarchy for roads and footways as these have already have defined use parameters:

Table D 5.1 – Road Bridges, Culverts, Retaining Walls etc	
Carriageway Hierarchy	Structure Hierarchy
Strategic Route	2. Important Structure
Main Distributor	
Secondary Distributor	
Link Road	3. Standard Structure
Local Access Road	

Table D 5.2 – Road Bridges, Culverts, Retaining Walls etc	
Footway Hierarchy	Structure Hierarchy
Town Centre Pedestrian Area	2. Important Structure
Footway Outside Public Facilities/Local Shopping Area	
Link Footway (between estates or areas)	
Housing Estate Footway	3. Standard Structure
Little Used Rural Footway	

It is now that the higher risk rating of Vital Structure is appended to the risk assessment based the considerations listed:

Table D 5.3	
Sole Access to Community	Vital Structure
Major Traffic Disruption and Lengthy Diversion Route	
Major Traffic disruption or Lengthy Diversion Route	Important Structure
Susceptible to Rapid Failure	
Significant social or Economic Impact	
Structure of Local/ Historical Significance	

6 Street Lighting

In 2008 TCBC agreed to reduce the Council's Carbon footprint and adopted a policy of switching off or part night lighting street lights to achieve this. Historically the safety hierarchy of street lights has been based on the electrical safety of individual columns, however, to ensure that there was no increased safety risk or legal issues by deactivating lights a safety risk exercise was undertaken to identify those lights that were to remain in lighting during the hours of darkness. This included roundabouts, junctions, roads with traffic calming and lights within 30 mph areas to meet the requirement of the Road Traffic Regulation Act 1984, Section 82(1)(a).

Maintenance of the asset is carried out via a Term Contract which includes times for attendance for faults and outages.

7 Traffic Signals

Of the categories relating to traffic signals in WMHI 2016 TCBC have used two; 'Vital Junctions' and 'All Other Signals'. Due to the limited number of traffic signal controlled junctions in the Borough all illuminated traffic signals at any junction in the Borough are classed as vital, and all traffic signal controlled pedestrian crossings are classed in the All Other Signals category

TCBC operate their traffic signals via a fixed term contract which reflect the above categories.

