

Manual for Development of Documents

Part 1 - Governance of document development

Date: October 2022

Version: 6.3

Document Control

Document Title	Manual for Development of Documents. Part 1: Governance of Document Development
Author	WSP
Owner	Rebecca Ansell
Distribution	National Highways Portal
Document Status	Final

Latest revision (see revision history at the end of the document)

Version	Date	Description	Author
6.3	October 2022	<p>Technical Assurance and Governance Group (TAGG) renamed to Technical Standards Group (TSG).</p> <p>All email addresses for Standards Enquiries amended from Highways England to National Highways email address.</p> <p>Section 3 Terms, definitions, and abbreviations - Definition added for Technical Standards Committee (TSC) chair.</p> <p>Section 4 Key roles and responsibilities – Additional text added to TSC chair responsibilities to reflect revised TSC review process.</p> <p>Section 5 RAD types - CHE memos section – addition of note and TSS Plans registry to wording.</p> <p>Section 6 Drivers for document development and solutions - Driver 10 updated with revised links relating to feedback against standards. Clause 6.13 wording amended so our requirements reflect new harmonised standards as soon as possible.</p> <p>Section 7 Impact assessment – Clause 7.7 amended as health and safety risk assessment not required for category D changes. New clause 7.29.1 and 7.30 to reflect requirements around assessment of cost implications for category C and D changes. New requirements in section ‘Commercial Impact Assessment Toolkit (CIAT)’ 7.31 – 7.43.</p>	NH/WSP

		<p>Section 8 Governance process for document development – revised figure 5 to reflect new workflow stages.</p> <p>Section 9 Stage 1: Enter the SRP backlog – clauses 9.4 – 9.7 deleted as duplication of Section 13 TSC review.</p> <p>Section 11 Stage 3: Drafting – Notes in section on clause change summary for consultation amended to clarify how/when it is used.</p> <p>Section 13 Stage 5: Technical Standards Committee review – section amended from ‘Stage 5: Consultation’. New Figure 11 showing high level steps for TSC review added. New Figure 12 steps for consultation added. New Figure 13 comments resolution added. New Figure 14 steps for quality review added. New Figure 15 steps for TSC chair acceptance added. Figure 16 steps for quantitative assessment and TSC chair ratification added.</p> <p>Section 17 Stage 9: Publication - new requirements for section ‘Roll out of documents internally and externally’.</p> <p>Section 18 Stage 10: Document maintenance – New clause 18.1 added. New advice clause added to Feedback management in Section 18 related to suggested timescales for responses.</p> <p>Annex 1B TSS Plans registry – Drafting note added to reflect name change to Operational Technology Specifications Library and further update needed to annex.</p> <p>Annex 1C Technical Standards Committee – new section created from clauses that were in Section 13 for clarity. Contains information related to Aims of TSC, TSC identification, Setting up a TSC, TSC membership, TSC members – consulted or informed, TSC meetings, Responsibilities, Confidentiality.</p> <p>Annex 1D Commercial impact assessment toolkit (CIAT) content completely redrafted.</p>	
--	--	--	--

Reviewer List

Name	Role
Simon Hartshorne	Senior Technical Advisor
Kirti Surti	Principal Advisor & TSG Team Leader

Approvals

Name	Signature	Title	Date of Issue	Version
Steve Davy	<i>Steve Davy</i>	Principal Technical Advisor	7 May 2015	2.0
Steve Davy	<i>Steve Davy</i>	Principal Technical Advisor	1 June 2015	2.1
Steve Davy	<i>Steve Davy</i>	Principal Technical Advisor	19 Oct 2015	2.2
Gerry Hayter	<i>Gerry Hayter</i>	Group Manager	26 Jan 2017	3.0
Gerry Hayter	<i>Gerry Hayter</i>	Group Manager	5 Apr 2017	4.0
Steve Davy	<i>Steve Davy</i>	Principal Technical Advisor	15 Sep 2017	4.1
Steve Davy	<i>Steve Davy</i>	Head of Technical Standards	21 March 2018	4.2
Steve Davy	<i>Steve Davy</i>	Head of Technical Standards	02 Nov 2018	5.0
Steve Davy	<i>Steve Davy</i>	Head of Technical Standards	28 Oct 2019	5.1
Steve Davy	<i>Steve Davy</i>	Head of Technical Standards	15 Mar 2021	6.0
Steve Davy	<i>Steve Davy</i>	Head of Technical Standards	16 Nov 2021	6.1
Steve Davy	<i>Steve Davy</i>	Head of Technical Standards	23 Feb 2022	6.2
Steve Davy	<i>Steve Davy</i>	Head of Technical Standards	6 Oct 2022	6.3

Table of Contents

1. Introduction	1
2. Scope	2
3. Terms, definitions, and abbreviations.....	3
Terms and definitions	3
Abbreviations.....	9
4. Key roles and responsibilities	10
5. RAD types	14
Choosing relevant document type	14
Design Manual for Roads and Bridges (DMRB)	16
National Application Annexes (NAAs)	17
Manual of Contract Documents for Highway Works (MCHW)	18
Nationally Determined Requirements (NDRs)	21
CHE Memos (National Highways Only)	22
6. Drivers for document development and solutions.....	23
Drivers	23
Opportunities for change	27
Solutions.....	28
7. Impact assessment	30
The impact of RADs on health, safety, and wellbeing	30
The impact of RADs on equality, diversity, and inclusion	32
The impact of RADs on carbon management, sustainable development and good design	32
The impact of RADs on customer satisfaction	32
Estimating cost implications of RADs	33
8. Governance process for document development.....	36
Categories of change A, B, C, D	36
9. Stage 1: Enter the SRP backlog.....	38
Jira request.....	38
Summary of benefits.....	38
Urgent changes	38
Keeping the Standards Review Programme (SRP) up to date	39
10. Stage 2: Document development planning	41
11. Stage 3: Drafting.....	43
Authoring	43

	Draft document for consultation (category A)	46
	Clause change summary for consultation (categories B, C, D)	46
	Pre-consultation impact assessment	46
12.	Stage 4: Confirmation of category of change	47
13.	Stage 5: Technical Standards Committee review	49
	In consultation	50
	In comment resolution	53
	In quality review	54
	In TSC chair acceptance and quantitative assessment	55
	In TSC chair ratification	56
14.	Stage 6: Approval	57
15.	Stage 7: Authorisation	58
16.	Stage 8: Notification	60
	How to decide if RADs are notifiable	63
	Documentation for notification	64
	Standstill period	64
	Detailed opinions	65
	Comments from EC	65
	Changes to already notified documents	65
	Normative and informative references	66
	Reference to the Technical Specifications and Regulations Directive	66
	Timing of adoption	66
17.	Stage 9: Publication	67
	When is a document ready for the publication stage?	67
	Reviewing proofs of documents	68
	Content changes during publication	68
	Documents required for publication	69
	Roll out of documents internally and externally	69
18.	Stage 10: Document maintenance	70
	Document review management	71
	Feedback management	73
	Routine changes management	75
	Controlling timescales for document maintenance actions	76
Annex 1A	CHE Memos	77
Annex 1B	TSS Plans registry	79
Annex 1C	Technical Standards Committee	80

Aims of TSC	80
TSC identification	81
Setting up a TSC	81
TSC membership.....	82
TSC members - consulted or informed.....	85
TSC meetings.....	87
Responsibilities.....	88
Confidentiality	93
Annex 1D Commercial impact assessment toolkit (CIAT).....	94
Qualitative assessment by technical authors.....	94
Quantitative assessment by Commercial team.....	97
Annex 1E Control process for SRP date changes (DMRB/ MCHW).....	100
Definitions.....	100
Type of date changes and approvers	100
Revision history	102

1.Introduction

This Manual for Development of Documents (MDD) is published by National Highways to give procedures, processes, instruction, and advice for the development of documents relating to the planning, preparation, design, construction, management and demolition of highway works on the UK Overseeing Organisations' motorway and all-purpose trunk roads.

The documents referred to in this Manual are collectively called requirements and advice documents (RADs).

This Manual is made up of three parts:

- Part 1 Governance of document development
- Part 2 Document layout and style
- Part 3 Drafting rules

Different verb forms are used in this Manual to make a distinction between requirements and advice. Specifically:

- the verb 'must' indicates a legislative/regulatory requirement;
- the verb 'shall' indicates a requirement of the Overseeing Organisation;
- the verb 'should' indicates advice expressed as a recommendation;
- the verb 'may' indicates an advice expressed as a permissible approach;
- the verb 'can' or verbs expressed in the present tense other than 'must', 'shall', 'should' and 'may' are used to introduce notes, which provide a short clarification of a concept or statement of fact.

Publication of technical documents by other organisations is at their own prerogative and liability, and they need not seek consent for application of this Manual.

This document is made available under the Open Government Licence.

For any queries on this Manual, please contact the National Highways Technical Standards Group (TSG) at standards_enquiries@nationalhighways.co.uk

2. Scope

2.1 This Manual for Development of Documents (MDD) shall be followed by those responsible for the review, development and publication of the following requirements and advice documents (RADs):

1. Design Manual for Roads and Bridges (DMRB) documents;
2. National Application Annexes (NAAs) to relevant DMRB documents;
3. Manual of Contract Documents for Highway Works (MCHW)
4. Chief Highway Engineer Memoranda (CHE Memos).

NOTE In this Manual, the above documents are collectively referred to RADs, except where specific reference is being made to a particular type of document. They represent a key component of the technical governance for highway works.

2.2 The procedures given in this MDD shall apply to both DMRB and MCHW unless specifically mentioned in the text.

2.3 The specific rules on CHE Memos given in [Annex 1A](#) shall be followed.

NOTE Although primarily intended for the RADs, the principles contained in this Manual can be helpful in managing and drafting other technical documents.

2.4 The information given in RADs shall be used for the Overseeing Organisations' motorway and all-purpose trunk roads in accordance with GG 101 "Introduction to the Design Manual for Roads and Bridges (DMRB)".

2.5 This Manual shall be followed by all those involved in the development of RADs within National Highways (see Section 4 for stakeholders and key responsibilities).

NOTE 1 Although National Highways generally provides the resources required for the publication of RADs, the documents that comprise the two main document sets, i.e., the DMRB and the MCHW, are produced in collaboration with the other Overseeing Organisations.

NOTE 2 This Manual does not cover technical matters, which are the responsibility of the technical author and the drafting team.

2.5.1 Any other organisations who wish to adopt the principles and guidance of this Manual should take account of their own organisational needs.

2.6 Specialists responsible for cross-cutting disciplines such as health and safety, carbon management, sustainability and environment, equality, diversity and inclusion, customer satisfaction, commercial aspects, shall contact the National Highways Technical Standards Group (TSG) if they consider that changes or additions are required to this Manual.

3. Terms, definitions, and abbreviations

Terms and definitions

- 3.1 For the purpose of this Manual, the terms and definitions given in this section shall apply.

NOTE In addition to the terms given in this section, [Annex 2A to MDD Part 3](#) provides definitions that are specific to legislation.

Advice

Optional provision conveying advice on a specific topic and helping the user understand how to fulfil the requirement.

Chief Highway Engineer Memoranda (National Highways only)

Means of providing internal information / communication / procedures in connection with the works on National Highways' motorway and all-purpose trunk road network.

Clause

Paragraph providing a requirement or a requirement and related advice.

Clause change summary

Deliverable that is part of an overall technical document management system, which is used for categories B, C, D of change to present incremental changes made to the RAD.

Collaborative Authoring and Review System

Tool used for the authoring and review of DMRB and MCHW documents.

Construction Works

Everything that is constructed or results from construction operations in accordance with [BS ISO 6707-1](#).

Constructor requirements

Requirements contained in the SHW both as core requirements (i.e., common across the Overseeing Organisations), Nationally Determined Requirements (i.e. those relevant to a specific Overseeing Organisation) and Work Specific Inputs.

NOTE Constructor requirements will apply for every contract in which the associated objects, materials or activities are specified.

Consultation report

Deliverable that is part of an overall technical document management system, which is used to record the people and organisations that have been consulted or simply informed during the Technical Standards Committee process and to provide a summary of the consultation including any items raised by the consultees that have been agreed to be addressed in future work.

Content Specialist

Person supporting the delivering of high quality RADs fully in line with this Manual for the Development of Documents (MDD).

Customer service standard

Standards which:

- draw on customer insight and seek to address key customer, communities, and stakeholders, needs and expectations;
- are aligned to the customer service strategy of the Overseeing Organisation;
- and, can either:
- reinforce existing policy / standard (in which case the new standard will signpost the existing policy rather than duplicate);
- introduce a new standard where one does not currently exist; or
- seek to identify and address behaviours that are preventing existing policy to be followed.

Departures Approval System (DAS)

The National Highways system for submitting and seeking approval for departures. Other Overseeing Organisations can have similar systems for tracking the submission and approval of departures.

Design, Build, Finance and Operate (DBFO)

Delivery approach through which a single entity designs, builds, finances and operates a project for a specified period.

Document Development Plan

Deliverable that is part of an overall technical document management system, which is used to plan and define the directions of development work for RADs.

Document maintenance process

Set of activities to keep documents up to date and compatible with the policies and objectives of the Overseeing Organisations, comprising document review management, feedback management, and routine changes to documents.

Document review

Scheduled activity to check whether a document is up to date and identify the need for routine changes to bring it up to date.

Document review cycle

Programme of regular scheduled reviews of the whole document.

EU Directive

EU Directives are binding in terms of goals, but it is left up to the member states to decide what action they need to take to achieve those goals.

NOTE Directives require enabling legislation to transpose them into member state law.

EU Regulation

EU Regulations are conventional acts of a national legislature.

NOTE Regulations are directly applicable in that they do not need to be turned into national law; they are binding in their entirety and take immediate effect on a specific date.

European Standardisation Organisations (EOSs)

European Committee for Standardisation (CEN), European Committee for Electrotechnical Standardisation (CENELEC) or European Telecommunications Standards Institute (ETSI).

Group Manager

National Highways leader accountable for a programme often referred to as a portfolio, i.e., a structured collection of Projects.

Impact assessment report

Deliverable that is part of an overall technical document management system, which is used to identify the impacts of the RAD development work (including when there is no impact or a negative impact) on the following aspects:

- health safety and wellbeing;
- equality, diversity, and inclusion;
- carbon management, sustainable development, and good design;
- customer satisfaction;
- commercial aspects;
- other aspects including policy, legal, contractual implications

It also contains information on opportunities of innovation that can be realised implementing the RAD under consideration and provides information about publication and dissemination plans as needed.

Incremental change

Change to specific requirements (category B), advice (category C), notes or spelling mistakes (category D), which do not belong to the category “major revision”.

NOTE Incremental changes follow shorter governance processes compared to that followed for major revision, which are proportionate to the change being made.

Instructions for Specifier (IfS) document

Published form of a document showing both the constructor requirements and the specifier instructions.

Major revision

Policy change, rewrite of a document or development of a new document, which follow a complete governance process (category A).

Motorway and all-purpose trunk roads

Collective term to indicate those parts of the UK highway and road network for which one of the Overseeing Organisations is or acts on behalf of the highway or road authority.

NOTE Department for Infrastructure Northern Ireland also manages local roads and their application is dealt with through National Application Annexes in the DMRB.

National Highway Authority

National Highways operating under licence from the Department for Transport (DfT).

NOTE The term ‘National Highway Authority’ is for use specifically within the context of the Construction Products Regulation.

Overseeing Organisations

National Highways and the highways or roads authorities of Scotland, Wales and Northern Ireland and their successors.

NOTE The meaning of Overseeing Organisation is typically defined by the contract under which the works are procured.

Portfolio Leader

National Highways leader of an Innovation Programme Portfolio.

NOTE A portfolio is a structured collection of Projects. Accountability for a Portfolio always remains with a National Highways Group Manager, although the role of Portfolio Leader can be delegated to other National Highways staff.

Requirement

Provision conveying criteria to be fulfilled in order to comply with the document.

Requirements and Advice Documents (RADs)

Collective term for Design Manual for Roads and Bridges (DMRB) documents, National Application Annexes (NAAs) to the DMRB or Nationally Determined Requirements (NDRs) for MCHW, Specification for Highway Works (SHW), Instructions for Specifiers (IfS), Works Specific Inputs (WSI), Highways Construction Drawings (HCD), Chief Highway Engineer Memoranda (CHE Memos).

Routine changes

Changes needed updates to the document for example to bring it up to date or correct errors.

Safety Engineering and Standards (SES) Directorate

National Highways directorate providing professional and technical solutions to outward facing parts of the organisation.

NOTE Safety Engineering and Standards was formerly Professional and Technical Solutions (PTS) Directorate and NetServ.

Specification for Highways Works (SHW) document

Published form of a document only showing constructor requirements.

Technical Standards Group (TSG)

National Highways team responsible for the process of developing and publishing RADs.

NOTE TSG was formerly called Technical Assurance and Governance Group (TAGG).

Technical Author

Person responsible for sponsoring a RAD through the development process.

NOTE 1 Generally technical authors are employed by National Highways or one of the other Overseeing Organisations.

NOTE 2 The term “technical author” replaces the term “document owner”.

NOTE 3 Technical authors can be supported by authoring teams including technical specialists in the Overseeing Organisations or from the supply chain.

Technical Standards Committee (TSC)

A committee formed to provide peer review, in order to guide and advise on the production and development of RADs.

NOTE *Technical Standards Committees (TSCs) form an essential part of the governance process by which National Highways develops new and updates existing RADs. They are peer review / governance committees of invited members who represent various interested parties from National Highways, other governmental bodies and parts of the highways industry.*

Technical Standards Committee (TSC) chair

Person employed by the Overseeing Organisations who owns the documents within a relevant discipline, leads the TSC and ensures that an appropriate governance level is followed so the document remains up to date.

Technical Specialist

Person employed by the Overseeing Organisations or individual from a supplier firm providing specific technical support.

UK legislation

UK Regulations are conventional acts of a national legislature.

NOTE *Regulations are directly applicable in that they do not need to be turned into national law; they are binding in their entirety and take immediate effect on a specific date.*

United Kingdom Standardisation Organisations (UKSOs)

BEIS Committee for Standardisation designates UK designated standards.

Works specific requirements

Works specific content to be used in conjunction with SHW constructor requirements for the particular scheme/project.

Works specification

Set of requirements dealing with the works, which can include requirements on geometry, constructor design, performance, activities, verification, documentation submission and limitations of construction activities.

NOTE *Work specification consists of the SHW and the works specific requirements.*

Abbreviations

ADEPT	Association of Directors of Environment, Economy, Planning and Transport
BEIS	Department for Business, Energy & Industrial Strategy
CARS	Collaborative Authoring and Review System
CHE	Chief Highway Engineer
DAS	Departures approval system
DBFO	Design, Build, Finance and Operate
DDP	Document development plan
DMRB	Design Manual for Roads and Bridges
EnvIS	Environmental Information System Community (National Highways database)
EqIA	Equality Impact Assessment
HAPMS System	National Highways database for Pavement Management
IAMS	Integrated Asset Management Information System
IfS	Instructions for Specifier
KPGI	Knowledge programme governance and implementation
MCHW	Manual of Contract Documents for Highway Works
MDD	Manual for Development of Documents
NAA	National Application Annex
NDR	Nationally Determined Requirement
NDS	Nationally Determined Section
NEC	New Engineering Contract
RAD	Requirements and advice document
SD	Sustainable development
SES	Safety Engineering and Standards
SFP	Standards Forward Programme
SHW	Specification for Highway Works
SRA	Safety risk assessment
SRP	Standards Review Programme (replacing Standards Forward Programme)
TSG	Technical Standards Group
TPB	Technical Project Board
TSC	Technical Standards Committee (replacing TPB)
TSS	Traffic Systems and Signing



4. Key roles and responsibilities

4.1 The key responsibilities of the stakeholders involved in the governance process which are summarised in [Table 1](#) shall be fulfilled.

NOTE 1 Specific responsibilities are provided in the main text and in other MDD parts as relevant.

NOTE 2 For an overview of the workflow stages and governance deliverables please see [Figure 5](#).

Table 1 Key roles and responsibilities

Audience	Key responsibilities
Technical author 	<ol style="list-style-type: none"> 1. Manage and maintain RADs through proactively planning a programme of document development and reviews and review of feedback received in their respective practice areas based on relevant drivers for change. 2. Fill in relevant information in Jira to enter the SRP backlog, including proposed category of change (A,B,C,D). 3. Liaise with the TSC chair for the relevant discipline from the inception of the development work through to the TSC chair approval. 4. Liaise with the content specialists to ensure the RAD is MDD compliant. 5. Deliver governance documents, including document development plan (for category of change A only), draft document / clauses, clause change summary, impact assessment reports and consultation report in accordance with the MDD rules, based on his / her technical experience and expertise and on the outcome of the TSC consultation. 6. Address comments received during the TSC consultation process and identify areas that can need future work. 7. Attend the sign-off meeting to brief National Highways' Chief Highways Engineer regarding the RAD and respond to any questions that the CHE raises. 8. Liaise with TSG notification experts to address any comments received from European Commission. 9. Answer any queries from TSG publication team during the publication process.
TSC chair (supported by the TSC secretary) 	<ol style="list-style-type: none"> 1. Lead the TSC consultation process through leadership and negotiation skills, a collaborative and inclusive approach, and technical competence. 2. Engage with technical authors and check that document maintenance actions are taken when needed to ensure it is kept up to date.

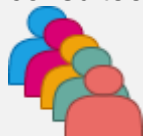
3. Ensure that the TSC procedures are complied with and that due governance is exercised in decisions made in the TSC process.
4. Ensure that the relevant category of change (A,B,C,D) is assigned to the work under consideration and liaise with TSG to ensure that the relevant governance process is followed.
5. Share the documents for consultation with the TSC members in a timely manner.
6. Ensure that the documents for consultation are reviewed efficiently and effectively, with a focus on the impact assessment.
7. Ensure that all relevant stakeholders are consulted or informed as required, and that consultees comment on the draft document / clauses and the impact assessment reports in time and based on their remit.
8. Ensure that the technical author addresses all comments received during the consultation and updates the documents as needed.
9. Confirm the document is ready to be shared for commercial quantitative assessment.
10. Ratify the document and move it to the approval stage.

Peer reviewers











1. Provide feedback on a RAD (primarily on CARS) as required by the technical author.

TSC members (editorial, technical and concurrence consultees)



1. Participate fully and in a timely manner in all work, communicating leave / absences / other commitments to the TSC chair and secretary so that the consultation runs smoothly and effectively.
2. Review the document development plan (for category of change A only) and provide any feedback to the technical author as relevant.
3. Review the documents for consultation, make comments both on the draft document and impact assessment reports, and suggest appropriate amendments based on their remit.
4. Review the documents after the comment resolution stage and share any observations on the draft produced in a timely manner.

<p>TSC members (informed parties)</p> 	<ol style="list-style-type: none"> 1. Review the documents for consultation at their discretion; no response is expected.
<p>Divisional Director</p> 	<ol style="list-style-type: none"> 1. Approve documents in category of change A. 2. Approve safety risk impact assessment for documents in categories of change A,B,C.
<p>Devolved Administrations' Heads of standards</p> 	<ol style="list-style-type: none"> 1. Confirm that the RAD reflects their needs as highways and road operators by approving the document / changes for all categories of change (A,B,C,D).
<p>Chief Highways / Roads Engineers</p>  National Highways  Other Overseeing Organisations	<ol style="list-style-type: none"> 1. Review document and supporting documentation and authorise publication and notification (if needed).
<p>TSG approvers</p> 	<ol style="list-style-type: none"> 1. Provide assurance check at the start of the process before adding a document to the SRP backlog. 2. Confirm the category of change (A,B,C,D) before starting the TSC consultation and liaise with the TSC chair if not satisfied with the category of change. 3. Approve the document to proceed to CHE authorisation.
<p>TSG content specialists</p> 	<ol style="list-style-type: none"> 1. Advise and provide progressive assurance and support on MDD matters (editorial aspects and aspects related to EC notification) during the drafting process. 2. Review compliance of the document to the MDD rules as editorial consultees during the TSC consultations. 3. Review compliance of the document to the MDD rules before TSC ratification. 4. Undertake reviews on document proofs during the publication process for 'look and feel' and layout within the document.
<p>TSG notification experts</p> 	<ol style="list-style-type: none"> 1. Ensure that relevant documents are submitted to EC via BEIS when notification is required. 2. Passes any comments received from EC via BEIS to the technical author for action. 3. Returns document with comments actioned to EC via BEIS for notification.

TSG administrative
support



1. Support the authorisation, notification and publication processes sending notifications, updating Jira, reviewing proofs of the document, etc.

5. RAD types

Choosing relevant document type

- 5.1 Technical authors shall ensure that the information they are intending to prepare for publishing is placed in the appropriate RAD type based on the information provided in this section.

NOTE 1 The Overseeing Organisations' document sets which are not covered by this manual generally relate to H&S documents (Safety Alerts and Safety Instructions), and requirements for traffic systems and signing as given in the TSS Plans Registry (see [Annex 1B](#) for more information on the TSS Plans Registry).

NOTE 2 The Overseeing Organisations' document sets are mandated through contractual provisions.

- 5.2 The decision into which type of document the requirements and/or advice go shall be based purely on the function of each document type, and not on a perceived ease or speed of publishing certain types of document or because historically the requirements or advice has been given in a specific way or document type.

NOTE [Figure 1](#) provides guidance on the choice among different types of documents based on their function.

- 5.3 Technical authors shall be aware of their audience when drafting their RADs and consider the best way to distribute their output through the appropriate document sets.

NOTE When setting requirements for the development and provision of particular assets, it can be necessary to update or develop new documents in the various document sets in order to cover all the audiences required to deliver the asset.

- 5.3.1 Where technical authors need further advice on the type of document to be used for their information, they should contact TSG.

