Introducing the updated MCHW

Presenters:

Steve Davy, National Highways Antony Atkins, National Highways Suleman Sattar, National Highways



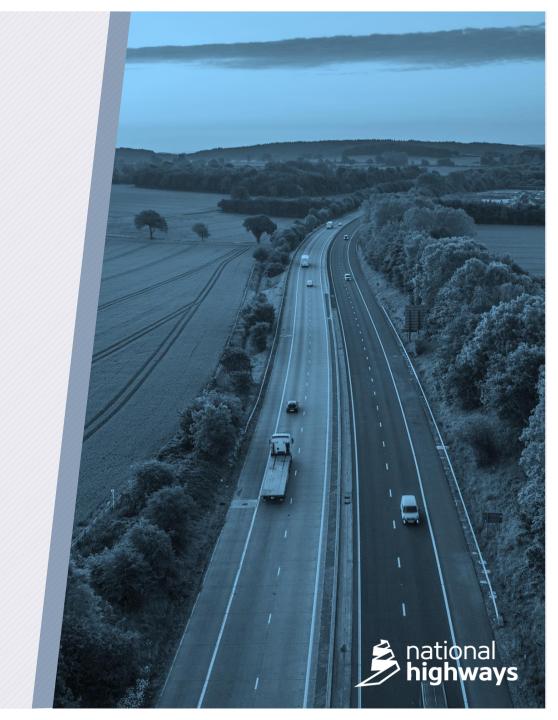
13 November 2025



The Updated MCHW

Agenda

- 1. Where we were and where we are now
- 2. What has changed
- 3. How this affects you
- 4. Available support



Standards and Specifications for UK Highways

Manual of Contract Documents for Highway Works (MCHW)
Our standard suite of specification documents included within the construction contracts.

Design Manual for Roads and Bridges (DMRB)

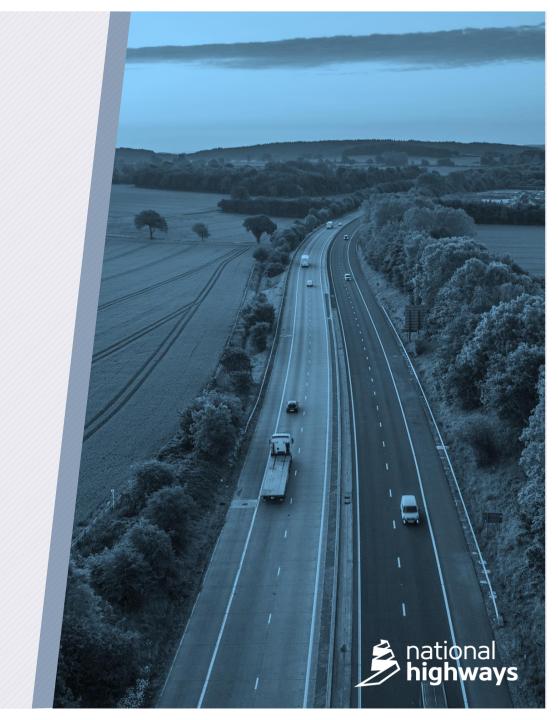
It defines the design requirements for every aspect of the road infrastructure.



The Updated MCHW

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Where we were in April 2020











7 volumes **126** MCHW documents **571** drawings **3,485** pages

All documents in pdf, limited accessibility

11 years average age, all documents requiring editorial review, technical update or withdrawal

Inconsistent in style and format, including presentation of requirements

Inconsistent contract specifications, varying style and quality



Technical Regulations Protocol obligation

"Develop and deliver a work programme to refresh the MCHW during the second Road Period so that it reflects the needs of its users. This refresh should take account of the stakeholder consultation."



Vision for the Future MCHW

The future MCHW will provide clear and unambiguous requirements and instructions, compatible with modern contract forms and future construction practices



Timeline

Updated MCHWpublished, incl. DMRB
consequential amendments

30.09.2025

2018 Industry-wide MCHW consultation 2020
Fully refreshed
DMRB published

2020 New **DMRB website** launched 2021

MCHW authoring started

2023

2023

New Standards

for Highways

website launched

Authoring of DMRB consequential amendments started

2021

Enhanced
Governance
Process to facilitate
regular updates to
standards and

specifications

2021 NH's Manual for the Development of Documents

updated to provide MCHW authoring rules to improve clarity and consistency

2023

NH's Manual for the Development of Documents

updated to provide authoring rules for DMRB consequential amendments

2017-2020

Introduction and use of Collaborative Authoring and Review System (CARS), enabling easier authoring and review, and fast and automated publication of documents

2021-2024

CARS updated to continuously support MCHW authoring and associated DMRB consequential amendments

