Highway Structures & Bridges
Contract preparation

CP 401 Instructions for specifiers for CC 401 Permanent legacy road restraint systems

(formerly)

Version LIVE_2025-02-17

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Contents

Latest release notes

Document Code	Version number	Date of publication of relevant change	Changes made to	Type of change
CP 401	LIVE_2025-02-17	Not available	Core document, England NAA, Northern Ireland NAA, Scotland NAA, Wales NAA	Change to policy, major revision, new document development
This document replaces Series NG 400 Road Restraint Systems - Vehicle and Pedestrian. This specification for highways works relates to the repair and replacement of legacy safety barriers, legacy vehicle parapets, legacy vehicle/pedestrian parapets, legacy terminals, legacy transitions, legacy crash cushions, legacy pedestrian parapets, legacy pedestrian guardrails, legacy removeable barrier sections, and legacy anti-glare screens.				

Previous versions

Document Code	Version number	Date of publication of relevant change	Changes made to	Type of change

Foreword

This document provides specifier instructions for the production of the works specific requirements for CC 401 Permanent legacy road restraint systems.

This document does not form part of the works specification.

The works specification is made up of both the Specification for Highway Works and the works specific requirements completed by the Specifier.

This document is applicable for contracts throughout the UK, complemented by the additional specification requirements and contractual changes of each Overseeing Organisation.

Users are responsible for applying all appropriate documents applicable to their contract.

Users are responsible for archiving contract documentation in accordance with the user's quality management system.

1. General requirements for permanent legacy road restraint systems

1.1 The requirements in this document shall only apply to the repair and replacement of permanent legacy road restraint systems.

1.2 The repair and replacement of permanent legacy road restraint systems shall comply with "General requirements for road restraint systems" in Section 1 of CC 400 [Ref 12.N].

1.3 Non-harmonised/non-designated vehicle restraint products used in the repair and replacement of permanent legacy road restraint systems shall comply with "General requirements for non-harmonised/non-designated road restraint products" in Section 2 of CC 400 [Ref 12.N].

Materials for the repair and replacement of permanent legacy road restraint systems

1.4 Concrete used for the repair and replacement of foundations for safety barrier posts, transition posts, end anchorages and terminals of permanent legacy road restraint systems shall comply with Class RC 20/25 of BS 8500-2 [Ref 3.N], unless otherwise stated in CC 495/WSR/002.

1.5 Repairs to permanent concrete legacy road restraint systems shall be undertaken in accordance with CC 484 [Ref 2.N], using concrete complying with Class R4 of BS EN 1504-3 [Ref 13.N].

1.6 Component materials for structural concrete for the repair and replacement of permanent legacy road restraint systems shall comply with "Concreting of structural concrete" in Section 6 of CC 482 [Ref 16.N].

1.7 Steel reinforcement for structural concrete for the repair and replacement of permanent legacy road restraint systems shall comply with "Steel reinforcement for structural concrete" in Section 4 of CC 482 [Ref 16.N].

1.8 Steel work for the repair and replacement of permanent legacy road restraint systems shall comply with "Structural steelwork" in Section 1 of CC 483 [Ref 17.N].

1.9 Masonry units, mortar and constituent materials for the repair and replacement of permanent legacy road restraint systems shall comply with CC 491 [Ref 1.N].

1.10 Bedding mortar for the repair and replacement of permanent legacy road restraint systems shall comply with "Bedding Mortar" in Section 1 of CC 495 [Ref 9.N].

2. General requirements for permanent legacy vehicle restraint systems

2.1 The repair and replacement of legacy vehicle restraint systems shall comply with "General requirements for permanent legacy road restraint systems" in Section 1 of this document.

2.2 Unless specified in the WSR for the relevant products in Sections 3 to 9 of this document, installation heights for permanent legacy vehicle restraint systems shall be in accordance with the product's original specification and drawings, or the drawings in the NPSBS 2002 or 2005 [Ref 10.N]that applied at the time of installation of the legacy vehicle restraint system.

Quality management requirements for permanent legacy vehicle restraint systems

2.3 Manufacture and provision of metallic permanent legacy vehicle restraint systems shall be carried out by organisations registered to and operating in compliance with a quality management scheme in accordance with "Quality management schemes" in Section 7 of GC 101 [Ref 4.N].

2.4 Manufacture and provision of non-metallic permanent legacy vehicle restraint systems shall be carried out by organisations operating in compliance with "Quality Management" in Section 5 of GC 101 [Ref 4.N].

3. Legacy safety barriers

3.1 The repair and replacement of legacy safety barriers shall comply with "General requirements for permanent legacy vehicle restraint systems" in Section 2 of this document.

3.2 The repair and replacement of legacy safety barriers shall be Contractor design items, unless otherwise stated in CC 401/WSR/003.

3.3 The design of the repair and replacement of legacy safety barriers shall be in accordance with CD 377 [Ref 14.N].

3.4 The requirements for "Contractor design" in Section 17 of GC 101 [Ref 4.N] shall apply to the repair and replacement of legacy safety barriers.

