



## **Welsh Government Motorway and Trunk Road Network**

### **Departures from Standards - Process for Submission**

#### **Instructions for Use**

This guidance document outlines the new process for the submission, appraisal and determination of Departures from Standards. This document supersedes any previous advice issued by the Welsh Government on this process.

Document Control					
Version	Date	Status	Written	Checked	Approved
4	July 2014	Revised Final for issue	J. Ingram	R. Morgan	S. Hague
3	March 2014	Final Document for issue	J. Ingram	R. Morgan	S. Hague
2	November 2013	Issued for consultation	J. Ingram	R. Morgan	S. Hague
1	April 2013	Preliminary document	J. Ingram	R. Morgan	S. Hague

# Table of Contents

<b>1. Introduction</b>	<b>Page 4</b>
1.1 Background to Departures from Standards	
1.2 Objectives of this Guidance Document	
1.3 Benefits of Departures from Standards	
<b>2. Roles and Responsibilities</b>	<b>Page 7</b>
2.1 Outline of Roles	
2.2 Designer	
2.3 Departure Owner (DO)	
2.4 Trunk Road Agent (TRA) or Service Provider	
2.5 Standards, DC & Streetworks Team Leader (SDS)	
2.6 Departures Technical Review Panel (DTRP)	
2.7 Head of Planning (HP)	
2.8 Infrastructure Delivery Deputy Director (IDDD)	
2.9 Departures Submission Co-ordinator (DCS)	
2.10 Welsh Government Transport Structure	
<b>3. New Departure from Standard Process</b>	<b>Page 12</b>
3.1 Process Flowchart	
3.2 Stage 1	
3.3 Stage 2	
3.4 Stage 3	
3.5 Stage 4	
3.6 Stage 5	
3.7 Stage 6	
3.8 Stage 7	
3.9 Stage 8	
3.10 Stage 9	
3.11 Stage 10	
<b>4. Guidance Notes for the New Submission Form</b>	<b>Page 18</b>
4.1 Outline of New Submission Form	
4.2 Basic Details	
4.3 Submission Details	
4.4 Technical Information	
4.5 Risks, Benefits & Overall Justification	

## **5. Background to the Departures Process**

Page 22

- 5.1 Overview of Departures from Standards submissions
- 5.2 When to submit Departure from Standards Applications
- 5.3 Precedence
- 5.4 Relaxations
- 5.5 Aspects not covered
- 5.6 Local Roads
- 5.7 Road Safety Audits
- 5.8 Existing Non-compliances

## **6. Appendix A - Process Flowchart and Swim Lane Diagram**

## **7. Appendix B - Departures From Standard Submission Form**

## **8. Appendix C - Example Completed Departure from Standard Form**

## **9. Appendix D – Example Risk Assessment**

## **Abbreviations**

DMRB	Design Manual for Roads and Bridges
dfs	Departure from Standards
WGMTRN	Welsh Government Motorway and Trunk Road Network
DO	Departure Owner
TRA	Trunk Road Agent
SDS	Standards, DC & Streetworks Team Leader
DTRP	Departures Technical Review Panel
HAMS	Head of Asset Management and Standards
IDDD	Infrastructure Delivery Deputy Director
DSC	Departures Submissions Co-ordinator
ID	Infrastructure Delivery
NM	Network Management

## **References**

Departures from Road Geometry Standards (DMRB Volume 6) – Guidelines for Designers – Highways Agency – Version 1.1 August 2005

## **Enquiries**

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# 1. INTRODUCTION

## 1.1 Background to Departures from Standards

- 1.1.1 The design of all trunk roads and motorways in Wales is currently based upon the Design Manual for Roads and Bridges (DMRB). The DMRB is developed and maintained jointly by the Overseeing Organisations in England, Wales, Scotland and Northern Ireland. This manual represents best practice in the construction, maintenance and operation of trunk roads and motorways to ensure a consistent and acceptable level of performance.
- 1.1.2 Although the standards provide flexibility in design, there are situations in which the application of a fully compliant design would result in safety, technical, programme, financial or environmental disbenefits which may outweigh the benefits of the proposal.
- 1.1.3 Any design which proposes a non-compliance to the mandatory sections of the DMRB or a Welsh Government adopted Interim Advice Note is classed as a departure from standard (dfs). Any such dfs will need to be approved through the dfs submission process prior to the design being considered for construction by the Welsh Government. Any proposed design process or feature which is not covered within the DMRB would be classified as an “Aspect not covered” which would also need to be approved through the dfs submission process.
- 1.1.4 Dfs are approved in circumstances where the impact of a fully compliant design would be disproportionately high in terms of factors such as cost, environmental impact or consequences to the construction programme.
- 1.1.5 This guidance document is to be used primarily for geometric dfs applications i.e. Volume 6 of the DMRB. It may be appropriate for other specialist areas but should not normally be used as guidance for Highway Structures or Geotechnics where BD2 (DMRB Volume 1.1) should be consulted. However, the guidance may be used for Structures or Geotechnics dfs where permission is given by the Welsh Government Structures or Geotechnics specialists.
- 1.1.6 These guidelines cover all works on the Welsh Government Motorway and Trunk Road Network (WGMTRN) and any works undertaken by Local Authorities or developers which may affect the WGMTRN.
- 1.1.7 The Welsh Government may issue Interim Advice Notes to supplement or supersede parts of the DMRB. When these include mandatory paragraphs then a dfs must be submitted for any proposed non-compliance in a similar way as for non-compliances to mandatory sections of the DMRB.

## **1.2 Objectives of this Guidance Document**

- 1.2.1 This document sets out the new Welsh Government procedure for the submission, appraisal and determination of dfs applications on the WGMTRN.
- 1.2.2 **This guidance is not intended to be a fully comprehensive reference document for Designers. It is the responsibility of Designers to ensure individuals with necessary skills are appointed to undertake the duties involved with departure from standards submissions. This document hereby defines the Welsh Government procedures for departures from standards as required in GD 01/08 Volume 0 Section 1 Part 2 of the DMRB.**
- 1.2.3 This document will also provide additional guidance to improve the quality of submissions to ensure they are appropriate for appraisal and determination by Welsh Government Officials.
- 1.2.4 This guidance is, therefore, aimed at all parties involved in the dfs process. The overall intention is to improve the standard of submissions to allow determinations to be made more quickly with more applications being “right first time”.
- 1.2.5 This document also provides background to the appraisal process and defines the roles and responsibilities of those involved in submitting dfs.
- 1.2.6 The processes outlined in this document may be applicable to the operation, maintenance and improvement of non trunk roads with similar characteristics. However, it is for the Local Authority to determine the extent to which this guidance is applicable for non WGMTRN highway schemes.
- 1.2.7 It is intended that this guidance will also enable designers to identify proposed dfs that cannot be fully justified and therefore should not be submitted as they are unlikely to be approved. This should avoid the need for redundant work at an early stage and therefore improve efficiencies both with Designers and the Welsh Government.
- 1.2.8 **It should be noted that nothing in this guidance document intends to contradict or supersede the requirements set out in the DMRB which remains the prime document.**

### **1.3 Benefits of Departures from Standards**

- 1.3.1 It is important to note that the requirement for the Welsh Government to adopt a dfs process for all works on the WGMTRN is outlined in GD 01/08 (DMRB Volume 0 Section 1 Part 2).
- 1.3.2 This standard mandates a number of requirements relating to the dfs process and should be noted by all parties involved in the submission process. Broadly, the dfs process provides benefits in a number of ways as outlined below:
- 1.3.3 Highway schemes are continually being challenged to provide greater value for money. The dfs process provides a mechanism for innovative ideas to be proposed, considered and approved.
- 1.3.4 The process provides the opportunity to record the engineering judgements of those involved with the delivery of a highway project by providing a comprehensive decision-making audit trail.
- 1.3.5 In the event of litigation ensuing from a dfs the process assists all parties in demonstrating that reasonable professional care and skill was used in the submission, appraisal and determination of the dfs.
- 1.3.6 The dfs process ensures that the Welsh Government can apply a consistent approach to all non standard highway designs which reflect the current priorities and policies.
- 1.3.7 The dfs process may ultimately provide evidence to update current design standards.

## **2. ROLES AND RESPONSIBILITIES**

### **2.1 Outline of Roles**

2.1.1 There are a number of participants involved in the Welsh Government's new dfs process, each with different responsibilities. The following list defines the responsibilities for each role.

### **2.2 Designer**

2.2.1 This is any organisation undertaking the design of works which affect the WGMTRN. This may include public or private developments.