2024-2025

Relevant MCHW documents notified to European Commission



Where we are now











3 document sets

95 distinct MCHW documents

2,800 pages of digitalised content

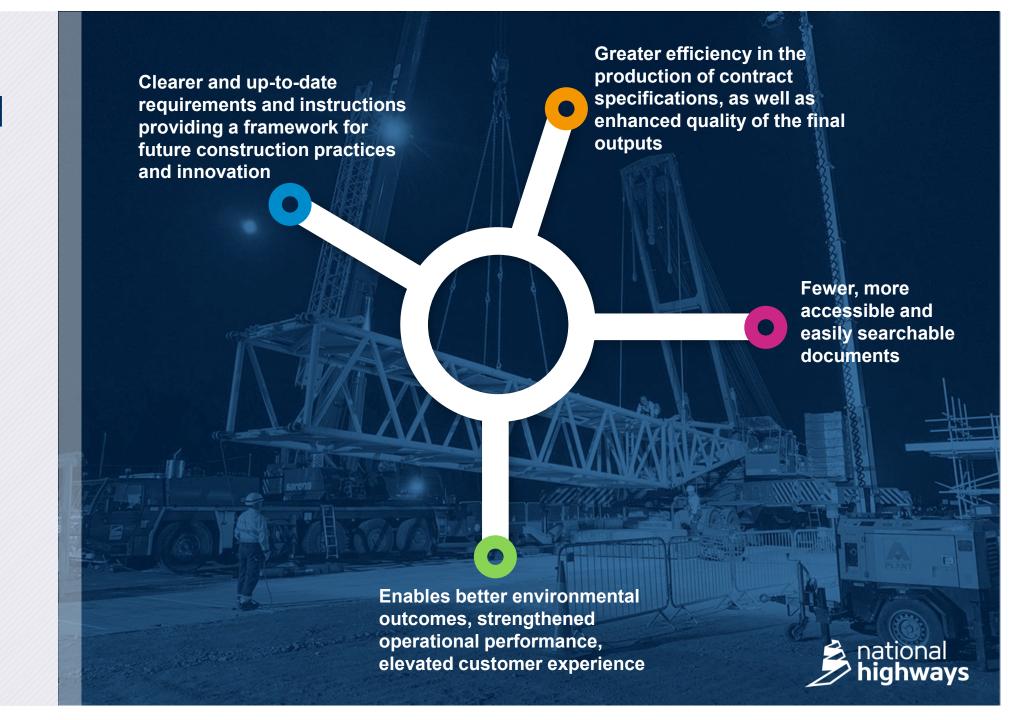
HTML versions, easier to access and navigate on the website

Up to date and aligned to industry practice and to DMRB design content Consistent in style and format, including presentation of requirements and national variations