Schedule for replacement components for legacy safety barriers

3.5 Replacement components for legacy safety barriers shall be supplied and installed as detailed in CC 401/WSR/003.

Replacement components for legacy safety barriers						
Legacy safety barrier ID	**Legacy safety barrier location**	**Legacy safety barrier type**	**Type of legacy safety barrier where 'Other'**	**Single or double sided**	**Contractor design item**	**Applicable barrier system drawings**
(a)	(b)	(c)	(d)	(e)	(f)	(g)

a) Enter a unique reference.

b) Enter text, to identify the start and finish of the length of the legacy safety barrier to be repaired or replaced, the traffic direction of the carriageway, e.g. Northbound, and whether the works are in the verge, median, or other.

c) Enter a value, from options TCB, OBB, DROBB, RHS, VCB, HVCB, RHS (100x100mm), RHS (200x100mm), UCB, Other, to identify the type of legacy safety barrier requiring repair or replacement.

d) Enter text, to identify the type of legacy safety barrier requiring repair or replacement where 'Other' has been selected above.

e) Enter a value, from options Single sided, Double sided, to identify whether the legacy safety barrier is single or double sided.

f) Enter a value, from options yes, no, to identify if the design of the repair or replacement of the legacy safety barrier is a Contractor design item.

g) Enter text, to identify the system drawings to be used for the repair or replacement of the legacy safety barrier where it is not a Contractor design item.

Replacement components for legacy safety barriers (continued)								
Legacy safety barrier ID	**Barrier beam height**	**Number of posts to be replaced**	**Replacement post requirements**	**Number of foundations to be replaced**	**Number of sockets to be replaced**	**Number of clamp plates to be replaced**	**Number of beams to be replaced**	**Replacement beams requirements**
(a)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)

h) Enter a number in units of mm, to identify the height of the centre of the legacy safety barrier beam which is being replaced, measured from the carriageway level if the distance from the front of the beam to the edge of the carriageway, hardshoulder or hardstrip is 1500mm or less, or from the adjacent ground level if the distance from the front of the beam to the edge of the carriageway, hardshoulder or hardstrip is more than 1500mm.

i) Enter a number, to identify the number of posts that are to be replaced in the legacy safety barrier.

j) Enter text, to identify the cross-sectional size, length and type of posts, and identify the presence and length of pressure plates on the posts, that are to be replaced in the legacy safety barrier.

k) Enter a number, to identify the number of foundations that are to be replaced in the legacy safety barrier.

l) Enter a number, to identify the number of sockets that are to be replaced in the legacy safety barrier.

m) Enter a number, to identify the number of clamp plates that are to be replaced in the legacy safety barrier.

n) Enter a number, to identify the number of beams that are to be replaced in the legacy safety barrier.

o) Enter text, to identify the length of individual longitudinal beams, the number of rubbing rail beams and the curvature of beams that are to be replaced in the legacy safety barrier.

Replacement components for legacy safety barriers (continued)				
Legacy safety barrier ID	**Number of tensioning assemblies to be replaced**	**Number of concrete units to be replaced**	**Number of fasteners, and their type, to be replaced**	**Number of other components, and their type, to be replaced**
(a)	(p)	(q)	(r)	(s)

p) Enter a number, to identify the number of tensioning assemblies that are to be replaced in the legacy safety barrier.

q) Enter a number, to identify the number of concrete units that are to be replaced in the legacy safety barrier.

r) Enter text, to identify the number of fasteners and their type that are to be replaced in the legacy safety barrier.

s) Enter text, to identify the number and type of other components that are to be replaced in the legacy safety barrier.

Product requirements for replacement components for legacy safety barriers

3.6 Components for the repair and replacement of legacy safety barriers shall be compliant with the drawings in the NPSBS 2002 or 2005 [Ref 10.N], or product drawings, that applied at the time of installation of the legacy safety barrier, including any instructions contained within the drawings.

Verification requirements for replacement components for legacy safety barriers

3.7 Verification shall be undertaken for replacement components for legacy safety barriers to check that the replacement components comply with the drawings in the NPSBS 2002 or 2005 [Ref 10.N], or product drawings, that applied at the time of installation of the legacy safety barrier, including any instructions contained within the drawings.

3.8 The frequency of checking that the replacement components for legacy safety barriers comply with the drawings in the NPSBS 2002 or 2005 [Ref 10.N], or product drawings, that applied at the time of installation of the legacy safety barrier shall be a minimum of once per production run.

3.9 The requirements for "Verification" in Section 14 of GC 101 [Ref 4.N] shall apply to the checking of replacement components for legacy safety barriers.

Documentation requirements for replacement components for legacy safety barriers

3.10 The following Documentation shall be submitted for replacement components for legacy safety barriers prior to the commencement of repair and replacement activities: documentation showing compliance with the drawings in the NPSBS 2002 or 2005 [Ref 10.N], or product drawings, that applied at the time of installation of the legacy safety barrier, including any instructions contained within the drawings.

3.11 The requirements for "Documentation" in Section 2 of GC 101 [Ref 4.N] shall apply to documentation for replacement components for legacy safety barriers.

Repair requirements for legacy safety barriers

3.12 Legacy safety barriers shall be repaired in accordance with the requirements of BS 7669-3 [Ref 18.N].

Installation requirements for replacement components for legacy safety barriers

3.13 Except for legacy safety barrier posts with height extension components, the installation of replacement components of legacy safety barriers shall conform to the drawings in the NPSBS 2002 or 2005 [Ref 10.N], or product drawings, that applied at the time of installation of the legacy safety barrier, including any instructions contained within the drawings, the manufacturer’s installation or installation manual.

3.14 Legacy safety barrier posts with height extension components shall be replaced with custom height posts, manufactured to match the total height of the extended posts.

Documentation requirements for the repair and replacement of legacy safety barriers

3.15 The following Documentation shall be submitted for the repair and replacement of legacy safety barriers within one week of repair or replacement: Certification for each legacy safety barrier system certifying that it has been fully repaired or replaced in accordance with the drawings in the NPSBS 2002 or 2005 [Ref 10.N], or product drawings, that applied at the time of installation of the legacy safety barrier.

3.16 The requirements for Documentation in Section 2 of GC 101 [Ref 4.N] shall apply to documentation for the repair and replacement of legacy safety barriers.