2.2.2 The Designer is responsible for **all** departures from **all** standards including **all** Aspects not Covered by Standards for a particular design.

2.2.3 The primary responsibility for the assessment of a proposed departure lies with the Designer. In particular the Designer must ensure that any submitted departure application has fully assessed the risks, impacts and benefits in terms of safety, technical, programme, economic, maintenance and environmental issues.

2.2.4 The Designer must be able to confirm that the residual risks are as low as reasonably practicable and that the benefits outweigh the disbenefits.

2.2.5 The Designer is responsible for the accuracy, comprehensiveness and validity of the statements made regarding its proposals. By submitting an application for a dfs the Designer is indicating that they have used reasonable professional skill and care to assess the departure in line with this document and is satisfied that the submission is suitable for approval. The Designer is required to give a declaration to that effect. This declaration should be provided by the project designer or design team leader (See Section 5.3 of the Departure from Standards Submission Form)

2.2.6 The Designer shall retain responsibility for the quality of design incorporating the Departure, including user safety, buildability, maintainability, compliance with the CDM regulations and environmental legislation.

### **2.3 Departure Owner (DO)**

2.3.1 Normally this is an officer of the Welsh Government working in either Network Management (NM) or Infrastructure Delivery (ID). The DO may also be a Welsh Government technical specialist for certain projects.

2.3.2 For most situations this officer would be a NM Programme Delivery Manager or an ID Project Engineer. In DBFO contracts the contractual arrangements

may lead to the DO not being a Welsh Government Official. In such cases guidance should be sought from the Welsh Government.

- 2.3.3 The DO will be the Welsh Government Official with Client responsibility for the proposed scheme. The DO will be responsible for agreeing the need for potential dfs with the Designer prior to formal submission to the Standards, DC & Streetworks Team Leader.
- 2.3.4 For proposed dfs submissions the DO is responsible for reviewing the merits of a dfs at pre-submission and where required providing advice to the Designer on the content of the dfs application.
- 2.3.5 For formal dfs submissions the DO will need to be convinced of the benefits of the proposed submission following discussions with the Designer and the Trunk Road Agent. To this end, the DO will need to sign a declaration (Section 5.5 of the Departure from Standards Submission Form) recommending approval of the departure prior to the submission being reviewed and determined by the Standards, DC & Streetworks Team Leader and the Departures Technical Review Panel.
- 2.3.6 It should be noted that the DO may wish to liaise with the Project Director (Infrastructure Delivery) or the Delivery Team Leader (Network Management) in appraising the content of the submission prior to signing the declaration in the form.
- 2.3.7 Where the dfs is to be presented to the Departures Technical Review Panel the DO must manage the presentation of the application to the Panel. The presentation may be undertaken by the Designer, the DO or the relevant Project Director (ID) or Team Leader (NM) as determined by the DO.

## **2.4 Trunk Road Agent (TRA) or Service Provider**

- 2.4.1 There are two Trunk Road Agents and one Service Provider, who operate an enabling role for the Welsh Government: North and Mid Wales Trunk Road Agent (NMWTRA), South Wales Trunk Road Agent (SWTRA) and the Welsh Transport Technology Consultancy (WTTC). The TRA does not normally undertake design work; this is passed through to a Local Highway Authority or a framework consultant.
- 2.4.2 For both NM and ID schemes the Designer will need to pass formal dfs applications through to the operational and asset side of the relevant TRA for additional comments, prior to the submission being reviewed by the Welsh Government DO.
- 2.4.3 All designers have a duty under the CDM Regulations to ensure that what is built can be safely maintained. Therefore it is essential that the relevant maintenance organisation is given the opportunity to input into the design to



ensure that the potential implications arising from future maintenance considerations are captured within the dfs submission. The TRA is required to place their comments within Section 5.4 of the Departure from Standards Submission Form prior to the form being forwarded to the DO for review.

## **2.5 Standards, DC & Streetworks Team Leader (SDS)**

- 2.5.1 The SDS is a Welsh Government Officer who has a number of key roles within the dfs submission process:
- 2.5.2 The SDS is responsible for the management of the whole dfs process. In the event that the Designer identifies issues not covered within this guidance document or needs further guidance on specific requirements the Designer should contact the DO in the first instance. Where necessary, the DO will then seek advice from the SDS.
- 2.5.3 The SDS will review informal submissions received from the DO. It should be noted that this informal review does not constitute an “Approval in Principle” it is merely a guide as to how the Departures Technical Review Panel may appraise and determine the departure when it is formally submitted (Stage 2 of the Departures from Standards Process Flowchart).
- 2.5.4 For formal dfs submissions the SDS undertakes a preliminary review of the application once it has been formally received by the Departures Submission Co-ordinator. This preliminary review assesses if all the required information is included within the submission for the proposal to be fully reviewed and determined (Stage 5 of the Departures from Standards Process Flowchart). If the SDS considers that key information has not been submitted the application may be “rejected” and returned to the DO with comments as to how the submission needs to be amended before resubmission. If the SDS deems the departure submission to not actually be a “departure from standards” the SDS may “withdraw” the submission. In this case the submission will be returned to the DO with an explanation as to why the submission does not constitute a “departure from standards”.
- 2.5.5 The SDS determines whether Local Highway Authority or specialist comments are required to assist the Departures Technical Review Panel in determining the application (Stage 6 of the Departures from Standards Process Flowchart). Local Highway Authority comments would be required to cover interface issues with adjacent road networks. Specialist comments may be sought for departure applications relating to specialist technical issues (e.g. pavement materials or structural dfs applications).
- 2.5.6 The SDS considers formal dfs submissions and assesses whether the dfs warrants presentation to the Departures Technical Review Panel or can be reviewed and determined without presentation (Stage 7 of the Departures from Standards Process Flowchart).

- 2.5.7 The SDS is one of the three members of the Departures Technical Review Panel which review formal dfs submissions.
- 2.5.8 The SDS will manage the process of recording all endorsed dfs submissions on the IRIS platform.

## **2.6 Departures Technical Review Panel (DTRP)**

- 2.6.1 The DTRP undertakes a review of the proposed dfs submission and makes a recommendation to the Head of Asset Management and Standards for NM Schemes or to the ID Deputy Director for ID schemes to either “Approve”, “Approve with Comments”, “Reject” or “Withdraw” the submission.
- 2.6.2 The DTRP will comprise of three Senior Engineers who are all Welsh Government Officials:
- (i) Standards, DC & Streetworks Team Leader (Chair)
  - (ii) Delivery Team Leader (Network Management)
  - (iii) Infrastructure Delivery Project Director (Independent of the scheme)

## **2.7 Head of Asset Management and Standards (HAMS)**

- 2.7.1 This is a Welsh Government Official who is responsible for endorsement of formal NM dfs submissions taking into account the recommendations of the DTRP.