Templates for contract specifications now available



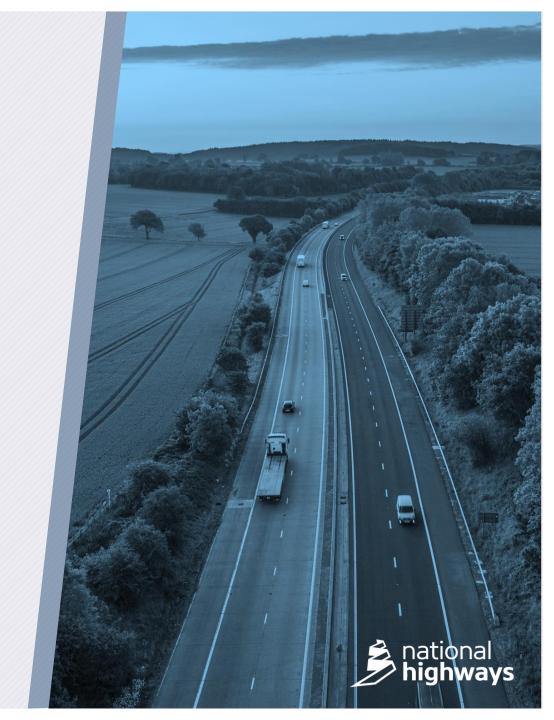
Benefits of the updated MCHW

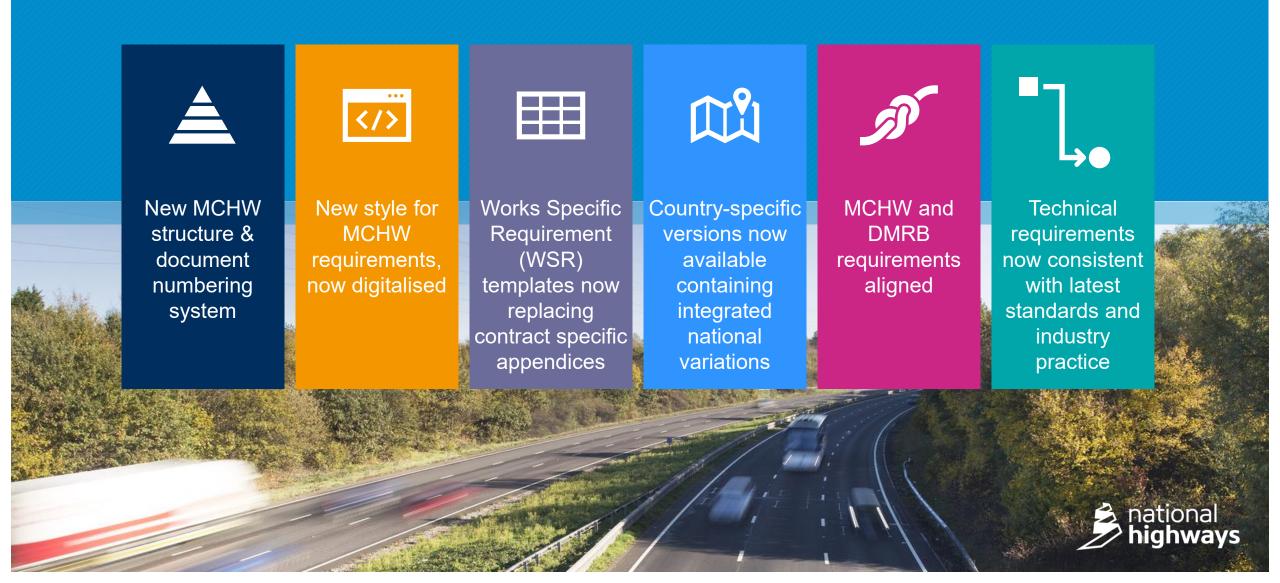


The Updated MCHW

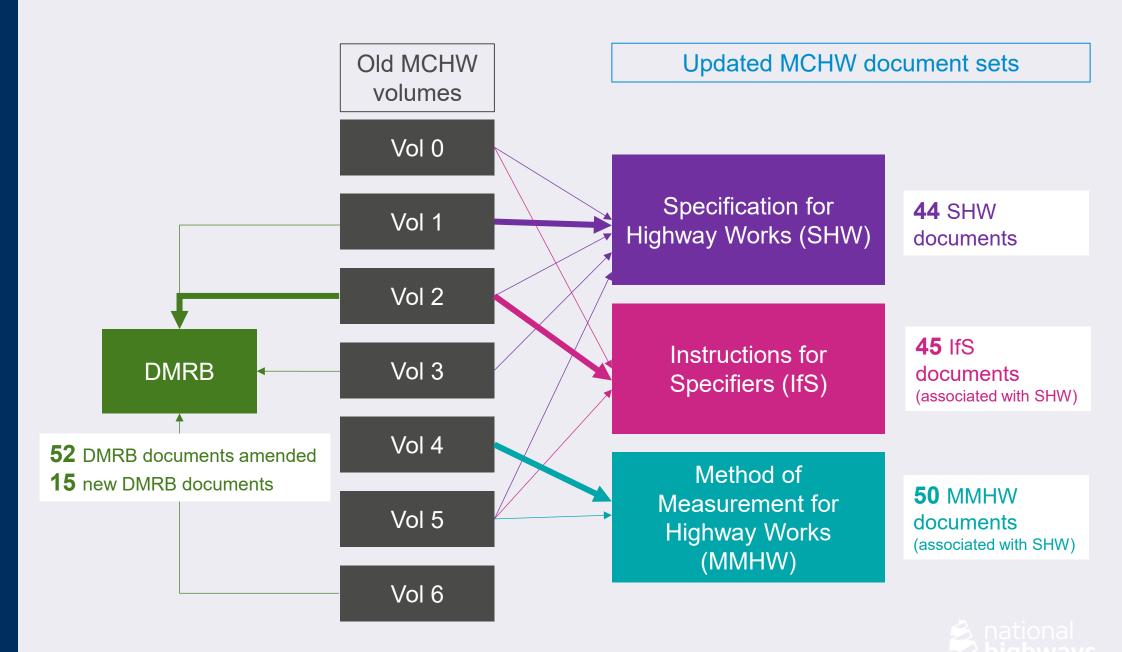
Agenda

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New MCHW
structure &
document
numbering
system



Vol 1

Series xxx

Vol 2

NfG for series xxx

Vol 4

MMHW Chapter
IV Series xxx

Updated MCHW document code

elles XXX		Discipline (1 st digit)									
		G	L	C (Civil Engineering)					T (Technology)		
		General Principles & Scheme Governance	Sustainabi lity & Environme nt	Road Layout	Pavement	Highway Structures & Bridges	Drainage	Geotechni cs	Control & Communicati ons Technology	Road Lighting	
Life Cycle Stage (2 nd digit)		100 - 999	100 - 999	100 - 199	200 - 299	300 - 499	500 - 599	600 - 699	100 - 499	500 - 999	
General Information	G										
Appraisal	A					DMRB					
Design	D										
Contract Preparation	Р					IfS					
Construction	С					SHW					
Maintenance & Operation	M										
Inspection & Assessment	S					DMRB		L	Codes and numbers to be selected when		
Disposal	Z							- C	allocating documents		



New MCHW structure & document numbering system

Updated MCHW documents

New MCHW structure & document numbering system

Manual of Contract Documents for Highway Works



Road Layout Construction

CC 130

Construction of temporary traffic signs, road markings and road studs

(formerly part of Series 1200)

Version E/1.0.0

Summary

This document gives requirements for temporary traffic signs, including self-supported traffic signs, road markings, road studs, cones, portable barriers, cylinders and delineators, portable traffic signals, variable message traffic signs; and removal of both permanent and temporary road markings.

This document incorporates specific requirements for National Highways. Alternative versions of this document are available for other Overseeing Organisations.

Feedback and Enquiries

Users of this document are encouraged to raise any enquiries and/or provide feedback on the content and usage of this document to the dedicated National Highways team. The online feedback form for all enquiries and feedback can be accessed at: www.standardsforhighways.co.uk/feedback.

This is a controlled document.

Manual of Contract Documents for Highway Works



Road Layout Contract Preparation

CP 130

Instructions for specifiers for CC 130 Construction of temporary traffic signs, road markings and road studs

(formerly part of Series NG 1200)

Version E/1.0.0

ummary

This document gives specifier instructions with respect to temporary traffic signs, including self-supported traffic signs, road markings, road studs, cones, portable barriers, cylinders and delineators, portable traffic signals, variable message traffic signs; and removal of both permanent and temporary road markings.

This document incorporates specific requirements for National Highways. Alternative versions of this document are available for other Overseeing Organisations.

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Manual of Contract Documents for Highway Works









Road Layout Construction

CC 130/MMHW

Method of Measurement for CC 130 Construction of temporary traffic signs and road markings

Guidance, Series 1200.)

Version 1.0.0

Summary

This is a new method of measurement that corresponds to the specification document CP 130 Construction of temporary traffic signs, road markings and road studs.

Feedback and Enquiries

Users of this document are encouraged to raise any enquiries and/or provide feedback on the content and usage of this document to the dedicated National Highways team. The online feedback form for all enquiries and feedback can be accessed at: www.standardsforhighways.co.uk/feedback.

This is a controlled document.