4. Legacy vehicle parapets

4.1 The repair and replacement of legacy vehicle parapets shall comply with "General requirements for permanent legacy vehicle restraint systems" in Section 2 of this document.

4.2 The repair and replacement of legacy vehicle parapets shall be Contractor design items, unless otherwise stated in CC 401/WSR/004.

4.3 The design of the repair and replacement of legacy vehicle parapets shall be in accordance with CD 377 [Ref 14.N].

4.4 The requirements for "Contractor design" in Section 17 of GC 101 [Ref 4.N] shall apply to the repair and replacement of legacy vehicle parapets.

Schedule for replacement components for legacy vehicle parapets

4.5 Replacement components for legacy vehicle parapets shall be supplied and installed as detailed in CC 401/WSR/004.

Replacement components for legacy vehicle parapets						
Legacy vehicle parapet ID	**Legacy vehicle parapet location**	**Type of legacy vehicle parapet**	**Contractor design item**	**Applicable standard**	**Parapet height**	**Number of posts to be replaced**
(a)	(b)	(c)	(d)	(e)	(f)	(g)

a) Enter a unique reference.

b) Enter text, to identify the start and finish of the length of the legacy vehicle parapet to be repaired or replaced, the traffic direction of the carriageway, e.g. Northbound, and whether the works are in the verge, median, or other.

c) Enter text, to identify the type of legacy vehicle parapet requiring repair or replacement.

d) Enter a value, from options Yes, No, to identify if the design of the repair or replacement of the legacy vehicle parapet is a Contractor design item.

e) Enter text, to identify the standard and publication year to be used for the repair or replacement of the legacy vehicle parapet where it is not a Contractor design item.

f) Enter a number in units of mm, to identify the height to the top of the parapet, measured from the adjoining paved surface, for the legacy vehicle parapet which is to be repaired or replaced.

g) Enter a number, to identify the number of posts that are to be replaced in the legacy vehicle parapet.

Replacement components for legacy vehicle parapets (continued)						
Legacy vehicle parapet ID	**Replacement post requirements**	**Number of anchorages requiring repair or replacement**	**Anchorage requirements**	**Number of foundations to be replaced**	**Number of rails to be replaced**	**Replacement rail requirements**
(a)	(h)	(i)	(j)	(k)	(l)	(m)

h) Enter text, to identify the cross-sectional size and length of posts that are to be replaced in the legacy vehicle parapet.

i) Enter text, to identify the number of anchorages that are to be repaired or replaced in the legacy vehicle parapet.

j) Enter text, to identify the type, dimensions, material requirements and installation details for the anchorages that are to be replaced in the legacy vehicle parapet.

k) Enter a number, to identify the number of foundations that are to be replaced in the legacy vehicle parapet.

l) Enter a number, to identify the number of rails that are to be replaced in the legacy vehicle parapet.

m) Enter text, to identify the section profile of the rails and the length of individual rails that are to be replaced in the legacy vehicle parapet.

Replacement components for legacy vehicle parapets (continued)						
Legacy vehicle parapet ID	**Number of spacers to be replaced**	**Infill or mesh to be replaced**	**Number of concrete units to be replaced**	**Coping to be replaced**	**Number of fasteners, and their type, to be replaced**	**Number of other components, and their type, to be replaced**
(a)	(n)	(o)	(p)	(q)	(r)	(s)

n) Enter a number, to identify the number of post to rail spacers that are to be replaced in the legacy vehicle parapet.

o) Enter text, to identify details of any infill or mesh that is to be repaired or replaced in the legacy vehicle parapet.

p) Enter a number, to identify the number of concrete units that are to be replaced in the legacy vehicle parapet.

q) Enter text, to identify details of any coping to be repaired or replaced in the legacy vehicle parapet.

r) Enter text, to identify the number of fasteners and their type that are to be replaced in the legacy vehicle parapet.

s) Enter text, to identify the number and type of other components that are to be replaced in the legacy vehicle parapet.

Replacement components for legacy vehicle parapets (continued)	
Legacy vehicle parapet ID	**Nominal load for on-site anchorage load tests**
(a)	(t)

t) Enter a number in units of kN, to specify the nominal load for conducting on-site tensile load tests for anchorages in drilled or cored holes for the legacy vehicle parapet.

Product requirements for replacement components for legacy vehicle parapets

4.6 Components for the repair and replacement of legacy vehicle parapets shall match the performance characteristics of the existing parapet.

4.7 Components for the repair and replacement of legacy vehicle parapets shall be of identical material, mechanical properties, section size, concrete thicknesses, manufacturing process, specification and geometry to the parapet components originally installed.

4.8 Components for the repair and replacement of legacy vehicle parapets of metal construction shall be compliant with BS 6779-1 1998 [Ref 8.N]as amended by CD 377 [Ref 14.N], or their predecessor documents that applied at the time of installation of the legacy vehicle parapet.

4.9 Components for the repair and replacement of legacy vehicle parapets of concrete construction shall be compliant with BS 6779-2 1991 [Ref 5.N]

as amended by CD 377 [Ref 14.N], or their predecessor documents that applied at the time of installation of the legacy vehicle parapet.

4.10 Components for the repair and replacement of legacy vehicle parapets of combined metal and concrete construction shall be compliant with BS 6779-3 1994 [Ref 7.N], or their predecessor documents that applied at the time of installation of the legacy vehicle parapet.

4.11 Components for the repair and replacement of legacy vehicle parapets of reinforced and unreinforced masonry construction shall be compliant with BS 6779-4 1999 [Ref 6.N], or their predecessor documents that applied at the time of installation of the legacy vehicle parapet.