## **2.8 Infrastructure Delivery Deputy Director (IDDD)**

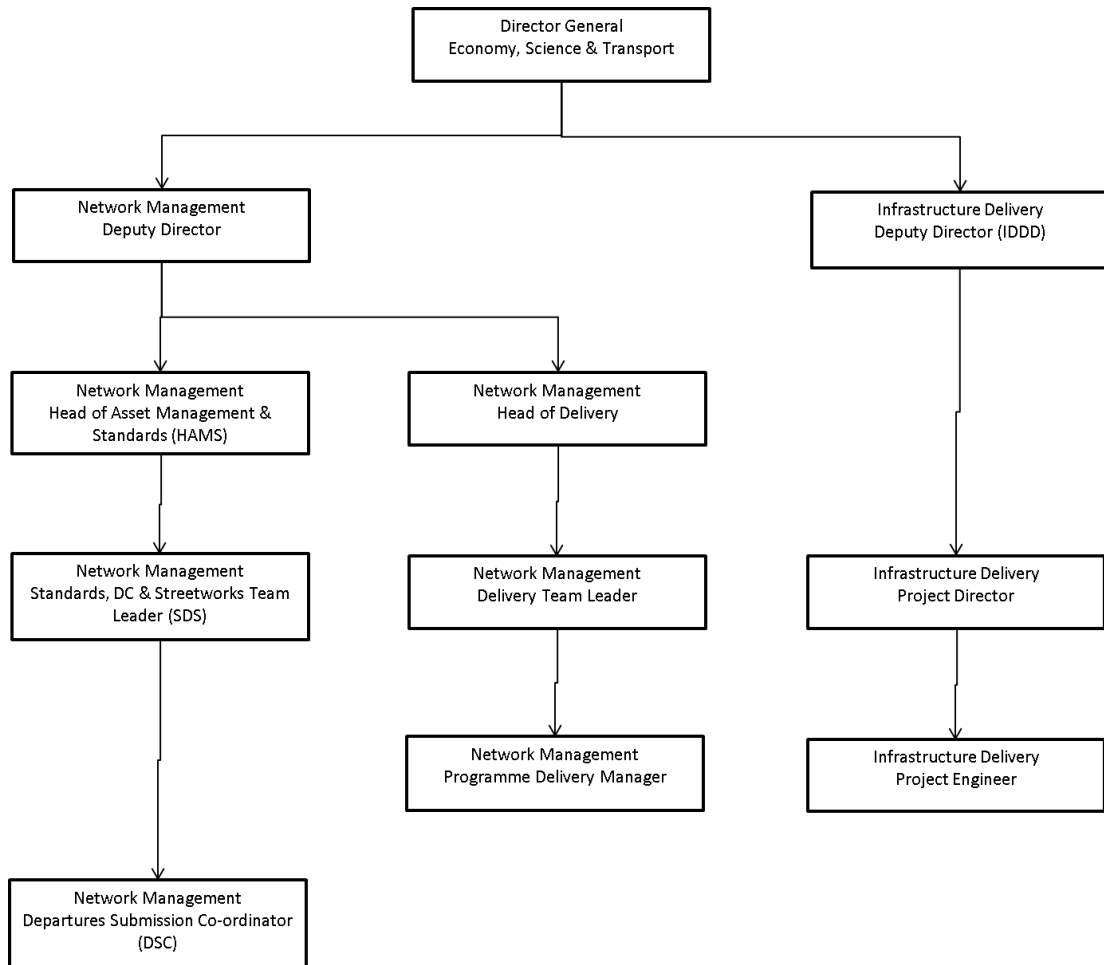
- 2.7.1 This is a Welsh Government Official who is responsible for endorsement of formal ID dfs submissions taking into account the recommendations of the DTRP.

## **2.9 Departures Submission Co-ordinator (DSC)**

- 2.9.1 The DSC is a Welsh Government Official who provides administrative support for all formal and informal dfs submissions. In particular this includes receipt of all formal dfs submissions and the calculation of the appraisal due date which is **8 weeks** after receipt of the application.

## 2.10 Welsh Government Transport Structure

2.9.1 To provide an understanding of the how the various roles detailed above fit in to the current team structure an outline is provided below:



### 3. DEPARTURE FROM STANDARD PROCESS

#### 3.1 Process Flowchart

3.1.1 The revised process for submitting, appraising and determining departures is outlined in both the “Departures From Standards Process Flowchart” and “Departures from Standards Process Swim Lane Diagram” shown in Appendix A. Further details for each stage of the process as referenced in the process flowchart are provided below. It should be noted that for formal dfs applications the intention is to appraise and determine within **8 weeks** from receipt of the submission.

#### 3.2 Stage 1

3.2.1 It is recognised that the Designer owns the design process. Therefore the responsibility of identifying all the departures from all standards including all aspects not covered must rest with the Designer. Upon identification of the need for a dfs it is expected that the Designer will attempt to justify the benefits of the departure prior to discussions with Network Management or Infrastructure Delivery.

3.2.2 If the Designer believes that a dfs should be considered, consultation should take place with the relevant Welsh Government DO for the scheme. If the DO is initially content that the dfs is worthy of consideration by the DTRP then two routes are available for the DO to consider as detailed below:

3.2.3 Formal Submission Route:

The DO instructs the Designer to complete the dfs submission form. Once the form is complete the Designer forwards the form to the Trunk Road Agent for comments (See Appendix B Section 5.4). Once these comments have been received the Designer submits the form to the DO for review (See Stage 3)

Formal Applications and all supporting documentation (as referenced in section 3.6 of the submission form) are to be sent as hard copies. **Three** copies of the dfs application and all supporting documentation will need to be submitted by the designer to the DO. The reason for the requirement of three hard copies is twofold: Firstly it will allow each of the three DTRP members to review the application simultaneously. Secondly, three signed copies of the departure application are required so that once the application has been determined a final signed copy can be retained by each of the SDS, the DO and the designer. Additionally a PDF of the application and all supporting information will need to be provided. This will allow the departure application to be stored on the Welsh Government database system.

The advantage of going straight to the formal submission route is the time saving in not informally submitting the dfs. It is recommended that dfs submissions which the DO is confident will be endorsed by the DTRP should be routed formally directly.

The disadvantage is that if the dfs application is “rejected” through the submission process any resubmission will be subject to a resetting of the appraisal due date (8 weeks from receipt). Hence the process to gain endorsement of the dfs may take longer than if the dfs application was informally reviewed initially.

#### 3.2.4 Informal Submission Route:

The DO instructs the Designer to submit the details of the proposed dfs, which the DO then forwards to the SDS for review. It should be noted that this informal review does not constitute an “Approval in Principle” it is merely a guide as to how the DTRP may appraise and determine the departure when it is formally submitted.

It is recommended that any dfs which the DO believes is reasonably complex or unusual should be routed informally to the SDS prior to formal submission. The intention of the informal review is to assist in ensuring more formal dfs submissions are “right first time”.

The informal submission does not need to be based on the formal dfs form but the SDS review can only be based on the information provided in the informal submission. The more accurate or detailed the information provided by the Designer, the more comprehensive the guidance that will be provided by the SDS.

Note no fixed appraisal time is given for informal submissions as this will be dependant on the SDS current workload. Hence the disadvantage of the informal submission route is uncertainty as to the time it will take to receive a response from the SDS. However, as a guide, it is anticipated that normally informal submissions would be reviewed within 4 weeks.

### 3.3 **Stage 2**

- 3.3.1 Formal Submission Route: The Designer completes the dfs form (See Appendix B) and appends all the supporting documentation. Once the form is complete the Designer forwards the form to the Trunk Road Agent for comments (Section 5.4). Once these comments have been received the Designer submits the form to the DO for review (See Stage 3). It should be noted that hard copies of all supporting documentation should be provided by the designer as part of the formal submission. A word version of the dfs form can be downloaded from the Welsh Government website.

- 3.3.2 Informal Submission Route: The Designer forwards the informal submission to the DO which is then passed on to the SDS for review. The SDS reviews the submission and provides comments to the DO.

### **3.4 Stage 3**

- 3.4.1 The DO reviews the content of the formal dfs submission. If the DO supports the application he/she signs the declaration in Section 5.5 and forwards the application to Departures Submission Co-ordinator (DSC) – this should include hard copies of all supporting documentation. If the DO does not support the submission then it is returned to the Designer with comments.
- 3.4.2 The DTRP will not review and determine a dfs submission which is not supported by the DO.

### **3.5 Stage 4**

- 3.5.1 The DSC formally records receipt of the dfs submission. **The 8 week target for determining the dfs application commences.** The DSC issues the departure with a Submission Reference No. and a File Reference No.
- 3.5.2 The application with all supporting documentation is sent by the DSC to the SDS for review.

### **3.6 Stage 5**

- 3.6.1 Before reviewing the detail of the dfs submission, the SDS will review the content of the application to ensure that all the relevant details for the departure have been submitted to ensure that it is possible to fully appraise and determine the application.
- 3.6.2 If key information is missing from the submission then the application will be “rejected” and returned to the DO with details of the missing information within the original submission.
- 3.6.3 Any subsequent resubmission will be given a Revision No. by the DSC when it is formally received and the 8 week target date for determining departures will recommence.

### **3.7 Stage 6**

- 3.7.1 The SDS determines whether independent specialist technical comments are required to assist the DTRP in determining the application. If so, these comments will be sought and included within Section 5.6 of the dfs form before review by the DTRP. It is likely that dfs applications that relate to

pavement or vehicle restraint issues will require specialist technical comments.

- 3.7.2 Where Local Highway Authority comments are required these can be included in section 5.6 of the dfs form. The approach to Interactions with Local Roads is detailed in paragraphs 1.41 & 1.42 of GD 01/08.

### **3.8 Stage 7**

- 3.8.1 The SDS considers the implications of the departure and decides if the submission needs to be presented to the DTRP or whether the details of the submission can be circulated to the members of the DTRP and reviewed individually.  
The decision as to whether the submission is to be presented to the panel is ultimately a subjective decision based on engineering judgement but broadly it is envisaged that the majority of submissions will require presenting to the panel and only applications where the risks and financial implications involved are considered minimal will be reviewed without formal presentation.
- 3.8.2 If the submission requires presentation to the panel the application will be booked into the next available DTRP date (generally one per calendar month). Alternatively the SDS will initially appraise and determine the departure and provide his comments to the other two members of the panel for their independent appraisal and determination.