Updated MCHW documents



New MCHW structure & document numbering system

		Discipline Discipline								
		G	L	C (Civil Engineering)					T (Technology)	
		General Principles & Scheme Governance	Sustainability & Environment	Road Layout	Pavement	Highway Structures & Bridges	Drainage	Geotechnics	Control & Communications Technology	Road Lighting
Life Cycle Stage		100 - 999	100 - 999	100 - 199	200 - 299	300 - 499	500 - 599	600 - 699	100 - 499	500 - 999
General Information	G									
Appraisal	Α					DMRB				
Design	D									
Contract Preparation	Р			CP130		IfS				
Construction	С			CC130		SHW				
Maintenance & Operation	M									
Inspection & Assessment	S					DMRB			Codes and numbers to be selected when allocating documents	
Disposal	Z									



Key documents to be aware of



Specification for Highway Works index

Summary

This document contains the current index of Specification for Highway Works documents as of the date of publication. A full summary of changes incorporated is included within the Publicatio.

Feedback and Departure

Uses of this discussed are associated to rate any empirics and/or parable healthack on the content and stage of the discussed from the content and using the discussed from the content and using the discussed from the ofference and health content and the content and using the discussed from the other discussed.



General Principles & Scheme Governance

Instructions for Specifiers and Works Specific

30-Sep-2025

Summary

The Comment contains the current index of instructions for Specifiers documents and W
Specific Requirements Immigrates as of the date of publication. A full summary of changet

Feedback and Engoles

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Manual of Contract Documents for Highway Works



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General Principles & Scheme Governance Construction GC 001

Method of Measurement for Highway Works

30-Sep-2025

This document contains the current index of Method of Measurement for Highway Works documents as of the date of publication. A full summary of changes incorporated is included within the Publication summary section.

Feedback and Enquiries

Users of this document are encouraged to nake any enquiries and/or provide feedback on the content or

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man the Americani of www.standerfeedbackers.or highways team.

GC 000 -

<u>Specification for</u> <u>Highway Works</u> <u>index</u>

GP 000 -

Instructions for Specifiers and Works Specific Requirements templates index

GC 001 -

Method of Measurement for Highway Works index Manual of Content Documents for Inglancy works

Figure 1.

Figure 2.

Figure

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GC 100 Introduction to the Specification for Highway Works

(formerly Series 000 and the Preamble to the Specificatio

Summary
This document gives the introduction to the Specification for Highway Works, defines the specification for the connect, identifies the Overseeing Organisation, brings in the contra drawings or models and identifies a contract reference document date.

Presents and Experience

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Manual of Comments for Highway Works

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Content Proceptes & Softener Covernance
Content Proposition
GP 112
Introduction to the Method of Measurement for
Highway Works

menty Method of Measurement for Highway Works, Chapters I & II and Notes for Guidi lapters I, II & III.)

Summary
This document contains definitions and general principles that pentain to all methods of measurement collectively entitled the Method of Measurement for Highway Works.

Feedback and Energine

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GP 110 -

Introduction to the Manual of Contract Documents for Highway Works

GC 100 -

Introduction to the Specification for Highway Works (and associated GP 100)

GP 112 -

Introduction to the Method of Measurement for Highway Works

See also:

GC 101 - General requirements for the Specification for Highway Works (and associated GP 101)

GC 102 - Site and work constraints (and associated GP 102)

GC 103 - Environment, sustainability and carbon management (and associated GP 103)

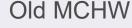
GC 104 - Works data, third party aspects and customer communications (and associated GP 104)

GC 105 - Arrangements for the Overseeing Organisation (and associated GP 105)

GC 106 - Working on the highway (and associated GP 106)







(02/20) Brickwork shall comply with Series 2400 and be built with mortar designation (i) in English bond. The joints of brickwork where exposed shall be finished as specified for unpointed joints in Clause 2412. The ends of all pipes shall be neatly built into the brickwork and finished flush with mortar designation (i). Where precast concrete adjusting units are used they shall conform to BS EN 1917 and BS 5911-3. Benching width for chambers detailed on HCD drawing numbers F25 to F27 shall be 300mm for branch connection.

4 (02/20) Precast concrete chambers shall comply with BS 5911-3 and BS EN 1917 and the particular ill be constructed of requirements described Constructor ST4 concrete complying ract specific Appendix 5/1.

requirements in SHW 5 (02/20) Corrugated ST4 concrete inverts and precast concrete c lar requirements lar material Class 6M described in contract st as described in Table 6/1 compacted in accordance with Clause 612.

6 (02/20) Where the depth of invert of chambers, excluding inspection chambers, exceeds 900mm below the finished surface of the carriageway or the adjacent ground, chamber steps complying with BS EN 13101 shall be built in accordance with relevant Series F-HCD Drawings. The steps shall have a declaration of performance for their intended use within the permanent works. Threaded components shall be galvanised in compliance with

New style for **MCHW** requirements, now digitalised

(02/20) Safety precautions require that chamber covers have a minimum opening as shown on the HCD Drawings where personnel may be required to enter completely. In carriageways, hard shoulders and verges, chamber covers, frames and gratings should be at least Class D400. Where, exceptionally, covers have to be located in areas subjected to large numbers of high speed heavy goods vehicles, Class E600 chamber covers, frames and gratings should be considered. Advice may be sought from the Overseeing Organisation. It will normally be expected that the minia should have regard to measures available to

the weight of each ele Related Notes for prevent covers falling he HSE Manual Handling Operations Guidance...