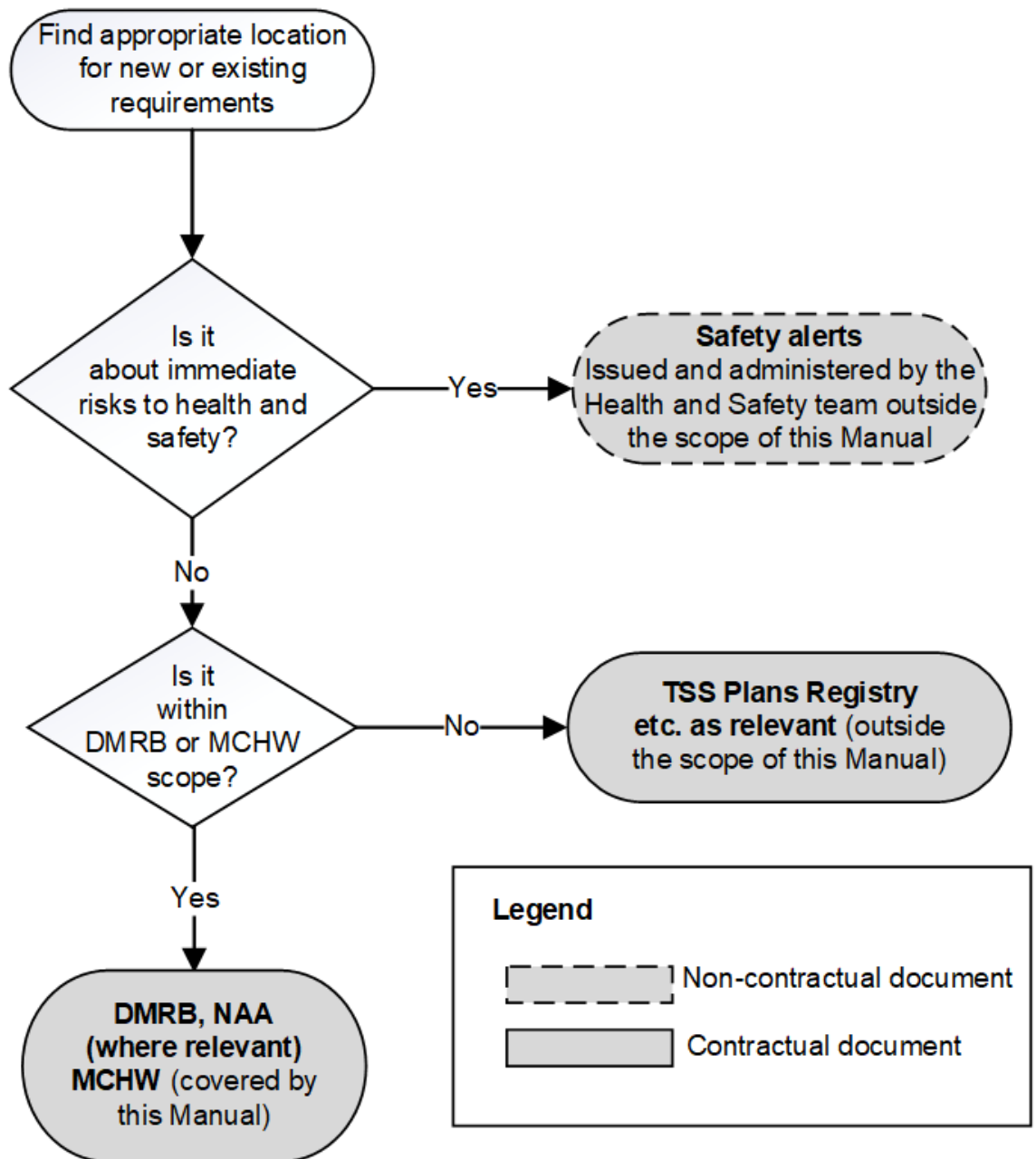


Figure 1. Choice between document sets

Design Manual for Roads and Bridges (DMRB)

- 5.4 The DMRB shall contain the Overseeing Organisations' requirements and advice for planning, design, inspection, assessment, maintenance, operation and disposal of the Overseeing Organisations' motorway and all-purpose trunk roads.
- 5.5 The DMRB shall define the criteria and constraints that are relevant to the development of infrastructure solutions.
- 5.6 The DMRB shall provide requirements and advice for the preparation of project specifications, drawings and other works information that will be used in construction and operational decisions.
- 5.7 The DMRB shall contain:
1. translations of policy into a set of requirements and advice which affect the design or assessment of assets;
 2. planning and assessment processes and requirements which affect the design or assessment of assets;
 3. requirements and advice for delivering a design which meets the operational, financial and legislative needs of the Overseeing Organisation's business;
 4. technical requirements which affect the design and assessment of assets;
 5. procedures for approvals for the design including departures approvals;
 6. descriptions of the benchmark requirements for design;
 7. quality requirements for the design and assessment of assets and their management and those roles which are within the design and assessment processes;
 8. inspection and maintenance documents that affect the assessment of assets and their management;
 9. requirements for design, as-built and inspection records;
- 5.8 The DMRB documents shall not contain:
1. information that specifies product requirements or gives specific construction solutions other than as part of the means to identify the design requirements for those solutions (see SHW for product requirements);
 2. design database record requirements (e.g. EnvIS, IAMS, HAPMS), relevant to the Asset Data Management Manual (ADMM);
 3. internal Overseeing Organisation procedures (contained in CHE Memos);
 4. cost information;
 5. contract specific information;
 6. requirements and advice which vary nationally in the core document (see National Application Annexes).

National Application Annexes (NAAs)

5.9 National Application Annexes (NAAs) shall be introduced to allow national variation to requirements and advice contained in the DMRB by the Overseeing Organisations.

NOTE Where there is no National Application Annex to a DMRB document, the DMRB text applies without Overseeing Organisation's modification.

5.10 National Application Annexes shall be used only when absolutely imperative.

NOTE 1 Cases where NAAs can be introduced are when there are differing legislations, policies or specific requirements for climatic differences.

NOTE 2 The aspiration is to have minimal or no clauses in the NAA and all core content applicable throughout the UK.

5.11 National Application Annexes shall include:

1. material that is specific to an Overseeing Organisation and not applicable to all of them;
2. material that an Overseeing Organisation wishes to adopt more rapidly than would be possible within the timescales required to amend or revise a DMRB document.

NOTE National Application Annexes (NAAs) are Overseeing Organisation-specific, not country-specific. However, they are called England NAA, Scotland NAA, Wales NAA and Northern Ireland NAA to reduce the need to review the title when / whether the Overseeing Organisations change their name.

5.12 National Application Annexes shall not include:

1. issues that should be addressed at a project rather than national level;
2. information outside the scope of the DMRB document itself;
3. requirements and advice for roads which are not part of the Overseeing Organisations' motorway and all-purpose trunk roads.

NOTE Department for Infrastructure Northern Ireland also manages local roads.

Manual of Contract Documents for Highway Works (MCHW)

Document sets

- 5.13 The Manual of Contract Documents for Highway Works shall consist of the following documents:
- a) the Specification for Highway Works documents, which contain requirements for constructors;
 - b) the Instructions to Specifier documents, which contain specifier instructions on producing the works specific inputs.

[DRAFTING NOTE: Work on style, format and location of Volume 4 "Bill of Quantities" is currently being undertaken; it will remain in the MCHW]

- 5.14 The content in Volume 5 "Specialist activities" shall be moved to Volumes 1, 2 and 4 and updated as relevant.
- 5.15 The health and safety content in Volume 6 shall be moved to internal documents maintained by the relevant health and safety team of the Overseeing Organisations.
- 5.16 Content on diversionary works in Volume 6 shall move to the DMRB.
- 5.17 The Manual of Contract Documents for Highway Works shall contain information to facilitate the production of works specifications for the construction of the works.

NOTE 1 The works specification includes the SHW and the works specific requirements.

NOTE 2 The works specification is part of a construction contract. For NEC3 contracts, it would be part of the Works Information. In NEC4 contracts, it would be part of the Scope.

NOTE 3 The Specification for Highway Works is brought into contracts by reference.

NOTE 4 Figure 2 below clarifies the link between DMRB design documents, the MCHW and the flow of scheme/project specific information.

- 5.18 Requirements shall be put in the relevant MCHW part.
- 5.18.1 As a general guide:
- 1. if the requirements do not change from contract to contract or there are no specifier options, they should be in the SHW;
 - 2. if they do change, or they are subject to local variations / input that cannot be quantified in the SHW or DMRB, or there are specifier options, they should be provided through the works specific inputs with reference to them in the SHW.

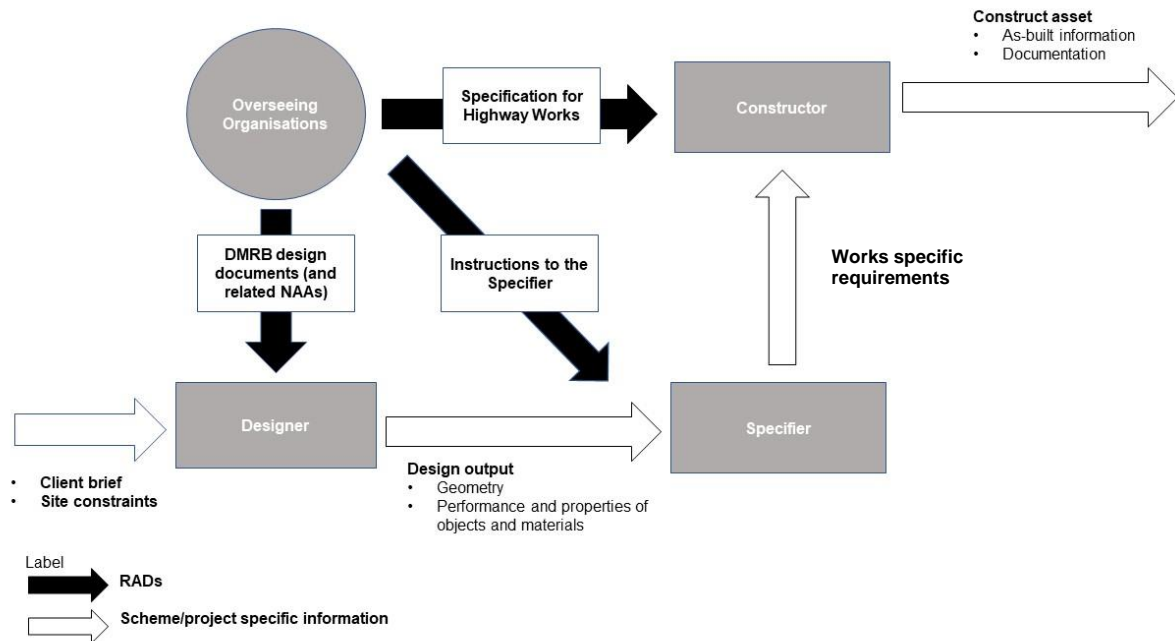


Figure 2. Link between DMRB design documents, MCHW and the flow of project/scheme specific information

Specification for Highway Works (SHW) documents

5.19 SHW documents shall provide a default set of requirements on construction that can be incorporated into works specifications.

NOTE 1 The function of the SHW is to give contractual requirements to the constructor.

NOTE 2 Figure 3 provides an example of content of Specification for Highway Works form of document.

2. Element

2.1 Elements shall be compliant with BS 2210.

2.2 The class shall be as stated in the works specific inputs.

2.3 The height of the element shall be a minimum of 500mm and a maximum of 1000mm.

Figure 3. Example extract showing content from Specification for Highway Works form of document

5.20 SHW documents shall include only constructor requirements covering:

1. products;
2. materials;
3. activities related to products and materials, including:
 - a) construction activities required to ensure that products and materials are correctly installed (installation/workmanship requirements);
 - b) verification (including testing and inspection) to prove that the works meet the specification;
 - c) documentation to prove that requirements have been carried out.

NOTE For information on constructor requirements, see Section 12, MDD part 2.

[DRAFTING NOTES: Series 100 is currently being drafted and reviewed. For any queries, please ask TSG]

Instructions for Specifiers (IfS) documents

5.21 Instructions for Specifiers documents shall detail the project/scheme specific information that needs to be included in the works specific requirements to be used in conjunction with relevant constructor requirements.

NOTE For example, if a constructor requirement states that the class of an element is to be as stated in the works specific requirements, Instructions for Specifiers would instruct the specifier to include the class of the element in the works specific requirements.

5.22 For ease of use by specifiers, Instructions for Specifiers documents shall be published with both:

1. the default set of constructor requirements of the SHW and,
2. the specifier instructions on providing the required works specific requirements related to the constructor requirements.

NOTE 1 The specifier is not expected to adhere to the constructor requirements, these are provided for information only.

NOTE 2 Figure 4 provides an example of content of Instructions for Specifiers document, where the blue/grey text contains the specifier instruction whereas the un-shaded text provides the corresponding constructor requirements in the SHW (see also Figure 3).

1	Element
1.1	Elements shall be compliant with BS 2210.
1.2	The class shall be as stated in the works specific inputs.
SI 1.2	Insert X, Y or Z to represent the class
1.3	The height of the element shall be a minimum of 500mm.

Figure 4. Example extract showing content from a specifier instructions' form of document

NOTE 3 For information on specifier instructions, see Section 13, MDD part 2.

5.23 Instructions for Specifiers documents shall not contain guidance or advice.

Highways Construction Details

5.24 Highways Construction Details shall be reviewed and updated in accordance with the requirements in section 7 of MDD part 3 (Transition from current Volume 3 drawings to figures) and requirements in section 9 of MDD part 2 (Figures).

Bill of quantities

[DRAFTING NOTE: work on style, format and location of Volume 4 "Bill of Quantities" is currently being undertaken; it will remain in the MCHW]

Nationally Determined Requirements (NDRs)

General rules

5.25 Nationally Determined Requirements (NDRs) shall be introduced to allow requirements of the Overseeing Organisations additional to those contained in the MCHW.

5.26 Where one Overseeing Organisation requires a Nationally Determined Requirement, all Overseeing Organisations shall provide country-specific content or confirm that it is not applicable.

5.27 NDRs shall not modify or replace requirements contained in the core text.

5.28 NDRs shall be used only when absolutely imperative.

NOTE 1 Cases where NDRs can be introduced are when there are differing legislations.

NOTE 2 The aspiration is to have minimal or no NDRs and all core content applicable throughout the UK.

5.29 National Determined Requirements (NDRs) shall include:

1. material that is specific to an Overseeing Organisation and not applicable to all of them;
2. material that an Overseeing Organisation wishes to adopt more rapidly than would be possible within the timescales required to amend or revise a MCHW document.

NOTE 1 National Determined Requirements (NDRs) are Overseeing Organisation-specific, not country-specific. However, they are called England NDR, Scotland NDR, Wales NDR and Northern Ireland NDR to reduce the need to rename them when / whether the Overseeing Organisations change their name.

5.30 NDRs shall not include:

1. issues that should be addressed at a project rather than national level;
2. information outside the scope of the MCHW document itself;
3. requirements for roads which are not part of the Overseeing Organisations' motorway and all-purpose trunk roads.

NOTE Department for Infrastructure Northern Ireland also manages local roads.

Nationally Determined Sections

5.31 When there is significant variation of content within a section across the Overseeing Organisations, a Nationally Determined Section (NDS) shall be introduced containing NDRs.

5.32 Whilst content can be similar in a number of clauses, no attempt shall be made to align clauses or show similarity between NDRs contained in the NDS for the four Overseeing Organisations.

5.33 Where one Overseeing Organisation requires a Nationally Determined Section, all Overseeing Organisations shall provide country-specific content or confirm that it is not applicable.

5.34 Titles of NDSs related to the same subject shall be consistent.

CHE Memos (National Highways Only)

5.35 CHE Memos shall be used to provide internal information / communication / procedures in connection with the works on National Highways' motorway and all-purpose trunk road network.

*NOTE 1 A CHE memo template is available here:
<http://share/Share/llisapi.dll?func=ll&objId=82341472&objAction=browse>*

NOTE 2 See Annex 1A for the governance process of CHE memos.

5.36 CHE Memos shall not be forwarded to the supply chain.

5.37 Where there is significant content that requires action by the National Highways supply chain, the CHE Memo shall refer to DMRB or MCHW documents giving those requirements.

NOTE An example is when completing an inspection in accordance with the rules set out in one of the Design Manual for Roads and Bridges standards.

5.38 CHE memos shall not be used to publish new or revised technical requirements that belong in the DMRB, MCHW or TSS plans registry.

5.39 Any instructions to carry out activities that involve a cost shall not be included in a CHE Memo unless suitable funding is provided or the directorate required to undertake the activity has agreed to fund the activity.

6. Drivers for document development and solutions

- 6.1 A review of the needs of the business and the suitability and coverage of RADs shall be triggered by the drivers and opportunities for change presented in this section.

Drivers

Driver 1: Changes in strategic approach, needs and objectives

- 6.2 Technical authors shall review RADs following any changes to policies, themes (e.g. greater emphasis on cost reduction), needs and objectives.
- 6.3 Technical authors shall review RADs to ensure that the RAD fulfils business objectives of National Highways before any research or development (R&D) work is undertaken where needed.

NOTE Business objectives of National Highways for RADs include:

- 1) *Convey and support Government and highway policies in the UK.*
- 1) *Set the technical quality requirements.*
- 2) *Support the procurement processes of the Overseeing Organisations.*
- 3) *Provide a benchmark against which new ideas and innovation can be judged.*
- 4) *Enable/support the Overseeing Organisation to meet its corporate responsibilities under relevant legislation.*
- 5) *Maintain the asset to the optimum standard within the funding available.*

- 6.4 Technical authors shall take account of the requirements of the latest annual SES business planning guidance.

Driver 2: Changes to European, UK and national legislation

- 6.5 RADs shall complement and not contradict current EU, UK and national legislation.
- 6.6 Technical authors shall remain informed of new and revised legislation relevant to their area of expertise.

NOTE Refer to [Annex 2A to MDD Part 3](#) for further information on legislation.

- 6.7 Technical authors shall review and action appropriately any changes or new legislation relevant to the RADs.
- 6.8 Technical authors shall ensure that RADs satisfy all current legislation.
- 6.9 Technical authors shall ensure that RADs are not restrictive in permitting or facilitating the adoption of safe working practices.

NOTE Refer to [Section 13 to MDD Part 3](#) for information on Health and safety legislation.

6.10 Technical authors shall review incidents reported that have health and safety implications for the RADs for which they are responsible.

6.11 Technical authors shall ensure that the designer and client responsibilities under the *CDM Regulations* are reflected in RADs (refer to [Section 13 to MDD Part 3](#)).

Driver 3: Changes to standards and the implementation or revision of harmonised European Standards (HENS) and designated standards

6.12 Technical authors shall ensure that RADs incorporate new National, UK and EU standards as well as amendments to National, UK and EU standards.

NOTE 1 *Where new hENS are introduced replacing national standards, the Member States National Highway Authority expresses its performance requirements in terms of the essential characteristics given in hENS.*

NOTE 2 *For New EU harmonised standards, there is a two-year coexistence period during which all national regulations are amended.*

NOTE 3 *For amendments to existing EU harmonised standards there is no coexistence period.*

6.13 Changes to RADs to reflect the requirements of new or amended HENS and/or designated standards shall be implemented as soon as possible.

6.13.1 Where the new HEN or designated standard supersedes a national standard, these changes should be completed before the end of the coexistence period.

NOTE *Delay in changing RADs to reflect the requirements of hENS can expose the National Highway Authority to the risk of infraction proceedings under EU law.*

Driver 4: Changes to documents other than legislation and standards (third-parties documents)

6.14 Technical authors shall review relevant third parties' technical documents and action appropriately any changes relevant to the RADs.

Driver 5: Changes to normative and informative references

6.15 Technical authors shall monitor normative and informative references to national, UK, European and international documents and to documents other than standards, and review any changes made to these documents.

6.15.1 Normative and informative references to national, UK, European and international documents and to documents other than standards should be checked at least every three months with more frequent checks during the development of documents.

NOTE *National Highways has a subscription service with the British Standards Institution (BSI) and IHS. National Highways staff can access guidance on how to subscribe to British and*

European standards here:

<https://highways.sharepoint.com/sites/TechnicalStandardsGroup/SitePages/Register-for-BSI-or-IHS-log-ins.aspx>

- 6.16 Technical authors shall understand any changes made to normative references and confirm any subsequent action required, including consequential amendments arising as a result of changes.
- 6.17 Technical authors shall understand changes to informative references so that any such references in RADs can be updated.

Driver 6: Changes in operational practice

- 6.18 Technical authors shall ensure RADs reflect the working practices of suppliers and highway authorities, including industry trends and changes in project procurement practice.

Driver 7: Impact of the updates made to other Overseeing Organisations' documents

- 6.19 Technical authors shall update existing RADs or develop new RADs to cater for the updates made to other Overseeing Organisations' documents.

NOTE This is for example the case of DMRB documents which can potentially need to be reviewed and updated as a result of the changes made to the MCHW.

Driver 8: Outcomes from research and development

- 6.20 Technical authors shall be aware of new technology being or having been developed and its impact on any RADs.

NOTE New technology and practices are continually being developed by research and development funded by National Highways or by others both in the UK and abroad, resulting in improvements and developments to techniques and practices from which the Overseeing Organisations can derive benefits.

- 6.21 As soon as any new technology becomes established (i.e. business as usual), technical authors shall confirm and undertake any action required to the affected RADs.

- 6.22 Technical authors shall refer to the most recent *National Highways Research Strategy*.

NOTE The National Highways Research Strategy provides high-level direction for the research and development programme informing Innovation Programmes and assists Portfolio Leaders to align their research portfolios to National Highways' and wider DfT's business priorities.

Driver 9: Feedback from the TSC consultation process on items for future work

- 6.23 Technical authors shall keep a record of any items raised by the TSC consultees, which have been agreed to be done in future work, in the

consultation report ([DMRB link](#) or [MCHW link](#)) and added as feedback items in Jira for document maintenance purposes.

Driver 10: Feedback from the Standards for Highways website

6.24 Technical authors shall review and address feedback received on documents through the feedback form mechanism available on the Standards for Highways website.

NOTE 1 Feedback on published standards can be sent using the form link on <https://www.standardsforhighways.co.uk/feedback/>

NOTE 2 Guidance for technical authors on how to respond to feedback items received on Jira is available here: <https://help.futuredmrb.co.uk/how-to-address-feedback-management-queries-on-jira-technical-authors/>

NOTE 3 Typical feedback sources are:

- National Highways' Project Sponsors, Project Managers, Directorates, Business Units, Project and Scheme Boards;
- other Overseeing Organisations;
- UK industry and supply chain;
- international forums, committees and industry groups
- members of the public.

NOTE 4 Typical areas to be addressed include:

- suspected error in a clause
- gaps in the content
- inconsistencies between documents
- content does not reflect latest European, UK and national legislation or standards
- content does not reflect latest practice (e.g. in design, construction, operation)
- opportunities to harmonise content with other client organisations
- opportunities to add outcomes from research and development
- opportunities for innovation and improvement
- opportunities to add alternative approaches

NOTE 5 Specific rules on how to manage feedback are provided in Section 18.

6.25 Technical authors shall make available feedback received to those providing support in reviewing and revising documents.

Driver 11: Number and scope of departures from requirements contained in RADs (National Highways only)

6.26 RADs shall be developed to allow sufficient flexibility for the intended range of users and locations to limit applications for departures to unforeseen or uncommon circumstances.

NOTE 1 Much time and effort is devoted to administering and approving departures by both National Highways and its supply chain and there are efficiency savings that can be achieved by producing RADs that require fewer unnecessary departures.

NOTE 2 Departure applications are identified in many projects as having had a significant effect on their programmed delivery and associated increased financial costs.

- 6.27 Technical authors shall review areas where a RAD is shown to be unclear, out of date, fails to meet National Highways needs, is subject to frequent departures of a similar nature, or is otherwise deficient and for which departures are being sought.

NOTE 1 National Highways' Departures Approval System (DAS) provides a source of information on areas where a RAD is unclear, out of date, fails to meet National Highways needs, is subject to frequent departures of a similar nature or is otherwise deficient.

NOTE 2 Departures are not applicable to statutory requirements.

NOTE 3 Departures from 'advice' are not processed through DAS.

- 6.28 Technical authors shall make an assessment on any action required to revise a RAD subject to departures based on the information provided by the National Highways' Departures Approval System (DAS).

Opportunities for change

Opportunity 1: Develop in partnership with other infrastructure clients

- 6.29 Technical authors shall identify situations where documents or specific requirements can be developed through collaborative work with other infrastructure clients or providers and develop relevant proposals to update existing RADs or develop new RADs.

Opportunity 2: Transfer responsibility for development of best-practice guidance to industry

- 6.30 Technical authors shall identify situations where it is convenient to transfer responsibility for development of best-practice guidance to industry and update RADs accordingly.

Opportunity 3: Enhance health and safety (H&S) conditions

- 6.31 Technical authors shall identify situations where the creation of new documents or the update of existing documents can enhance H&S and wellbeing of road users, road workers and others affected by the Overseeing Organisations' motorway and all-purpose trunk roads, and undertake relevant document development work.

Opportunity 4: Enhance equality diversity and inclusion

- 6.32 Technical authors shall identify situations where the creation of new documents or the update of existing documents can enhance equality, diversity and inclusion of road-using public or neighbourhoods impacted by the Overseeing Organisations' motorway and all-purpose trunk roads, and undertake relevant document development work.

Opportunity 5: Enhance carbon management, sustainable development, and good design

- 6.33 Technical authors shall identify situations where the creation of new documents or the update of existing documents can enhance carbon management, sustainable development, and design outcomes, and undertake relevant document development work.

Opportunity 6: Enhance customer satisfaction

- 6.34 Technical authors shall identify situations where the creation of new documents or the update of existing documents can enhance customer satisfaction outcomes and undertake relevant document development work.

Opportunity 7: More efficient and effective practices in design, construction, maintenance and operations leading to reduced costs and better value

- 6.35 Technical authors shall identify situations where the creation of new documents or the update of existing documents can help deliver more efficient and effective practices in design, construction, maintenance and operations leading to reduced costs and better value, and undertake relevant document development work.

Opportunity 8: Introduce other more general business benefits

- 6.36 Technical authors shall identify situations where the creation of new documents or the update of existing documents can help introduce other more general business benefits, and undertake relevant document development work.