### **3.9 Stage 8**

- 3.9.1 The proposed dfs submission is presented to the DTRP normally in Cathays Park, Cardiff. The DTRP is chaired by the SDS. Each departure is unique but broadly submissions will be approved when benefits are demonstrated to outweigh the disbenefits when compared with a fully compliant design.
- 3.9.2 The DTRP will consist of three members: The SDS, the Delivery Team Leader and a Project Director from Infrastructure Delivery independent of the scheme.
- 3.9.3 Where the dfs is to be presented to the DTRP the DO must manage the presentation of the application to the Panel. The presentation may be undertaken by the designer, the DO or the relevant Project Director (ID) or the NM Programme Delivery Manager as determined by the DO.
- 3.9.4 Alternatively, if the dfs application is not to be presented to the panel the other two members of the DTRP will review the submission independently and a consensus between all three members will be agreed.

3.9.5 In the event of a split decision by the panel the Chair(the SDS) has the deciding vote on the recommendation to be made by the DTRP.

### **3.10 Stage 9**

3.10.1 The final determination is recorded within Part 6 of the dfs application.

3.10.2 Determinations may be: approved, approved with comments, rejected or withdrawn.

3.10.3 The dfs application is then passed from the DTRP to either the HAMS or the IDDD for review and endorsement independent of the DTRP.

3.10.4 Once endorsed the three signed copies of the dfs and all supporting documentation are returned to the SDS.

3.10.5 The SDS notifies the DSC of the decision and forwards a signed copy of the dfs. The DSC formally records the decision and the date of the decision.

### **3.11 Stage 10**

3.11.1 The DSC retains one copy (with all supporting documentation) of the signed dfs submission and files internally within the departure file system.

3.11.2 The SDS forwards the remaining two signed copies (with all supporting documentation) to the DO. The DO should retain one copy for storage on the project file and distribute the final signed copy (with all supporting documentation) to the designer.

3.11.3 It is recognised that the endorsed dfs form is an important document and that during the design, construction, operation and demolition of the endorsed non-compliance the document may need to be referenced by WG staff or Service Providers. Possible examples of the future need to reference the endorsed dfs form include:

- (i) The dfs form may be evidenced in the event of a fatal road traffic accident.
- (ii) The relevant dfs details should be made available to those undertaking Road Safety Audits.
- (iii) The dfs submissions will form a key part of the review and update of technical design standards.
- (iv) The design, maintenance or demolition of schemes either by NM or ID will require a review of the existing dfs on the section of the network to be upgraded.



For the above reasons it is intended to record all endorsed dfs submissions on a platform which will be accessible by WG staff and the Service Providers.

## **4. GUIDANCE NOTES FOR THE NEW SUBMISSION FORM**

### **4.1 Outline of New Submission Form**

- 4.1.1 It is recognised that the new dfs form is more comprehensive than the form it replaces. This section provides background and supporting information to enable the Designer to complete the form “right first time”.
- 4.1.2 To assist the Designer in the preparation of the dfs submission, Appendix C provides an example of a dfs submission which contains the level of detail required for appraisal and determination by the DTRP.
- 4.1.3 It should be noted that the Designer has a duty to ensure that all applications are complete and that the responsibility for any errors or omissions remains with them.
- 4.1.4 Any incomplete submissions are likely to be “rejected” prior to the application being reviewed by the DTRP.
- 4.1.5 In the event that the Designer needs further guidance on completion of the form it is recommended that they contact the DO in the first instance. Where necessary, the DO will then seek advice from the SDS.
- 4.1.6 Below the headings reflect the headings contained within the Departures from Standards Submission Form.

### **4.2 Basic Details**

- 4.2.1 The provision of a new design on the WGMTRN will be subject to DMRB standards. If the design does not conform to a mandatory requirement of the DMRB, then it is a dfs and will need approval through the dfs process outlined in this guidance.
- 4.2.2 Each dfs submissions must only refer to one non-compliance within a mandatory DMRB paragraph. Any design which proposes non-compliances with a number of DMRB mandatory paragraphs must provide a similar number of dfs submissions. Therefore each non-compliance with a mandatory paragraph will generate the need for an individual dfs submission.
- 4.2.3 However, as an exception, the Welsh Government may allow “bulk” departures when the same non-standard method or material is proposed for use at more than one location, in certain clearly defined circumstances. In this event designers should seek guidance from the DO in the first instance. Where necessary, the DO will then seek advice from the SDS.

### **4.3 Submission Details**

- 4.3.1 Section 2.1 (Full Details of Proposed Departure) should provide background as to why the scheme is proposed (e.g. reduce accidents, improve capacity or facilitate new development). The Designer should also provide details of the existing layout and full details of the proposed design referenced to the drawings associated with the submission.
- 4.3.2 Section 2.2 (Existing Departures at the site) requires the Designer to indicate the existing non-compliances at the site of the proposed design and an indication if these are to remain (in which case they are likely to have to be subject to a dfs submission) or to be improved as part of the design.
- 4.3.3 Section 2.3 (Associated Departures) requires the Designer to list all the other departures and relaxations from standard which will be included within the scheme design. This information is required as the appraisal and determination of a dfs application may be affected by the presence of another dfs or relaxation in a nearby location. It is essential that all the associated dfs for a scheme are provided by the designer when reviewing a dfs submission. The late submission of a dfs which may influence a previously determined dfs application may require the review and redetermination of the original dfs application.
- 4.3.4 Section 2.4 (Options Rejected) requires the Designer to detail all alternative options which have been considered and discounted by the designer. These options **must** include a fully compliant design and may also include a nearer to compliant design than the one proposed.

### **4.4 Technical Information**

- 4.4.1 Section 3.1 (Design Speed) requires the Designer to indicate the design speed for the road subject to the proposed departure and the method of calculation.
- 4.4.2 Section 3.5 (Scheme Programme & Scheme Cost) should indicate the delivery programme for the proposed scheme. Where programming issues are cited as a justification for the departure the evidence should be provided in this section. The scheme cost is required to give an idea of the scale of a project. The scale of a project will be a consideration when the individual cost savings of a departure submission are reviewed (for example a dfs submission proposing a cost saving of £10K may be viewed differently on a £50K project than on a multi-million pound scheme.)

- 4.4.3 Section 3.6 (Supporting Documentation) details typical supporting information that will need to be submitted by the designer to support the submission.

The scales stipulated for layout plans are based upon ensuring the reviewers can fully understand the details of the proposals. Any drawings produced that are not in line with the suggested scale may not provide sufficient detail and may be a reason for the application to be returned to the Designer for resubmission.

The “Accident Summary” should identify the Personal Injury Accident history for the dfs location over the most recent three year period. For longer lengths of road with reasonable numbers of accidents a “bubble diagram” is a useful method of presenting accident data. A Designer’s evaluation of the accident history should be undertaken to establish whether the existing substandard layout contribute significantly to identified safety problems. The accident analysis should consider the type of accident, severity, contributing circumstances, environmental conditions and time of day. The Designer should indicate how they believe the proposed dfs will influence the existing accident record at the departure location. This analysis may estimate the potential accident savings of a proposed layout which may form part of the overall justification for the dfs.

The Designer should provide the details of traffic surveys or traffic modelling data which have been a consideration in the design of the proposed layout. Existing and design year traffic flows and existing 85<sup>th</sup>ile speeds are important and should be included within most dfs submissions. For larger schemes data from traffic models will provide evidence of the operation of proposed layouts. For example the predicted traffic queue lengths may be an important consideration for designs which influence traffic flows on diverging slip roads.

## **4.5 Risks, Benefits & Overall Justification**

- 4.5.1 Section 4.1 (Risks associated) requires the Designer to assess the risks associated with the design when compared with a fully compliant design.

Designers must fully assess the risks inherent in dfs submissions. The Management of Health and Safety at Work Regulations require that a “suitable and sufficient assessment” is made of risks to people, which for dfs submissions, relates to operatives and other road based staff who operate on the WGMTRN. For risks that relate to those who work on the road the duty under Health and Safety legislation is to reduce risks so that they are “As low as Reasonably Practicable” (ALARP). Designers will also need to be aware of their duties within the Construction Design Management (CDM) regulations.

Designers will also need to assess the risks to road users as well as the financial, programme, environmental and maintenance risks.

A number of risk assessment techniques are available to the designer. A suggested risk assessment matrix is included in Appendix D (This matrix is based on an example provided in GD04/12 of the DMRB, however, it should be noted that this document is not currently adopted for use on WMTRN). It is the designer's responsibility to select and use an appropriate and robust methodology. All risks associated with the proposed design should be compared with the risks associated with a fully compliant design. It should also be noted that Welsh Government has produced a "Risk Management Framework" document which provides additional information on this subject.

