

Departures from Standards

## 1. Introduction

### 1.1. Purpose of This Document

This procedure has been written for assessing Departures from Standards and for designers preparing submissions. It sets out the process of recording the judgements of the professionals involved in the delivery of the scheme. This procedure may be applied to schemes on non-trunk roads within Warwickshire. For schemes that interface with the trunk road network, the National Highways' processes should be used.

Within this procedure, the term "Designer" refers to Warwickshire County Council's design team or an external Design Organisation. "Highway Authority" can refer to Warwickshire County Council or other local authority clients. Details of the Designer and Highway Authority shall be recorded on the Departure from Standard form (QF045).

### 1.2. The Benefits of Departures

Departures from standard are often necessary to deliver lean designs that lead to potential cost savings or other forms of "added value", or to resolve issues where there are physical constraints such as available highway land. Departures from standard can enable designs to fit the overarching project objectives, and to take advantage of new innovative techniques.

Despite the range of flexibility with standards that exists with respect to virtually all the significant road design features, there are situations in which the application of even the minimum criteria (including any allowable Relaxations) would result in safety, technical, programme, financial or environmental negative impacts greater than the benefits that would be obtained by incorporating the proposed Departure.

In other circumstances, innovation, cost or performance considerations may result in a Departure being proposed, providing it takes account of durability/maintenance and network resilience considerations and is consistent with current legislation, policy and the long-term route management strategy.

If the proposed design contradicts or is below the Mandatory Requirements of the current standards, or permitted as a Relaxation, then it is a Departure.

When deciding if the Departures process needs to be applied, the designer should compare the design against the Declared Standard, which may not always be the DMRB.

Design standards are developed with future maintenance and whole life costs in mind. Such issues must be considered in any non-standard situation and without effective safeguards there is a possibility that future problems may be built into designs.

Where departures from standard are accepted and implemented, the demonstration of a suitable process and provision of an audit trail is of high importance in defending the decisions taken.

### 1.3. Legal Position

It is only trunk roads that are required to be designed according to the Design Manual for Roads and Bridges. For all other roads the decisions on the choice of standards and their incorporation into designs remain in the hands of local highway authorities. As the DMRB sets out the current best practice for highway design, it shall be used for the design of highway improvement schemes within Warwickshire.

In the case of risks related to construction of the works or future roadworker activity, the duty under Health and Safety legislation is to reduce risks so that they are “As Low As Reasonably Practicable”. This is reinforced by the CDM Regulations.

Following an accident investigation, the discovery of the implementation of a design that was not in accordance with a recognised standard may be cited as a material consideration in any accusation of a failure in a duty of care. In these circumstances both the Design Organisation and the highway authority would need to be able to demonstrate that they exercised a reasonable level of professional skill and care in the submission and determination of a Departure. The risk of a highway authority being held liable in law is potentially lessened if any Departures from its standards could be shown, via records, to have been adequately considered. The completion of QF045 and an accompanying risk assessment using QF181 will make this process easier and less expensive.

All persons involved in processing a Departure, whether preparing, submitting or determining an application, have a duty and responsibility to apply reasonable professional skill and care to that task.