Solutions

Options for communicating requirements and advice

- 6.37 Technical authors shall select the most appropriate method for communicating new or amended requirements and associated advice among the following options:
1. develop a new RAD;
 2. revise and update an existing RAD;
 3. withdraw an existing RAD;
 4. transfer responsibility for development of best-practice guidance to industry;
 5. develop collaboratively with other infrastructure clients;
 6. produce an implementation RAD to an existing standard beyond the Overseeing Organisations' document sets;
 7. do nothing.

- 6.38 The “do nothing” option shall apply where the Technical Standards Committee responsible for the proposal conclude and record that there is no business case for the dissemination of the identified new requirement.
- 6.39 Technical authors shall follow the instruction and guidance provided in [Section 6 to 10 in MDD Part 3](#) on taking forward different options for communicating new or amended requirements or advice.

7. Impact assessment

- 7.1 Technical authors shall assess how changes to existing RADs or the development of new RADs and their implementation would impact on the following aspects:
- a) health, safety, and wellbeing
 - b) equality, diversity, and inclusion
 - c) carbon management, sustainable development, and good design
 - d) customer satisfaction
 - e) commercial / cost
 - f) other impacts
- 7.2 The technical author shall assess the impact of the RAD development work before the TSC consultation based on the draft document / clauses (see pre-consultation impact assessment in [section 11](#)), and revise it after the TSC consultation based on the comments received by the TSC consultees (see post-consultation impact assessment in [section 13](#)).
- 7.3 The template of the impact assessment provided in [DMRB link](#) or [MCHW link](#) shall be used.

The impact of RADs on health, safety, and wellbeing

Overall approach

- 7.4 Technical authors shall identify how the implementation of RADs would impact on the health, safety, and wellbeing of road users, road workers and others affected by the Overseeing Organisations' motorway and all-purpose trunk roads.
- NOTE 1 DfT, National Highways, the Welsh Government, Transport Scotland and the Department for Infrastructure Northern Ireland are committed to reducing casualties and risks faced by those who use, work on or who are otherwise affected by the Overseeing Organisations' motorway and all-purpose trunk roads.*
- NOTE 2 The overriding considerations are to ensure users of the document can achieve the desired outcome without compromising the health, safety, and wellbeing of either those involved in the construction process or the end user and that the safety of the constructed asset is considered on a whole life basis.*
- 7.5 Technical authors shall follow the requirements in GG 104 for health and safety risk assessment when considering health and safety issues in relation to RADs.
- 7.6 Technical authors shall familiarise themselves with the [Home Safe and Well publication](#) available from www.nationalhighways.co.uk to ensure wellbeing is factored into the development of RADs from the outset and risks eliminated wherever possible.

Health and Safety Risk Assessment (SRA)

7.7 For category A, B and C changes, technical authors shall complete the GG 104 Health and Safety Risk Assessment (SRA) contained in the impact assessment report template ([DMRB link](#) or [MCHW link](#)).

7.8 A document shall not be signed off by the Chief Highway Engineers if the Health and Safety Risk Assessment (SRA) has not been completed.

NOTE Health and Safety Risk Assessment (SRA) is a vital part of the document review process and is one of the ways that National Highways will achieve its objective of 'Home Safe and Well'. A properly undertaken SRA enables any unintended consequences of implementing the proposed standard/RAD to be identified, as well as benefits that could otherwise not have been identified to be captured.

7.9 The health and safety risk assessment section contained in the impact assessment report shall be reviewed as part of the Technical Standards Committee (TSC) process (see [Section 13](#)).

7.10 Technical authors shall record any obstacles to correct compilation or population of the SRA with expected resolution times identified.

7.11 Before any changes are made to a RAD, technical authors shall identify any issues with the existing application of the RAD.

7.12 Where issues identified can be addressed using a control measure/control measures that do not require any research, trials or pilots, these shall be included in the review process.

NOTE Examples of an issues that can be addressed without research, trials or pilots are National Highways specifying controls to minimise risk associated with specific hazards which go above legal compliance or requirements that allow interpretation of legislation that can lead to an inconsistent approach to hazard and risk management.

7.13 Technical authors shall list all issues that are identified with the existing application of the standard/RAD under review that are not addressed within an editorial change.

7.14 Technical authors shall document an explanation of why the issue(s) are not being addressed with a time-bound programme for when a further revision will be produced that will resolve the issue(s) identified.

7.15 The SRA shall be kept readily accessible for the life of assets designed and constructed in accordance with that particular RAD.

Managing residual risks

7.16 Any residual risks known by the technical authors that are to be passed on to users of the document shall be included in the 'Assumptions Made in the Preparation of the Document' of the RAD under consideration.

7.17 Technical authors shall continue managing the identified risks beyond document publication as part of continual on-going document maintenance.

NOTE *On-going risk management of document content helps identify required document updates.*

Random sampling of SRAs

7.18 Random sampling of SRAs shall be completed on a regular basis by the safety risk requirements team and feedback provided to the appropriate senior management team.

NOTE *The appropriate senior management team can be the group manager or divisional director of the person completing the review.*

The impact of RADs on equality, diversity, and inclusion

7.19 Technical authors shall identify how the implementation of RADs would impact on the equality, diversity and inclusion of road-using public or neighbourhoods impacted by the Overseeing Organisations' motorway and all-purpose trunk roads by using the template provided in the impact assessment report ([DMRB link](#) or [MCHW link](#)).

The impact of RADs on carbon management, sustainable development, and good design

7.20 Technical authors shall assess documents for carbon management, sustainable development and good design implications by using the relevant template provided in the impact assessment report ([DMRB link](#) or [MCHW link](#)).

NOTE *The aim is to assess how best to achieve the requirements set out in GG 103 Introduction and general requirements for sustainable development and design.*

7.21 The screening sections in the impact assessment report shall be completed first to assess potential impacts on carbon management, sustainable development and good design from requirements and advice documents (RADs).

7.22 If the screening flags a potential impact, a full impact assessment shall be undertaken.

The impact of RADs on customer satisfaction

7.23 Technical authors shall identify and record how the implementation of RADs impact on the customer satisfaction of customers, communities and stakeholders, including road users, road workers and others affected by the Overseeing Organisation's motorway and all-purpose trunk roads by using the template provided in the impact assessment report ([DMRB link](#) or [MCHW link](#)).

NOTE *The impact on customer satisfaction includes all stages from feasibility and design through to construction, maintenance, operation and decommissioning.*

7.24 Requirements within the RADs shall enable and improve the development of solutions to improve customer satisfaction.

- 7.25 Where a RAD is identified for development primarily for improving customer satisfaction, a customer service standard shall be developed.
- 7.26 Technical authors shall use current Overseeing Organisation requirements for customer satisfaction in the development of RADs.
- 7.27 When amending a RAD, technical authors shall assess the impact of customer satisfaction of the whole document and not those relating to the amendments.
- 7.28 When developing and amending a RAD, technical authors shall use insight and feedback to understand the needs and expectations of our customers.
- 7.28.1 Technical authors should assess and review readily available information and insight.

NOTE Readily available information and insight can include customer calls and emails, Transport Focus and other industry reports, consultations with internal customers and the supply chain.

Estimating cost implications of RADs

Cost estimates

- 7.29 The cost implications (both positive and negative) in developing, reviewing and implementing categories A and B changes shall be assessed to enable National Highways to take account of the cost changes in its business planning.

NOTE 1 The proposed RAD can affect the cost of all the future National Highways and third party projects to which it applies. National Highways needs to know how new or revised RADs can impact on its network and operations.

NOTE 2 Regardless of the overall benefits expected as a result of implementing the document, the financial implications need to be budgeted for in future years and the costs need to be covered in current spending.

NOTE 3 Significant cost implications which come to light at a late stage and were not properly anticipated or assessed can prevent the implementation of the RAD.

- 7.29.1 The assessment of cost implications (both positive and negative) in developing, reviewing and implementing category C changes may be disregarded if not considered appropriate based on the nature of the change.
- 7.30 The assessment of cost implications in developing, reviewing and implementing category D changes shall not be undertaken as by definition they entail spelling mistakes and changes to notes.

Commercial Impact Assessment Toolkit (CIAT)

- 7.31 Technical authors shall evaluate cost implications during Drafting and Comment resolution stages following the approach in the commercial impact assessment toolkit (CIAT) outlined in [Annex 1D](#).

NOTE: A help page article on how to use the CIAT is available here:
<https://help.futuredmrb.co.uk/commercial-impact-assessment-and-toolkit/>

- 7.32 The CIAT shall be submitted as part of the Impact Assessment Report (IAR).
- 7.33 The CIAT shall inform the wider impact assessment and the decisions that will be made by Approvers and Authorisers.

NOTE The following decisions are to be made by Approvers and Authorisers:

1. The change proposed is acceptable as it is.
2. The scope or application of the change should be revised to reduce the cost of implementation while still achieving worthwhile benefits. The technical author can also consider whether other requirements within the RAD could be eliminated or reduced in scope to compensate.
3. The change proposed is to be abandoned as the cost implications are unaffordable or have increased to the point where the related benefits cannot be justified.

Review of commercial implications during drafting

- 7.34 During the drafting stage, technical authors shall undertake a qualitative assessment of cost implications using the 'Key changes' tab in the CIAT (see [Annex 1D](#)).
- 7.34.1 Technical authors may engage Commercial team to ask questions around commercial implications.

NOTE Before the drafting stage, cost considerations can emerge when developing the document development plan and early engagement with Commercial can be needed.

Review of commercial implications during consultation

- 7.35 During the consultation period, TSC consultees shall review and comment on the commercial qualitative assessment included in the pre-consultation impact assessment report.
- 7.36 During the consultation stage, Commercial consultees shall comment on the qualitative assessment and share risks and any contractual foreseeable issues.
- 7.36.1 Commercial consultees may ask questions of clarification to technical authors.

Review of commercial implications during comment resolution

- 7.37 During the comment resolution stage, technical authors shall assess whether changes introduced during the consultation period have commercial implications and shall update the CIAT accordingly.
- 7.37.1 Technical authors may engage the Commercial team to ask questions around commercial implications.
- 7.38 Reasons and impacts shall be given for any variances from initial estimates as this will provide valuable feedback which will help in assessing costs for future proposed changes to RADs.

Quantification of commercial impact

- 7.39 After the quality review undertaken by Content Specialists and the TSC chair acceptance of the documentation, Commercial team shall undertake a quantitative commercial assessment of the document.

NOTE The average time for the quantitative assessment is expected to be 4 weeks.

- 7.40 Other Directorates (e.g. Major Projects, Operations, Contract and Performance teams) may be consulted by Commercial to provide input on commercial considerations.
- 7.41 Commercial team shall share the outcome of the quantitative assessment in the 'Commercial review' tab in the CIAT (see [Annex 1D](#)).
- 7.42 The TSC chair shall review the outcome of the quantitative assessment and, if satisfy, ratify the document.

Reducing commercial impact

- 7.43 Where the impact on National Highways' budgets is more adverse than previously anticipated, the technical author shall assess whether changes to the RAD can be made to reduce its commercial impact.

Non-cash benefits of introducing new/revised standards and specifications

- 7.44 Non-cash Benefits of Introducing New/Revised Standards and Specifications shall be identified using the other sections in the impact assessment report.

NOTE Examples of non-cash benefits include:

- 1) *Reduced deaths and serious injury incidents.*
- 2) *Improved health and safety of highway operatives.*
- 3) *Improved noise levels*
- 4) *Reduced environmental impacts.*
- 5) *The indirect (non-cash) benefits of reduced construction times (e.g. earlier opening of the road).*

8. Governance process for document development

8.1 Technical authors shall follow the governance process of the Overseeing Organisation that provides the resources for the development of the RAD.

8.2 The governance process presented in this section shall be applied to DMRB and MCHW documents developed by and/or on behalf of National Highways.

NOTE For the governance process of CHE memos, see [Annex 1A](#).

8.2.1 An equivalent process should be determined where development of a RAD is to be resourced by one of the other Overseeing Organisations.

Categories of change A, B, C, D

8.3 The governance process for RAD development shall be proportionate to the changes being introduced.

8.4 A distinction shall be made between:

1. major revisions (category A);
2. incremental changes (categories B, C, D).

NOTE 1 A risk-based, proportionate approach is applied to the level of governance that is required. Major revisions require a comprehensive governance process, whereas incremental changes require a lighter process, which encourages minor improvements to the document.

NOTE 2 [Figure 5](#) provides a high-level document development process for categories of change A, B, C, D.

8.5 The governance process for a major revision to a RAD shall apply to the following (category A):

3. policy change
4. rewrite of the document
5. new document development

8.6 The governance process for an incremental change to a RAD shall apply to the following:

1. change to requirement (category B)
2. change to advice (category C)
3. change to notes and/or spelling mistakes (category D)

8.7 When there are multiple changes to be made, the category chosen shall be the most onerous.

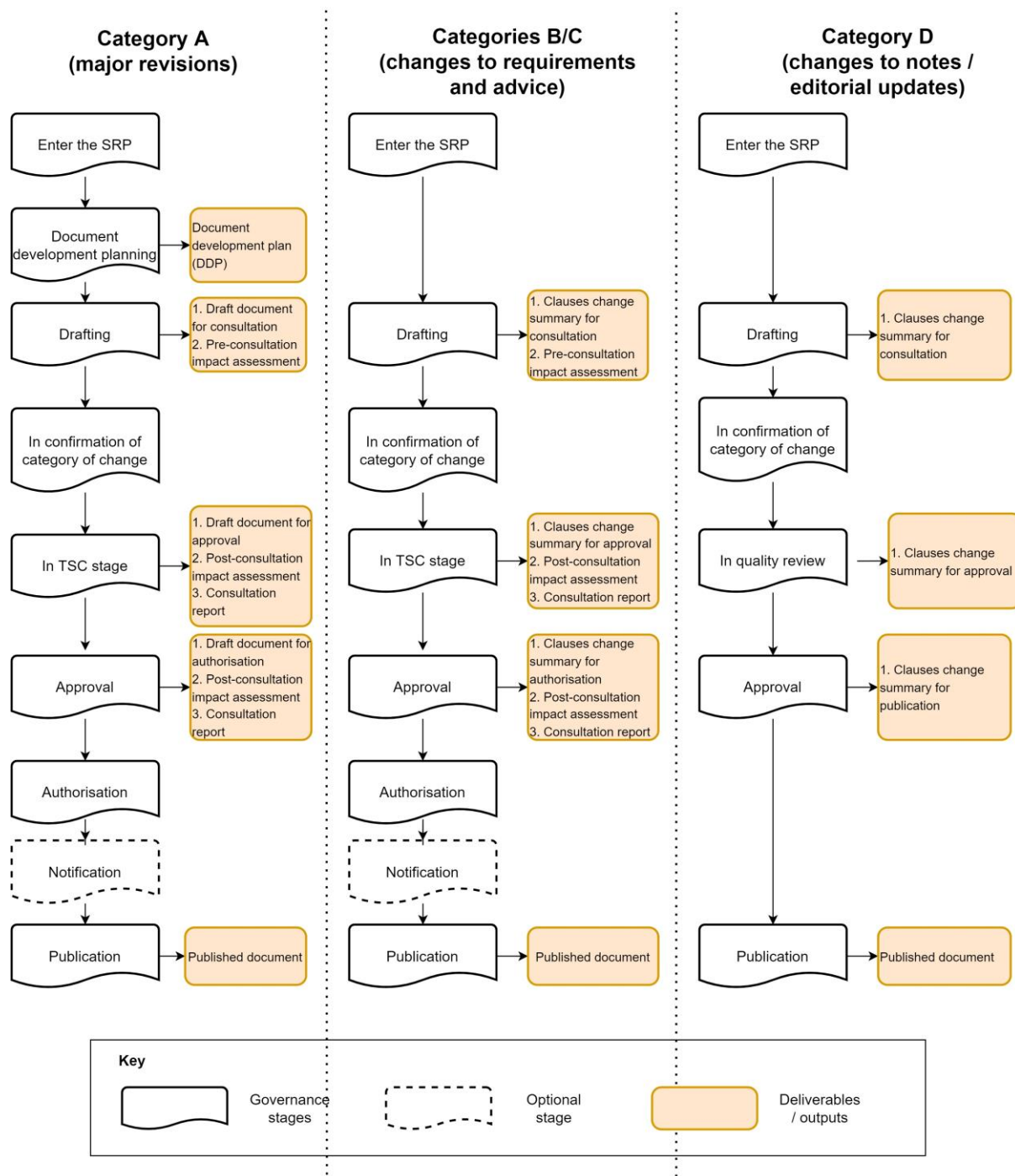


Figure 5. High-level document development process for categories of change A, B, C, D

9. Stage 1: Enter the SRP backlog

- 9.1 The Standards Review Programme (SRP) for all RADs shall be managed through the TSG's programme management software JIRA.

NOTE 1 The Standards Review Programme (formerly called Standards Forward Programme SFP) is the register for tracking progress of document development.

NOTE 2 JIRA is a cloud-based solution for teams to manage document development progress through a workflow using Kanban reporting. It gives a simple visual of progress across a set of activities related to the management of documents and provides full visibility and an audit trail of the SRP. For advice on using JIRA, please contact TSG at standards_enquiries@nationalhighways.co.uk

- 9.2 For all categories of change (A, B, C, D), the steps presented in [Figure 6](#) shall be followed to enter the SRP backlog.

Jira request

- 9.3 The Jira request to enter a document on the SRP backlog shall contain the following items (see <https://help.futuredmrb.co.uk/standards-governance/using-jira/> for a detailed overview):

- a) Number and title of the document (provisional if the document is new)
- b) Type of document development:
 - new document development
 - update to existing document
- c) Drivers for document development (see Section 6)
- d) Category of change (see Section 8)
- e) Outline summary of the changes proposed
- f) Outline summary of benefits
- g) Urgency of the proposed change
- h) Technical Standards Committee
- i) Forecast dates for document development plan submission (Category A only), start drafting, start TSC consultation, TSC completion, TSC chair approval

Summary of benefits

- 9.4 The technical author shall clarify why the work is necessary and needs to be done now and the benefits of implementing the new or revised RAD.

Urgent changes

- 9.5 When requesting to enter the SRP backlog, technical authors shall assess whether the document is required to be implemented immediately without exception, thus overriding the ability of the Project Manager to assess implementation of the document based on time and cost (see

implementation requirements under the Scope heading in section 4 of MDD part 2).

NOTE Reasons why implementation of a document is required immediately include legislative changes, policy changes and urgent safety items.

- 9.6 Where the decision is made that the document is required to be implemented immediately, the following clause shall be included in the scope section of the document: *“The requirements of this document shall be applied immediately to all schemes and projects due to (xxxx), in accordance with the implementation requirements of GG 101”.*

Keeping the Standards Review Programme (SRP) up to date

- 9.7 Technical authors shall ensure that the SRP is up to date with the lifecycle stage of the document by revising relevant milestones in JIRA.

- 9.8 Where changes to the baseline SRP are needed, technical authors shall submit a request for the proposed change(s) and shall obtain formal approval using workflow functionality in JIRA.

NOTE 1 The change control process for DMRB and MCHW documents is formalised in [Annex 1E](#).

NOTE 2 Permission to execute an approval for change control processes is only available to those assigned the corresponding role in Jira.

- 9.9 Approved changes to the SRP shall be implemented by TSG.

- 9.10 Following CHE authorisation, TSG shall update the SRP with the progress of the document through publication.

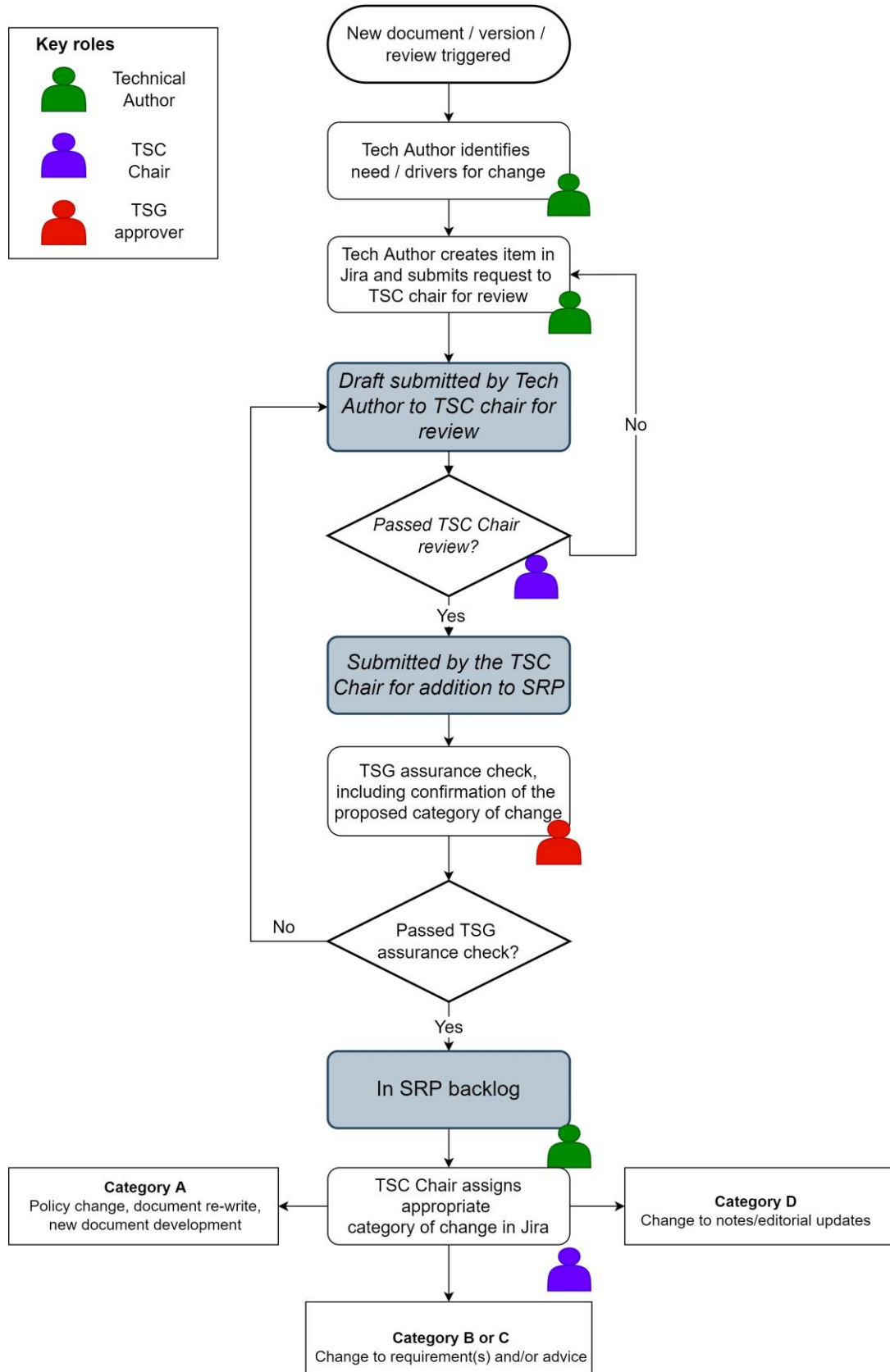


Figure 6. Steps to enter the SRP backlog

10. Stage 2: Document development planning

- 10.1 For category of change A only, once the document has entered the SRP backlog, the technical author shall follow the steps presented in [Figure 7](#) for document development planning.
- 10.2 For categories B, C, D, the stage “document development planning” shall not be followed and the document author shall start drafting promptly after the document has entered the SRP backlog.

Initial consultation and development strategy meeting

- 10.3 When drafting a new RAD or reviewing an existing one, the technical author shall organise an initial consultation and development strategy meeting with relevant stakeholders to discuss specific needs, identify key risks and issues that need to be addressed in the document, and set the criteria by which the final document is considered a success.

NOTE 1 Relevant stakeholders to the initial consultation and development strategy meeting include initial peer reviewers, members of the Technical Standards Committee (TSC) and technical authors of the other Overseeing Organisations.

NOTE 2 The initial consultation and development strategy meeting aims at reducing the risk of disagreement in subsequent stages of review and streamlining the approval process by involving key parties at the beginning of the development process. It is also relevant to discuss the strategies to deal with Overseeing Organisations' specific requirements.

Document Development Plan (DDP)

- 10.4 Based on the outcome of the initial consultation and development strategy meeting, a document development plan (DDP) shall be developed by the technical author before starting the drafting process.

NOTE 1 The document development plan aims at defining the criteria by which the final document is considered a success, including its structure, specific content, key stakeholders to be consulted or kept informed, links to other National Highways' document sets.

NOTE 2 Key areas to be addressed in the DDP are: basic information on the document; production team; list of deliverables; summary of drafting needs and approach; interfaces with other documents and coordination required; high-level section review (for existing documents only); proposed outline document structure; risks and opportunities.

- 10.5 The template of the Document Development Plan provided in ([DMRB link](#) or [MCHW link](#)) shall be used.
- 10.6 The DDP shall be reviewed by the TSC chair to confirm it is suitable to be shared with the Technical Standards Committee (TSC) members.