3 (02/20) It may be 1 described in sub-Clause 507.17. However, the principle of having the joint nearest the chamber as close as possible to the chamber and the next joint positioned so as to give an effective length of intervening articulated pipe, free from constraint by the trench bottom, should be maintained

4 (02/20) BS EN 124 makes no reference to coatings. Many manufacturers apply a coating in order to prevent discolouration of the castings while in stock or in transit. However, BS 7903: 1997 states that short term coatings offer no lasting product enhancement and any surface oxidation of the cast iron has no detrimental effect upon its

[Note to compiler: This should include:]

- (02/20) the basis of the hydraulic design of the system on which the Contractor should submit his proposals for pipe types and makes [501.3, 8005.1];
- 2 (02/20) a schedule of pa ing combinations: [which should be determined in accordance with CD constructed other than in a .. including sample trench [608.8];
- (02/20) grading and ge

Seating of covers with

- (02/20) values of pipe
- appendix astics pipes:
- (02/20) plate thicknesses for bolted segmental plate pipes [501.4(i)] and minimum plate thickness for corrugated steel pipes of lock seam fabrication if different from sub-Clause 501.4;
- (02/20) whether corrugated steel pipes are to have additional protection of hot-applied bitumen [501.5];
- (02/20) where sulfate-resisting Portland cement is required for concrete pipes [Table 5/1];

Updated MCHW

Specification for Highway Works

Design of temporary traffic signs, road markings and road studs

- 1.2 The selection, positioning, installation, inspection, maintenance and removal of temporary traffic signs, road markings and road studs, and the removal of permanent road markings shall be Contractor design items, unless otherwise stated in CC 130/WSR/001.
- 1.3 The design of temporary traffic signs, road markings and road studs, and the removal of permanent road markings shall be in accordance with CD 130 [Ref 3.N].
- 1.4 The requirements for "Contractor design" in Section 17 of GC 101 [Ref 6.N] shall traffic signs, road markings and road studs, and the removal of permanent road n

Clear & concise constructor requirements

Instruction for Specifiers

Design of temporary traffic signs, road markings and road studs

- The selection, positioning, installation, inspection, maintenance and removal of temporary traffic signs, 1.2 road markings and road studs, and the removal of permanent road markings shall be Contractor design items, unless otherwise stated in CC 130/WSR/001.
 - Works Specific Requirements to be provided within the WSR template where applicable are:
- SI.1.2 The following elements of temporary traffic signs, road markings and road studs, and the removal of permanent road markings, shall not be Contractor design items: [enter free text].
- The design of temporary traffic signs, road markings and road studs, and the removal of permanent 1.3 road markings shall be in accordance with CD 130 [Ref 3.N].
- The requirements for "Contractor design" in Sectio Specifier instructions now 1.4 traffic signs, road markings and road studs, and th

associated with relevant constructor requirements

Reference made to works specific requirement. **Templates** downloadable from Standards for Highways website

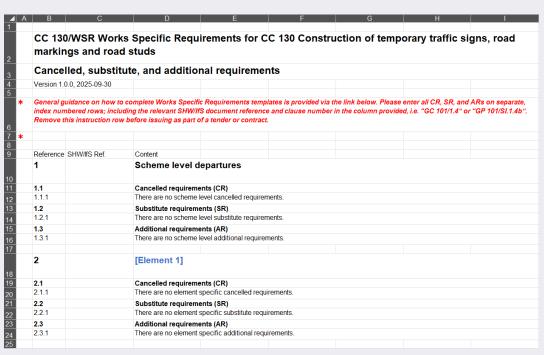


- Works specific requirement templates are downloadable from Standards for Highways website in .ods format.
- WSR templates provides a standardised approach to develop contract specifications.

A	B	С	D	E	F	G	Н		J	
•		0/WSB/0	02 Temporary	traffic ciane						
3				trainic signs						
4	Version 1	1.0.0, 2025-0	9-30							
*	General	auidance or	how to complete W	orks Specific Requir	rements templates is	provided via the lin	k below. Specific ins	tructions for the		
						ith an asterisk shall				
E	tender o	r contract.								
5 6 *										
7										
8 Purpose	Referenc	eSHW Ref.	Content							
	1		[Element 1]							
9										
10			Temporary traffic	signs						
			Section 2, CC 130 v	ersion 1.0.0, 2025-09	-30					
11	1.1		Mark anadilla van	.lva.ma.máa						
12	1.1		Work specific requirements							
13										
			General requiremen	ts for temporary traffic	signs					
14		00 400/0 4	T							
15 Requirement	1.1.1	CC 130/2.1	Temporary traffic signs specified by the Overseeing Organisation shall be:							
16			Unique item or	Installation location	Mounting	Drawing or model	Form of temporary	Height of sign face	Width of sign face	
			identification	Installation location	arrangements	reference(s)	sign	mm	mm	
			number							
47										
17 18			(a)	(b)	(c)	(d)	(e)	(f)	(g)	
			\ - /	(-)	(-)	X-7	(-)	37	(3)	
19 20 21 22										
21										
23 *			a) Enter a unio	nue reference						
				a) Enter a unique reference. b) Enter a date, to identify the location at which the sign is to be installed.						
24 *			c) Enter a date, to identify the location at which the sign is to be installed. c) Enter text, to identify how the sign is to be supported (e.g. self-supported or on a post).							
25 *			d) Enter text, to identify flow the sign is to be supported (e.g. seil-supported or on a post). d) Enter text, to identify the drawing(s) or model(s) in which details of the installation are shown.							
26 *			e) Enter text, to identify the unique diagram number(s) from the applicable traffic signs regulations.							
27 *			e) Enter text, to identify the unique diagram number(s) from the applicable traffic signs regulations. f) Enter a number in units of mm, to identify the height of the sign face.							
28 *										
29 *			g) Enter a number in units of mm, to identify the width of the sign face.							