#### **Other Documents**

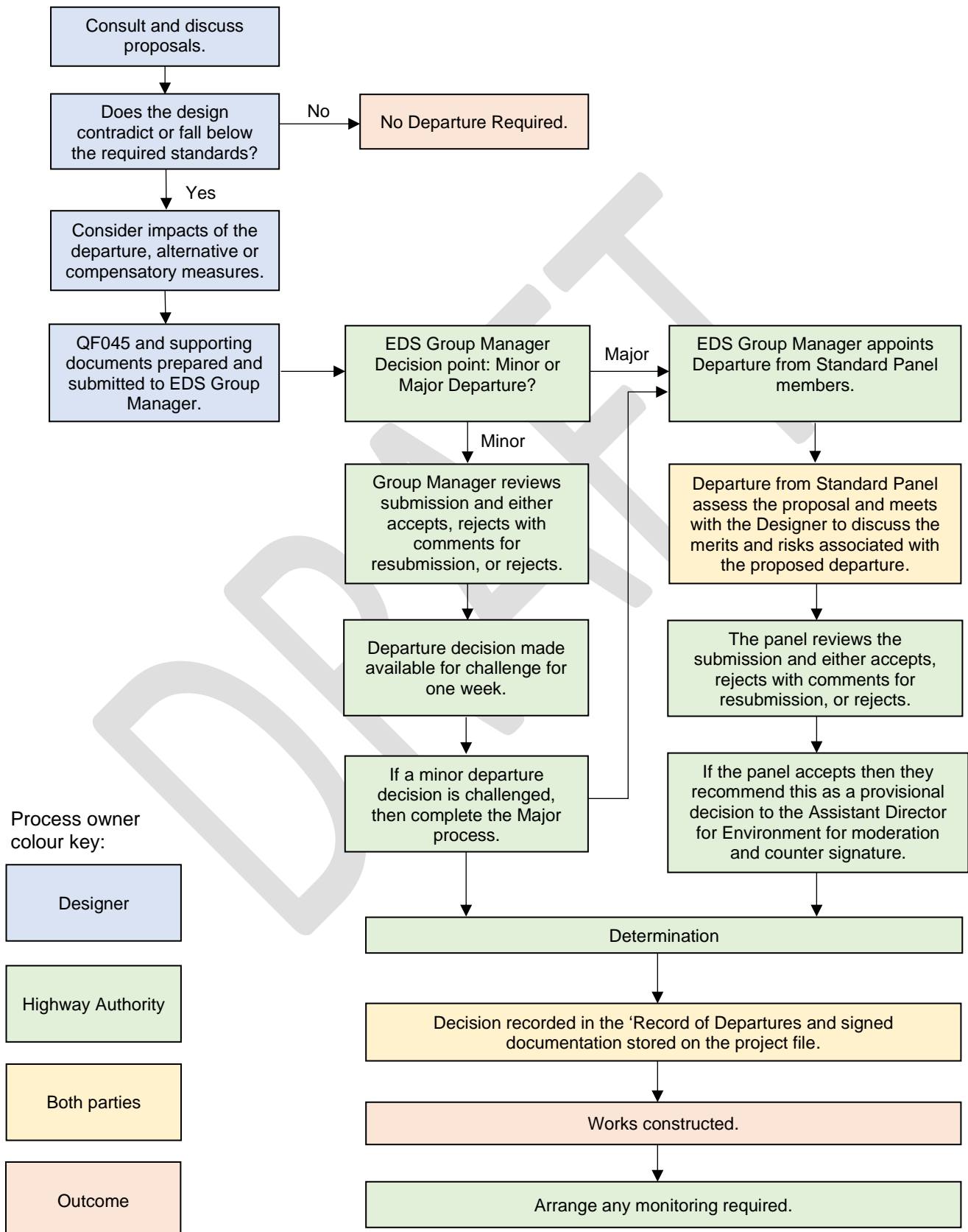
The principle of the departure from standards process is set out in DMRB GG101, and designers should familiarise themselves with this document in conjunction with the procedure set out below.

For highway structures, DMRB CG300 provides additional advice on Departures and technical approval.

## 2. The Procedure

### 2.1. Principles

An overview of the Departure from Standard procedure is given below.



## 2.2. Roles and Responsibilities: Design Organisation

The primary responsibility for the assessment of a proposed Departure lies with the Designer. Design Organisations not appointed by the highway authority (e.g., on developer schemes) should satisfy themselves and the highway authority that they are competent to carry out highway design work of the type submitted and have the appropriate professional indemnity insurance.

All DMRB applicable designs shall be in accordance with the DMRB and/or any alternative WCC Local Highway Authority specific requirements. Applicable design standards must be set out in the Quality Plan as the Declared Standards. The Designer is responsible for the identification of **all** Departures from **all** Declared Standards including **all** aspects not covered by Standards involved in a particular design. Where the process of identification of standards that comprise the Declared Standards has not taken place (by the highway authority), the Designer should at the outset of the design seek clarification from the highway authority of the appropriate standards to use. Departure applications shall be submitted to the Highway Authority using template QF045, or suitable equivalent.

Whilst Designers should be mindful of the design standards it is important that they remain open to the possibility of adding value by proposing designs that may be variants from those presented in standards.