10.7 The DDP shall be notified to all TSC members as soon as it is ready using Jira workflow functionality.

NOTE 1 *Sharing the document development plan before starting the drafting process will help mitigate the risk of significant rework in subsequent stages of the drafting process due to the lack of clear understanding of the document's needs and stakeholders' expectations.*

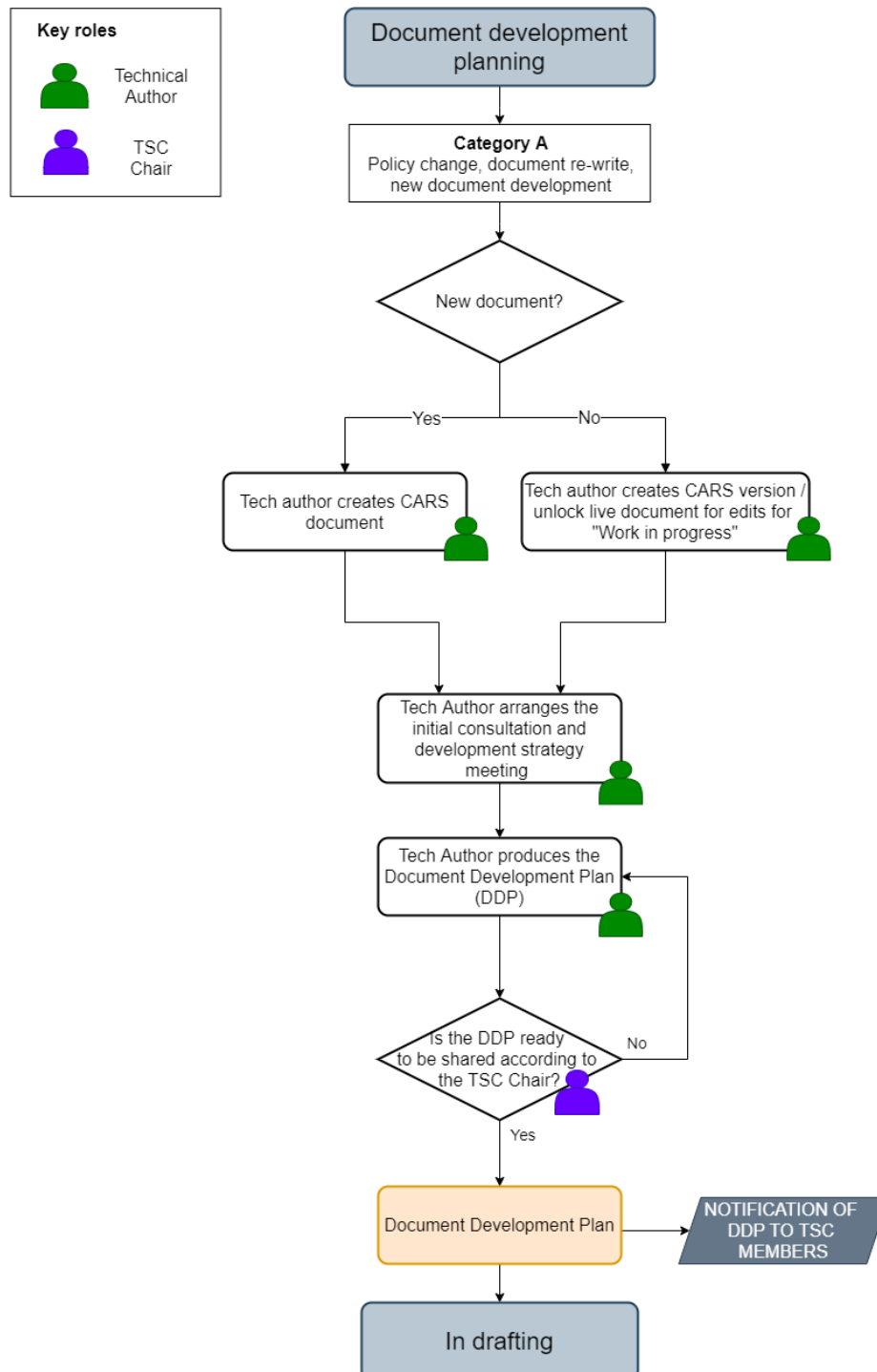


Figure 7. Steps for document development planning

11. Stage 3: Drafting

Authoring

- 11.1 Draft RADs shall be prepared in accordance with the task specification and the requirements provided in [MDD Parts 2 and 3](#).
- 11.2 For category of change A, the technical author shall follow the steps presented in [Figure 8](#) for authoring the document.
- 11.3 For categories of change B, C, D, the technical author shall follow the steps presented in [Figure 9](#) for authoring the clauses.

Engagement with Content specialists (for category A changes)

- 11.4 For category A changes, technical authors shall engage content specialists from the beginning of the drafting process and throughout their work to receive progressive assurance and support.

NOTE For categories of change B, C, D, there is no requirement to engage with the content specialists from the beginning of the drafting process as incremental changes are typically limited to few clauses and can be reviewed by the content specialists directly during the consultation period.

- 11.4.1 Technical authors should submit the first two sections of the document to the content specialist to receive feedback.
- 11.4.2 Technical authors should submit the document to the content specialist when roughly 25% to 50% is complete to receive progressive assurance.

NOTE The % depends on the size of the document. For large documents it is most appropriate to engage the content specialist earlier in the process than later, thus when roughly the 25% of the document is ready.

- 11.5 Content specialists shall confirm their availability to review the draft to the technical authors and agree when they will provide feedback and comments.
- 11.6 Review of documents by content specialists shall be undertaken in CARS.

Initial peer review

- 11.7 When the draft document has reached an appropriate stage, the technical author shall arrange an initial peer review within his or her team/group.

NOTE Initial peer review checks that the criteria by which the document is considered a success have been met and ensures that any issues that were identified can be investigated, discussed and resolved before the document progresses to review by the TSC.

- 11.7.1 Initial peer reviews may require consultation with relevant National Highways specialists from other teams and/or external specialists, depending on the technical nature of the issues raised.

- 11.8 Peer reviewers shall have read and be familiar with the drafting rules given in [MDD Parts 2 and 3](#).
- 11.9 Documents shall not be submitted to the TSC without having had at least one initial peer review.

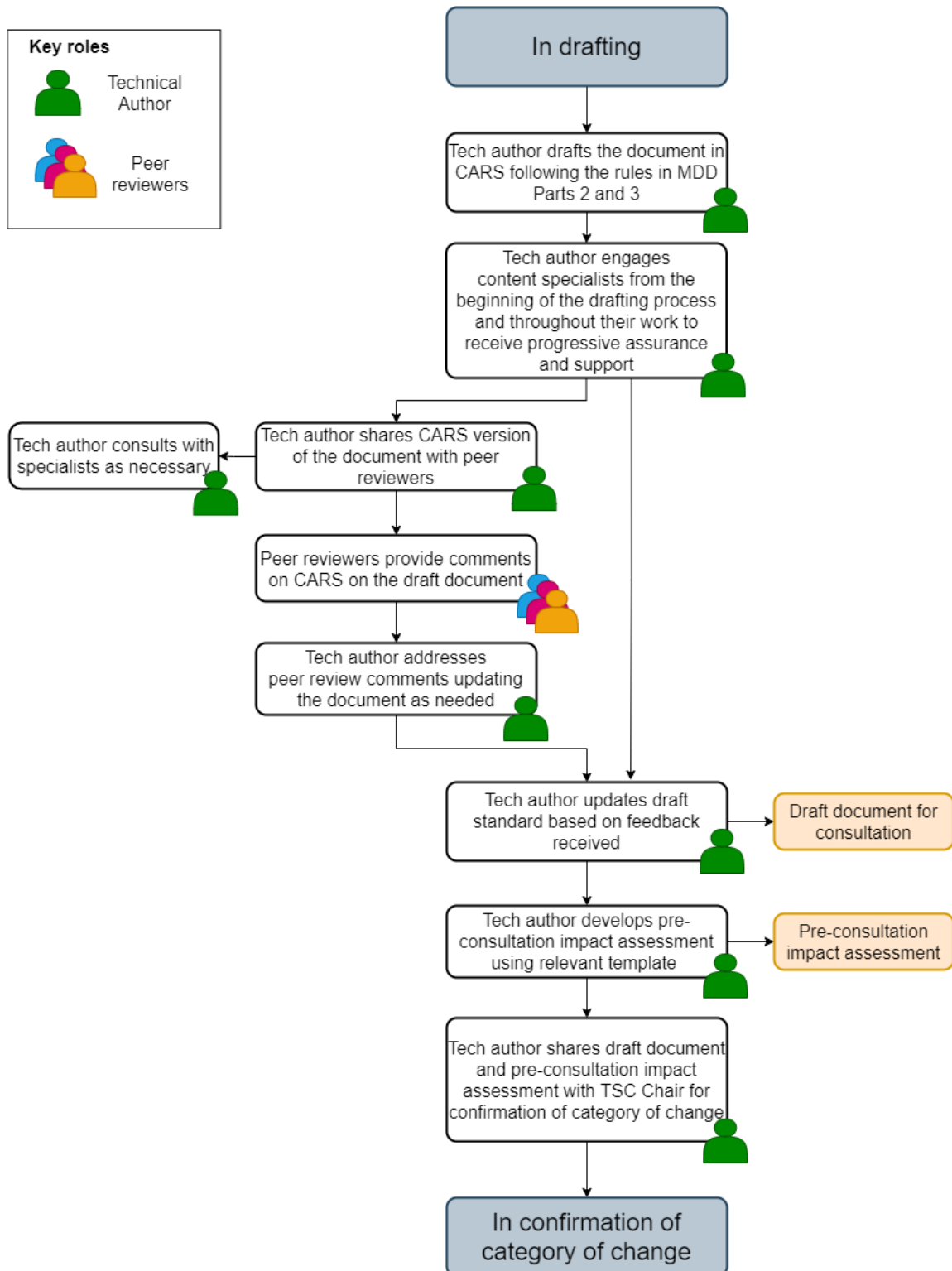


Figure 8. Steps for drafting category A changes

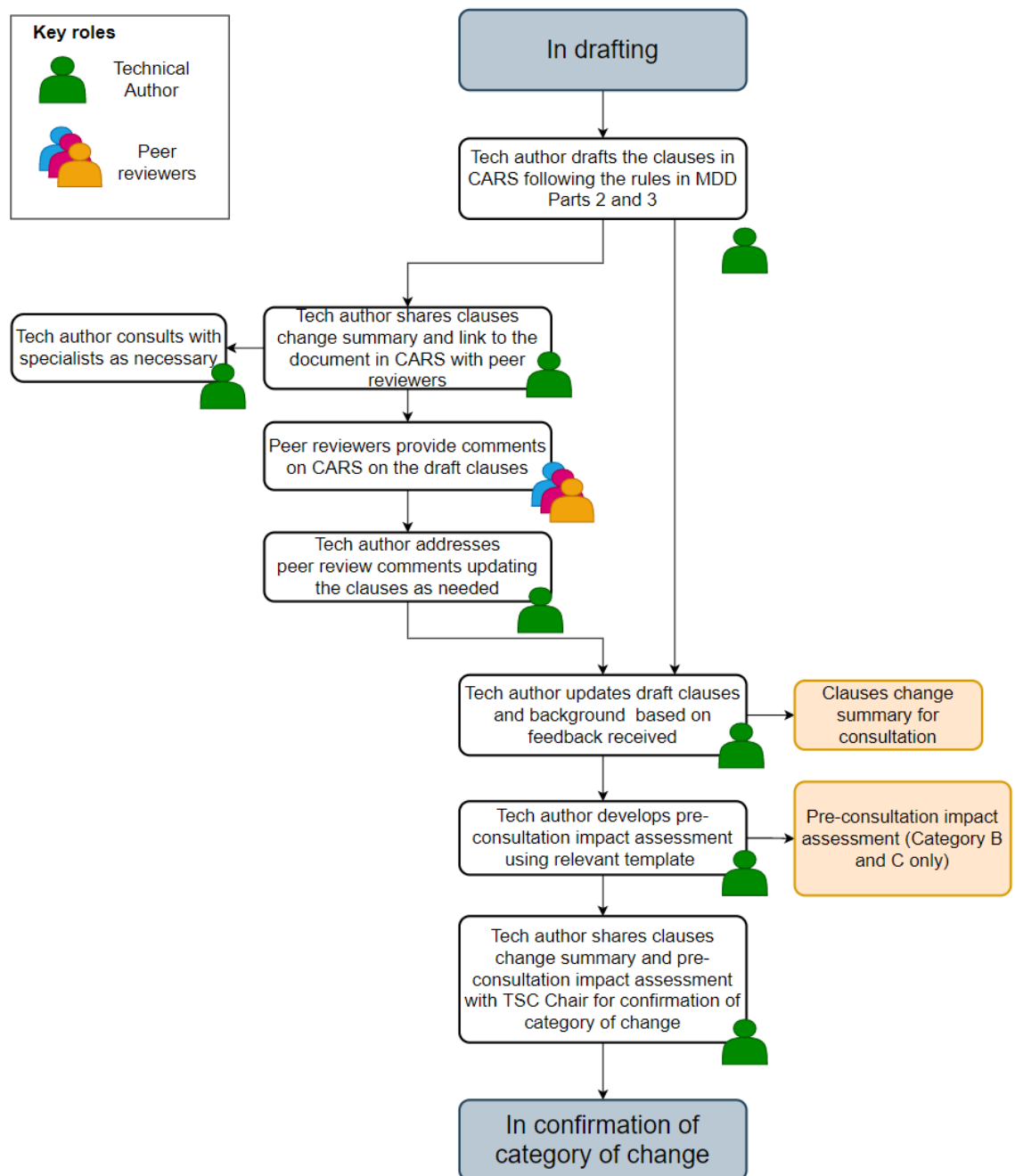


Figure 9. Steps for drafting categories B, C, D changes

Draft document for consultation (category A)

- 11.10 For category A, the draft document shall be developed in CARS and shared with the TSC consultees.

Clause change summary for consultation (categories B, C, D)

- 11.11 For categories B and C only, the clause change summary shall be shared with the TSC consultees.

NOTE 1 The clause change summary is a CARS-generated report outlining the clauses under review / new clauses / deleted clauses along with the old clauses for comparison (when updating existing clauses) and associated background commentary, see Table 2 for the tabular format.

Table 2 Draft clauses for consultation (categories B, C, D)

Existing clauses proposed to be changed, if applicable	Proposed new clauses	Background

NOTE 2 Category D changes do not require a TSC consultation, simply a quality review by Content specialists who will check the clause change summary.

Pre-consultation impact assessment

- 11.12 Before submitting the draft document (category A) or the draft clauses (categories B, C) to the TSC for consultation, the technical author shall complete a pre-consultation impact assessment identifying the anticipated impacts of the work (including when there is no impact or a negative impact) on the following areas (see also [Section 7](#)):
- a) health, safety and wellbeing
 - b) equality, diversity, and inclusion
 - c) carbon management, sustainable development, and good design
 - d) customer satisfaction
 - e) commercial / financial
 - f) other impacts like political, contractual, etc.
- 11.13 The template of the pre-consultation impact assessment provided in ([DMRB link](#) or [MCHW link](#)) shall be used.

12. Stage 4: Confirmation of category of change

- 12.1 Once the draft document / clauses and the pre-consultation impact assessment report are ready to be shared, the technical author shall inform the relevant Technical Standards Committee (TSC) chair using Jira workflow functionality.

NOTE See [Section 13](#) for the Technical Standards Committees (TSCs), which replace the Technical Standards Boards (TPBs).

- 12.2 The TSC chair shall review the work done to confirm it is ready for consultation and that the category of change is correct following the steps indicated in [Figure 10](#).

NOTE During the drafting process, the category proposed to enter the SRP backlog can change for example to address comments received during the initial peer review process, and needs to be confirmed so that the relevant governance process is followed.

- 12.3 When satisfied with the category of change, the TSC chair shall inform TSG using Jira workflow functionality.
- 12.4 TSG shall review the work done to confirm the category of change following the steps indicated in [Figure 10](#).
- 12.5 When TSG is satisfied with the category of change and the TSC chair confirms that the draft document / clauses and the pre-consultation impact assessment report are ready to be shared with the TSC members, a notification shall be sent to the TSC members using Jira workflow functionality.
- 12.6 Access to the draft document / clauses and the pre-consultation impact assessment report shall be given to the TSC members by the TSC secretary.

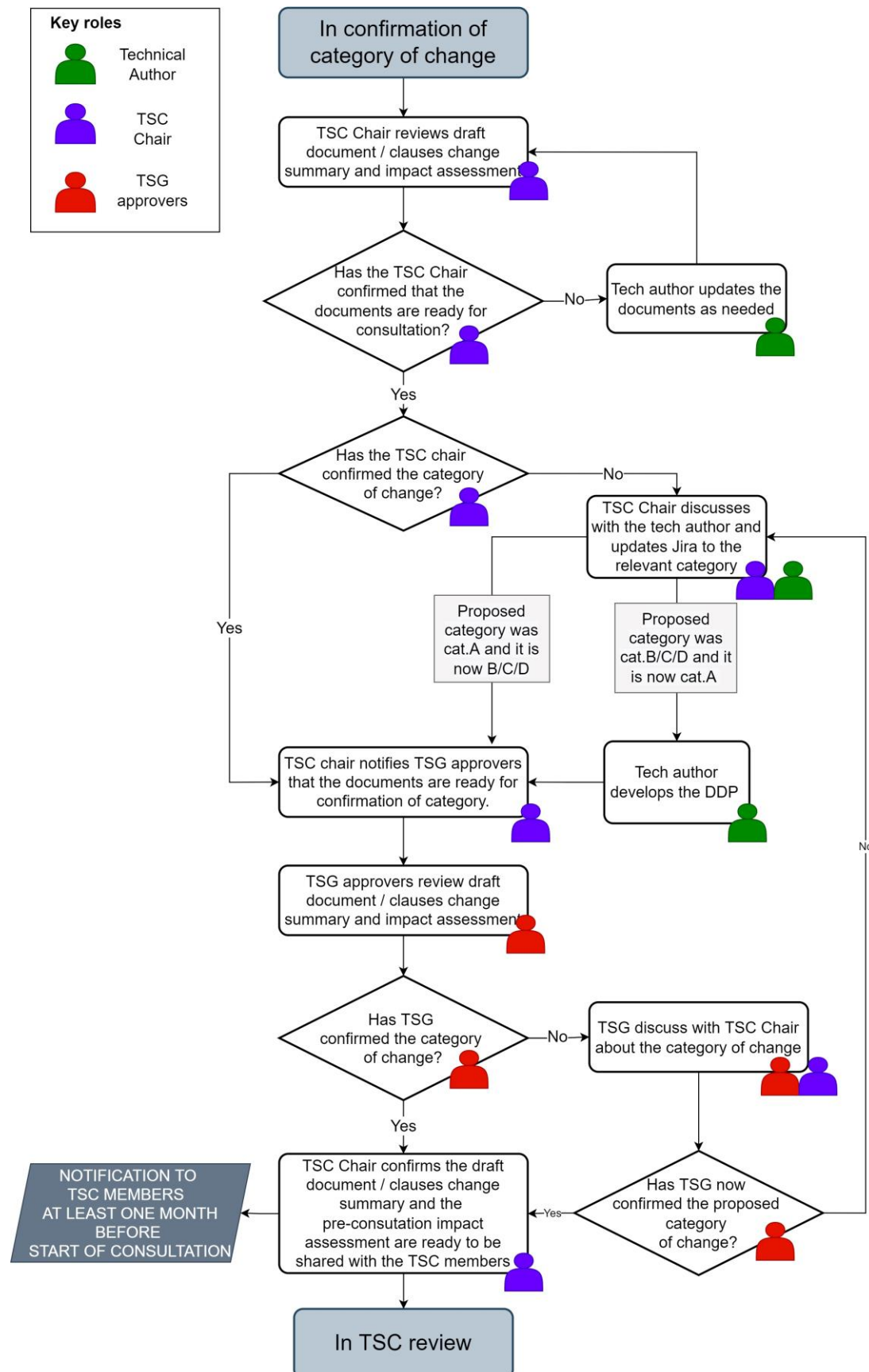


Figure 10. Steps for confirming the category of change

13. Stage 5: Technical Standards Committee review

- 13.1 The technical author shall deliver the draft document / clauses and the pre-consultation impact assessment and ensure the documentation passes through the TSC stage.
- 13.2 The TSC stage shall be run through a relevant Technical Standard Committee (TSC) following the high-level steps indicated in [Figure 11](#) and the detailed steps provided in [Figure 12](#) to [Figure 16](#) for categories A, B and C only.

NOTE 1 Technical Standards Committees (TSCs) replace the Technical Project Boards (TPBs).

NOTE 2 Specific rules on Technical Standards Committees are given in [Annex 1C](#).

NOTE 3 Category D changes do not require a TSC consultation, but a clause change summary and draft clauses are produced to enable approval.

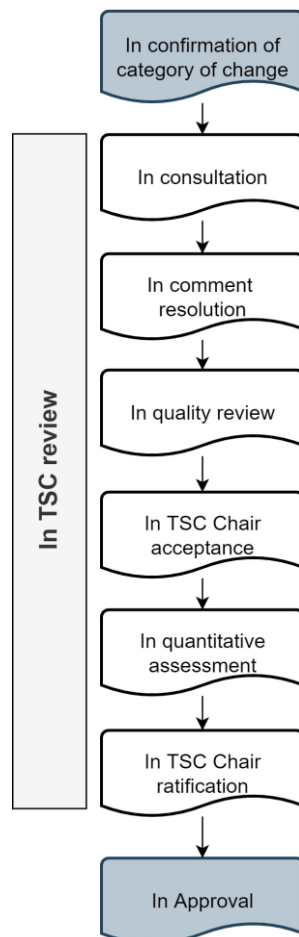


Figure 11. High-level steps for TSC review

In consultation

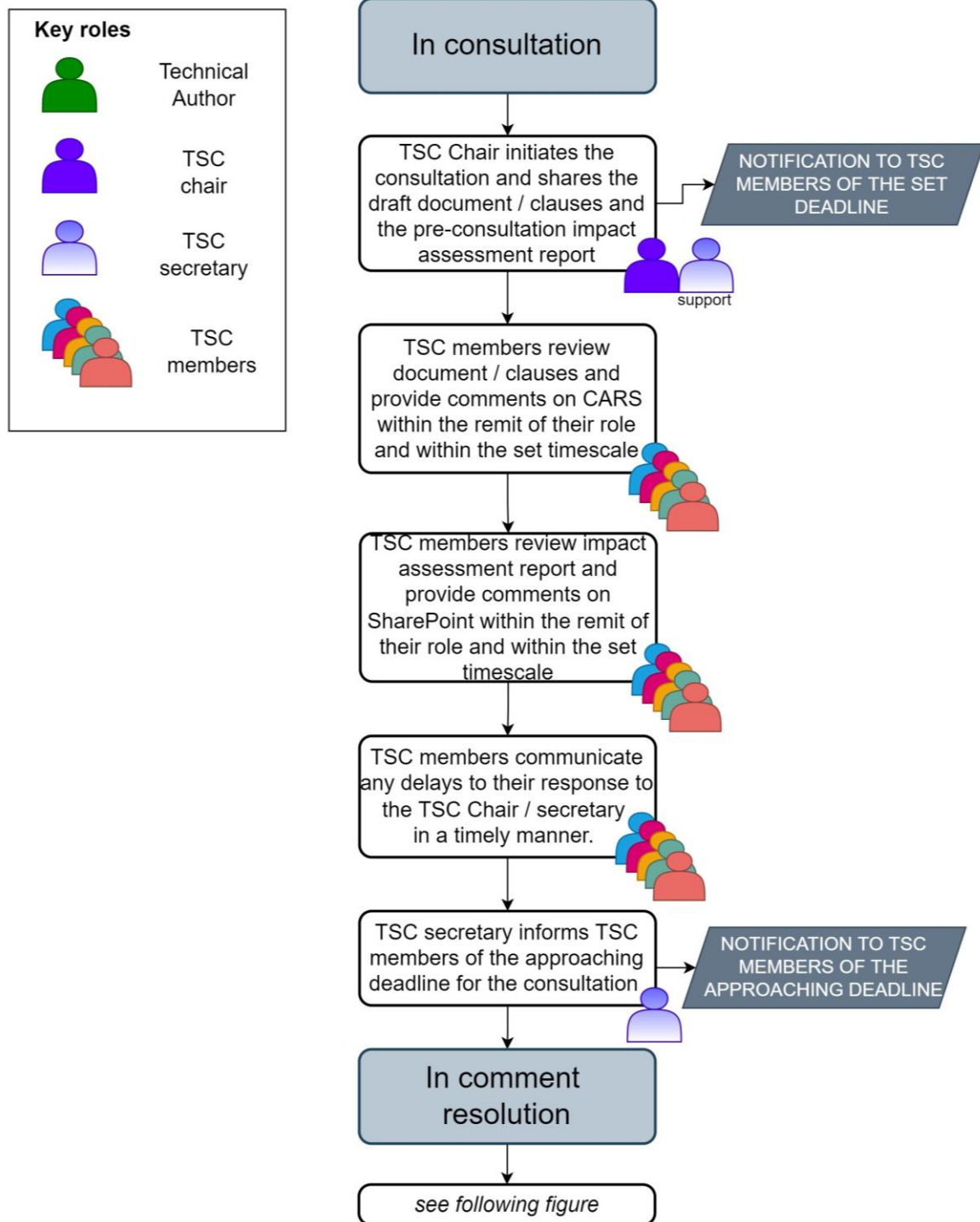


Figure 12. Steps for consultation

- 13.3 The TSC secretary shall email the links to access relevant documentation along with the deadline for comments.
- 13.4 Each TSC member shall comment on the draft document / clauses and the pre-consultation impact assessment report based on their specific role, see Terms of reference below.

NOTE Comments from TSC aim to produce a document which is practical, realistic, affordable and acceptable to all the stakeholders concerned. Key aspects to be address include: safety; equality diversity and inclusion considerations; carbon management, sustainable development and good design implications; impact on customers; commercial implications; operations issues; contractual implications.

Commenting on the draft document / clauses

- 13.5 TSC comments on the draft document / clauses shall be provided in CARS, unless technical issues prevent this from happening.
- 13.6 When the TSC member cannot comment using CARS, the technical author or TSC chair shall inform TSG and the opportunity to circulate a pdf version only to the stakeholders affected by the technical issues shall be discussed.

NOTE Pdf versions can only be circulated when there is a justified reason for not using CARS.

- 13.7 Pdf versions shall not be shared without TSG approval.

Commenting on the pre-consultation impact assessment

- 13.8 TSC comments on the pre-consultation impact assessment shall be provided in Excel using the SharePoint link provided by the technical author.

Consultation period

- 13.9 The consultation period shall depend on the category of change as indicated in [Table 3](#).

NOTE The consultation period is the period where a document is made available to the TSC for commenting, not the entire review process. It excludes peer review, post-consultation comment resolution and potential future consultations.

Table 3 Consultation period

	Major revision	Incremental change		
	A. Policy Change / Rewrite / New document development	B. Change to requirement	C. Change to advice	D. Changes to notes and spelling mistakes
Recommended consultation periods	On a case by cases basis Indicative time is 6 weeks	4 weeks	4 weeks	2 weeks

13.9.1 Extensions may be granted as agreed with the TSC chair.

NOTE Extensions of not more than 2 weeks are recommended.