Appendix 6 Torfaen County Borough Council Road Hierarchy

Road Classification	Road /Route No.	Location Details	Includes Streets
Class A	A4043	A472 (New Crumlin Road R/A) to B4246, Blaenavon	A 4043 Pontypool Western By Pass Osborne Road Pontnewynydd St Luke's Road Pontnewynydd Snatchwood Road Pontnewynydd <i>[part 923m]</i> Broad Street Abersychan Station Street Abersychan Cwmavon Road Blaenavon <i>[part 5607m]</i>
	A4051	A 4042(T)[Croes-y-Mwyalch R/A] to A4042(T)[(New Inn R/A)]	Croes y Mwyalch dual Link Cwmbran Drive Llantarnam Cwmbran Drive Pontnewydd
	A472	A4042 (T)[Pontypool R/A] to Caerphilly County Boundary	New Crumlin Road A472 <i>[part 5299m]</i> plus access ramps at Pontymoile
Class B	B4236	Newport CC Boundary to A4042(T)Turnpike R/A	Caerleon Road
	B4246	Jct. A4043 to Monmouthshire County Boundary at R50	Hill St <i>[part 49.5m]</i> (Pontnewynydd) George St (Pontnewynydd) Freeholdland Road Limekiln Road Snatchwood Road <i>[part 100m]</i> Union Street Abersychan Foundry Road Abersychan Lodge Road Abersychan Church Road Talywain Commercial Road Talywain Albert Road Talywain New Road Garndiffiath Emlyn Road Talywain Varteg Road Abersychan Prince Street Blaenavon Church Road Blaenavon North Street Blaenavon Abergavenny Road Blaenavon
	B4248	Jct. B4246 to Monmouthshire County Boundary	Garn Road
	R51	Jct. A4042(T) to Borough Boundary	Old Abergavenny Road New Inn <i>[part 688m]</i>
	R98	A472 Rockhill Rd to A 4042(T)[Court Farm R/A]	Usk Road <i>[part 1870m]</i>
	R99	A4042 (T)[New Inn R/A] to R98 R/A Usk Road	Newport Road New Inn <i>[part 974m]</i> The Highway New Inn
Class C	R100	R99 The Highway to Borough Boundary	Jerusalem Lane
	R101	MCC Boundary to R100 New Inn	Sluvad Road Llandegveth Reservoir Loop Road <i>[part 171m]</i>
	R103	MCC Boundary(Nr Golf Club) to A4042(T)[Edloglan Way R/A]	Treherbert Road
	R105	Jct. with B4236 to Monmouth County Boundary	Candwr Road Ponthir <i>[part 504m]</i>
	R270	Llewellyn/Caradoc Rd R/A to Upper Cwmbran Rd	Maendy Way
	R271	A4051(Maendy Way R/A) to R350 Pontrhydyrun	Chapel Street Pontnewydd Richmond Road Russell Street <i>[part 63m]</i> New Street Pontnewydd <i>[part 69m]</i> Commercial Street Pontnewydd <i>[part 38m]</i> Lowlands Road Grove Park
	R272	A4051 (Greenforge Way R/A) to Community Farm R/A	Greenforge Way
	R273	R350 (R/A Llantarnam Road) to (R/A Hollybush Way)plus Link road from A4051 (R/A Henllys Way) to (R/A near fire station) Henllys Way	Henllys Way <i>[part 728m]</i>
	R274	R/A at Hollybush to R/A at Fairwater(R275/R276)	Penylan Way Coed Eva
	R275	R/A at Fairwater to R273 Henllys Way	Fairwater Way
	R276	R/A at Fairwater to Community Farm R/A	Ty Gwyn Way Fairwater Ty Gwyn Road Fairwater <i>[part 832m]</i> Ty Gwyn Way St Dials
	R277	R273 Henllys Way to Community Farm R/A	Greenmeadow Way
	R278	R/A at Hollybush to Henllys Lane LHS (Route 303)	Henllys Way <i>[part 1000m]</i>
	R281	B4246 Church Road to B4246	Upper Waun Street Blaenavon
	R282	High Street to Broad Street, Blaenavon	High Street Blaenavon
	R283	R360 to Broad Street, Blaenavon	Broad Street Blaenavon
	R284	B4246 to B4246	Forgeside Road
	R285	A4043 to B4246	Cwmavon Road <i>[part 307 m]</i> Victoria Road Manor Road
R286	R380 R/A to B4246	Park Road <i>[part 274m]</i> Penygarn Road Leigh Road Lower Leigh Road	
R287	R289 Station Rd to A472 Pontymoile	South Street Sebastopol Greenhill Road Sunnybank Road Stafford Road New link road to Cwmynyscoy R/A [296m] Cwmynyscoy Road <i>[part 188m]</i>	

R289	A4051 (Avondale Road R/A) to R287 Sunnybank Rd	Avondale Road [part 491m] Station Road Griffithstown Coed y Gric Road
R290	A4042 (T) R/A to Cul – de – sac Springfield Close	Turnpike Road [part 907m]The Highway Croesyceiliog
R291	R350 St. David's R/A to R290 The Highway Croesyceiliog plus Edlogan Way Extension	Edlogan Way Chapel Lane [part 278m] Edlogan Way Extension
R292	R290 Turnpike Road to R350 Avondale Road	Woodland Road Avon Terrace Pontnewydd Station Road Pontnewydd [part 263m]
R293	B4236 to A4042	Crown Road
R294	R273 Henllys Way to R298	Victoria Street
R295	R350 St. David's Rd to R271 New St. RHS	Station Street Pontnewydd [part 90m]Commercial Street Pontnewydd [part 470m]
R296	A4042(T) to R350 R/A	Llanfrechfa Way
R297	Llanyrafon Way Croesyceiliog	Llanyrafon Way
R298	R350 R/A to R299 R/A	Llewellyn Road (south) [part 590m]
R299	R350 (R/A St. David's Road) to Jct. R299	Tudor Road Llewellyn Road (north) [part 462m] Caradoc Road Glyndwr Road
R300	Malthouse Lane (Newport boundary to junction Newport Road R390)	Malthouse Road
R303	Newport CC Boundary to R278 (Henllys Way Junction)	Henllys Lane
R304	Junction R303 to entrance to St Peters Church Henllys	Cwm Lane Henllys
R350	Jct. Newport Road to A4051 R/A	Avondale Road [part 1471m] St David's Road Llantarnam Road
R351	R 381 (Albion Road) to Junction of A472	Old Crumlin Road
R360	A4043 to Ivor Street	New William Street Old William Street Commercial Street Blaenavon
R380	Clarence Road to A4043 R/A	Clarence Road Clarence Street [part 169m] Hanbury Road Pontypool Commercial Street Pontypool Park Road Pontypool [part 116m] Riverside
R381	Albion Rd R/A to Jct. A472	Albion Road
R390	A4051 (Woodlands R/A) to A4042 (Crown Road R/A)	Newport Road Llantarnam