The Designer should assess the risks, negative impacts and benefits involved with a proposed Departure. This assessment process should be recorded on a risk assessment. For schemes where WCC are the designer, QF181 may be used. The assessment should consider safety, technical issues, programme, economic and environmental issues as well as durability, routine and major maintenance requirements, disruption during the works and network resilience. The needs of any group that may be affected should also be considered, for example, residents, businesses, non- motorised users and motorised users.

As part of the assessment of a proposed Departure, Designers should carry out all necessary consultations as advised by the highway authority. All such consultations should be summarised on QF045.

The Designer should be able to confirm that the residual risks are acceptably low and that the negative impacts are outweighed by the benefits associated with the Departure and the benefits associated with the scheme as a whole.

The Designer should compare the proposed Departure with a design fully in accordance with standards. Where a design fully in accordance with standards is clearly not a feasible option, such a design need not necessarily be formally prepared to a detailed level. The level of preparation of a compliant design should be limited to the point that a broad understanding of the likely consequences of a compliant design can be gained

The Designer should consider alternatives and reasons for promoting the proposed option rather than an alternative.

The Designer is responsible for the accuracy, comprehensiveness and validity of the statements made regarding their proposals. By submitting an application for a Departure from Standard, the Designer is indicating that they have used reasonable professional skill and care.

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. Roles and Responsibilities: Highways Authority**

The role of the highway authority is to determine if a Departure, based on the details submitted by the Designer with the QF045, represents a convincing argument that may be brought forward at any future date to assist in explaining the actions taken. The highway authority should be convinced that the case shows that the benefits outweigh any disbenefits. Where impacts cannot be easily monetarised, this requires professional judgement.

In reflecting upon a submission, the highway authority should recognise that firm evidence may not always be available to the Designer, particularly for innovative designs. The absence of firm evidence is not sufficient reason on its own to reject a design concept but may be reason enough to justify a higher level of scrutiny and consultation.

Where a Departure application is found to be incomplete or inaccurate, inadequately prepared or with insufficient justification, it should be rejected and returned to the Designer for revision along with the reasons for rejection. An indication as to whether a Departure may be approvable once additional justification is available should also be given.

Warwickshire County Council Engineering Design Services (WCC EDS) should not compile part or all of a Departure application on behalf of a Designer unless where the design function is undertaken in-house. In this case the normal rules of “distance” between a designer and a client should be applied to ensure an appropriate level of scrutiny and challenge.

In situations where the Designer is not competent to produce the necessary documentation (e.g., some developers with insufficient expertise) then the highway authority should ask the scheme promoter to seek specialist assistance from a suitably competent engineer with highway design expertise and appropriate professional indemnity cover.

### **2.4. Timing of Departures**

The timing of Departure applications should be discussed with the Project Manager who may need to consult with other staff or external advisors. Bearing in mind different procurement routes, key stages may include:

- Entry into programme
- Prior to Public Consultation
- Before completion of preliminary design
- Before completion of detailed design
- After Public Inquiry/before Works Commitment
- In respect of developer-funded highway works, prior to the grant of planning permission for the associated development

The Project Manager is best placed to make decisions on timing because inevitably decisions on Departures are likely to be affected by contractual, financial and programme considerations. Project Managers should satisfy themselves that due weight is given to these issues. Individual standards also normally mandate that Departures are agreed for inclusion in designs before the appropriate design stage is completed and signed-off.

All departures from standard must be determined prior to inviting tenders to minimise the risk of contractual issues.

At the early stages of schemes some design concepts may be insufficiently developed to allow a full risk assessment to be carried out. For example, surveys and investigations may

be ongoing to determine if a structure is to be retained or demolished. In these cases, an agreement in principle may be more useful than a full agreement to a Departure. However, at an appropriate later stage an agreement in principle should be converted into a full Departure determination.

“Retrospective” Departures should not normally be considered, and it is important that design decisions and related standards issues are agreed before site work commences.

“Retrospective” Departures are where a Departure is discovered after construction. In such cases it is likely to be appropriate to use the contractual provisions to determine the desired process. Where the design changes during construction works, any new Departure or any necessary amendment to a pre-works Departure that results from the design change can still be dealt with using this Procedure.