Verification requirements for replacement components for legacy vehicle parapets

4.12 Verification shall be undertaken for replacement components for legacy vehicle parapets to check that the replacement components match the performance characteristics of the existing parapet and are of identical material, mechanical properties, section size, concrete thicknesses, manufacturing process, specification and geometry to the parapet components originally installed.

4.13 The frequency of checking the replacement components for legacy vehicle parapets shall be a minimum of once per production run.

4.14 The requirements for "Verification" in Section 14 of GC 101 [Ref 4.N] shall apply to the checking of replacement components for legacy vehicle parapets.

Documentation requirements for replacement components for legacy vehicle parapets

4.15 The following Documentation shall be submitted for replacement components for legacy vehicle parapets prior to the commencement of repair and replacement activities: documentation demonstrating that the replacement components match the performance characteristics of the existing parapet and are of identical material, mechanical properties, section size, concrete thicknesses, manufacturing process, specification and geometry to the parapet components originally installed.

4.16 The requirements for "Documentation" in Section 2 of GC 101 [Ref 4.N] shall apply to documentation for replacement components for legacy vehicle parapets.

4.17 The following Documentation shall be submitted for replacement components for legacy vehicle parapets of metal construction prior to the commencement of repair and replacement activities: documentation showing compliance with the acceptance criteria given in BS 6779-1 1998

[Ref 8.N]as amended by CD 377 [Ref 14.N], or their predecessor documents that applied at the time of installation of the vehicle parapet being repaired or replaced.

4.18 The requirements for "Documentation" in Section 2 of GC 101 [Ref 4.N] shall apply to documentation for replacement components for legacy vehicle parapets of metal construction.

4.19 The following Documentation shall be submitted for replacement components for legacy vehicle parapets of concrete construction prior to the commencement of repair and replacement activities: documentation showing compliance with the acceptance criteria given in BS 6779-2 1991 [Ref 5.N]as amended by CD 377 [Ref 14.N], or their predecessor documents that applied at the time of installation of the vehicle parapet being repaired or replaced.

4.20 The requirements for "Documentation" in Section 2 of GC 101 [Ref 4.N] shall apply to documentation for replacement components for legacy vehicle parapets of concrete construction.

4.21 The following Documentation shall be submitted for replacement components for legacy vehicle parapets of combined metal and concrete construction prior to the commencement of repair and replacement activities: documentation showing compliance with the acceptance criteria given in BS 6779-3 1994 [Ref 7.N]or its predecessor documents that applied at the time of installation of the vehicle parapet being repaired or replaced.

4.22 The requirements for "Documentation" in Section 2 of GC 101 [Ref 4.N] shall apply to documentation for replacement components for legacy vehicle parapets of combined metal and concrete construction.

4.23 The following Documentation shall be submitted for replacement components for legacy vehicle parapets of reinforced and unreinforced masonry construction prior to the commencement of repair and replacement activities: documentation showing compliance with the acceptance criteria given in BS 6779-4 1999 [Ref 6.N]or its predecessor documents that applied at the time of installation of the vehicle parapet being repaired or replaced.

4.24 The requirements for "Documentation" in Section 2 of GC 101 [Ref 4.N] shall apply to documentation for replacement components for legacy vehicle parapets of reinforced and unreinforced masonry construction.

Repair requirements for legacy vehicle parapets

4.25 The repair of legacy vehicle parapets of metal construction, and the components used for repair, shall be compliant with BS 6779-1 1998 [Ref

8.N], as amended by CD 377 [Ref 14.N], or their predecessor documents that applied at the time of installation of the legacy vehicle parapet.

4.26 The repair of legacy vehicle parapets of reinforced and unreinforced masonry construction shall be compliant with "Workmanship for unreinforced masonry arch bridges" in Section 16 of CC 491 [Ref 1.N].

Installation requirements for replacement components for legacy vehicle parapets

4.27 The installation of replacement components for legacy vehicle parapets of metal construction shall be compliant with BS 6779-1 1998 [Ref 8.N] as amended by CD 377 [Ref 14.N], or their predecessor documents that applied at the time of installation of the legacy vehicle parapet.

4.28 The installation of replacement components for legacy vehicle parapets of combined metal and concrete construction shall be compliant with BS 6779-3 1994 [Ref 7.N]or its predecessor documents that applied at the time of installation of the legacy vehicle parapet.

4.29 Replacement components for legacy vehicle parapets shall be installed such that the completed repair is the same as the original undamaged section.

Documentation requirements for the repair and replacement of legacy vehicle parapets

4.30 The following Documentation shall be submitted for the repair and replacement of legacy vehicle parapets within one week of repair and replacement: Certification for each vehicle parapet system certifying that it has been fully repaired or replaced in accordance with the relevant part of BS 6779 identified above or its predecessor documents that applied at the time of installation of the legacy vehicle parapet.

4.31 The requirements for Documentation in Section 2 of GC 101 [Ref 4.N] shall apply to documentation for the repair and replacement of legacy vehicle parapets.

5. Legacy vehicle/pedestrian parapets

5.1 The repair and replacement of legacy vehicle/pedestrian parapets shall comply with "General requirements for permanent legacy vehicle restraint systems" in Section 2 of this document.

5.2 The repair and replacement of legacy vehicle/pedestrian parapets shall be Contractor design items, unless otherwise stated in CC 401/WSR/005.

5.3 The design of the repair and replacement of legacy vehicle/pedestrian parapets shall be in accordance with CD 377 [Ref 14.N].

5.4 The requirements for "Contractor design" in Section 17 of GC 101 [Ref 4.N] shall apply to the repair and replacement of legacy vehicle/pedestrian parapets.