13.10 The TSC shall complete their work on individual documents within realistic timescales that meet the needs of the business, recognising that TSC members can have other claims on their time.

13.11 More than one consultation may be undertaken if needed, although the introduction of the document development planning stage is expected to reduce the need for multiple consultation periods.

Notification under the Technical Standards and Regulations Directive

13.12 Where time constraints do not allow further discussion by the TSC on the comments from the EC, the technical author shall make the necessary revisions in discussion with TSG.

13.13 The TSC secretary shall circulate the revised document to the TSC members for their information.

In comment resolution

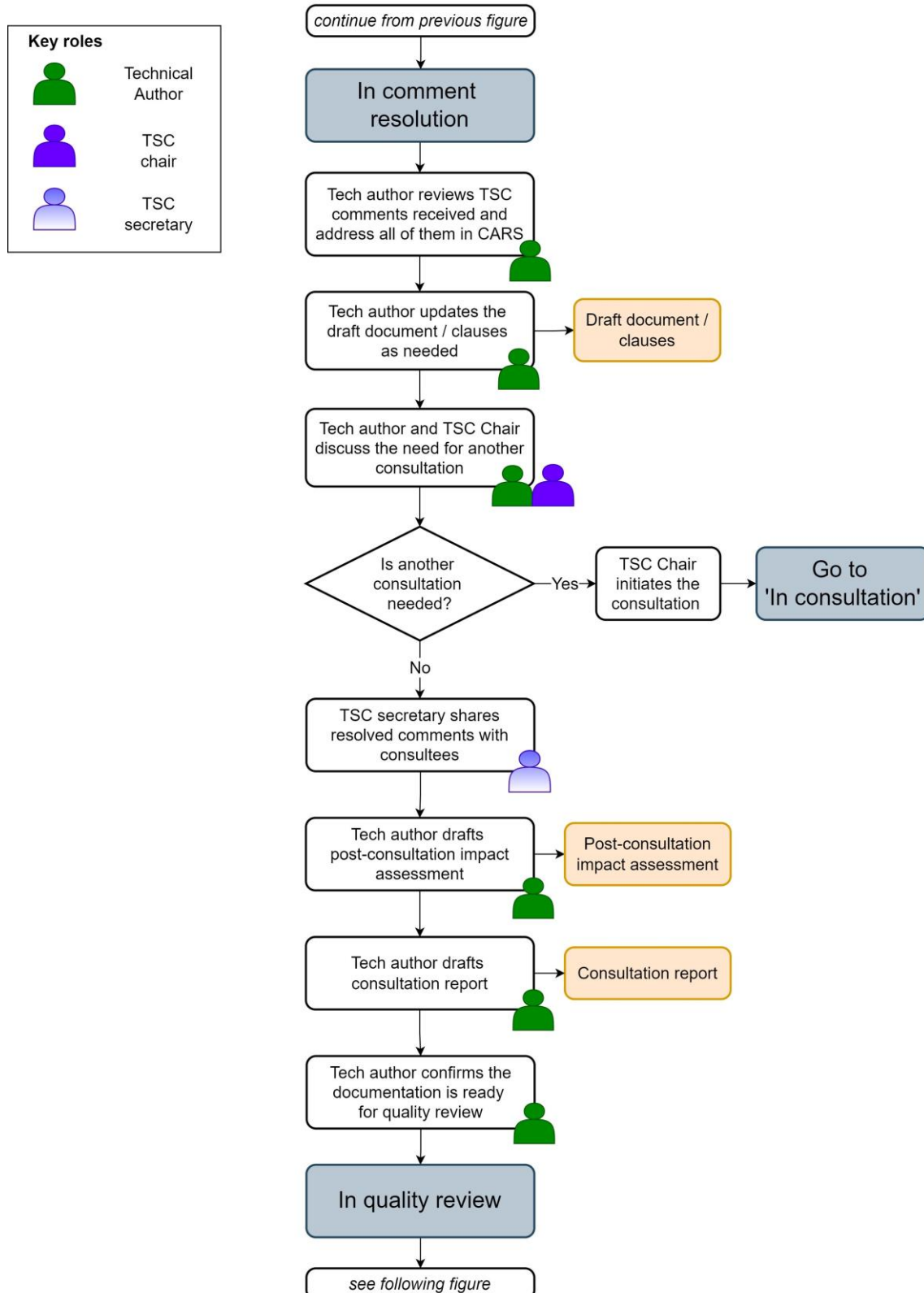


Figure 13. Steps for comment resolution

- 13.14 The technical author shall respond to questions posed by the TSC and provide clarification on any parts of the document.
- 13.15 Where assisted by external consultants to draft the document, the technical author shall ensure that the external consultants' brief requires them to comply with the relevant duties identified for the technical author in the MDD.
- 13.16 Where the TSC is unable to accept the draft document / clauses and the impact assessment report, they shall be returned to the technical author with explanatory comments.
- 13.17 The technical author shall decide the appropriate course of action to resolve any issues raised by the TSC, which can require further peer reviews to be held prior to re-submission of the document to the TSC or another TSC consultation.
- 13.18 The TSC process shall recommence with another consultation after the technical author has addressed all comments received.

In quality review

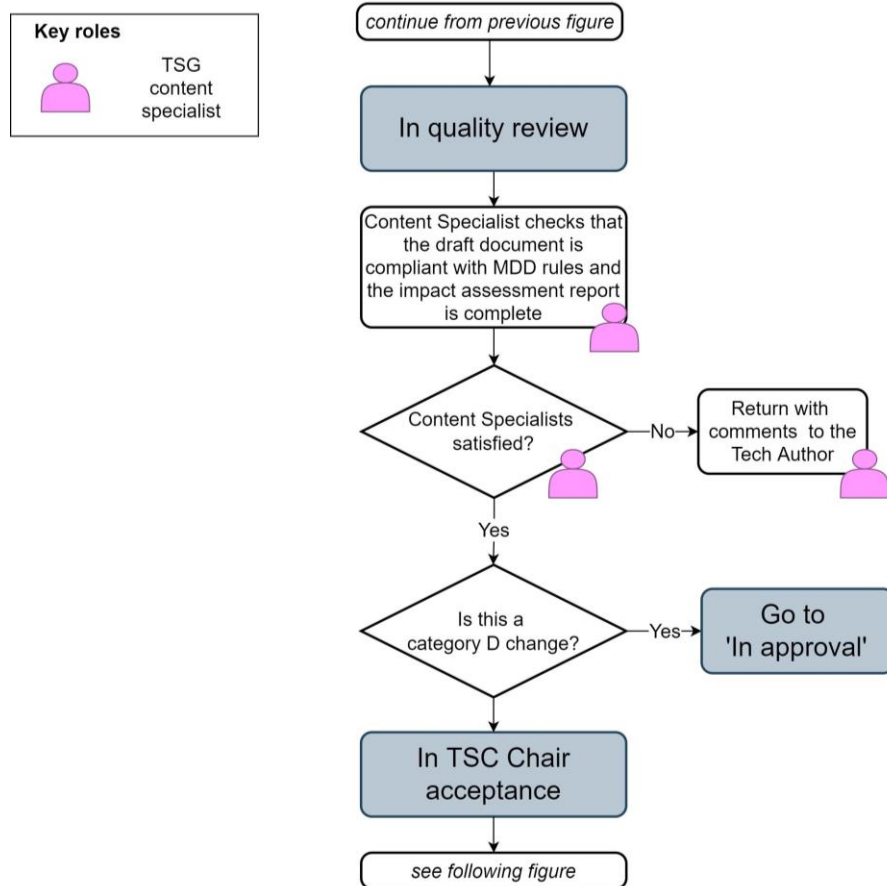


Figure 14. Steps for quality review

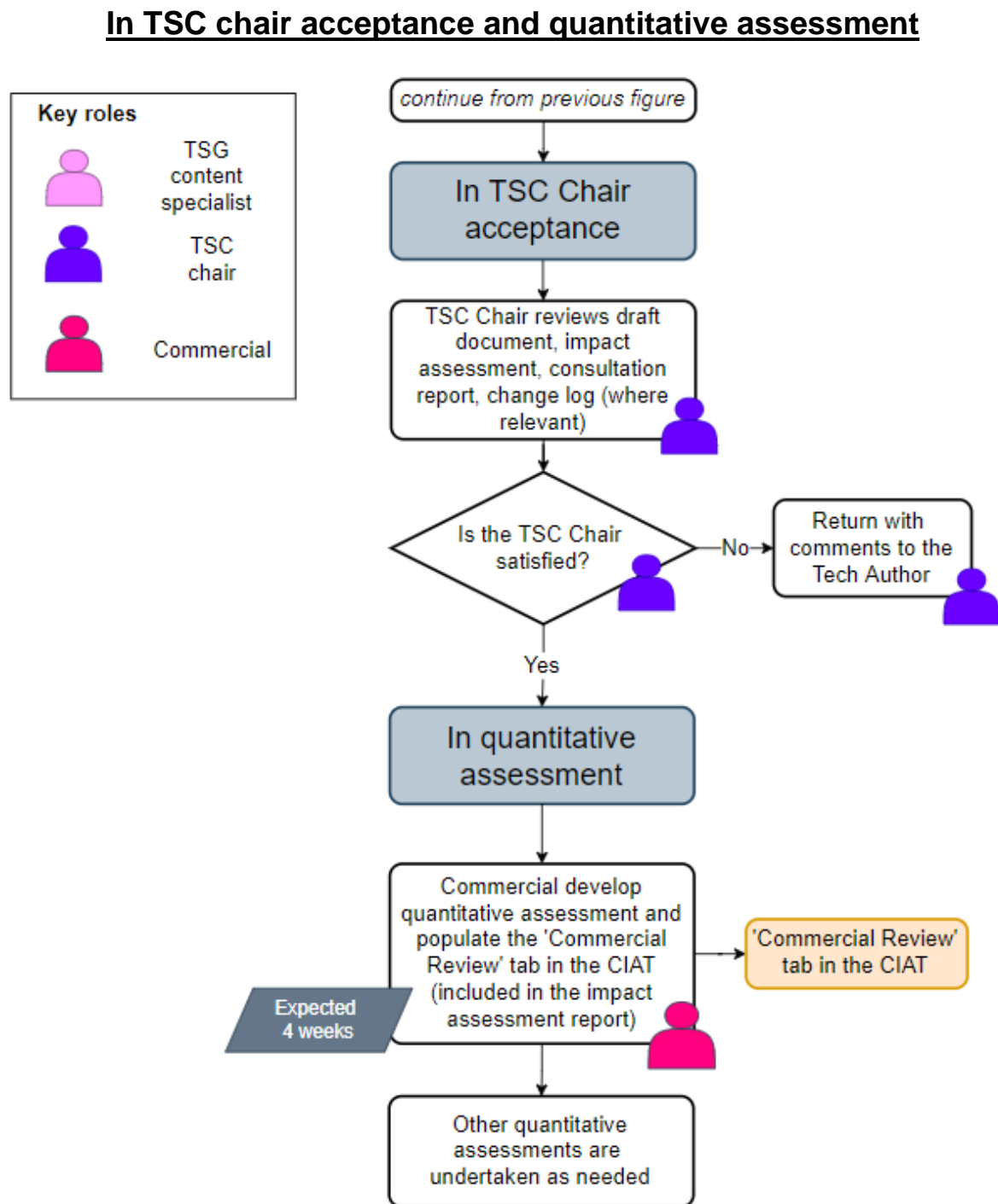


Figure 15. Steps for TSC chair acceptance

- 13.19 The TSC Chair shall check the quality of all deliverables.
- 13.20 The TSC Chair shall review the change log, which provides key information to be used by Commercial to assess cost impact.

In TSC chair ratification

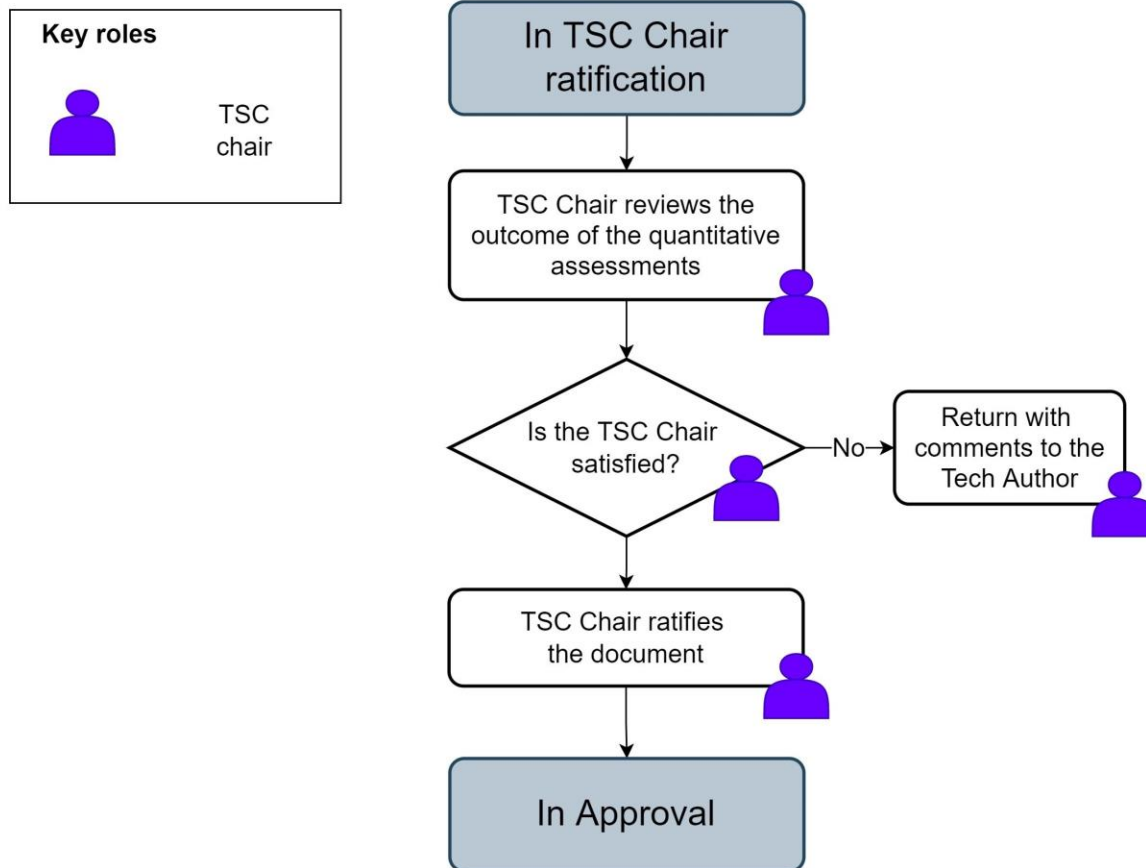


Figure 16. Steps for quantitative assessment and TSC chair ratification

14. Stage 6: Approval

14.1 The approval of the document / clauses and the impact assessment report shall be undertaken following the steps indicated in [Figure 17](#).

14.2 Formal approvals shall be executed using workflow functionality in JIRA.

NOTE 1 Formal approvers of the draft document / clauses and the impact assessment report comprise: Divisional Directors (for category A of change only); Heads of Standards of National Highways and the other Overseeing Organisations

NOTE 2 Permission to execute an approval is only available to those assigned the corresponding role in Jira.

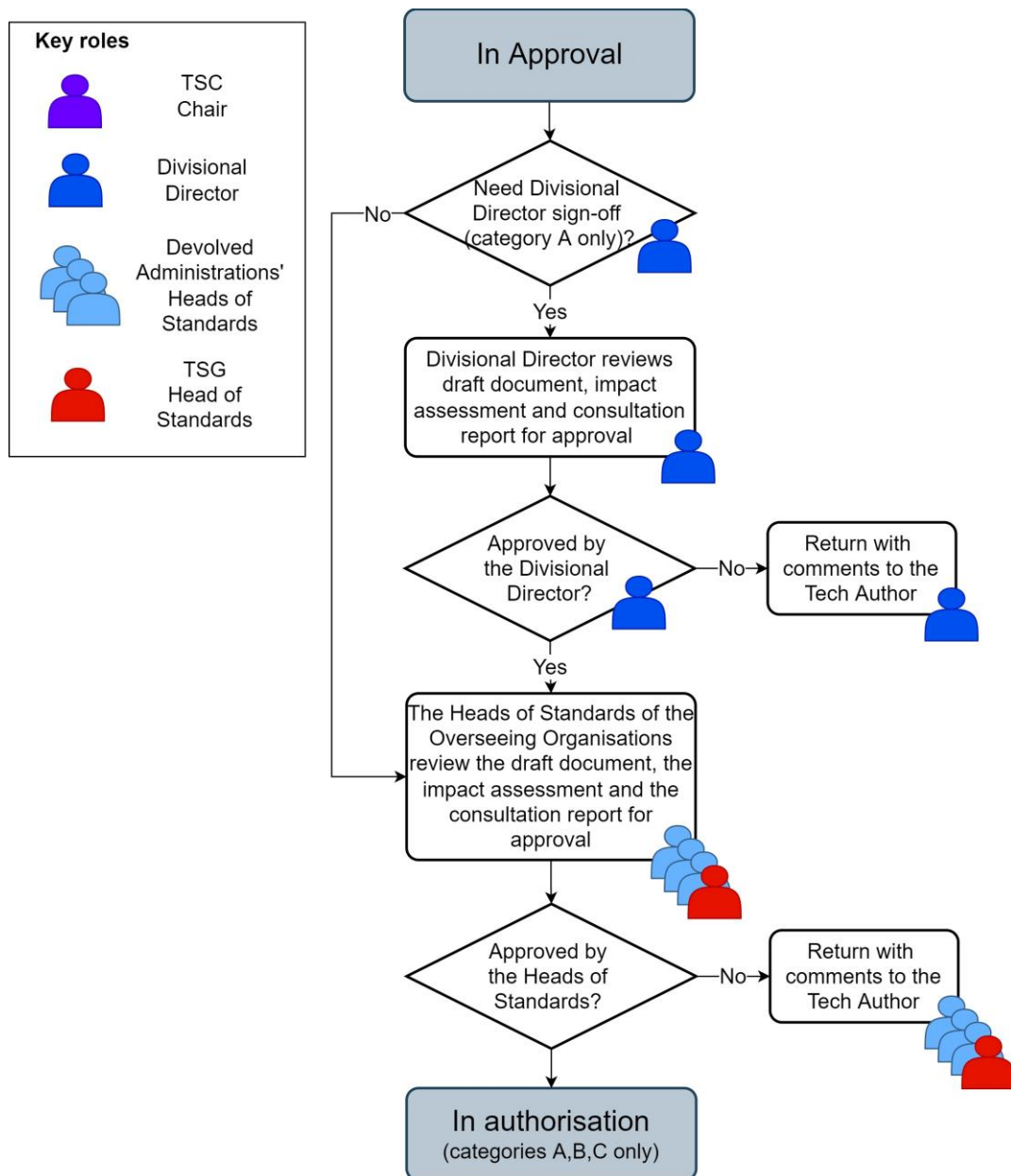


Figure 17. Stages for approval

15. Stage 7: Authorisation

- 15.1 Authorisation by the Chief Highway / Road Engineers shall be undertaken following the steps indicated in [Figure 18](#).
- 15.2 Formal authorisation by the Chief Highway / Road Engineers shall be executed using workflow functionality in JIRA for categories of change A, B, C only.

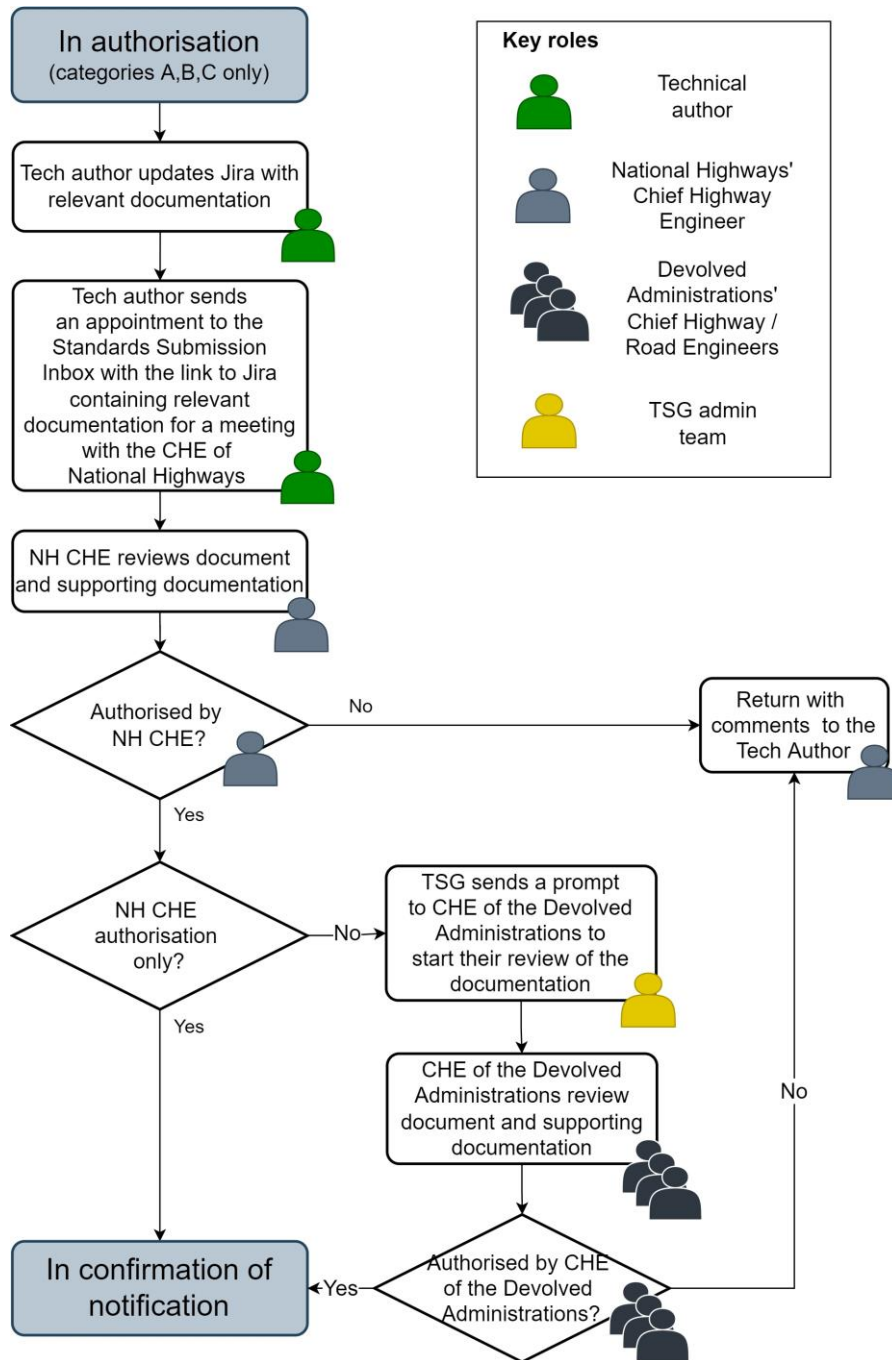


Figure 18. Steps for Authorisation

Documentation for CHE sign-off

15.3 The technical author shall ensure the following documents are available on CARS and JIRA before emailing an appointment request to the [Standards Submission](#) inbox for CHE sign-off:

1. approved document / clauses (in CARS);
2. clause change summary (for changes against documents that have previously been published in CARS) or change log (when reviewing existing documents that have not ever been published in CARS);
3. background document;
4. impact assessment report including commercial impact assessment; (DMRB link or MCHW link)
5. consultation report; (DMRB link or MCHW link)
6. any other relevant documents, e.g. Form A and Normative Document bundle if the submitted document is to be notified to Europe (Section 16)

NOTE For change log and background document, see “Deliverables” in [MDD Part 3](#).

Approval by the CHE of National Highways

15.4 The technical author shall send an appointment to the [Standards Submission](#) Inbox for a CHE appointment for the same time/date as the corresponding appointment in the Standards Submission calendar.

NOTE 1 CHE Sign off meetings are usually scheduled every 2-3 weeks, in which documents are presented by the technical author to the Chief Highway Engineer (CHE) for their approval to progress either to publication or notification.

NOTE 2 Appointment slots can be found in the “Standards Submission” Calendar.

15.5 The meeting invite shall contain the link to Jira with the relevant documentation for CHE sign-off.

15.5.1 The invite should be sent at least 72 hours before the meeting to ensure that adequate time is allowed for review of the material by the CHE.

15.6 Documents submitted after the deadline, and/or incomplete and/or unapproved, shall not be considered for presentation.

NOTE Each meeting is run on a first come, first served basis subject to the matter of spaces and time available. Up to 4 documents per session are usually accommodated based on the complexity and significance.

15.7 Once the document has been accepted, the technical author shall be provided with joining information.

15.8 The technical author shall attend the sign-off meeting to brief the CHE regarding the document and respond to any questions that the CHE raises.

16. Stage 8: Notification

- 16.1 The notification process shall follow the steps indicated in [Figure 19](#) and [Figure 20](#).

NOTE 1 Even though the UK has left the European Union, the Northern Ireland Protocol means we have to treat Northern Ireland as if it were still part of the EU for the purposes of regulation. Any document that applies in Northern Ireland and is required to be notified under the Technical Standards and Regulations Directive (TSRD) will be notified. While NAAs for other Overseeing Organisations (E, S & W) are exempt, the base document and the NAA(NI) will have to be notified.

NOTE 2 The Technical Standards and Regulations Directive (TSRD - Directive 2015/1535/EU) imposes an obligation upon each Member State to inform the EC and every other Member State of technical regulations and technical standards in draft. This need arises because the documents are used as point of reference by other highway authorities and transport infrastructure owners. This results in our product requirements having a significant impact on the marketing of highway construction products in Northern Ireland.