Example of typical **element schedule** to be completed depending on the specific contract





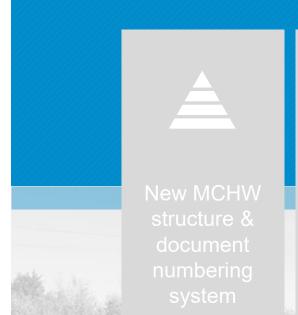
Example of typical **departure schedule** to be completed depending on the specific contract

For guidance on how to prepare WSR templates for dissemination (including table display), see the MCHW information hub



Works Specific
Requirement
(WSR)
templates now
replacing
contract specific
appendices







New style for MCHW requirements, now digitalised



Requirement
(WSR)
templates now
replacing
contract specific
appendices



Country-specific versions now available containing integrated national variations



MCHW and
DMRB
requirements
aligned



Technical
requirements
now consistent
with latest
standards and
industry
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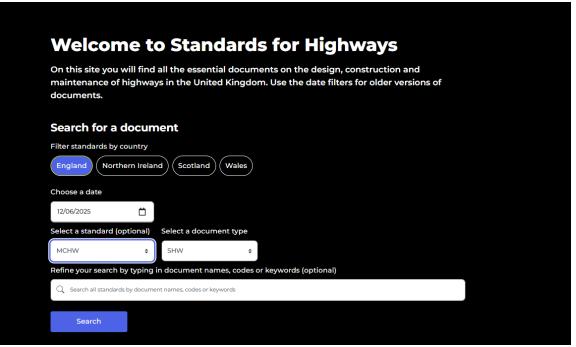


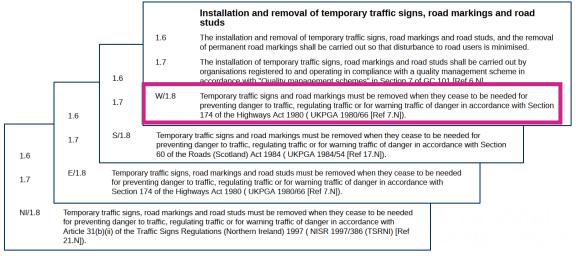
- No generic document version applicable to all countries.
- Country specific versions downloaded from Standards for Highways website.



Country-specific versions now available containing inline national variations









52 DMRB documents have been updated to align with the MCHW.

15 new DMRB documents have been created.



Thread of information running through DMRB, MCHW and as-built information and documentation using consistent topics and terminology.





All MCHW documents (and associated DMRB) have been reviewed to ensure they provided up to date technical requirements, reflecting latest standards and industry practice.



Technical requirements now consistent with latest standards and industry practice









Customer benefits



Low carbon. The new standard

The modernised MCHW and DMRB are removing barriers and unlocking innovation to accelerate our journey to net zero.

Watch the recordings of our November webinars to discover how our updated standards are creating new opportunities to reduce carbon across the SRN.







ROUNDTABLE DISCUSSION

PAVEMENTS SOLUTION SHOWCASE

GEOTECHNICS & STRUCTURES
SOLUTION SHOWCASE

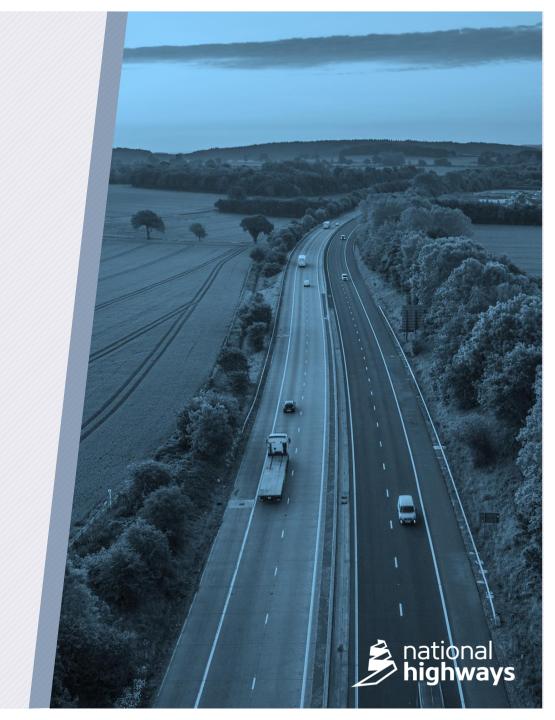
Link to the Carbon Hub: <u>Carbon Hub</u>
For people without access, please <u>request it here</u>.



The Updated MCHW

Agenda

- 1. Where we were and where we are now
- 2. What has changed
- 3. How this affects you
- 4. Available support



Implementation considerations



The updated MCHW will be used for all contracts awarded after its publication date.

For details relating to the implementation of the MCHW, refer to GP 110 requirements.



Exceptions are listed in GP 110 "Introduction to the MCHW", for example, where adopting the updated MCHW would lead to significant cost or delay.

This approach to adopting newly published standards remains consistent with current practice.



Old style and new style MCHW documents should not be mixed.

In any case, decisions are for the project team to make and record. Please talk to your client Project Manager.



When do I use it?

Access the MCHW Information Hub for the answers to these and more questions

- 1) I have an existing construction contract let before 30 September 2025. Should I redraft my contract-specific specification to align with the updated MCHW?
- 2) I have an existing construction contract let before 30 September 2025 and I now need to update the contract-specific specification. Should I use the updated DMRB and MCHW documents?
- 3) I have designed to the old DMRB (design completed before 30 Sept 2025) and I now need to start drafting the contract-specific specification. Should I re-design it following the updated DMRB and then use the updated MCHW?
- **4) My project is using the previous version of the MCHW.** Can I adopt technical changes implemented in the updated MCHW and DMRB documents?