Schedule for replacement components for legacy vehicle/pedestrian parapets

5.5 Replacement components for permanent legacy vehicle/pedestrian parapets shall be supplied and installed as detailed in CC 401/WSR/005.

Replacement components for permanent legacy vehicle/pedestrian parapets						
Legacy vehicle/pedestrian parapet ID	**Legacy vehicle/pedestrian parapet location**	**Type of permanent legacy vehicle/pedestrian parapet**	**Contractor design item**	**Applicable standards**	**Parapet height**	**Number of posts to be replaced**
(a)	(b)	(c)	(d)	(e)	(f)	(g)

a) Enter a unique reference.

b) Enter text, to identify the start and finish of the length of the legacy vehicle/pedestrian parapet to be repaired or replaced, the traffic direction of the carriageway, e.g. Northbound, and whether the works are in the verge, median, or other.

c) Enter text, to identify the type of legacy vehicle/pedestrian parapet requiring repair or replacement.

d) Enter a value, from options yes, no, to identify if the design of the repair or replacement of the legacy vehicle/pedestrian parapet is a Contractor design item.

e) Enter text, to identify the standards and publication year to be used for the repair or replacement of the legacy vehicle/pedestrian parapet where it is not a Contractor design item.

f) Enter a number in units of mm, to identify the height to the top of the parapet, measured from the adjoining paved surface, for the legacy vehicle/pedestrian parapet which is to be repaired or replaced.

g) Enter a number, to identify the number of posts that are to be replaced in the legacy vehicle/pedestrian parapet.

Replacement components for permanent legacy vehicle/pedestrian parapets (continued)						
Legacy vehicle/pedestrian parapet ID	**Replacement post requirements**	**Number of anchorages requiring repair or replacement**	**Anchorage requirements**	**Number of foundations to be replaced**	**Number of rails to be replaced**	**Replacement rail requirements**
(a)	(h)	(i)	(j)	(k)	(l)	(m)

h) Enter text, to identify the cross-sectional size of posts and length of posts that are to be replaced in the legacy vehicle/pedestrian parapet.

i) Enter text, to identify the number of anchorages requiring repair or replacement in the legacy vehicle/pedestrian parapet.

j) Enter text, to identify the type, dimensions, material requirements and installation details for the anchorages that are to be replaced in the legacy vehicle/pedestrian parapet.

k) Enter a number, to identify the number of foundations to be replaced in the legacy vehicle/pedestrian parapet.

l) Enter a number, to identify the number of rails that are to be replaced in the legacy vehicle/pedestrian parapet.

m) Enter text, to identify the section profile of the rails and the length of individual rails that are to be replaced in the legacy vehicle/pedestrian parapet.

Replacement components for permanent legacy vehicle/pedestrian parapets (continued)						
Legacy vehicle/pedestrian parapet ID	**Number of spacers to be replaced**	**Infill or mesh**	**Number of concrete units to be replaced**	**Coping to be replaced**	**Number of fasteners, and their type, to be replaced**	**Number of other components, and their type, to be replaced**
(a)	(n)	(o)	(p)	(q)	(r)	(s)

n) Enter a number, to identify the number of post to rail spacers that are to be replaced in the legacy vehicle/pedestrian parapet.

o) Enter text, to identify details of any infill or mesh that is to be repaired or replaced in the legacy vehicle/pedestrian parapet.

p) Enter a number, to identify the number of concrete units that are to be replaced in the legacy vehicle/pedestrian parapet.

q) Enter text, to identify details of any coping to be repaired or replaced in the legacy vehicle/pedestrian parapet.

r) Enter text, to identify the number of fasteners and their type that are to be replaced in the legacy vehicle/pedestrian parapet.

s) Enter text, to identify the number and type of other components that are to be replaced in the legacy vehicle/pedestrian parapet.

Product requirements for replacement components for legacy vehicle/pedestrian parapets

5.6 Components for the repair and replacement of legacy vehicle/pedestrian parapets shall match the performance characteristics of the existing parapet.

5.7 Components for the repair and replacement of legacy vehicle/pedestrian parapets shall be of identical material, mechanical properties, section size, concrete thicknesses, manufacturing process, specification and geometry to the parapet components originally installed.

5.8 Components for the repair and replacement of legacy vehicle/pedestrian parapets of metal construction shall be compliant with BS 6779-1 1998 [Ref 8.N], as amended by CD 377 [Ref 14.N], or their predecessor documents that applied at the time of installation of the legacy vehicle/pedestrian parapet.

5.9 Components for the repair and replacement of legacy vehicle/pedestrian parapets of metal construction shall be compliant with BS 7818 [Ref 15.N]or its predecessor documents that applied at the time of installation of the legacy vehicle/pedestrian parapet.

5.10 Components for the repair and replacement of legacy vehicle/pedestrian parapets of concrete construction shall be compliant with BS 6779-2 1991 [Ref 5.N]as amended by CD 377 [Ref 14.N], or their predecessor documents that applied at the time of installation of the legacy vehicle/pedestrian parapet.

5.11 Components for the repair and replacement of legacy vehicle/pedestrian parapets of combined metal and concrete construction shall be compliant with BS 6779-3 1994 [Ref 7.N]or its predecessor documents that applied at the time of installation of the legacy vehicle/pedestrian parapet.

5.12 Components for the repair and replacement of legacy vehicle/pedestrian parapets of reinforced and unreinforced masonry construction shall be compliant with BS 6779-4 1999 [Ref 6.N]or its predecessor documents that applied at the time of installation of the legacy vehicle/pedestrian parapet.

Verification requirements for replacement components for legacy vehicle/pedestrian parapets

5.13 Verification shall be undertaken for replacement components for legacy vehicle/pedestrian parapets to check that the replacement components match the performance characteristics of the existing parapet and are of identical material, mechanical properties, section size, concrete thicknesses, manufacturing process, specification and geometry to the parapet components originally installed.