NOTE 3 The procedure laid down by the Directive is consultative. Information is disseminated on the proposed new measure to advise and stimulate dialogue, thus enabling Member States and the EC to identify and prevent barriers to trade. Once requirements in documents have been notified, CEN (the European Committee for Standardisation) and the EC have to take account of the requirements in any documents or legislation that they develop.

NOTE 4 The notification process also provides the Overseeing Organisation with information on the technical requirements being applied by other EU Member States that could be useful in drafting Overseeing Organisation documents.

- 16.2 A record of the steps shall be kept using workflow functionality in JIRA.

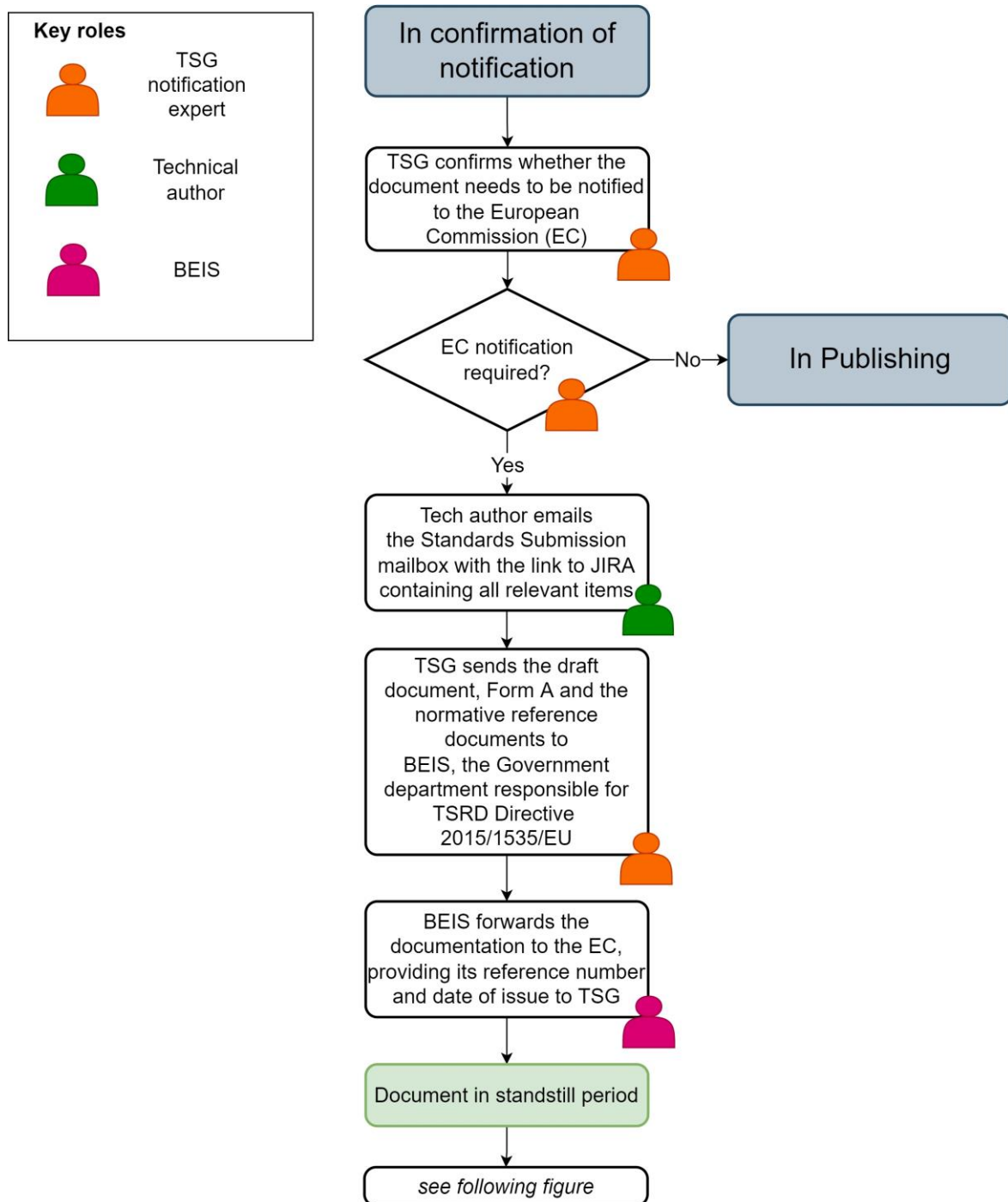


Figure 19. Stages of notification (1 of 2)

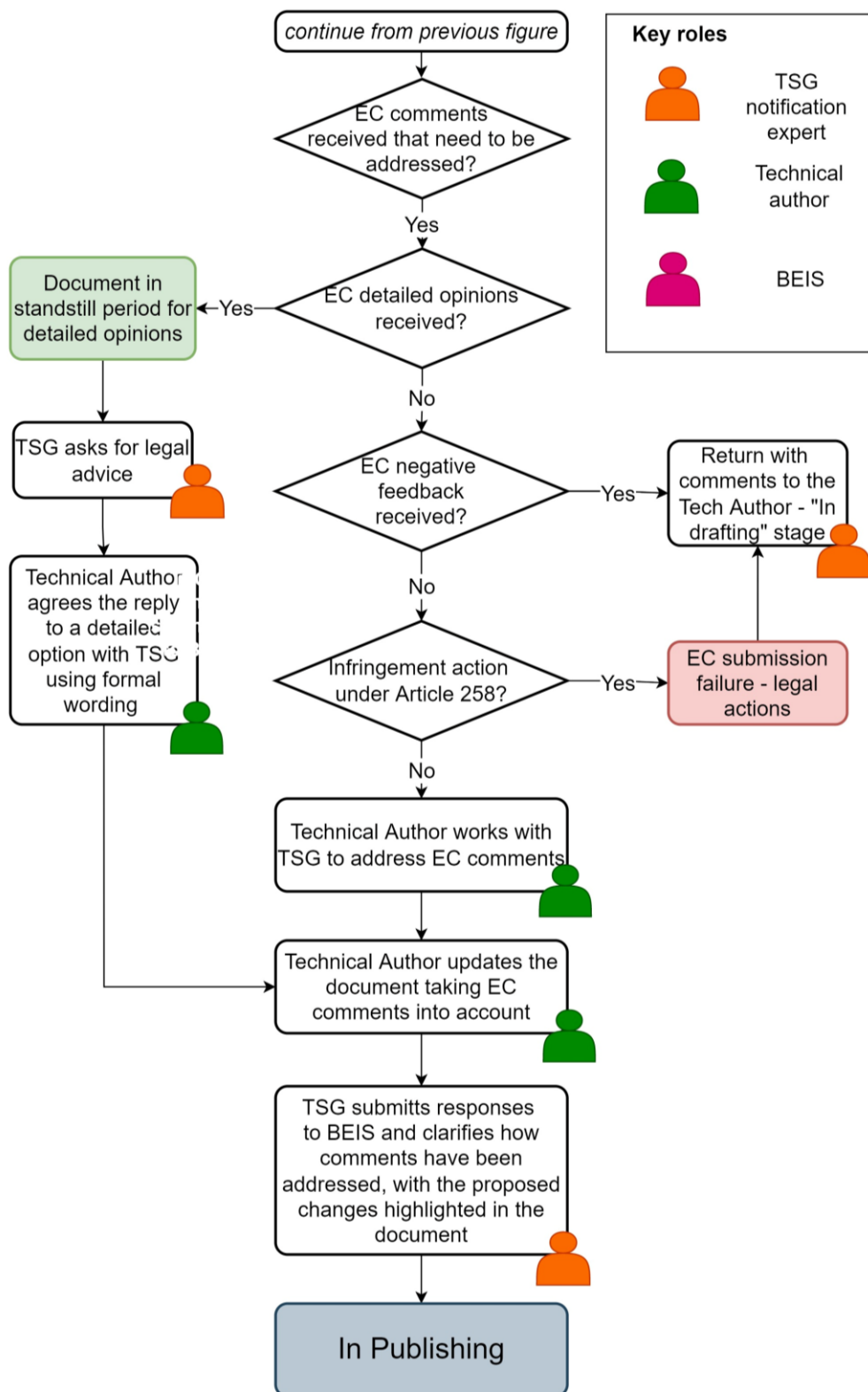


Figure 20. Stages of notification (2 of 2)

How to decide if RADs are notifiable

16.3 Once a document has received approval from all Overseeing Organisations, TSG shall confirm whether the document needs to be notified to the European Commission (EC) before moving it to the publication stage (see [Section 17](#)).

16.3.1 TSG should be given the opportunity as early as possible in the document development process to review the document with a view to giving the technical author a preliminary decision on whether the document will require notification.

NOTE 1 During the TSC consultation, the TSG representative comments on the need for EC notification.

NOTE 2 Documents giving requirements for products are likely to need notification.

NOTE 3 Documents that exclusively give criteria for the layout or deployment of products or give operational processes or procedures generally do not need notifying.

NOTE 4 Common indicators of the need to notify include:

- 1) Reference to any National or International standard or other specification or code of practice that refers to products i.e. any Designated Standard, BS, BS EN, PD, ASTM, MIL.*
- 2) The document gives testing or compliance requirements for any products.*
- 3) The document gives marking requirements for products.*
- 4) Generally all Specification for Highway Works documents will require notification, and some other MCHW documents and DMRB documents will require notification.*

NOTE 5 Maintaining a document as an internal document does not prevent the need for notification if that document has the effect of influencing the market for a product in the UK.

16.3.2 Including product requirements in documents that would otherwise not require notification should be avoided unless there is an imperative to give them.

16.3.3 Products should not be specified; rather criteria that should be fulfilled should be given.

16.4 Where a requirement for a specific product is a repeat of that for the same specific product in an already notified (Overseeing Organisation) document, the document shall not be notified for that requirement rather the parent document shall be referenced.

16.4.1 Repetition of requirements should be avoided (it is better to make reference to the existing clause).

16.5 Vaguely expressed or scattershot requirements, such as “must comply with the MCHW”, shall be avoided as these make the document notifiable.

Documentation for notification

- 16.6 Once a document is complete and all approvals obtained, the technical author shall update Jira with relevant links to the following documentation relevant to EC notification:
1. The final approved draft of the document in '.doc' format for ease of translation into other EU languages (TSG can assist with the creation of the word document);
 2. impact assessment report;
 3. TSRD Directive 2015/1535/EU Form A (available from)
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/489196/BIS-16-23-New-Form-A.pdf completed by the technical author in accordance with the guidance available from
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/490271/BIS-16-15-directive-2015-1535-guidance.pdf
 4. Electronic versions of all documents listed as normative references in the completed Form A.
- 16.7 Technical authors shall ensure that any document submitted for notification is the final document ready for publication with no further amendments required other than those that can be required by the EC.
- NOTE 1 Failure to do this can result in the document having to be re-notified if the document is changed during or after the notification process is complete.*
- NOTE 2 Although the document is referred to as "draft", this is in relation to the document not being published and the EC being able to ask for changes.*
- 16.8 As the normative reference documents will be on a public-facing website, the technical author shall obtain permission from the owners before notification.
- 16.9 A copy of the originally notified version of the document shall be maintained in MS Word.

Standstill period

- 16.10 The draft document shall be at a standstill for 3 months while it is under consideration by the EC and Member States.
- NOTE 1 During the standstill period, the EC or Member States can ask for additional information, make comments or give a detailed opinion to the effect that the measure envisaged can create obstacles to the free movement of goods within the internal market.*
- NOTE 2 The EC requests for additional information during the notification period are sent via BEIS and normally have a timescale of 5 working days for a response. The same comments can be received in parallel from the Foreign and Commonwealth Office via the DfT*
- 16.11 The 3-month standstill period shall be allowed for by the technical author in the document delivery programme.

Detailed opinions

- 16.12 Where a detailed opinion is given by the EC, the technical author shall resolve the issues raised by the EC within an additional 3-month period.

NOTE 1 Detailed opinions are formal letters from the EC addressed to the UK Government and will come to National Highways through BEIS and the Foreign and Commonwealth Office. Detailed opinions normally concern issues of EU law and failure of the document to comply with this.

NOTE 2 Where a detailed opinion is raised, the document cannot be published until the issues have been resolved with the EC.

- 16.13 Whenever a detailed opinion is received, the technical author shall confirm the route by which the response is to be made.

NOTE Failure to act on a detailed opinion will result in the EC proceeding to infract the UK.

Comments from EC

- 16.14 Any comments made by the EC on a notified document are sent to BEIS who are responsible for passing them to TSG, which shall pass them to the technical author for action.

- 16.15 Technical authors shall ensure that the resources are available to respond quickly to comments raised by EC, especially where legal advice is required.

NOTE 1 Comments received to date on documents have concerned minor changes to documents to correct references to EU legislation or address particular forms of expression where the meaning is not entirely clear. These comments are normally sent at the end of the notification standstill period and in the publication process, a period of grace of 2 weeks is allowed for these comments to arrive before moving to enter the document into the publication process.

NOTE 2 Experience to date indicates that the timescale given to respond to comments has been between 3 days and 2 weeks.

Changes to already notified documents

- 16.16 When changes are proposed for an already notified document, a version of the notified original with the proposed changes highlighted shall be produced to enable TSG to determine if notification to the EC is required.

NOTE Highlighting changes ensures that costs of notification of documents are minimised by enabling those in the EC and Member States reviewing documents to focus on the changes and reduces the risk of the EC examining parts of the document that they have already passed as compliant.

- 16.17 The only changes that can be made to the draft document notified to the EC shall be in response to opinions and comments made by the EC or Member States.

- 16.17.1 Cosmetic changes such as correction of spelling, etc., may be made, providing they do not affect the requirements as given in the notified document.

Normative and informative references

- 16.18 Where any document referred to in the submitted document has not been notified to the EC, the technical author shall check whether it is a dependent document, i.e. a document that contains additional requirements and which is required to be implemented in order for the submitted document to be followed.

NOTE Each draft document is submitted for notification as an isolated document. Any reference to any other document within the submitted draft document can mean that the referenced document will be assessed, depending on how it is referred to in the draft document. This is not a problem if the document referred to has previously been notified to the EC.

- 16.19 Dependent documents shall accompany the submitted document.

NOTE 1 Dependent documents are those that are included in the “Normative Reference” chapter (refer to [Section 9 to MDD Part 2](#)).

NOTE 2 Where any document referred to in the submitted document contains no requirements or is not required in order to implement the draft document and the document referred to is only providing the source, it is not a dependent document. Non-dependent documents are those that are included in the “Informative Reference” chapter (refer to [Section 9 to MDD Part 2](#)).

NOTE 3 Detailed guidance on the inclusion of normative and informative references in RADs is provided in [Section 9 to MDD Part 2](#).

Reference to the Technical Specifications and Regulations Directive

- 16.20 Any document submitted for notification shall include the following text:

“This document was notified in draft to the European Commission in accordance with Technical Standards and Regulations Directive 2015/1535/EU.”

Timing of adoption

- 16.21 Draft documents shall not be adopted into any existing contract or scheme during the notification standstill period.

NOTE There is a significant contractual risk both to the Overseeing Organisation and the supply chain if the draft document, having been adopted, is then subject to revision after comments from the EC.

17. Stage 9: Publication

- 17.1 The technical author shall produce the document to the point where it is ready for publication.
- 17.2 TSG shall manage the document through the publication process.
- 17.3 Following notification (if required), the publication process detailed in this section shall be followed.

NOTE Before the introduction of CARS, on average it took between 3.5 and 4 months from a document entering the publication process to the document being published, which is in addition to time spent during the EC notification standstill period (see [Section 16](#)). With the use of CARS and the in-built editing and formatting tool, it takes between 6-8 weeks from a document entering the publication process to the document being published.

When is a document ready for the publication stage?

General

- 17.4 In order for a document to enter the publication process, the following criteria shall be met:
1. The document is included in the agreed Standards Review Programme.
 2. The document has been reviewed by the TSC and any required changes have been made.
 3. Where applicable, the other Overseeing Organisation representatives have made any changes to their own National Application Annexes or Nationally Determined Requirements/Sections to make the document compatible with their processes and procedures.
 4. The technical author is satisfied that no other content changes are required.
 5. The document has been authorised by the CHE and the other Overseeing Organisations.
 6. Where applicable, the document has been reviewed for EU notification and has subsequently been through notification or has been deemed not notifiable by TSG.
 7. The two week 'cooling off' period has passed following the end of the notification period to allow time for comments on the document to be received from the EC.
- 17.5 Publication resource from TSG shall not be given to any RADs that are not in the Standards Review Programme (SRP).
- 17.6 Publication resource from TSG shall be available to publish National Application Annexes (including those of the other Overseeing Organisations) related to any DMRB document on the SRP and national variations to any MCHW document on the SRP.

DMRB and related NAAs

- 17.7 A formal agreement shall be made between the technical author and the representatives from the other Overseeing Organisations as to whether National Application Annexes (where needed) are to be published at the time of publication of the related DMRB document, or at a later stage (i.e. after the publication of the DMRB document).
- 17.8 Where National Application Annexes of the other Overseeing Organisations are to be published at a later stage, a holding statement (see “Postponing publication of NAAs” in [Section 6 to MDD Part 3](#)) shall be used to communicate how relevant requirements can be accessed by users in the interim period.
- 17.9 National Application Annexes shall be subject to governance checks and CHE approval by the relevant other Overseeing Organisation before being submitted for publication to TSG.
- 17.10 TSG shall review the National Application Annexes developed by the other Overseeing Organisations for EU notification and legal compliance.

NOTE 1 TSG reserves the right to reject National Application Annexes submitted by the other Overseeing Organisations for publication if they do not meet legal compliance checks.

NOTE 2 TSG can be contacted for further advice on how to publish NAAs.

Reviewing proofs of documents

- 17.11 The technical author shall not review proofs of documents during the publication process.
- 17.12 TSG content specialists shall undertake reviews on document proofs during the publication process for ‘look and feel’ and layout within the document.
- 17.13 TSG shall not provide support in terms of the technical quality of the content of RADs.

Content changes during publication

- 17.14 No content / technical changes, further edits or amendments shall be made by the technical author once a document passes CHE sign off(s) and enters the publication process or, in the case of documents that have been notified to the EC, once the document has been notified.
- 17.15 Where content / technical changes, further edits or amendments are required, the document shall be removed from the publication process until changes have been actioned and it shall re-enter the publication process from the start.

Documents required for publication

Documents developed in CARS

- 17.16 Technical authors shall attach to SharePoint any figures drawings and charts in their native file format as separate files (see [Section 9 to MDD Part 2](#) for the quality requirements of figures and drawings).

NOTE 1 CARS will provide the final document in pdf with the right formatting.

NOTE 2 Providing the native file format is essential to avoid future re-work. Figures are added to CARS as image files, which means if they need to be subsequently edited for a future update, an author is expected to recreate the file.

NOTE 3 DMRB figures and drawings will be stored in the DMRB folders here:
<https://highways.sharepoint.com/sites/UpdateoftheMCHWtrainingmaterials/DMRB/Forms/AllItems.aspx>

NOTE 4 MCHW figures and drawings will be stored in the MCHW folders here:
<https://highways.sharepoint.com/sites/UpdateoftheMCHWtrainingmaterials/MCHW/Forms/AllItems.aspx>

NOTE 5 Please contact TSG for any queries related to the SharePoint folders.

Documents provided in Word

- 17.17 For documents that are not expected to be developed in CARS (e.g. CHE memos), technical authors shall attach to Jira:
4. a Microsoft Word compatible file format version of the document;
 5. any figures, photos, tables and charts in separate files (see [Section 9 to MDD Part 2](#) for the quality requirements of figures and drawings).
- 17.18 TSG shall arrange for the document to be formatted.

Roll out of documents internally and externally

- 17.19 All updated DMRB and MCHW standards shall be published on the Standards for Highways website.

NOTE: Publication to the Standards for Highways website is facilitated by TSG.

- 17.20 For category A changes, technical authors shall develop a communication strategy to promote the changes made to their documents.

- 17.20.1 For category B and C changes, technical authors should develop a communication strategy to promote the changes made to their documents.

NOTE 1: Category B and C changes are changes to requirements and advice clauses and it can be useful to provide context and further information based on the impact of the change made.

NOTE 2: Category D changes are changes to notes or typographical errors and are not expected to need further communication due to the limited impact of the change.

- 17.20.2 Updates to documents may be promoted in the form of recorded webinars or summary presentations.

NOTE: TSG can publish recorded webinars or summary presentations to our [Help pages](#).

18. Stage 10: Document maintenance

- 18.1 RADs shall be kept up to date through scheduled reviews and updates as needed.
- 18.2 The document maintenance process shall be implemented through three components and related Jira workflows (see [Figure 21](#)):
1. Document review management;
 2. Feedback management;
 3. Routine changes management.

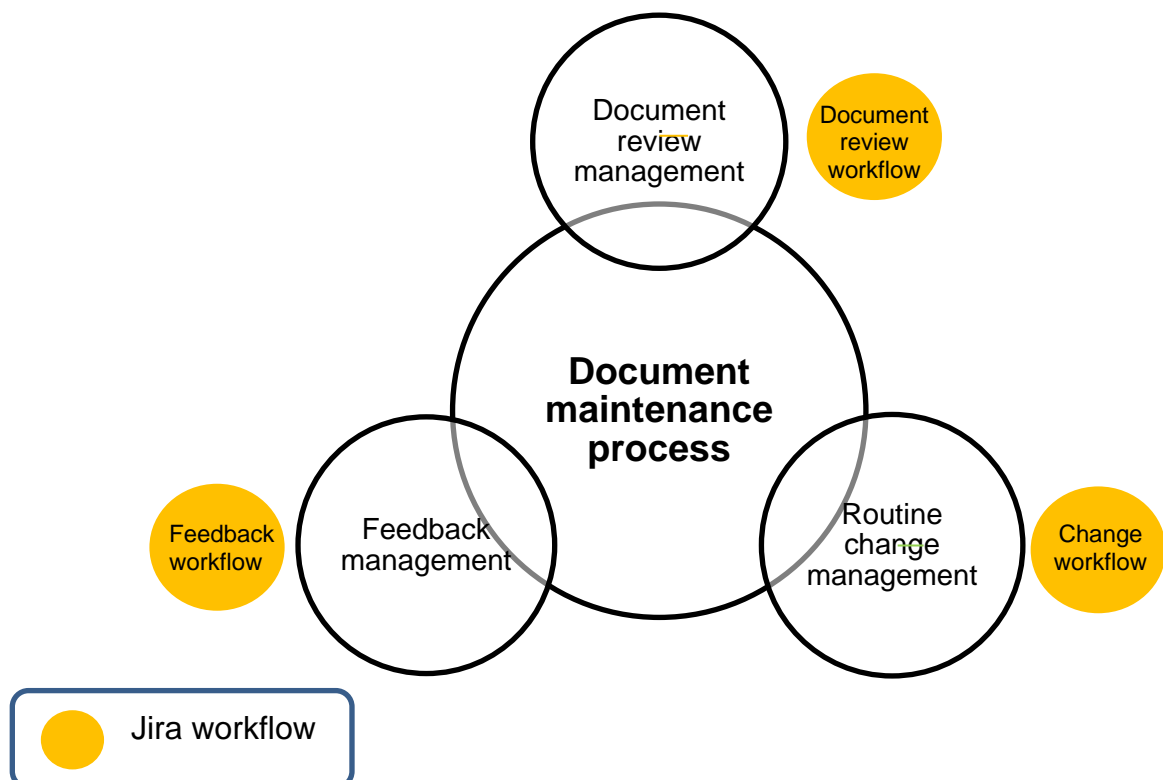


Figure 21. Components of the document maintenance process and related Jira workflows

Document review management

Scope

- 18.3 Document reviews shall be undertaken to check if the whole document is up to date and to identify what clauses need to be changed in order to bring the document up to date.

Timeline

- 18.4 The whole document shall be reviewed at least every 5 years.
- 18.5 Document reviews shall be programmed to allow sufficient review time before the deadline for completion.

NOTE For example, a default window for carrying out the document review would begin 6 months before the deadline for completion.

- 18.6 The first document review shall be scheduled for completion 4 years after the document's initial publication date, allowing up to a year for the changes to go through the governance process and be published within a 5-year cycle.

NOTE The first document review date reflects the first time the document was published into the new DMRB e.g. if published in March 2020, the document review date would be March 2024.

- 18.7 Subsequent document reviews shall occur on a 5-year cycle, based on the date of the previous document review.

NOTE For example, the second document review is scheduled to be completed 5 years after completion of the first document review.

Jira

- 18.8 Document reviews shall be managed using Jira.

NOTE Key stages in Jira are:

- *document review to be done*
- *in document review*
- *document review completed with no changes*
- *document review completed with proposed changes to enter the SRP*

Template for document review

- 18.9 Document reviews shall comprise a review of drivers and opportunities for change using the document review template provided in the governance SharePoint folders ([DMRB link](#) or [MCHW link](#)).

NOTE Drivers and opportunities for change are provided in Section 6.

Outcomes triggered by document reviews

- 18.10 The outcome of the document review shall be recorded on the template and on Jira.

NOTE The outcome from document review can be:

- *The document needs no changes.*
- *The document needs some specific incremental changes (categories B, C or D).*
- *The document needs a major revision, e.g. due to a policy change (category A).*

Actions when changes are not needed

- 18.11 When the document review is completed and no changes are needed:
- a) the document version number shall not be incremented;
 - b) only Jira and the index manager shall be updated to record the conclusion of the review and reflect last review date.

Actions when changes are needed

- 18.12 When a document review is completed and changes are needed, a relevant change item shall be created on Jira (category A/B/C/D as relevant), ensuring that the review outcome is recorded in Jira and captured as actions to be scheduled.
- 18.13 The drafting of the changes and associated governance shall be carried out as soon as possible following the rules for major revisions (category A) and incremental changes (categories B/C/D).
- 18.13.1 When a category A change needs to be undertaken, the outcome of the document review may be used to populate the Document Development Plan (DDP), for example as an annex to the DDP.

Bringing document reviews forward

- 18.14 The opportunity to bring document reviews forward shall be assessed.

NOTE 1 Where a document change is needed between scheduled document reviews, in some cases it can be convenient to carry out the document review early, in combination with the drafting of the change.