- 4.5.2 Section 4.2 (Cost Savings) requires the Designer to identify the cost savings for the proposed design as compared with a fully compliant design. There are a number of techniques available to the Designer. It is the designer's responsibility to select and use an appropriate and robust methodology. For larger schemes the Designer needs only to provide an outline estimate of scheme costs. Where the designer seeks to include the cost saving associated with a predicted reduction in injury accidents the typical cost of an accident should be taken from the latest version of "Reported Road Casualties in Great Britain" which is published by the DfT annually.
- 4.5.3 Section 4.5 (Overall Justification) is the most important section of the dfs submission form. The Designer should use this section to summarise all the key benefits of the proposed dfs together with all the potential disbenefits of the proposed layout. The Designer should then state how it is considered that the overall benefits of the departures outweigh the disbenefits and therefore why the designer recommends approval of the dfs submission. This section of the submission form will be carefully scrutinised as part of the DTRP appraisal and determination of the dfs application.

## **5. BACKGROUND TO THE DEPARTURES PROCESS**

### **5.1 Overview of the Departures from Standards submissions**

- 5.1.1 This chapter provides background to the dfs process and attempts to address common misconceptions. It should be noted that GD 01/08 (Volume 0 Section 1 Part 2 of the DMRB) provides important background information on the dfs process.
- 5.1.2 It is important to note that for a dfs to exist there must be a proposed non-compliance with a mandatory paragraph of the DMRB or a Welsh Government adopted Interim Advice Note. Therefore any non-compliance with advisory clauses or non mandatory documents, such as the Traffic Signs Manual (e.g. Chapter 8), do not constitute dfs. The exceptions to the above are Aspects Not Covered which are explained in Section 5.5.
- 5.1.3 It should also be noted that the dfs process is only to be used for **permanent** changes to the WGMTRN. Temporary works, such as Traffic Management layouts, should not be approved through the dfs process.

### **5.2 When to submit Departure from Standards Applications**

- 5.2.1 Paragraph 1.26 of GD 01/08 mandates that “each Departure must be approved before the design is finalised and prior to its incorporation into the works.” Therefore all dfs submissions need approval before the works are commenced on site.
- 5.2.2 The precise timing of dfs submissions should be discussed and agreed with the DO for the project. For both NM and ID schemes a balance must be struck between ensuring the design is sufficiently advanced and detailed to provide all the required information to appraise and determine the submission. Whilst, ensuring that the dfs submission is early enough to allow time for other before construction commitments such as consultations and order publications.
- 5.2.3 Normally dfs submissions linked to Planning Applications should be submitted at the Pre-Application and Scoping Stage. The time of 8 weeks to allow appraisal and determination of the dfs should be included within any delivery programme for Planning Applications. For further information on the Planning Application process please contact the Welsh Government Development Control Officers.
- 5.2.4 Where works have not commenced on site previous dfs approvals would normally be considered invalid:

- After a period of three years;
- Where a replacement Standard or Interim Advice Note has been published in the intervening period;
- Where the scheme design considerations have altered significantly (eg if traffic flows have altered);
- Where subsequent research or legislation affects the basis of the departure approval
- If the designer considers that a change in any other factor may affect the previous approval.

In the above situations the DO should seek advice from the SDS.

- 5.2.5 If the need for a dfs submission is discovered after construction this is termed a “Retrospective Departure”. Paragraph 1.39 of GD 01/08 mandates that “...in the event that it is discovered that Trunk Road Works have been carried out without approval having been sought or granted for the incorporation of any feature that should have given rise to a Departure, the organisation that would have been responsible for the Departure application (had it been made at the correct time) must promptly notify the Overseeing Organisation with proposals for addressing this non-compliance.” In practice where the need for a Retrospective Departure submission is identified the DO should seek advice from the SDS.

### 5.3 Precedence

- 5.3.1 As noted in paragraph 1.29 of GD 01/08 “Departures are approved on a location-specific basis and relate to the particular circumstances identified in each submission. A similar Departure approval may be quoted to support a new application, but each case will be considered on its own merits.”
- 5.3.2 Therefore it is important that the designer focuses on the factors that specifically relate to the individual departure where approval is being sought as these will be the primary consideration in the appraisal process.

### 5.4 Relaxations

- 5.4.1 The approach to relaxations from standards is detailed in paragraphs 1.19 to 1.22 of GD 01/08.
- 5.4.2 The designer does not normally need to submit relaxations from standard for approval through the dfs submission process **unless** the application for a dfs may be affected by a proposed or existing relaxation.
- 5.4.3 Section 2.3 of the New Submission Form (Associated Departures) requires the Designer to list all the other departures and **relaxations** from standard which will be included within the scheme design. This relaxation information is

required as the appraisal and determination of a dfs application may be affected by the presence of another relaxation in a nearby location.

## **5.5 Aspects not covered**

- 5.5.1 An “Aspect not covered” is a design feature or method not included within the standards in the DMRB and thus requires approval as a dfs.
- 5.5.2 It should be noted the Designer is responsible for identification of all aspects not covered by Standards within a particular design.
- 5.5.3 The approach to Aspects not covered from standards is detailed in paragraphs 1.31 of GD 01/08.

## **5.6 Local Roads**

- 5.6.1 The approach to Interactions with Local Roads is detailed in paragraphs 1.41 & 1.42 of GD 01/08.
- 5.6.2 Where a proposed scheme will require a proposed dfs to be appraised and determined by a local highway authority as well as the Welsh Government advice should be sought from the SDS as to the procedure to be followed.
- 5.6.3 Where local highway authority comments are required these can be included in section 5.6 of the Departures from Standards Submission Form

## **5.7 Road Safety Audit**

- 5.7.1 The process of Road Safety Audit for Highway Improvement schemes on the WGMTRN is detailed in the DMRB Volume 5 Section 2 Part 2 HD 19. Paragraph 2.62 requires that details of approved dfs should be included within any Road Safety Audit Brief. Paragraph 3.11.3 of this document outlines how this information will be made available to WG staff and Service Providers.
- 5.7.2 It should be noted that no part of this guidance document intends to contradict or supersede the requirements set out in HD 19.

## **5.8 Existing Non-compliances**

- 5.8.1 The provision of a new design on the WGMTRN will be subject to DMRB standards and any proposed non-compliance will require an approved dfs.
- 5.8.2 Consideration also needs to be given by the designer to the existing layout where the new design is proposed. Where existing substandard features are