5.14 The frequency of checking the replacement components for legacy vehicle/pedestrian parapets shall be a minimum of once per production run.

5.15 The requirements for "Verification" in Section 14 of GC 101 [Ref 4.N] shall apply to the checking of replacement components for legacy vehicle/pedestrian parapets.

Documentation requirements for replacement components for legacy vehicle/pedestrian parapets

5.16 The following Documentation shall be submitted for replacement components for legacy vehicle/pedestrian parapets prior to the commencement of repair and replacement activities: documentation demonstrating that the replacement components match the performance characteristics of the existing parapet and are of identical material,

mechanical properties, section size, concrete thicknesses, manufacturing process, specification and geometry to the parapet components originally installed.

5.17 The requirements for "Documentation" in Section 2 of GC 101 [Ref 4.N] shall apply to documentation for replacement components for legacy vehicle/pedestrian parapets.

5.18 The following Documentation shall be submitted for replacement components for legacy vehicle/pedestrian parapets of metal construction prior to the commencement of repair and replacement activities: documentation showing compliance with the acceptance criteria given in BS 6779-1 1998 [Ref 8.N]as amended by CD 377 [Ref 14.N], and BS 7818 [Ref 15.N]or their predecessor documents that applied at the time of installation of the legacy vehicle/pedestrian parapet being repaired or replaced.

5.19 The requirements for "Documentation" in Section 2 of GC 101 [Ref 4.N] shall apply to documentation for replacement components for legacy vehicle/pedestrian parapets of metal construction.

5.20 The following Documentation shall be submitted for replacement components for legacy vehicle/pedestrian parapets of concrete construction prior to the commencement of repair and replacement activities: documentation showing compliance with the acceptance criteria given in BS 6779-2 1991 [Ref 5.N]as amended by CD 377 [Ref 14.N], or its predecessor documents that applied at the time of installation of the vehicle parapet being repaired or replaced.

5.21 The requirements for "Documentation" in Section 2 of GC 101 [Ref 4.N] shall apply to documentation for replacement components for legacy vehicle/pedestrian parapets of concrete construction.

5.22 The following Documentation shall be submitted for replacement components for legacy vehicle/pedestrian parapets of combined metal and concrete construction prior to the commencement of repair and replacement activities: documentation showing compliance with the acceptance criteria given in BS 6779-3 1994 [Ref 7.N]or its predecessor documents that applied at the time of installation of the vehicle parapet being repaired or replaced.

5.23 The requirements for "Documentation" in Section 2 of GC 101 [Ref 4.N] shall apply to documentation for replacement components for legacy vehicle/pedestrian parapets of combined metal and concrete construction.

5.24 The following Documentation shall be submitted for replacement components for legacy vehicle/pedestrian parapets of reinforced and unreinforced masonry construction prior to the commencement of repair and replacement activities: documentation showing compliance with the

acceptance criteria given in BS 6779-4 1999 [Ref 6.N]or its predecessor documents that applied at the time of installation of the legacy vehicle/pedestrian parapet being repaired or replaced.

5.25 The requirements for "Documentation" in Section 2 of GC 101 [Ref 4.N] shall apply to documentation for replacement components for legacy vehicle/pedestrian parapets of reinforced and unreinforced masonry construction.

Repair requirements for legacy vehicle/pedestrian parapets

5.26 The repair of legacy vehicle/pedestrian parapets of metal construction shall be compliant with BS 6779-1 1998 [Ref 8.N], as amended by CD 377 [Ref 14.N], or their predecessor documents that applied at the time of installation of the legacy vehicle/pedestrian parapet.

5.27 The repair of legacy vehicle/pedestrian parapets of combined metal and concrete construction shall be compliant with BS 6779-3 1994 [Ref 7.N]or its predecessor documents that applied at the time of installation of the legacy vehicle/pedestrian parapet.

5.28 The repair of legacy vehicle/pedestrian parapets of reinforced and unreinforced masonry construction shall be compliant with BS 6779-4 1999 [Ref 6.N]or its predecessor documents that applied at the time of installation of the legacy vehicle/pedestrian parapet, and "Workmanship for unreinforced masonry arch bridges" in Section 16 of CC 491 [Ref 1.N].

Installation requirements for replacement components for legacy vehicle/pedestrian parapets

5.29 The installation of replacement components for legacy vehicle/pedestrian parapets of metal construction shall be compliant with BS 6779-1 1998 [Ref 8.N], as amended by CD 377 [Ref 14.N], or their predecessor documents that applied at the time of installation of the legacy vehicle/pedestrian parapet.

5.30 The installation of replacement components for legacy vehicle/pedestrian parapets of metal construction shall be compliant with BS 7818 [Ref 15.N]or its predecessor documents that applied at the time of installation of the legacy vehicle/pedestrian parapet.

5.31 The installation of replacement components for legacy vehicle/pedestrian parapets of combined metal and concrete construction shall be compliant with BS 6779-3 1994 [Ref 7.N]or its predecessor documents that applied at the time of installation of the legacy vehicle/pedestrian parapet.

5.32 Replacement components for legacy vehicle/pedestrian parapets shall be installed such that the completed repair is the same as the original undamaged section.

Documentation requirements for the repair and replacement of legacy vehicle/pedestrian parapets

5.33 The following documentation shall be submitted for the repair and replacement of legacy vehicle/pedestrian parapets within one week of repair and replacement: Certification for each vehicle/pedestrian parapet system certifying that it has been fully repaired or replaced in accordance with the relevant part of BS 6779 as amended by CD 377 [Ref 14.N], identified above or its predecessor documents that applied at the time of installation of the legacy vehicle/pedestrian parapet.