Details are provided on the MCHW Information hub





Designer

- Be aware of DMRB consequential amendments.
- Continue to undertake design activities and produce design outputs.
- Familiarise with the WSR templates.

Specifier

- Familiarise with the new instructions now provided in IfS documents.
- Complete WSR templates following guidance on the Information Hub.

Constructor

- Review updated SHW documents.
- Familiarise with the WSR templates.
- Be aware of implementation considerations.





Project Manager

- Understand implementation considerations.
- If updated documents are to be used, review them in detail.

Product Supplier

- Review the documents for the technical areas relevant to your product or service.
- Note that materials and products will need to meet the specification requirements for the contract they are being used for.

Certification Body

- New document / clause numbering potentially impacting certifications.
- Review updated verification and documentation requirements.





Quantity Surveyor

- New MMHW broken up into different documents to align with SHW.
- No significant changes made to clause style.
- Familiarise with the WSR templates.

Local Authority

- Review updated documents, check cross-references.
- WSRs can be targeted to different roads and related authorities.

Software Developer

- New document and clause numbering potentially impacting software.
- Content in HTML with a plan to provide an API for 3rd party systems.



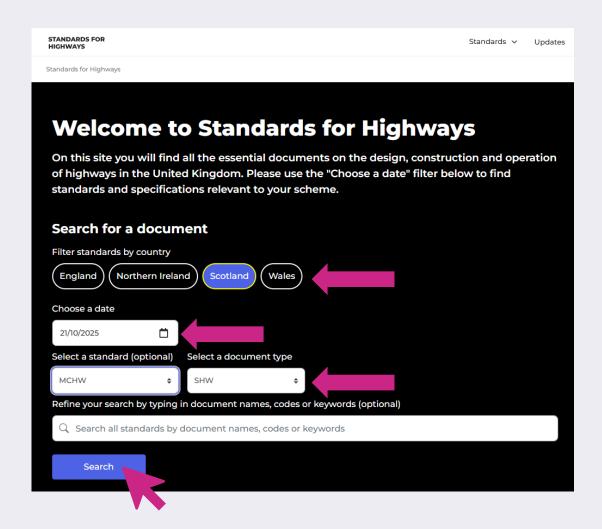
The Updated MCHW

Agenda

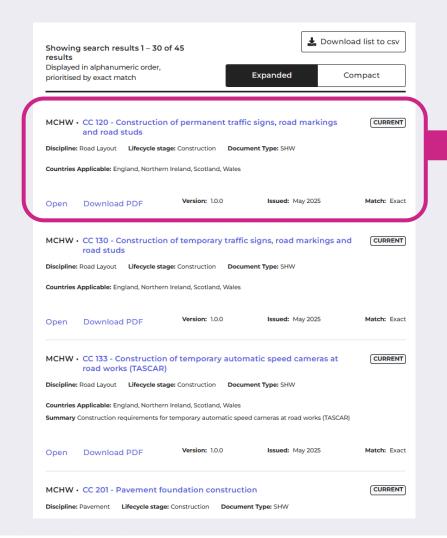
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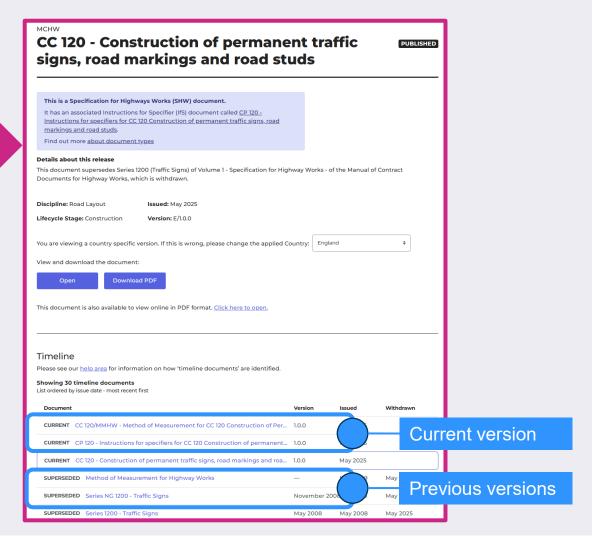


Where do I find SHW documents?

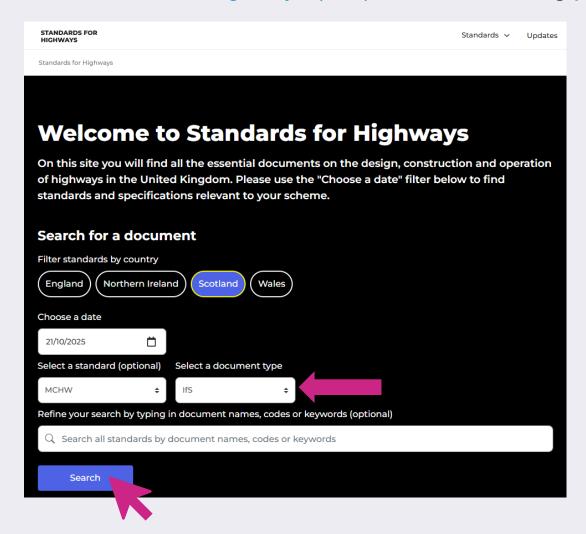


Where do I find SHW documents?