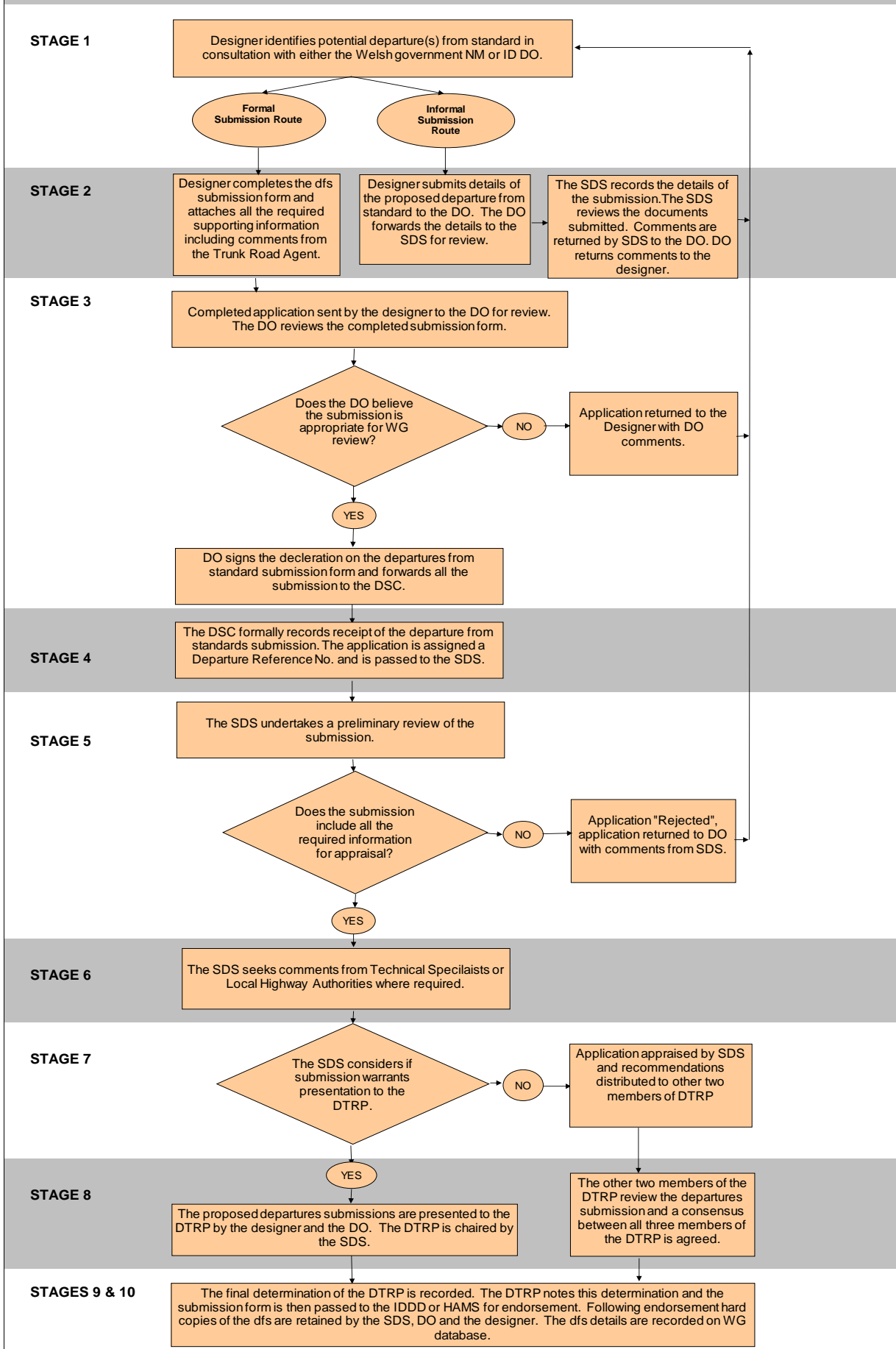
to be retained as part of the new design, or where existing substandard features are to be improved but not to full standard then the designer will need to submit a dfs. Only substandard features which are considered to influence the proposed new design need to be the subject of a dfs, i.e. if retained substandard features are considered too remote to affect the proposed new layout they do not have to be addressed within the dfs process.



**APPENDIX A      PROCESS FLOWCHART & SWIM LANE  
DIAGRAM**



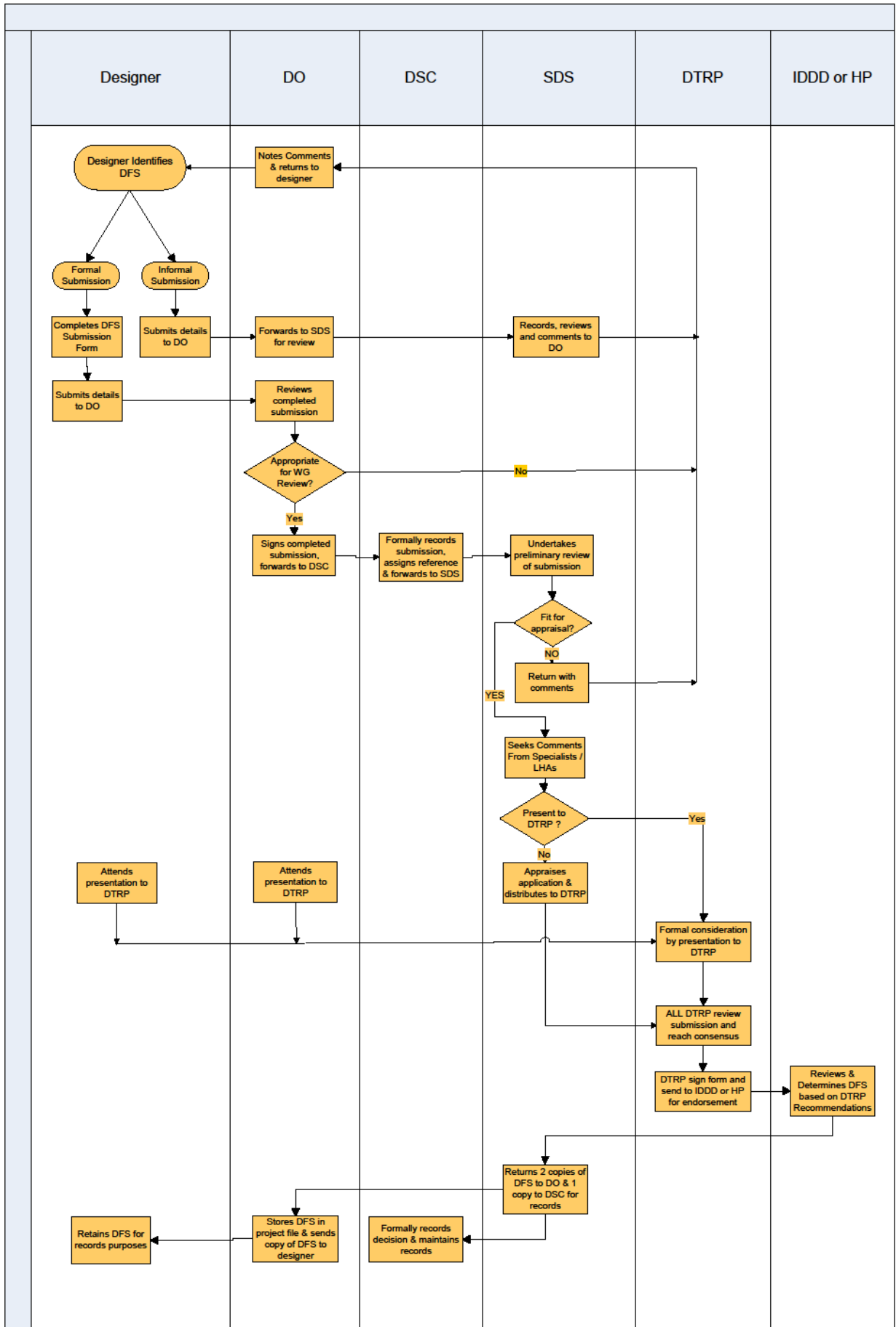
# DEPARTURES FROM STANDARDS PROCESS FLOWCHART



KEY:			
<b>NM</b> Network Management	<b>ID</b> Infrastructure Delivery	<b>DTRP</b> Departures Technical Review Panel	<b>DO</b> Departure Owner
<b>SDS</b> Standards, DC & Streetworks Team Leader	<b>DSC</b> Departures Submissions Co-ordinator	<b>HAMS</b> Head of Asset Management and Standards	<b>IDDD</b> Infrastructure Delivery Deputy Director



# DEPARTURES FROM STANDARDS PROCESS SWIM LANE DIAGRAM







**APPENDIX B      DEPARTURES FROM STANDARDS  
SUBMISSION FORM**



# Welsh Government



Llywodraeth Cymru  
Welsh Government

## Departure from Standards Submission Form (Version 1 July 2014)

To be completed by the Welsh Government Departures Submission Co-ordinator.

**Submission Reference No.:** \_\_\_\_\_ **Revision No. (Where required):** \_\_\_\_\_

**File Reference No.:** \_\_\_\_\_

**Date Received:** \_\_\_\_\_

**Appraisal Due Date (8 weeks from receipt):** \_\_\_\_\_

**For guidance on the completion of this Submission Form please refer to “Welsh Government Motorway and Trunk Road Network Departures from Standards - Process for Submission”.**

**For resubmissions please state the original Submission Reference No.....**

<b>1.0</b>	<b>Basic Details</b>	
1.1	Road	
1.2	Scheme Name	
1.3	Location Reference (6 figure OS E & N reference)	
1.4	Brief Summary of departure	
1.5	Design Organisation	
1.6	Welsh Government Department (NM/ID)	
1.7	Form of contract	
1.8	Relevant Standard	
1.9	Relevant Clause	

<b>2.0</b>	<b>Submission Details</b>	
2.1	Full Details of Proposed Departure	
2.2	Existing Departures at the site	
2.3	Associated Departures & Relaxations	
2.4	Options Rejected	

<b>3.0</b>	<b>Technical Information</b>	
3.1	Design Speed and method of assessment	
3.2	Non-motorised users considerations (eg Active Travel (Wales) Act)	
3.3	Street Lighting provision: Existing and Proposed	
3.4	Other relevant technical information such as vehicle restraint systems, proximity to junctions etc.	
3.5	Scheme Programme & Scheme Cost	
3.6	<p>Supporting Documentation associated with the departure.</p> <p>Documentation to include:</p> <ul style="list-style-type: none"> <li>i. Location plan typically at 1:10000 showing the scheme extent and existing/associated departures.</li> <li>ii. Layout plans, including road markings typically 1:2500 for links and 1:500 for junctions</li> <li>iii. Accident Summary with commentary to cover the last 3 years.</li> <li>iv. Traffic Data – including existing and design year flows</li> <li>v. Junction Capacity Checks where relevant including design year queue lengths</li> <li>vi. Visibility Graphs for SSD departures.</li> <li>vii. Swept Path Plots where relevant</li> </ul>	