5.34 The requirements for Documentation in Section 2 of GC 101 [Ref 4.N] shall apply to documentation for the repair and replacement of legacy vehicle/pedestrian parapets.

6. Legacy terminals

6.1 The repair and replacement of legacy terminals shall comply with "General requirements for permanent legacy vehicle restraint systems" in Section 2 of this document.

6.2 The repair and replacement of legacy terminals shall be Contractor design items, unless otherwise stated in CC 401/WSR/006.

6.3 The design of the repair and replacement of legacy terminals shall be in accordance with CD 377 [Ref 14.N].

6.4 The requirements for "Contractor design" in Section 17 of GC 101 [Ref 4.N] shall apply to the repair and replacement of legacy terminals.

Schedule for replacement components for legacy terminals

6.5 Replacement components for legacy terminals shall be supplied and installed as detailed in CC 401/WSR/006.

Replacement components for legacy terminals							
Legacy terminal ID	**Legacy terminal location**	**Legacy terminal type**	**Type of legacy terminal where 'Other'**	**Single or double sided**	**Approach or departure end**	**Terminal alignment**	**Contractor design item**
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)

a) Enter a unique reference.

b) Enter text, to identify the location of the legacy terminal to be repaired or replaced, the traffic direction of the carriageway, e.g. Northbound, and whether the works are in the verge, median, or other.

c) Enter a value, from options TCB, OBB, DROBB, RHS, VCB, HVCB, RHS (100x100mm), RHS (200x100mm), UCB, Other, to identify the type of legacy terminal requiring repair or replacement.

d) Enter text, to identify the type of legacy terminal requiring repair or replacement where 'Other' has been selected above.

e) Enter a value, from options Single, Double, to identify whether the legacy terminal has road restraint systems connected on one side, or both sides.

f) Enter a value, from options Approach, Departure, to identify if the legacy terminal is on the approach end or the departure end of the road restraint system.

g) Enter a value, from options Flared, Reduced Flare, Straight,, to identify the alignment of the legacy terminal.

h) Enter a value, from options Yes, No, to identify if the design of the repair or replacement of the legacy terminal is a Contractor design item.

Replacement components for legacy terminals (continued)								
Legacy terminal ID	**Applicable system drawings**	**Number of posts to be replaced**	**Number of end (anchor) posts to be replaced**	**Replacement post requirements**	**Number of foundations to be replaced**	**Number of sockets to be replaced**	**Number of clamp plates to be replaced**	**Number of beams to be replaced**
(a)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)

i) Enter text, to identify the system drawings to be used for the repair or replacement of the legacy terminal where it is not a Contractor design element.

j) Enter a number, to identify the number of posts that are to be replaced in the legacy terminal.

k) Enter a number, to to identify the number of end (anchor) posts that are to be replaced in the legacy terminal.

l) Enter text, to identify the cross-sectional size of posts, the length of posts, type of post foundation (driven or socketed), and identify the presence and length of pressure plates on the posts that are to be replaced in the legacy terminal.

m) Enter a number, to identify the number of foundations that are to be replaced in the legacy terminal.

n) Enter a number, to identify the number of sockets that are to be replaced in the legacy terminal.

o) Enter a number, to identify the number of clamp plates that are to be replaced in the legacy terminal.

p) Enter a number, to identify the number of beams that are to be replaced in the legacy terminal.

Replacement components for legacy terminals (continued)					
Legacy terminal ID	**Replacement beam requirements**	**Number of tensioning assemblies to be replaced**	**Number of concrete units to be replaced**	**Number of fasteners, and their type, to be replaced**	**Number of other components, and their type, to be replaced**
(a)	(q)	(r)	(s)	(t)	(u)

q) Enter text, to identify the length of individual longitudinal beams, the number of rubbing rail beams and the curvature of beams that are to be replaced in the legacy terminal.

r) Enter a number, to identify the number of tensioning assemblies that are to be replaced in the legacy terminal.

s) Enter a number, to identify the number of concrete units that are to be replaced in the legacy terminal.

t) Enter text, to identify the number of fasteners and their type that are to be replaced in the legacy terminal.

u) Enter text, to identify the number and type of other components that are to be replaced in the legacy terminal.

Product requirements for replacement components for legacy terminals

6.6 Components for the repair and replacement of legacy terminals shall be compliant with the drawings in the NPSBS 2002 or 2005 [Ref 10.N], or product drawings, that applied at the time of installation of the legacy terminal, including any instructions contained within the drawings.

Verification requirements for replacement components for legacy terminals

6.7 Verification shall be undertaken for replacement components for legacy terminals to check that the replacement components comply with the drawings in the NPSBS 2002 or 2005 [Ref 10.N], or product drawings, that applied at the time of installation of the legacy terminal, including any instructions contained within the drawings.

6.8 The frequency of checking that the replacement components for legacy terminals comply with the drawings in the NPSBS 2002 or 2005 [Ref 10.N], or product drawings, that applied at the time of installation of the legacy terminal shall be a minimum of once per production run.

6.9 The requirements for "Verification" in Section 14 of GC 101 [Ref 4.N] shall apply to the checking of replacement components for legacy terminals.

Documentation requirements for replacement components for legacy terminals

6.10 The following Documentation shall be submitted for replacement components for legacy terminals prior to the commencement of repair and replacement activities: documentation showing compliance with the drawings in the NPSBS 2002 or 2005 [Ref 10.N], or product drawings, that applied at the time of installation of the legacy terminal, including any instructions contained within the drawings.