NOTE 2 It can be relevant to bring forward document reviews forward in the following cases:

- *short documents (where the document review can usually be done very rapidly and efficiently), or,*
- *major revisions (where a Document Development Plan is required and therefore a full review of the document is carried out);*
- *for resourcing reasons or in response to a policy change (see also Prioritisation and programming).*

- 18.15 If a document review is brought forward, the subsequent document review date shall be reset to be 5 years after the completion of the document review.

Prioritisation and programming

- 18.16 Document reviews shall be programmed to be evenly distributed instead of all being done at the same time.
- 18.16.1 A system to prioritise the initiation of document reviews should be introduced to support programming.
- 18.16.2 A scoring-based system may be used based on the following key metrics to help with prioritisation:
- a) date of initial publication / completion of last document review
 - b) policy changes
 - c) feedback based triggers
 - d) resourcing based triggers (e.g. retirement of key resource)
 - e) documents with most departures
 - f) most searched for documents

Feedback management

Scope

- 18.17 Technical authors shall address any feedback received relating to the content of technical documents quickly and efficiently and record the outcome.

NOTE Feedback can come from multiple sources, see also drivers and opportunities for change.

- 18.17.1 Technical authors should aim to respond to feedback items within 10 working days in accordance with the requirements of [GG 901 Quality and timeliness of customer contact](#).
- 18.18 Technical authors shall identify and manage any changes to the documents, which are needed in response to the feedback received.

Jira

- 18.19 The process of ensuring technical authors respond to feedback and monitoring the actions resulting from feedback shall be managed using Jira.

NOTE Key stages in Jira are:

- *new feedback item*
- *responded to sender*
- *feedback on hold*
- *completed*

- 18.20 Jira feedback items shall be associated with the relevant document through the use of 'issue links'.

Online form to collect feedback on standards

18.21 An online form on the DMRB website shall be used to collect the following feedback:

- general ideas,
- general queries,
- request for background information,
- specific challenges to standards.

18.22 TSG shall review general ideas and queries.

18.23 Technical authors shall review and address requests for background information and specific challenges.

18.24 Technical authors shall assess whether a change to a standard is needed based on the feedback received and, if so, its urgency.

NOTE This is particularly relevant when there are errors that result in a change to the technical outcome (e.g. an error in an equation or an incorrect value for a parameter).

18.25 Receipt of feedback shall be automatically acknowledged to the sender, accompanied by an overview of the process that is followed to manage expectations.

18.26 Jira feedback items shall be automatically generated once a submission is received from the online form.

18.27 A track of the feedback received shall be kept for reporting purposes.

18.28 The [Standards_Enquiries](#) mailbox shall no longer be used as a separate channel to collect feedback.

Putting feedback on hold

18.29 Feedback items shall be addressed as soon as possible.

18.29.1 Feedback items may be put on hold for the following reasons only:

- a) Requires major policy change - to be incorporated into a change
- b) Requires change to requirement(s) - to be incorporated into a change
- c) Requires change to advice / editorial - to be incorporated into a change
- d) To be covered as part of document review

Closing out feedback items

18.30 Feedback items shall be marked as closed in the following circumstances:

- a) when no change is needed
- b) If changes are needed, they have to be incorporated into a future release of a document as a change item and actioned through the SGP

(they do not need to wait until the document is published); in such a case, the relevant change number shall be recorded on Jira.

Discussing challenges to standards

- 18.31 The Technical Standards Committees (TSCs) shall be used as a platform to share and discuss changes arising from standards challenges.
- 18.31.1 Representatives of the Innovation group should be invited into the relevant TSCs when standards challenges involving innovation are to be discussed.

Routine changes management

Scope

- 18.32 The routine changes management process shall help manage changes needed to the document for example to bring it up to date or correct errors.

NOTE Changes to the document can be necessary as a result of feedback management or document reviews.

Jira

- 18.33 Routine changes shall be processed using the workflows for categories of change A, B, C, D.

Assessing and managing urgency of change

- 18.34 Technical authors shall proactively assess the urgency of change to a document.
- 18.35 All required changes shall be actioned by the technical author as soon as possible, except where a change is judged to be non-urgent.
- 18.36 All changes required as a result of a document review shall be implemented as soon as possible, to ensure that the document is brought up to date.

Non-urgent changes

- 18.37 The default position shall be that a change is considered urgent unless justification is provided as to why it can be delayed.
- 18.38 Where a non-urgent change is identified, the reasons for it being non-urgent shall be justified and recorded in Jira.
- 18.38.1 A change may be judged to be non-urgent where there is no impact on safety and no risk associated with deferring the change.
- 18.38.2 Non-urgent changes may be deferred for a short time until the next change is made or the next document review, whichever comes first.

Escalation procedures

- 18.39 When urgent changes are not implemented in a timely manner, TSG shall follow relevant escalation procedures.

Controlling timescales for document maintenance actions

- 18.40 Timescales for document maintenance actions shall be controlled through:
- a) a suite of dashboards, reports and automated alerts to visualize status and notify action holders;
 - b) escalation procedures for urgent changes that are not actioned within appropriate timescales.

Annex 1A CHE Memos

[DRAFTING NOTE: The rules on CHE Memos currently given in this annex need to be updated to align with the new governance process for DMRB and MCHW]

A1.1 The governance process of CHE memos illustrated in [Figure 23](#) shall be followed.

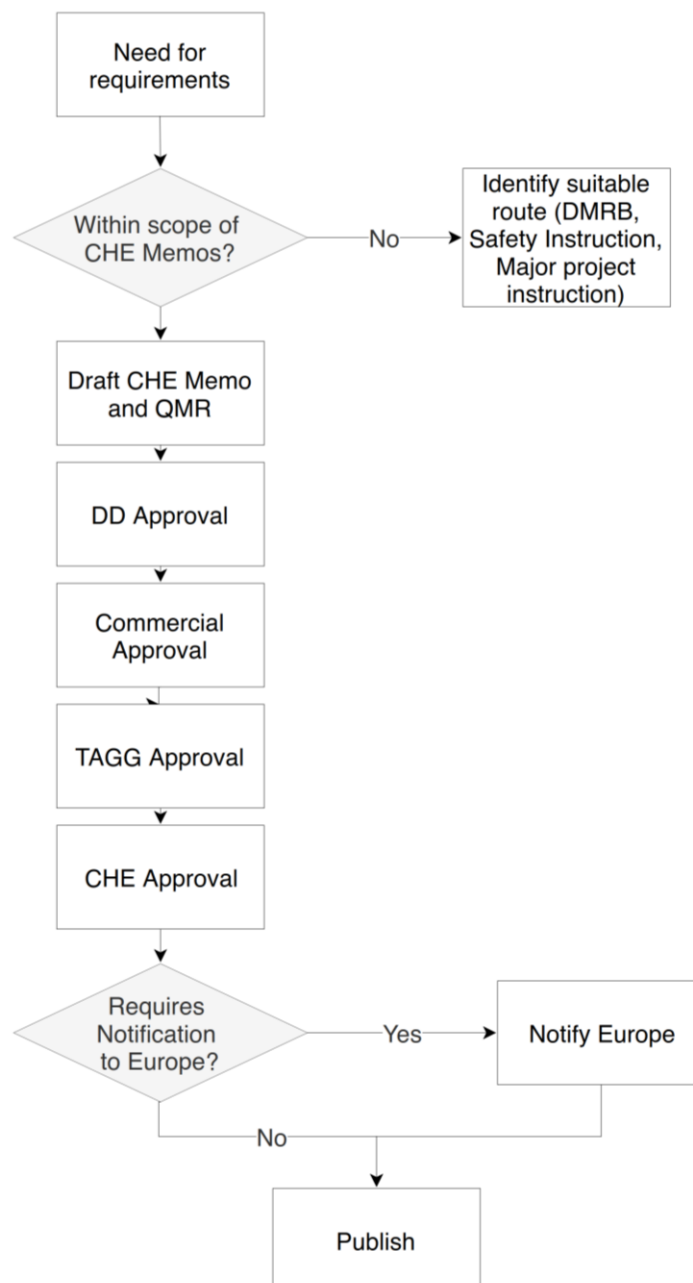


Figure 23. Governance process of CHE Memos

- A1.2 The technical author of the CHE Memorandum shall complete the Quality Management Report (QMR) for the CHE Memo using the CHE memo template on Jira.

Formal approvals using JIRA

- A1.3 Formal approvals of CHE Memos shall be executed using workflow functionality in JIRA.

NOTE 1 Formal approvers comprise:

- 5) Divisional Directors (for QMR)
- 6) Commercial team (for QMR)
- 7) TSG Team Leader (for QMR)
- 8) Chief Highway Engineer of National Highways

NOTE 2 Permission to execute an approval is only available to those assigned the corresponding role in Jira.

Approval by SES Divisional Director and TSG

- A1.4 If satisfied with the document and QMR, the SES Divisional Director shall mark their approval using JIRA.
- A1.5 TSG shall approve the QMR using JIRA to confirm that appropriate governance has been carried out.

Authorisation by the CHE of National Highways

- A1.6 The approval process by the CHE of National Highways valid for DMRB/MCHW documents shall be followed for CHE Memos.

Annex 1B TSS Plans registry

[DRAFTING NOTE: The TSS Plans registry is now known as the Operational Technology Specifications Library. Access can be requested at this link: <https://highways.sharepoint.com/sites/OperationalTechnologySpecifications?e=1%3A8f939c4460d64195b260b4c42dbecf36>

This library of specifications forms a part of National Highways' documentation, defining the requirements for Operational Technology. It is the replacement for TSS Plans Registry. The documents are being updated as part of National Highways' upgrade to the Design Manual for Roads and Bridges (DMRB) and the Manual for Contract Documents for Highways Works (MCHW).

The information in this section will be updated shortly].

- B1.1 The Traffic Systems and Signing (TSS) Plans Registry contains National Highways documents in the field of traffic systems and signing including technical requirements and specifications for works, equipment and testing, as well as technical drawings and diagrams.
- B1.2 The TSS Plans Registry includes:
- MCE - specifications for equipment.
 - MCG - specifications for acceptance testing.
 - MCH - instructions for use in handbooks, guides, instructions, request forms, procedures, reports and records (e.g. standard installation drawings, cabinets, circuit diagrams and printed circuit boards).
 - MCS – indexes and circulars dealing with the administration of technical documents.
 - MCX - drawing layouts and details used for general equipment and other items that are not site-specific.
 - TR – overarching requirements and specifications.
 - TRG – acceptance procedures and specifications for testing.
- B1.3 TSS Plans Registry documents are related to the series 1500 of the Specification for Highway Works (SHW), as well as communication technology documents in the DMRB.
- B1.4 TSS Plans Registry documents are subject to the same EU product legislation requirements as the SHW.
- B1.5 The TSS Plans Registry are only used in connection with works on the Overseeing Organisations' motorway and trunk roads in England.

Annex 1C Technical Standards Committee

Aims of TSC

D1.1 A Technical Standard Committee (TSC) shall:

- a) confirm that the RAD under consideration is compatible with the published aims of National Highways and the other Overseeing Organisations and that meets their policies and objectives in terms of commercial and operational routines, affordability (in short, medium and long term) and legislative obligations.
- b) confirm that the RAD under consideration is technically correct, current and consistent, reflects good practice within the industry and supports innovation where appropriate.
- c) confirm that the RAD under consideration is compatible with other relevant standards and appropriate EU, UK and national legislation.
- d) apply due diligence to the technical decision making and evidence of the rationale for why requirements and advice have been introduced.
- e) assess and comment on the impacts and likely effects of the implementation of RAD under consideration on:
 - health and safety (including the *CDM Regulations*) and other needs of all road users, including pedestrians, protected groups and highway workers;
 - issues of equality, diversity and inclusion;
 - environment and the issues of carbon management and sustainability;
 - customer satisfaction;
 - costs, benefits, affordability and risks;
 - innovation.
- f) advise the United Kingdom Chief Engineers Committee (UKCEC) where financial and operational risks associated with the RAD are considered unacceptable or can become unacceptable.
- g) report issues where additional direction is required from the UKCEC.
- h) complete RAD reviews within the timescales necessary to meet National Highways and other Overseeing Organisation's business needs.
- i) reflect the needs of other infrastructure operator stakeholders that can make use of the RAD under consideration but only in so far as it is practicable to do so, given the requirements of point a) above.
- j) ensure that the documents produced (in case of the DMRB, these include related NAAs as needed) inform the supply chain of the requirements of National Highways and the other Overseeing Organisation's for the design and specification of their highway works.
- k) take account of and maintain contact with research and construction organisations within the EU and worldwide.

TSC identification

- C1.1 The relevant TSC shall be identified when the technical author submits a request to enter the SRP backlog (see [section 9](#))
- C1.2 Consultation dates shall be defined and communicated well in advance to all TSC members (at least one month before the start of the consultation) to enable members to plan their workload and participate.
- C1.3.1 Where consultation dates change after being communicated, the consultees should be updated with plenty of notice.
- C1.3 The TSC secretary shall share the draft document / clauses and the pre-consultation impact assessment with the consultees.
- C1.4 Once the Technical Standards Committee (TSC) chair confirms that the draft document / clauses and the pre-consultation impact assessment are ready for consultation, the TSC chair shall notify the TSC members of the start date of the consultation at least one month before.

Setting up a TSC

Rules for standing committees

- C1.5 The following standing TSCs shall be established:
- a) Asset information
 - b) Control and communication technology
 - c) Customer experience
 - d) Drainage
 - e) Environmental assessment
 - f) Geotechnics
 - g) Governance
 - h) Health, safety, and wellbeing
 - i) Operations and road works
 - j) Pavements
 - k) Road layout
 - l) Road lighting
 - m) Smart roads
 - n) Structures
 - o) Sustainability and design
- C1.6 TSG shall coordinate the setting up of standing TSCs, liaising with the TSC chair and secretaries and inviting National Highways internal stakeholders and the DAs to nominate members.
- C1.7 SES Divisional Directors shall ensure that the establishment of TSCs is consistent with their business plan.
- C1.8 TSC secretaries shall keep TSG informed of any changes required to the central register of TSCs through the [Standards Submission](#) inbox.
- C1.9 TSG shall agree any changes in the membership or status.

NOTE A central register of TSCs is held and maintained within TSG and owned by the TSG SRP manager.

New TSC candidates

- C1.10 If the proposed document covers a new topic, some nominated members are unable to take part or additional members are needed to comment on specific aspects, a list of potential TSC candidates shall be compiled by the technical author with the assistance of the TSC chair and submitted to TSG through the [Standards Submission](#) inbox.
- C1.11.1 TSG on behalf of the technical author, when requested to do so, may approach the stakeholder organisations for names and details of suitable candidates whom TSG will invite to attend.

TSC membership

Typical TSC members

- C1.11 Typical TSC members and their role shall be as indicated in [Table 4](#).
- C1.12 The number of TSC members shall be kept to a minimum.

Table 4 Typical TSC members and key roles

Typical TSC Members	Key role	Who
TSC chair	Owns the documents within relevant discipline, leads the TSC and ensures that an appropriate governance level is followed.	Different from the technical author. Usually from SES, typically the Group Manager within National Highways for the discipline in which the RAD is developed, however can also be from the other Overseeing Organisations.
TSC secretary	Supports the TSC chair in running the consultation process.	Usually member of the SES team, can be a service provider supporting the drafting of the RAD (e.g. a consultant employed to draft the RAD)
Editorial consultees	Comment on aspects related to compliance with the MDD rules.	Content specialists working in TSG.
Technical consultees	Comment on technical accuracy and acceptability (incl. compliance)	Technical specialists within SES Technical leads for: <ul style="list-style-type: none"> • Department for Infrastructure Northern Ireland • Transport Scotland • Welsh Government, • Wider stakeholders for the subject area and interfacing aspects

Typical TSC Members	Key role	Who
Concurrence consultees (essential)	Comment on acceptability and affordability for strategic alignment with other business needs	Non-technical National Highways reviewers from the governance team and from divisions that are likely to be affected by the introduction of a new RAD or revisions of an existing RAD: <ul style="list-style-type: none"> • TSG; • Major Projects; • Operations; • Commercial and Procurement; • Health and safety; • Equality Diversity and Inclusion (where needed, see below); • Carbon management, sustainability and environment (where needed, see below); • Customer Experience (where needed, see below).

Equality Diversity and Inclusion consultees

C1.13 Based on the pre-consultation impact assessment report, the TSC chair shall determine whether Equality Diversity and Inclusion representation is essential for that particular document development work.

NOTE *Equality Diversity and Inclusion representation is essential when the screening exercise shows that a full equality impact assessment is required.*

C1.14 If Equality Diversity and Inclusion representation is essential:

- a) the TSC chair shall notify the Equality Diversity and Inclusion team;
- b) the Equality Diversity and Inclusion team shall nominate an appropriate consultee to attend the TSC and provide comments as needed.

C1.15 In all cases, the pre-consultation impact assessment reports shall be made available to the Equality Diversity and Inclusion team to sample and provide comments.

C1.16.1 A specialist advisor may be invited to assist in equality diversity and inclusion issues during the TSC consultation.

NOTE *There are organisations within the DfT with specific expertise on government policies and the relevant legislation which are also familiar with National Highways and its business needs; there are many major organisations capable of providing informed advice on a variety of potential equality and diversity and social exclusion issues.*

Carbon management, sustainability and environment consultees

C1.16 Based on the pre-consultation impact assessment report, the TSC chair shall determine whether carbon management, sustainability and

environment representation is essential for that particular document development work.

NOTE *Carbon management, sustainability and environment representation is essential when the screening exercise shows that a full impact assessment is required.*

C1.17 If carbon management, sustainability and environment representation is essential:

- a) the TSC chair shall notify the carbon management, sustainability and environment team;
- b) the carbon management, sustainability and environment team shall nominate an appropriate consultee to attend the TSC and provide comments as needed.

C1.18 In all cases, the pre-consultation impact assessment reports shall be made available to the carbon management, sustainability and environment team to sample and provide comments.

Customer Experience consultees

C1.19 Based on the pre-consultation impact assessment report, the TSC chair shall determine whether customer experience representation is essential for that particular document development work.

C1.20 If customer experience representation is essential:

- a) the TSC chair shall notify the customer experience team;
- b) the customer experience team shall nominate an appropriate consultee to attend the TSC and provide comments as needed.

C1.21 In all cases, the pre-consultation impact assessment reports shall be made available to the customer experience team to sample and provide comments.

Additional concurrence consultees

C1.22 When needed, the TSC shall also include the additional concurrence consultees indicated in [Table 5](#).

Table 5 Additional concurrence consultees and key roles

Role	Who
Comment on acceptability and affordability for strategic alignment with other business needs	<ol style="list-style-type: none"> 1. Transport Planning Division and members from other Safety Engineering and Standards (SES) Directorate. 2. Other Specialists (e.g. risk, BEIS, Financial Services, Asset Advisors Group) 3. National Highways Legal 4. National Highways IT 5. National Highways Asset management

Additional informed parties

C1.23 When needed, the TSC shall also include the additional parties indicated in [Table 6](#).

Table 6 Additional informed parties and key roles

Role	Who
Ensure a balanced view between the needs of National Highways, other government bodies, professional groups and the industry as a whole	<ol style="list-style-type: none"> 1. DfT, DfT Legal, Health and Safety Executive and other governmental and quasi-governmental bodies 1. National Police Chiefs Council (NPCC) 2. Local Government Association 3. Association of Directors of Environment, Economy, Planning & Transport (ADEPT) 4. Outside bodies (trade bodies, industry associations, professional institutions, etc.) 5. County Surveyors Society Wales (CSS Wales) 6. Society of Chief Officers of Transportation in Scotland (SCOTS)

C1.24 Other than in exceptional circumstances, individuals representing a particular company rather than a trade organisation or a professional body shall not be members of TSCs.

TSC members - consulted or informed

C1.25 The TSC consultees shall be either “consulted” or “informed” as indicated in [Table 7](#).

C1.26 When consultees are “consulted”, they shall review the change and provide comments by the deadline set and communicated by the TSC chair at the start of the consultation, even if that is just to confirm they do not object.

C1.27 When consultees are “informed”, they shall review the change at their discretion, but no response is expected.

Table 7 TSC members - consulted or informed

Stakeholder	Who	A. Policy Change / Rewrite / New document development	B. Change to requirement	C. Change to advice	D. Changes to notes and spelling mistakes
Technical Author	Technical specialist within an Overseeing Organisation	Responsible	Responsible	Responsible	Responsible
TSC chair	Leads the TSC	Accountable	Accountable	Accountable	Accountable
Editorial consultees	TAGG Content Specialist	Consulted	Consulted	Consulted	Consulted
Technical consultees	Technical specialists within SES and wider stakeholders for the subject area and interfacing aspects, including Devolved administrations' technical leads	Consulted	Consulted	Consulted	Informed
Concurrence consultees (essential)	<ul style="list-style-type: none"> • TAGG • Major Projects • Operations • Commercial and Procurement • Health and safety • Equality, diversity and inclusion • Sustainable development and good design • Customer experience 	Consulted	Consulted	Consulted	Informed
Concurrence consultees (additional)	<ul style="list-style-type: none"> • Members from other SES Directorate. • Highways England Legal • Highways England IT • Highways England Asset management • Other Specialists (e.g. risk, BEIS, Financial Services, Asset Advisors Group) 	Consulted	Consulted	Consulted	Informed
Additional informed parties	<ul style="list-style-type: none"> • DfT, DfT Legal, H&S Executive and other governmental and quasi-governmental bodies • National Police Chiefs Council (NPCC) • Local government associations • Outside bodies (trade bodies, industry associations, professional institutions, etc.) • Expert (individual) independent advisors 	Informed	Informed	Informed	Informed

TSC meetings

C1.28 The TSC chair shall decide whether TSC meetings are to be held during the consultation period to discuss the draft document and the pre-consultation impact assessment report.

NOTE 1 Meetings are intended to be relatively informal, with little call for formal motions or for voting, and are usually only open to members nominated by the TSC chair in discussion with the technical author.

NOTE 2 For category A changes (e.g. re-write of a document or new document development), TSC face-to-face meetings can be relevant. Six to eight weeks' notice for meetings is sufficient in most cases, depending on the availability of the members.

NOTE 3 For categories B and C changes, virtual meetings can be more appropriate than face-to-face meetings to speed up the process, for example using CARS in conjunction with a suitable cloud platform for video and audio conferencing.

NOTE 4 For category D changes, TSC meetings are not needed.

Items discussed

C1.29 The TSC shall examine the draft document / clauses and the content of the impact assessment report and confirm their correctness in terms of technical, safety, commercial (costs), operational and procurement (contractual), equality diversity and inclusion, carbon management, sustainable development and good design, and customer satisfaction aspects among others.

Record of items discussed

C1.30 A full audit trail of all decisions taken by the TSC during a meeting shall be maintained in CARS in line with the requirements of the National Highways licence and protocol, and shall be translated into relevant suggestions for changes to be made to the document in CARS.

Attendance by visitors or specialist advisors

C1.31 Requests for attendance by visitors or specialist advisors for special purposes (e.g. to provide advice on equality issues) shall need the prior approval of the Chairperson.

Responsibilities

TSC chair

C1.32 The skills of a TSC chair shall be: leadership and negotiation skills; collaborative and inclusive approach; technical competence.

NOTE The TSC chair has a key role which affects the quality of interaction and participation of stakeholders, and ultimately the quality of the RAD.

C1.33 The TSC chair shall be supported by the Secretary in undertaking his / her duties.

C1.34 Before the start of the consultation, the TSC chair shall:

- a) prepare and submit a forward programme of work, including a document review and delivery programme for the coming year to TSG;
- b) ensure that the relevant category of change (A,B,C,D) is assigned to the work under consideration and that the relevant governance process is followed;
- c) update the category of change if needed;
- d) assess the importance and relevance of the document and the level of involvement and commitment required by the members;

C1.35 During the consultation, the TSC chair shall:

- a) lead the TSC and ensure that documents are reviewed efficiently and effectively and that the TSC procedures are complied with;
- b) ensure that all relevant stakeholders are consulted, with sufficient time allocated for their consideration and with no one person or aspect dominating the process;
- c) ensure that liaison takes place with Group Managers, specialist advisors and legal teams if they are not represented;
- d) ensure that RAD reviews are completed within agreed timescales and that those timescales meet the needs of the business;
- e) encourage consultees to comment on the draft document / clauses and the pre-consultation impact assessment report based on their remit (responsibilities of different categories of TSC consultees below);
- f) encourage consultees to be mindful of target dates and priorities;
- g) ensure that the TSC examines the wider technical, safety and commercial (cost) issues (equality, carbon management, sustainable development and good design and customer implications when needed) as presented in the pre-consultation impact assessment report, and the implications for the National Highways business associated with the development, publication and implementation of the new or revised document, and that relevant TSC members provide their comments as relevant;
- h) ensure that the TSC examines opportunities for innovation as identified in the impact assessment report and comment on that as relevant;
- i) ensure that legislation, National Highways' requirements, national policies and strategies and UK and EU legislation that have a bearing on the document, have been explored. These include:

- Legislation and regulations e.g. health and safety; equality and diversity.
 - Effects of EU legislation & European Standards e.g.
 - European Standards for products
 - European Technical Assessments (ETAs)
 - European Directives and Regulations (e.g. CPR)
 - National Highways and DfT strategy documents.
 - Published DfT and National Highways policies and requirements on equality.
 - Ministerial and Public Service Agreement targets.
 - Environmental and sustainability considerations.
 - Other transport issues.
- j) when arranging a TSC meeting, encourages members to thoroughly prepare material before each meeting, to work decisively and efficiently, to adhere to work programmes;
- k) work in concert with the other Overseeing Organisations seeking guidance from UKCEC via the appropriate SES Divisional Director when necessary. (In the event of an impasse, the Chairperson has final authority);

C1.36 At the end of the consultation, the TSC chair shall ensure that the views of all TSC consultees have been reviewed by the technical author and appropriate actions are taken to update the draft document / clauses and the post-consultation impact assessment report to address comments received.

C1.37 After the quality review done by Content specialists, the TSC chair shall review the draft document / clauses, impact assessment and consultation report; if satisfied, the document shall proceed to quantitative assessment.