Previous Departure approvals will normally be considered as potentially invalid if one or more of the following apply:

- If the construction works have not commenced within a period of 3 years from Departure approval.
- Where a replacement or complementary Standard has been published.
- If a material change in a scheme design parameter generates additional risk (e.g., if a new traffic forecast shows a material change compared to the previous forecast).
- Where verifiable research or legislation in force affects the basis on which the Departure was approved.
- If either the Designer or highway authority considers that a change in any other factor may affect the previous approval.

## **3. Assessment of Departures**

### **3.1. Introduction**

When all the design issues have been considered and evaluated, a review of the proposed Departure should be carried out by the WCC EDS project team and submitted to EDS' Group Manager for review. The Group Manager will review the proposal and decide if the Departure is minor or major. Major Departures from Standard have the potential for significant or overlapping issues and risks or potential to be controversial and susceptible to challenge.

Minor Departures will be assessed and determined by the EDS Group Manager. The Group Manager's decision will be shared with the designer, the responsible team's Section Manager, Transport and Highways' Service Manager and the Assistant Director for Environment Services who will have a period of one week to challenge the decision. If challenged, the proposal will be treated as a Major Departure.

Major Departures will be assessed by a Departure from Standard Panel and passed to the Assistant Director for Environment Services with a recommendation for acceptance or rejection.

Due to the varying nature of Departures, their interaction with each other and the existing and future route conditions, each Departure is unique. Therefore, there are no rigid criteria as to whether a particular Departure will be approved or rejected. However, the following would normally be among the factors considered during assessment:

- It should be demonstrable that the benefits significantly outweigh any negative impacts of the proposed Departure through a comparison with a design fully in accordance with Standards.
- The avoidance of introducing a discontinuity into the route in terms of its current and known future strategy; e.g., future operational performance requirements.
- The avoidance of a road design that is ambiguous to users. The assessment of this factor will need to take account of the normal range of operating conditions that users can be expected to encounter including varying traffic flows and weather conditions.
- Any significant increase in risk to any user or potential user of the route because of the incorporation of the Departure into the works should be considered for compensatory measures.
- The proposed design should be consistent with scheme objectives, current legislation, authority policy and long-term Route Management / Regional Investment Strategies.

### **3.2. Departure from Standard Submissions**

Submissions for Departures from Standard should consist of a copy of QF045 with the relevant sections completed by the Designer, along with all supporting design drawings, specifications, test reports, product data sheets and other literature. A risk assessment as detailed in section 3.4 must accompany the submission. Copies of a cost benefit analysis and Road Safety Audits may also be required if applicable.

Attachments to the Departure application should be clearly identified and listed (e.g., drawing numbers) so that the reader can ascertain the scope of the submission and the information he is being expected to read.

### 3.3. Departure from Standard Panel

A panel of three or more professionally qualified and suitably experienced Tier 3 or Tier 4 engineers shall assess Major departure submissions using the criteria set out in 3.1 above. The panel members shall have experience in the field of engineering related to the topic of the proposed departure and should ideally be from outside the project team to ensure an impartial viewpoint. The panel should also include representatives from the Delivery and Commissioning teams.

The panel members should be selected by the EDS Group Manager. A list of potential WCC EDS panel members can be viewed here:

[Departures Panel Members List](#)

The Designer shall meet with the Departure from Standard Panel to discuss the merits and risks associated with the proposed departure. The panel will make a recommendation for the proposed departure to be approved, rejected or rejected with comments for resubmission. If the Panel recommends that a proposal is approved, then it shall be passed to WCC EDS's Assistant Director for Environmental Services for the final decision on whether the proposal is approved or rejected.

If a departure is rejected by either the EDS Group Manager, the Departure from Standard panel or the Assistant Director, then the Designer shall be provided with details of their reasoning for rejecting the proposal. An indication as to whether a Departure may be approvable once additional justification is available should also be given.

Further details on the process of determining departure applications are given in section 4.

### 3.4. Risk Assessments

The Designer should fully assess the risks associated with Departures being proposed. Risks to road user safety, financial, programme (including land and statutory procedures), environmental and network resilience (e.g., congestion and loss of capacity) should be considered. The Management of Health & Safety Regulations also require that a "suitable and sufficient assessment" is made of risks to people, and in the context of Departures this relates to the safety of operatives and other road based staff during construction, inspection and future maintenance.