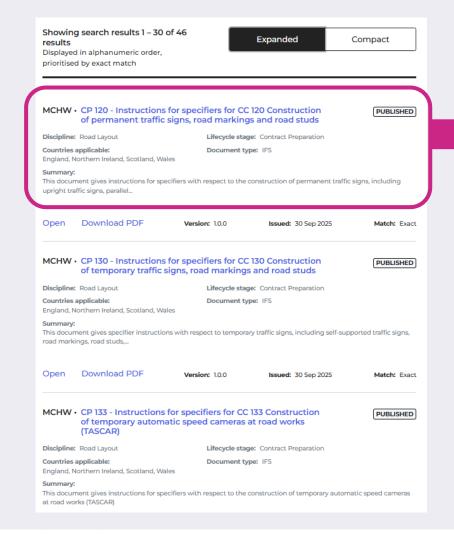


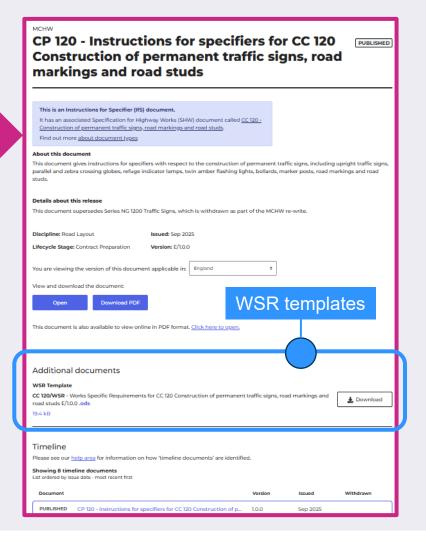


Where do I find IfS documents?



Where do I find IfS documents?





What guidance and support are available?

We have developed and launched the MCHW Information Hub.



Online public repository providing essential information to support the transition to the updated MCHW.



- · Why has the MCHW changed
- · Our communication and support strategy
 - Key changes
 - Document mapping
 - Key MCHW documents
 - · List of new MCHW sections
 - Changes summarised by documents
 - Link with other document sets
 - How the updated MCHW operates contractually

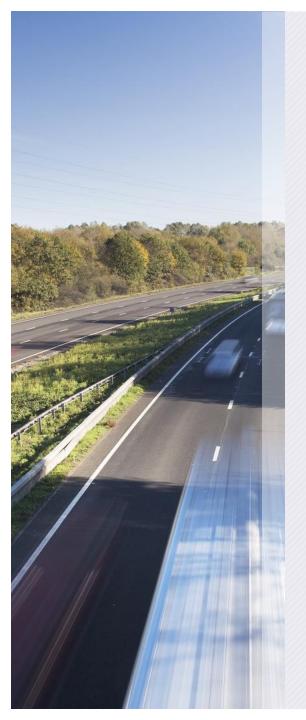
- Feedback and questions
- Webinars
- FAQs and webinars Q&A
- · Terms and definitions

Accessible from the Standards for Highways (SfH) website.



- How does this affect me?
- Where do I find the MCHW documents?
- · How do I navigate the Standards for Highways website?
- When do I adopt it?
- How do I prepare a contract-specific specification?



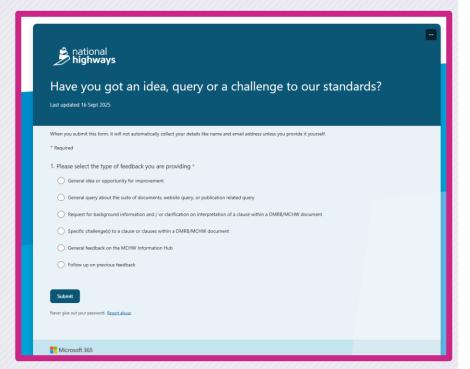


How can I share feedback?

We hope the MCHW Information Hub helps you successfully transition to the updated MCHW.

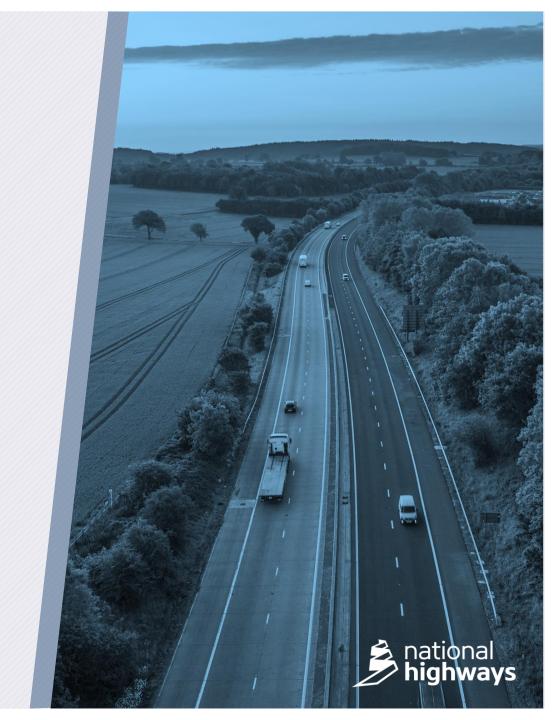
For feedback on standards, general questions on the updated MCHW or the information hub, please use the feedback form provided on the Standards for Highways (SfH) website:

https://www.standardsforhighways.co.uk/feedback.





Closing remarks



What this means...



Fewer digitalised content – from 7 to 3 volumes, 20% fewer pages, faster navigation



Clearer and up-to-date SHW requirements – foundation for future construction and innovation



Clearer and easy to access instructions to the specifier in the new IfS



Improved efficiency and output quality through downloadable WSR templates



Searchable HTML documents now live on the updated SfH site – country-specific versions included



Embeds quality from design to construction through better alignment between MCHW and DMRB



Delivers greener outcomes, stronger operations, and better customer experience



We hope that by the end of this session you have understood ...

- 1. Where we were and where we are now
- 2. What has changed
- 3. How this affects you
- 4. Available support



Thank you



The updated MCHW is here!



Standards for Highways website



MCHW information hub



Feedback form