4.0	<b>Risks, Benefits &amp; Overall Justification</b>	
4.1	Risks associated with the proposed departure when compared with a fully compliant design (including a designer's risk assessment). See Appendix C of "Departures from Standards - Process for Submission" document.	
4.2	Costs savings associated with the proposed departure when compared with a fully compliant design.	
4.3	Other benefits associated with the proposed departure (e.g. Safety, Traffic Economics, and Environmental etc.)	
4.4	Mitigation measures proposed as part of the design solution	
4.5	<b>Overall Justification. Summarise how the benefits of the proposal outweigh the disbenefits when compared with a fully compliant design.</b>	

4.6	<b>Applicants Checklist</b>	<p>Prior to formal application please note the checklist below:</p> <ol style="list-style-type: none"> <li>1. All sections of the application are completed including the designer's declaration.</li> <li>2. Trunk Road Agents comments are provided.</li> <li>3. 3 copies of the application together with 3 copies of all supporting documentation have been compiled and sent to : Departures Submission Co-ordinator, Welsh Government, Transport, Room C2, Sarn Mynach, Llandudno Junction, Conwy, Wales, LL31 9RZ</li> <li>4. A pdf containing the signed copy of the application form and all supporting documentation is provided and sent to : Standards_Feedback_and_Enquiries@Wales.GSI.Gov.UK</li> </ol>
5.0	<b>Declarations</b>	
5.1	Name of Designer Proposing Departure Submission.	
5.2	Title of Designer Proposing Departure Submission.	
5.3	Declaration of Designer Proposing Departure Submission.	<p>I confirm that in completing the attached departure submission I have used reasonable professional skill and care. I hereby recommend approval of the attached departure from standard submission</p> <p>Signed:</p> <p>Date:</p>
5.4	Trunk Road Agent Comments	<p>Additional Comments from Trunk Road Agent:</p> <p>Name:</p> <p>Date:</p>
5.5	Declaration of Welsh Government Departure Owner. (Infrastructure Delivery Project Engineer or Network Management Programme Delivery Manager)	<p>I hereby recommend approval of the attached departure from standard submission</p> <p>Name:</p> <p>Signed:</p> <p>Date:</p>
5.6	Specialist or Local Highway Authority Comments:	<p>When Applicable as determined by the Standards, DC &amp; Streetworks Team Leader</p> <p>Name:</p> <p>Date:</p>

<b>6.0</b>	<b>Technical Review Panel Recommendations</b>	
6.1	Recommendations of Infrastructure Delivery Project Director	Recommendations:  Name:  Signed:  Date:
6.2	Recommendations of Network Management Delivery Team Leader	Recommendations:  Name:  Signed:  Date:
6.3	Recommendations of Standards, DC & Streetworks Team Leader (Chair)	Recommendations:  Name:  Signed:  Date:
6.4	Endorsement of Deputy Director (Infrastructure Delivery) or Head of Asset Management & Standards (Network Management)	Comments:  Name:  Signed:  Date:



**APPENDIX C      EXAMPLE COMPLETED DEPARTURE FROM  
STANDARD FORM**



# Welsh Government



Llywodraeth Cymru  
Welsh Government

## Departure from Standards Submission Form

To be completed by the Welsh Government Departures Submission Co-ordinator.

**Submission Reference No.:**

**Revision No. (Where required):**

**File Reference No.:**

**Date Received:**

**Appraisal Due Date (8 weeks from receipt):**

**For guidance on the completion of this Submission Form please refer to “Welsh Government Motorway & Trunk Road Network Departures from Standards - Process for Submission”.**

**For resubmissions please state the original Submission Reference No.....**

<b>1.0</b>	<b>Basic Details</b>	
1.1	Road	A123 between alpha and beta junctions. Exact chainages for the extents of the departure submission are detailed on the attached location plan (Dwg No. 01).
1.2	Scheme Name	A123 Welshtown Widening Scheme
1.3	Location Reference (6 figure OS E & N reference)	Scheme start 500000e 500000n Scheme end 501000e 501000n
1.4	Brief Summary of departure	The existing single carriageway length of the A123 between junctions alpha and beta is to be widened to a dual carriageway. This section of road currently exhibits a high accident rate particularly at off-peak times (as demonstrated in the attached accident summary document Ref. A). At peak times this location can be the subject of severe traffic congestion (as demonstrated in the attached traffic assessment Ref. B). The proposed scheme intends to reduce the accident rate (see Ref. A) and improve journey time reliability (see Ref. B). However, the proposed offside hardstrip and central reserve detail are reduced in width. The proposed reduction in width is to reduce the impact on the adjacent environmentally

		designated site and to allow the new alignment to fit within the constraints of the existing Welshtown Railway Bridge.
1.5	Design Organisation	Jones & Smith Highways Consultancy
1.6	Welsh Government Department (NM/ID)	Infrastructure Delivery
1.7	Form of contract	NEC Early Contractor Involvement
1.8	Relevant Standard	TD 27/05 Cross-sections and headrooms
1.9	Relevant Clause	Clause 4.2.1 and Figure 4-3a
<b>2.0</b>	<b>Submission Details</b>	
2.1	Full Details of Proposed Departure	<p>The standard cross section for a Rural Dual 2 Lane All Purpose (D2AP) Carriageway, comprises 2.5m verges, 1.0m nearside hardstrips, 7.3m carriageways, 1.0 offside hardstrips and 2.5m central reserve.</p> <p>The proposed cross section for the Rural Dual 2 Lane All Purpose (D2AP) Carriageway comprises 2.5m verges, 1.0m nearside hardstrips, 7.3m carriageways and a 2.7m wide central reserve detail which includes 2 x 1.0m offside hardstrips and a 0.3m wide concrete vehicle restraint system.</p> <p>This cross section detail is shown on the attached Dwg No. 02. This proposed detail reduces the footprint of the proposed dual carriageway by 1.8m. This section of the A123 runs adjacent to the edge of a Geological Site of Special Scientific Interest (SSSI). This 1.8m reduction will reduce the requirement to widen into the adjacent environmentally sensitive land. The reduction of 1.8m will also allow the new dual carriageway to be routed through the existing Welshtown Railway Bridge without undertaking any structural widening works. Additional benefits of the proposed cross section are the reduced maintenance requirements of the proposed concrete central reserve over a traditional steel vehicle restraint system and the reduced impact of noise on the Rose Cottage near the centre of the scheme (see the attached noise assessment document Ref. C)</p> <p>The proposed cross section detail still provides a fully compliant 1.2m offside setback to lanes 2 and the concrete central reserve vehicular restraint system complies with the Working width requirements of TD 19/06.</p> <p>The use of the concrete central reserve barrier will reduce the stopping sight distance in lane 2 for 200m along a right hand bend near the beta junction of the scheme. This stopping sight distance is reduced to 250m which constitutes a 1 step</p>

		departure. This departure is referred to in the associated departures section of the form.
2.2	Existing Departures at the site	A designer's review of the existing geometry of the single carriageway has noted a number of stopping sight distance departures along the route. All these existing departures will be removed as part of the proposed dual carriageway scheme.
2.3	Associated Departures & Relaxations	There are five other proposed departures from standard associated with the dual carriageway scheme. A summary of these departures is attached in Ref. D. These other five departures are all submitted as a package with this submission.
2.4	Options Rejected	<p>A fully compliant cross section option has been considered by the design team.</p> <p>A general arrangement for a fully compliant cross section is shown in attached Dwg No. 03. The fully compliant cross section scheme has been estimated at a cost of £40 Million. This compares with the cost of the proposed cross section within this submission of £35 Million. The reasons for the additional cost of £5 Million for the fully compliant scheme are the additional 1.8m of carriageway to be constructed and the widening works to the Welshtown Railway Bridge. In addition the fully compliant design will increase the delivery programme for the scheme by six months and require the removal of 500 square metres of environmentally sensitive land. For the above reasons the fully compliant solution has not been promoted by the design team as the optimum solution.</p> <p>A nearer to compliant option has also been considered by the design team.</p> <p>This option comprises a fully compliant cross section with the exception of the nearside hardstrips being reduced from the compliant width of 1m to 0.5m. This nearer to compliant option has been estimated at a cost of £37 Million. This compares with the cost of the proposed cross section within this submission of £35 Million. The reasons for the additional cost of £2 Million for this option associated with constructing a 1m wider scheme. The dual carriageway will be able to be routed through the Welshtown Railway Bridge without widening works however an additional departure from standard will be required as the nearside set-back to the bridge abutments would be non-compliant. On balance the design team believe that the additional safety disbenefits associated with a reduced nearside hardstrip and a non compliant nearside set-back through the Bridge outweigh the benefits of this option when compared to either the fully compliant</p>