For designs prepared in-house by WCC EDS QF181 should be used to assess the risks present by proposed departures from standard.

The most critical element of the risk assessment is the identification of a full range of individual hazards and factors within the design and full consideration of the road user groups, including maintainers, that could be affected. This process should not be treated as an appendage to a design but should be used in preparing an appropriate design. Risk assessments should not only be prepared at the end of the design process as such a process becomes merely one of identifying residual risks. Completing risk assessments at the commencement of the process, and periodically reviewing and updating them throughout the design process will frequently enable risks to be better understood and/or designed-out, thus also reducing the need for Departures.

The Designer should record a summary of the primary design options that have been considered and the reasoning behind rejected options in section 2f of QF045. This approach is useful in demonstrating the thoroughness of the design process.

The overall risk assessment and selection of options should have regard to the intended life



cycle, including construction, operation, maintenance and foreseeable modifications (e.g., where a wide pavement may be needed in the near future it may be preferable to construct the maximum width at the outset, but with hatching to reduce the width in the interim). It may be appropriate to 'trade-off' risks between different stages of the life cycle to obtain the safest solution overall.

### **3.5. Road Safety Audit**

Road safety auditors must be made aware of the prospect of Departures being included in road layout designs before they commence a Road Safety Audit. The input of a road safety auditor should be beneficial to the overall process that includes consideration of safety and non-safety issues.

## **4. Determination of Departures**

### **4.1. General**

The highway authority has three choices when deciding whether to accept a Departure application. It can determine that a Departure be approved, rejected or, if the proposal may be acceptable following alteration or further justification, rejected with comments.

The highway authority may be content to approve a Departure if it believes that:

- a sufficiently strong case has been made by the applicant; and
- the explanation is comprehensible to an outside professional observer with no inherent scheme knowledge; and
- sufficient consultation with stakeholders has been carried out

If a Departure is rejected it would be appropriate to explain the reason for the rejection. If a Departure proposed by a designer other than WCC EDS is rejected with comments, it should be noted that written comments that positively direct the design may attract designer's responsibilities to the highway authority. It would normally be preferable to prompt the designer to consider these issues in the next design iteration. For example, a highway authority may have noted that a proposed traffic sign is inappropriate as a compensatory measure. Rather than the highway authority directly asking for such a sign to be removed from the design it is likely to be preferable for the Design Organisation to be asked to review the need for such a sign with reference to the Traffic Signs Manual and any local policies, e.g., in the cases of signs, any policy on urban design and street clutter.

When a departure is rejected with comments, it is often desirable for the Panel members to reference comments with a numbering system so that they can be easily understood and subsequently managed by the applicant.

## 5. Monitoring

Post-construction safety monitoring for each scheme should be undertaken in accordance with the contract and include a Stage 3 Safety Audit where appropriate. Acceptance and routine safety inspections should also be undertaken as required by the DMRB and MCHW.

Very occasionally the use of post opening “conflict analysis” may be warranted to allow an early opinion to be formed of the likely accident performance.

The Designer should consider the desirability of safety monitoring or other post-opening monitoring and advise what arrangements are considered desirable.

The highway authority may also advise if a different level of monitoring is required as a condition when approving Departures for more innovative, unusual or contentious schemes. This may be particularly important when a new concept may have wider application in future years.

Where durability of a product in-service is required to be measured, the process put in place should take account of the likely accessibility and techniques for such scrutiny. Additionally, the timeframe should take account of any maintenance periods in contracts and any warranties supplied by manufacturers.

Imprecise statements should be avoided. If a Departure requires specific monitoring, this should be stated and details of responsibility, frequency and duration included in the application or approval comments.

## 6. Record Keeping

Copies on the completed Departure from Standard documents and all supporting documentation must be stored together on the project file. The outcome of the Departure from Standard assessment shall be recorded on the [Record of Departures](#)

Because Departure records may be called upon in the event of any accident some time after a road opens, it is not uncommon for long periods of storage to be required. Documents should be stored according to WCC’s current policy for document retention. Details should also be stored on the relevant asset management systems in use within the County Highways, Traffic Control and Information Systems and Bridge Maintenance.