C1.38 The TSC chair shall review the outcome of the quantitative assessments and, if satisfied, shall ratify the document / clauses and the impact assessment report.

NOTE *By ratifying the document, the TSC chair confirms that:*

- 1) *The TSC procedures have been adhered to.*
- 2) *The TSC is satisfied with the content of the document (which the Chairperson signs), which has been supported by a register of amendments in the RAD that identifies any new or changes from current content.*
- 3) *The TSC is satisfied with the content of the impact assessment report (which the Chairperson signs).*
- 4) *The requirements of the Document Development Plan (DDP) have been met.*

C1.39 The TSC chair shall inform the technical author that the TSC has ratified the documentation and that it has been passed to the approval stage (see [section 14](#)).

TSC secretary

- C1.40 The TSC secretary shall support the TSC chairs in their duties in running the TSC.
- C1.41 The TSC secretary shall help the TSC chair to communicate the start of the consultation by preparing the material to be shared with the TSC consultees, including as a minimum the following information where applicable:
- a) a copy of the MDD;
 - b) links to CARS for the draft document(s) / clauses;
 - c) link to the pre-consultation impact assessment report in SharePoint;
 - d) link to the DDP for information;
 - e) details of the departures from standards issued under the current published version of the RAD;
 - f) any other relevant supporting material like details of research and other development work used to inform the drafting of the document, additional evidence supporting the need to revise an existing RAD or to introduce a new RAD.
- C1.42 During the consultation, the TSC secretary shall help the TSC chair to:
- a) manage communications with the consultees;
 - b) check the status of responses from consultees;
 - c) keep a record of other commitments of consultees and monitor potential delays;
 - d) identify any blockers to the TSC process and put in place relevant mitigation measures.
- C1.43 The TSC secretary shall arrange TSC meetings when needed and act as a focal point for requests related to meeting arrangements.
- C1.44 When the work of the TSC is finished, ensures that all records are archived in accordance with National Highways record retention requirements.

Consultees in general

- C1.45 In the process of setting up a TSC, all consultees shall provide contact details to TSG, including an email address to receive CARS notifications.
- C1.46 Before the start of the consultation, all consultees shall confirm their attendance to the TSC chair and secretary.
- C1.47.1 Members may, with the TSC Chair's prior approval, arrange for substitutes from within their organisations to attend meetings where they are unable to do so.
- C1.47 During the consultation, all consultees shall:
- a) communicate leave / absences / other commitments to the TSC chair and secretary in a timely manner;
 - b) participate fully and in a timely manner in all work;

- c) clearly and effectively represent the views of their stakeholder organisation and its members;
- d) consult with their stakeholder organisation and the range of interested parties directly represented;
- e) review the document, make comments and suggest appropriate amendments, based on the member's knowledge and experience of the subject (technical, operational, commercial or otherwise);
- f) obtain information from overseas experience through appropriate contacts where necessary.

Editorial consultees

C1.48 In addition to the requirements for consultees in general, the editorial consultees (i.e. TSG content specialists) shall comment on aspects related to compliance with the MDD rules.

Technical consultees

C1.49 In addition to the requirements for consultees in general, the technical consultees shall comment on the technical accuracy and acceptability (incl. compliance) of the draft document / clauses.

C1.50.1 The technical consultees may comment on the pre-consultation impact assessment report.

C1.50 Technical consultees from other Overseeing Organisations shall:

- a) be responsible for all matters concerning their own organisation;
- b) ensure that the document is relevant to their specific circumstances, consulting as necessary, commenting on drafts, keeping their respective Heads of Standards and Chief Highway Engineers informed and obtaining approvals from their organisation;
- c) own any alternative wording or clauses specific to their Overseeing Organisation (i.e. National Application Annexes' content and Nationally Determined Requirements / Sections for DMRB and MCHW respectively), and any accompanying obligations regarding currency and relevance

Concurrence consultees

C1.51 In addition to the requirements for consultees in general, all concurrence consultees shall comment on acceptability and affordability of the draft document / clauses for strategic alignment with other business needs.

C1.52 All concurrence consultees in National Highways shall:

- a) provide the viewpoint specific to their business area;
- b) provide input on existing practices and proposed changes to ensure that the document reflects the current requirements and responsibilities of their Directorates;
- c) feedback TSC activities and document development work to colleagues and consult as needed within their own Directorates as necessary.

C1.53 The specific responsibilities of concurrence consultees provided in [Table 8](#) shall be followed.

Table 8 Concurrency consultees responsibilities

Concurrency consultee representatives	Responsibilities
TSG	<ul style="list-style-type: none"> • Attends all TSCs. • Provides EU legislation advice.
Major Projects	<ul style="list-style-type: none"> • Attends all TSCs. • Comment on the draft document / clauses as needed. • Comment on the pre-consultation impact assessment report, with a focus on the Commercial impact section. • Review and comment on the long-term impact of a document on schemes.
Operations	<ul style="list-style-type: none"> • Attends all TSCs. • Comment on the draft document / clauses as needed. • Comment on the pre-consultation impact assessment report with a focus on the Commercial impact section. • Review and comment on the short-term impact of a document on schemes.
Commercial and Procurement	<ul style="list-style-type: none"> • Attends all TSCs. • Comment on the draft document / clauses as needed. • Comment on the pre-consultation impact assessment report, with a focus on the commercial impact assessment tool (CIAT), and provide information on risks and any foreseeable contractual issue relevant to the document / changes under consideration. • Develop the quantitative commercial assessment and populate the 'Commercial Review' tab in the CIAT (included in the impact assessment report).
Health, safety and wellbeing	<ul style="list-style-type: none"> • Attends all TSCs. • Comment on the draft document / clauses as needed. • Comment on the pre-consultation impact assessment report, with a focus on the H&S section.
Equality Diversity and Inclusion	<ul style="list-style-type: none"> • When a full equality impact assessment is undertaken: attend the relevant TSC; comment on the draft document / clauses as needed; comment on the pre-consultation impact assessment report, with a focus on the Equality Diversity and Inclusion section. • When a full equality impact assessment is not required, sample impact assessment reports and provide comments on the Equality Diversity and Inclusion section.
Carbon management, sustainability and environment	<ul style="list-style-type: none"> • When a full impact assessment on carbon management, sustainable development and good design is undertaken: attend the relevant TSC; comment on the draft document / clauses as needed; comment on the pre-consultation impact assessment report, with a focus on the carbon

Concurrence consultee representatives	Responsibilities
	<p>management, sustainable development and good design section.</p> <ul style="list-style-type: none"> • When a full equality impact assessment is not required, sample impact assessment reports and provide comments on the Equality Diversity and Inclusion section.
Customer experience	<ul style="list-style-type: none"> • Sample impact assessment reports and provide comments on the customer satisfaction section.
Other concurrence consultees	<ul style="list-style-type: none"> • Comment on acceptability and affordability for strategic alignment with other business needs.
Additional informed parties	<ul style="list-style-type: none"> • Ensure a balanced view between the needs of National Highways, other government bodies, professional groups and the industry as a whole

All National Highways consultees

C1.54 All National Highways members shall:

- a) deliver the appropriate internal Way we Work procedures (WwW SES Processes <https://highways.sharepoint.com/sites/intranet/WayWeWork/SitePages/WwWHome.aspx> required by the document);
- b) develop any internal National Highways procedure arising from a requirement within the RAD and for agreeing it with internal stakeholders ready for implementation in conjunction with the publication of the RAD.

Confidentiality

C1.55 To maintain a collaborative approach, disagreements or differences of opinion shall, wherever possible, be resolved within the TSC process and not in the public arena or media.

C1.56 TSC members shall not make public statements on the work of the TSC.

C1.57 TSC members shall not circulate draft documents to other teams within their organisation without first talking to the Chair regarding any precautions that they should take.

NOTE *Material made available to the members of the TSC during the development process is draft for limited circulation.*

C1.58 Where draft documents are being circulated beyond the confines of the TSC, such documents shall include a health warning on the front cover:

“This is a draft document for consultation only. The final (published) document may differ significantly from this consultation document.”

Annex 1D Commercial impact assessment toolkit (CIAT)

Qualitative assessment by technical authors

D1.1 Technical authors shall undertake a qualitative assessment of the commercial impact of a new document or changes to an existing document using the commercial impact assessment toolkit (CIAT) stored in (DMRB link or MCHW link).

NOTE: A help page article on completion of the CIAT is available here:

<https://help.futuredmrb.co.uk/commercial-impact-assessment-and-toolkit/>

D1.2 Technical authors shall follow the 5-step approach given in Figure 24 when assessing commercial implications of key changes:

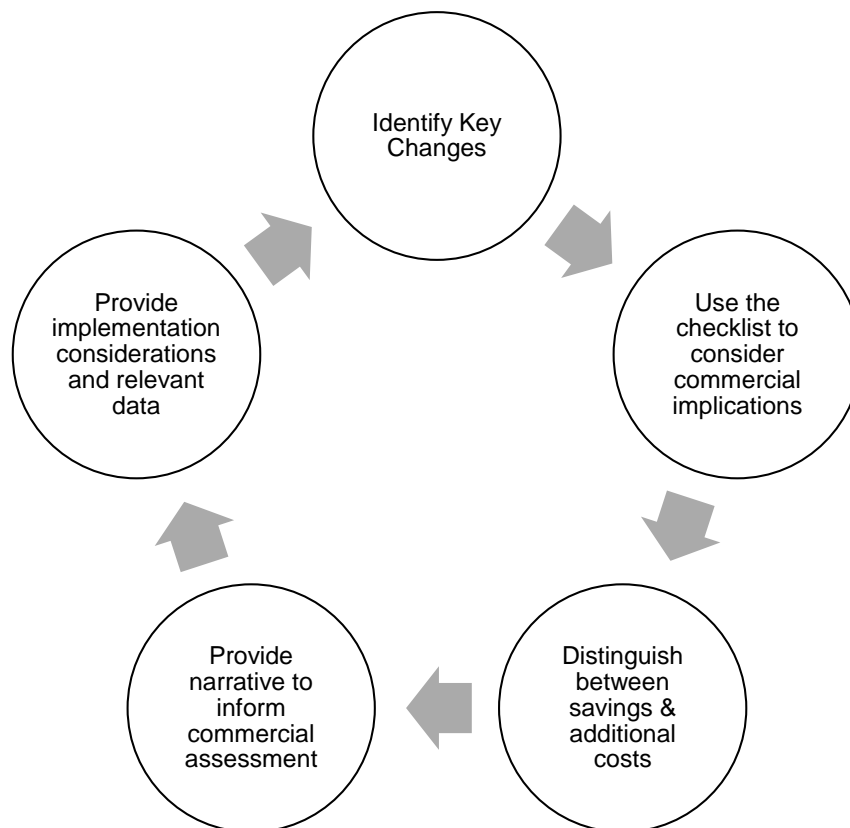


Figure 24. 5-step approach for Key Changes assessment

Identify Key Changes

D1.3 Technical authors shall identify 'Key Changes' and populate the CIAT accordingly.

NOTE 1 In this context a 'Key Change' is something that is different from what is done in current industry practice and which can have commercial implications. Not all modifications made to a RAD are therefore 'Key Change' in this context.

NOTE 2 *For example, updates to existing standards can be made to incorporate established practice on the network, which therefore do not have significant cost implications (in practice the updates were already implemented).*

D.1.3.1 If there is any uncertainty whether or not a modification is a Key Change, it should be included.

D1.4 When dealing with category A changes (major rewrites or new document developments), technical authors shall identify and share all Key Changes into the CIAT to help Commercial make an informed assessment.

NOTE *Not all changes made to a document are relevant from a commercial point of view, and Key Changes can be hidden when an entire document is updated or created.*

D1.5 When dealing with category B changes (changes to requirements) technical authors shall flag the Key Changes into the CIAT to help Commercial make an informed assessment.

NOTE *For category B changes, the clause change summary will show all changes made and the background to those changes. Whilst this is useful to Commercial to have a clear view of all changes, not all of them can be relevant from a commercial point of view.*

Use the checklist for commercial impact identification

D1.6 The checklist provided in the CIAT and reproduced in [Table 9](#) shall be used to assess the commercial impact of Key changes.

D.1.7.1 Although some changes can be mandatory by law, the cost implication should be identified and assessed for budgeting purposes.

Table 9 Checklist for commercial impact identification

Area	ID	Key questions to assess cash benefits
Legislation & standards	1	Is the change the result of new or updated legislation and/or standards?
R&D	2	Is the change the result of R&D activities?
Departures	3	Is the change likely to reduce the number of unnecessary departures?
Skills and competence	4	Is the change likely to require additional certifications, qualifications, training or skills for staff in the supply chain?
	5	Does the change require additional qualifications, training or skills for internal staff?
	6	Is the change likely to require new skills / specialisms?
Contracts	7	Is the change likely to have an impact on existing contracts?
Equipment	8	Is the change likely to require different equipment to meet the requirement?
Labour	9	Is the change likely to introduce additional work to be undertaken (e.g. increased frequency of detailed

Area	ID	Key questions to assess cash benefits
		inspections, increased frequency of servicing/cleaning, etc.)?
Quality Systems	10	Is the change likely to have implications for quality systems?
Ownership	11	Is the change likely to modify ownership of the asset / its components / materials?
Adverse indirect costs	12	Is the change likely to have any adverse indirect costs? (e.g. a change to the edge of carriageway detail may also affect road restraint systems, drainage, earthworks, road markings and communications equipment, utilities and maintenance operations)?
Design	13	Is the change likely to affect the design of the works?
	14	Is it a change in the need for strengthening or replacement of existing structures?
	15	Is the change likely to have an impact on the life-span of assets (e.g. changing design life)?
Construction	16	Is it a change in construction methodology or new methods of working required?
	17	Is it a change in the specification, quantity and range of materials or products required?
	18	Is the change likely to have an impact on the construction of the works?
Maintenance & Operations	19	Is the change likely to have an impact on the maintenance of works?
	20	Is the change likely to have an impact on operations of the network, including inspections, routine repairs, data gathering, asset management and cleaning?
Disposal	21	Is the change likely to have an impact on the disposal of assets on the network?
Indirect impact	22	Is the change likely to have any indirect impact?

Distinguish between savings and additional costs

D1.7 Technical authors shall distinguish between savings and increased costs against the same change and provide explanation.

Provide narrative for key changes

D1.8 Technical authors shall provide as much information and narrative as possible to define the changes based on their technical knowledge using the checklist.

NOTE The aim is to support quantification of changes by Commercial.

D1.9 Areas that shall be covered include: potential risks and mitigation measures, assumptions, data, research study.

NOTE Such information can help Commercial to undertake their own quantitative assessment if needed.

Provide implementation considerations

D1.10 When assessing the impact of key changes, technical authors shall highlight potential impact on costs of implementing the RAD in its final version and look at the implementation of the RAD through the eyes of those who have to implement it.

NOTE 1 Even changes that reduce/simplify requirements within RADs can lead to short-term cost increases if, for example, procedures need to be re-written, staff trained, databases re-formatted.

NOTE 2 Significant cost implications which come to light at a late stage and were not properly anticipated or assessed can prevent the implementation of the RAD.

D1.11 The following implementation aspects shall be defined:

- When will the impact be seen – frequency (one off or recurring) and duration (immediate, medium, long term)
- Specific conditions for impact to be seen (e.g. use of specific material, specific asset life-cycle stage)
- Base unit (e.g. per scheme, per km of road, per unit of material)

Develop complete change log

D1.12 Technical authors shall produce a complete change log for Commercial to use when quantifying cost impact.

NOTE The change log is a key document as it provides information on status quo and how it changed in the new draft.

Quantitative assessment by Commercial team

D1.13 Commercial representatives shall undertake a quantitative assessment of commercial impact to derive the net costs of implementing the proposed RAD to

enable National Highways to take account of the cost changes in its business planning.

NOTE 1 *Net costs are the cash savings and costs that directly impact on National Highways budgets (e.g. maintenance, construction and inspection costs).*

NOTE 2 *Net costs comprise:*

- 5) *Capital annual average cost benefit [capital impact on capital budgets through major projects]*
- 6) *Maintenance annual average cost benefit [maintenance impact on revenue budgets through increased/decreased routine and non-routine maintenance]*
- 7) *Operations annual average cost benefit [operations impact on revenue budgets through day-to-day operation of the network]*

NOTE 3 *Proposals with soundly based quantified benefits are normally be given priority in the allocation of funds.*

D1.14 Commercial representatives shall complete the 'Commercial review tab' in the CIAT.

D1.15 Costs shall be estimated on the basis of the likely impact on National Highways budgets in a typical year (e.g. average of the past five years).

NOTE *For example:*

- 8) *If the requirement will affect the cost/km of constructing an asset, the implementation cost should be based on the number of km of the asset likely to be built by National Highways in an average year.*
- 9) *If the requirement will affect the cost of an asset which is normally built by National Highways only once every 10 years, it would be appropriate to take a tenth of the cost.*

D1.16 The basis of any cost estimates shall be explained, including the results of any cost assessment studies, and evidence shall be recorded.

NOTE *It is important that this information is fully documented so that it can be used by other directorates in negotiations with the supply chain, as well as to support business cases for potential efficiencies that can be accrued through RADs implementation.*

D.1.17.1 Commercial representatives may need to make broad assumptions about the use of the new/revised RAD to arrive at indicative financial values for the benefits, e.g. x likely instances of the application of this requirement of the RAD over National Highways' motorway and trunk roads in a typical year, with a benefit of £y for each application gives an overall financial benefit (product of the two figures).

D1.17 Where applicable, account shall be taken of advice contained in CHE Memo 121 HM Treasury's New Green Book On Appraisal & Evaluation In Central Government (<http://share/share/livelink.exe?func=ll&objaction=overview&objid=3925753>; <https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government>) regarding optimism bias.

D1.18 The number of years to 'break even' point (return period) in terms of direct costs and savings to National Highways budgets shall be estimated.

D1.19 For the purposes of calculating the 'return period', future costs/savings shall be discounted back to the proposed year of publication of the RAD, using the discount rate set out in the Treasury Green Book.

NOTE *Further advice can be obtained from CHE Memo 121 HM Treasury's New Green Book On Appraisal & Evaluation In Central Government*

(<http://share/share/livelink.exe?func=ll&objaction=overview&objid=3925753>;
<https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government>).

D1.20 Commercial representatives shall provide considerations on potential impacts on contracts.

NOTE Information on potential impacts on contracts is valuable for Major Projects and Operations at document implementation stage.

D1.21 Commercial representatives shall provide any additional comments on commercial impact of the Key Changes.

Annex 1E Control process for SRP date changes (DMRB/ MCHW)

E.1.1 The control process presented in this annex shall apply to SRP date changes related to DMRB/MCHW documents only.

NOTE This process is separate to the change control process which applies to the Portfolio Change Control Process.

Definitions

Change

In the context of the Programme a change is a departure from the baseline Standards Review Programme (Signed off by the Chief Highway Engineer) and subsequent departures to the amended programme

Programme Year

In terms of periods, a programme year aligns with a financial year e.g. 2021/2022 refers to a period from 1st April 2021 up to and including 31st March 2022.

“In year” Change

Change of milestone dates and hence delivery dates of a single entry in the Standards Review Programme within a programme year, i.e. delivery date remains within its current programme year.

“Across Programme Year” Change

Change of delivery date of a single entry in the programme from one programme year to the next programme year.

Other (administrative) Changes

This will include changes such as change in technical author, change in Group Manager or other changes that are not material to the delivery date of the entry on the programme.

Type of date changes and approvers

Date changes to final deliverables for approval

E.1.2 The technical author shall submit a Date Change Request to TSG using JIRA.

NOTE *Within the change issue that records the governance, technical authors can create a 'date change request' as a sub task. A help page article is available here:
<https://help.futuredmrb.co.uk/date-change-requests/>*

E.1.3 For any date changes to the Forecast submission date for TSC Chair approval, either forwards, backwards or across programme year, the technical author shall discuss the reasons for the date change with the relevant Divisional Director.

E.1.3 The Divisional Director shall discuss and obtain approval for the date change from the National Highways Chief Highways Engineer (CHE).

NOTE *Once the approval is recorded in Jira, the request will be passed to TSG to implement the change.*

DDP & TSC Date Changes

E.1.5 For date changes to DDP and TSC dates, the technical author shall submit a change control request to TSG using JIRA.

E.1.6 For these changes the technical author shall confirm in JIRA that changes in dates to DDP and TSC dates will not impact and subsequently require a change in date of the submission of final documentation for approval.

E.1.7 The Divisional Director shall discuss and obtain approval for the date change from the National Highways Chief Highways Engineer (CHE).

NOTE *Once the approval is recorded in Jira, the request will be passed to TSG to implement the change.*

Other (administrative) changes

E.1.8 These changes include technical author and document title changes.

E.1.9 The technical author shall submit a change control request to TSG using JIRA.

E.1.10 TSG shall approve and implement the change to the programme.

Repeated changes to the programme

E.1.11 Where repeated requests for changes to delivery dates are submitted for the same document, this will lead to an escalation by TSG to Group Managers.

E.1.12 The technical author will be required to provide reasons for delays and offer mitigation of delivery by bringing forward other documents in future years to current programme year.

Revision history

Version	Date	Description	Author
6.2	February 2022	<p>New terms and definitions added for document maintenance process.</p> <p>New requirements added to section 5 on CHE memos.</p> <p>Figure 2 updated as incorrectly used the term designers instead of designer.</p> <p>Section 6 on drivers and opportunities for document development and solutions developed to incorporate document maintenance and feedback management principles.</p> <p>Section 18 – Stage 10: Document maintenance fully populated with new requirements on document maintenance process, document review management, feedback management, routine changes management.</p> <p>Annex 1F Contents of draft change issue in Jira guidance moved to CARS help pages: https://help.futuredmrb.co.uk/standards-governance/using-jira/</p>	NH/WSP
6.1	November 2021	<p>Highways England changed to National Highways throughout</p> <p>All drafting notes in a blue colour reviewed for latest situation</p> <p>Clause 6.33 clarified to show Technical Standards Committee responsibility for decision making</p> <p>Amendments to Figures 5 and 9 to reflect category D only needing a clause change summary and no impact assessment/consultation report</p> <p>Clauses 13.3 to 13.6 repeated in section 9 for clarity.</p> <p>Annex 1F Contents of draft change issue in Jira created with screenshots</p>	NH/WSP

6.0	March 2021	<p>Terms, definitions, and abbreviations updated.</p> <p>Section 5: MCHW clauses fully updated, including clauses on Nationally Determined Requirements (NDRs).</p> <p>Section 6: drivers for document development updated.</p> <p>Section 7: new section on impact assessment – this includes new coverage of the impact of RADs on customer satisfaction and on carbon assessment and reference to the new impact assessment report.</p> <p>Section 8: new standards governance process introduced – this includes categories A, B, C, D of change.</p> <p>Sections 9 to 17: revised content to cover the new standards governance process in detail; flowcharts introduced to reduce the length of the text and provide clearer guidance. QMR1, QMR2 and additional templates replaced by document development plan, impact assessment report and consultation report.</p> <p>Section 13: TPB process replaced by Technical Standards Committee's process.</p> <p>Section 14: approval stage clarified for different categories of change. Commercial approval no longer required – their input will be collected during consultation as concurrence consultees.</p> <p>Section 18: new document maintenance process – this will help manage document review cycles, routine changes and management of feedback more efficiently and effectively.</p> <p>Old Annexes 1B and 1C removed as QMR process is no longer relevant.</p> <p>Old Annexes 1F and 1I removed as H&S risk assessment and carbon management, sustainable development and good design content now covered in the new impact assessment report.</p>	WSP/HE
-----	------------	---	--------

		<p>Old Annex 1H removed and background to notification process now provided in section 8.</p> <p>Annex 1E on control process for date changes updated to reflect new milestones.</p>	
5.1	October 2019	<p>Wellbeing clauses added to section 8, The impact of RADs on health, safety and wellbeing.</p> <p>Reference to Temporary Instruction Notes (TINs) removed.</p> <p>Clauses added to section 8, The impact of RADs on sustainable development and good design.</p> <p>Sustainable development and design screening and assessment template added to Annex 1I.</p>	WSP/HE
5.0	November 2018	<p>The Manual has been restructured into three parts in recognition of different audiences and feedback received by users:</p> <ul style="list-style-type: none"> • Part 1 – relevant to those involved in the governance process, with a clearer identification of roles and responsibilities. Key updates include: <ul style="list-style-type: none"> • improved tables providing key roles and responsibilities for different parties; • content relevant to document drafting moved to Part 2; • drafting, review and approval stages have been split into separate sections for ease of navigation; • document development plan made mandatory; • single submission for sign-off by all CHEs; • new template for GG 104 health and safety risk assessment. • New Part 2 on document layout and clause style. • New Part 3 on drafting rules relevant to document authors. 	WSP

4.2	March 2018	No changes have been made to requirements contained in MDD 4.1. This version provides additional requirements and guidance to addresses feedback and comments received from users.	WSP
4.1	September 2017	No changes have been made to requirements contained in MDD 4.0. This version provides additional requirements and guidance, and addresses feedback and comments received from users.	WSP
4.0	April 2017	The entire Manual is reviewed to reflect the style of the new DMRB drafting rules. The Manual is developed into two separate Parts to acknowledge their different audiences.	WSP Parsons Brinckerhoff
3.0	January 2017	Restructure of the Manual into two parts. Part 2 on drafting rules reviewed in a pilot project. Revisions and changes made throughout including: new drafting rules, new Annexes, new concepts such as content specialist, National Application Annexes, performance-based requirements for assets.	WSP Parsons Brinckerhoff
2.2	October 2015	Revisions made throughout to make suitable for use by a wider audience. References to Peer Review Board amended to Technical Project Board. Minor changes throughout.	CH2M
2.1	1 June 2015	Revisions to Section 6 for Cost Impact Toolkit. Addition of Annex B Cost Impact Identification for document owners. Revisions to Section 10.	CH2M
2.0	7 May 2015	Revisions for CDM 2015. Name change to Highways England throughout. New Section 3.0 Roles and Responsibilities added. New Section 15 Technical Project Board added. New Annex A Drafting Content of RADs added. Minor changes throughout.	CH2M