		scheme or the cross section proposed within this submission. For these reasons this option has not been promoted by the design team as the optimum solution.
<b>3.0</b>	<b>Technical Information</b>	
3.1	Design Speed and method of assessment	Current design speed 100kph based on the existing speed limit Proposed design speed for dual carriageway 120kph. Design speed calculated as per TD 9/93.
3.2	Non-motorised users considerations (eg Active Travel (Wales) Act)	The departure will be based on the central reserve detail and will not therefore adversely affect NMUs who will be restricted to the nearside hardstrip. Consultations with the Local highway Authority have indicated that this route is not a priority cycle route.
3.3	Street Lighting provision: Existing and Proposed	Existing and Proposed layouts contain fully compliant street lighting layouts.
3.4	Other relevant technical information such as vehicle restraint systems, proximity to junctions etc.	The details of the proposed vehicle restraint system for the central reserve are attached in Drawing No. 04. The reduced cross section is not envisaged to present any additional disbenefits when operating under temporary traffic management.
3.5	Scheme Programme & Scheme Cost	The scheme programme is estimated at 24 months at a cost of £35 Million
3.6	Supporting Documentation associated with the departure.  Documentation to include: i. Location plan typically at 1:10000 showing the scheme extent and existing/associated departures. ii. Layout plans, including road markings typically 1:2500 for links and 1:500 for junctions iii. Accident Summary with commentary to cover the last 3 years. iv. Traffic Data – including existing and design year flows v. Junction Capacity Checks where relevant including design year queue lengths vi. Visibility Graphs for SSD	The following documents are attached to this submission: Drawing No. 01 – Location Plan Drawing No. 02 – Cross Section Drawing No. 03 – General arrangement for fully compliant cross section Drawing No. 04 – Proposed central reserve VRS Drawing No. 05 – Layout plans for full scheme Drawing No. 06 – Comparison of proposed and compliant central reserve details  Ref A – Accident Summary document Ref B – Traffic Assessment’s Ref C – Noise Assessment’s Ref D – Summary of Associated departures Ref E – Designers Risk Assessment

	departures. vii. Swept Path Plots where relevant	
<b>4.0</b>	<b>Risks, Benefits &amp; Overall Justification</b>	
4.1	Risks associated with the proposed departure when compared with a fully compliant design (including a designer's risk assessment). See Appendix C of "Departures from Standards - Process for Submission" document.	<p>The two risks associated with the proposed non-compliant cross section are as follows:</p> <ol style="list-style-type: none"> <li>1. The presence of a concrete central reserve vehicle restraint system will reduce the stopping sight distance by one step for approximately 200m in lane 2.</li> <li>2. The reduced central reserve width will provide less space for stricken vehicles on the offside of the carriageway. The details are provided in Dwg No. 06.</li> </ol> <p>These risks are quantified and fully considered in the Full Risk Assessment attached as Ref. E.</p>
4.2	Costs savings associated with the proposed departure when compared with a fully compliant design.	The fully compliant cross section scheme has been estimated at a cost of £40 Million. This compares with the cost of the proposed cross section within this submission of £35 Million. Cost savings for the proposed cross section are therefore calculated at £5 Million.
4.3	Other benefits associated with the proposed departure (e.g. Safety, Traffic Economics, and Environmental etc.)	The proposed non-compliant cross section scheme fully delivers the predicted benefits of the scheme as a whole in terms of accident reduction and improved journey times. In addition the proposed design will reduce the delivery programme for the scheme by six months and will allow 500 square metres of environmentally sensitive land to be retained. Other benefits of the proposed cross section are the reduced maintenance requirements of the proposed concrete central reserve over a traditional steel vehicle restraint system and the reduced impact of noise on the Rose Cottage.
4.4	Mitigation measures proposed as part of the design solution	The risks associated with the proposed solution are considered tolerable and as such the proposed mitigation is an initial monitoring of the performance of the new layout. If the reduced stopping sight distance is considered to present a risk then mitigation may include reduced speed limits or the provision of a steel barrier system which improves visibility but with a reduced offside set-back.

4.5	<b>Overall Justification. Summarise how the benefits of the proposal outweigh the disbenefits when compared with a fully compliant design.</b>	On balance the benefits associated with the proposed non compliant cross section are considered to outweigh the disbenefits. The key benefits are a £5 Million cost saving, a six month shorter delivery programme, retention of 500 square metres of SSSI, reduced noise impact and lower maintenance requirements for the central reserve barrier. The key disbenefits of a reduced stopping sight distance in lane 2 and reduced width for stricken vehicles in the central reserve are both considered tolerable.
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## **APPENDIX D      EXAMPLE RISK ASSESSMENT**



## Designers Risk Assessment Form

**Project:** A123 between alpha and beta junctions

**Doc Ref:** Ref E

<b>Prepared by:</b>		<b>Checked by:</b>	
<b>Contact Details:</b>		<b>Contact Details:</b>	
<b>Date:</b>		<b>Date:</b>	

Ref	Hazard	P	S	R	Response/Control Measure	P	S	R
1	<p>Vehicle strikes another vehicle due to the reduced stopping sight distance in lane 2 due to the central reserve concrete safety barrier.</p> <p>Population: vehicle occupants</p>	3	3	9	<p>Ribbed edge and road lines to be provided in accordance with Traffic signs Manual.</p> <p>Road to be lit in hours of darkness.</p> <p>Full vehicle restraints provided in central reserve.</p>	2	3	6
2	<p>Vehicle strikes a pedestrian on the central reserve due to the reduced width.</p> <p>Population: pedestrians</p>	2	4	8	<p>Pedestrians on the central reserve are very unlikely as pedestrian bridge crossings are provided as part of the scheme. Pedestrians are possible at this location when a stricken vehicle temporarily parks within the offside hardstrip/central reserve. Again it is considered very unlikely as vehicles requiring to stop in emergency will tend to use the nearside fully compliant verge and hardstrip.</p> <p>Road to be lit in hours of darkness.</p> <p>Full concrete vehicle restraints provided in central reserve which will deter pedestrians from attempting to cross the carriageway.</p>	2	4	8



**Risk Classification Table (adapted from example in DMRB Volume 0:GD04)**

Probability		Severity				
		1	2	3	4	5
		Minor harm	Moderate harm	Serious harm	Major harm	Catastrophic harm
1	Extremely unlikely	1	2	3	4	5
2	Unlikely	2	4	6	8	10
3	Likely	3	6	9	12	15
4	Extremely likely	4	8	12	16	20
5	Almost certain	5	10	15	20	25

Risk rating/classification	Actions
1 – 9 /Low	Ensure control measures are maintained and reviewed as necessary
10 – 19 /Medium	Control measures needed to reduce risk rating to a level which is as low as is “reasonably required”
20 – 25 /High	Activity not permitted – hazard to be avoided or risk to be considerably reduced so it is tolerable

Probability that harm will occur:			Potential severity of harm: e.g		
1	Extremely unlikely	Highly improbable, never known to occur	1	Minor harm	No injury, only minor damage or loss
2	Unlikely	Less than once every 10 years	2	Moderate harm	Public: Slight injury Workers: Harm of lesser nature i.e. not RIDDOR reportable illness/injury AND/OR moderate damage or loss
3	Likely	Once every 5 – 10 years	3	Serious harm	Public: Serious injury Workers: RIDDOR reportable illness/injury AND/OR substantial damage or loss
4	Extremely likely	Once every 1 – 4 years	4	Major harm	Fatality, major damage or loss
5	Almost certain	Once a year	5	Catastrophic harm	Multiple fatalities, catastrophic damage or loss

**Explanatory Notes:** Risk is the likelihood of potential harm from a hazard being realised. The extent of risk will depend on:

- The likelihood/probability of that harm occurring
- The potential severity of that harm, i.e. of any resultant injury or adverse health effect
- The population which might be affected by the hazard, i.e. the number/type of people who might be exposed

**Risk assessments should be reviewed if there is reason to suspect that they are no longer valid or there has been a significant change in the matters to which they relate.**