6.11 The requirements for "Documentation" in Section 2 of GC 101 [Ref 4.N] shall apply to documentation for replacement components for legacy terminals, including any instructions contained within the drawings.

Repair requirements for legacy terminals

6.12 The legacy terminals shall be repaired or replaced in accordance with the requirements of BS 7669-3 [Ref 18.N].

Installation requirements for replacement components for legacy terminals

6.13 Except for legacy terminals which incorporate welded angle beams, the installation of replacement components of legacy terminals shall conform to the drawings in the NPSBS 2002 or 2005 [Ref 10.N], or product drawings, that applied at the time of installation of the legacy terminal, including any instructions contained within the drawings, the manufacturer's installation requirements or installation manual.

6.14 Legacy terminals which incorporate welded angle beams shall be replaced with a terminal in accordance with CC 400 [Ref 12.N]or a terminal in accordance with the NPSBS v1 2005 [Ref 11.N]drawings, and not on a like for like basis.

6.15 The installation of replacement components of legacy terminals shall be in accordance with BS 7669-3 [Ref 18.N].

6.16 Concrete in foundations and end anchorages for repair and replacement works related to legacy terminals shall comply with "Concrete for Ancillary Purposes" in Section 2 of CC 495 [Ref 9.N].

Documentation requirements for the repair and replacement of legacy terminals

6.17 The following Documentation shall be submitted for the repair and replacement of legacy terminals within one week of repair or replacement: Certification for each legacy terminal system certifying that it has been fully repaired or replaced in accordance with the drawings in the NPSBS 2002 or 2005 [Ref 10.N], or product drawings, that applied at the time of installation of the legacy terminal.

6.18 The requirements for Documentation in Section 2 of GC 101 [Ref 4.N] shall apply to documentation for the repair and replacement of legacy terminals.

7. Legacy transitions

7.1 The repair and replacement of legacy transitions shall comply with "General requirements for permanent legacy vehicle restraint systems" in Section 2 of this document.

7.2 The repair and replacement of legacy transitions shall be Contractor design items, unless otherwise stated in CC 401/WSR/007.

7.3 The design of the repair and replacement of legacy transitions shall be in accordance with CD 377 [Ref 14.N].

7.4 The requirements for "Contractor design" in Section 17 of GC 101 [Ref 4.N] shall apply to the repair and replacement of legacy transitions.

Schedule for replacement components for legacy transitions

7.5 Replacement components for legacy transitions shall be supplied and installed as detailed in CC 401/WSR/007.

Replacement components for legacy transitions						
Legacy transition ID	**Legacy transition location**	**Single or double sided**	**Vehicle restraint system on approach end of transition**	**Vehicle restraint system on departure end of transition**	**Contractor design item**	**Applicable system drawings**
(a)	(b)	(c)	(d)	(e)	(f)	(g)

a) Enter a unique reference.

b) Enter text, to identify the start and finish of the legacy transition to be repaired or replaced, the traffic direction of the carriageway, e.g. Northbound, and whether the works are in the verge, median, or other.

c) Enter a value, from options Single sided, Double sided, to identify whether the legacy transition is single or double sided.

d) Enter text, to identify the vehicle restraint system at the approach end of the legacy transition (in the direction of traffic on the carriageway closest to the legacy transition).

e) Enter text, to identify the vehicle restraint system at the departure end of the legacy transition (in the direction of traffic on the carriageway closest to the legacy transition).

f) Enter a value, from options yes, no, to identify if the design of the repair or replacement of the legacy transition is a Contractor design item.

g) Enter text, to identify the system drawings to be used for the repair or replacement of the legacy transition where it is not a Contractor design item.

Replacement components for legacy transitions (continued)								
Legacy transition ID	**Number of posts to be replaced**	**Replacement post requirements**	**Number of foundations to be replaced**	**Number of sockets to be replaced**	**Number of clamp plates to be replaced**	**Number of beams to be replaced**	**Replacement beam requirements**	**Number of tensioning assemblies to be replaced**
(a)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)

h) Enter a number, to identify the number of posts that are to be replaced in the legacy transition.

i) Enter text, to identify the cross-sectional size of posts, the length of posts, type of post foundation (driven, socketed or surface mounted), and identify the presence and length of pressure plates on the posts which are to be replaced in the legacy transition.

j) Enter a number, to identify the number of sockets that are to be replaced in the legacy transition.

k) Enter a number, to identify the number of foundations that are to be replaced in the legacy transition.

l) Enter a number, to identify the number of clamp plates that are to be replaced in the legacy transition.

m) Enter a number, to identify the number of beams that are to be replaced in the legacy transition.

n) Enter text, to identify the length of individual longitudinal beams, the number of rubbing rail beams and the curvature of beams that are to be replaced in the legacy transition.

o) Enter a number, to identify the number of tensioning assemblies that are to be replaced in the legacy transition.

Replacement components for legacy transitions (continued)			
Legacy transition ID	**Number of concrete units to be replaced**	**Number of fasteners, and their type, to be replaced**	**Number of other components, and their type, to be replaced**
(a)	(p)	(q)	(r)

p) Enter a number, to identify the number of concrete units that are to be replaced in the legacy transition.

q) Enter text, to identify the number of fasteners and their type that are to be replaced in the legacy transition.

r) Enter text, to identify the number and type of other components that are to be replaced in the legacy transition.

Product requirements for replacement components for legacy transitions

7.6 Components for the repair and replacement of legacy transitions shall be compliant with the drawings in the NPSBS 2002 or 2005 [Ref 10.N], or product drawings, that applied at the time of installation of the legacy transitions, including any instructions contained within the drawings.

Verification requirements for replacement components for legacy transitions

7.7 Verification shall be undertaken for replacement components for legacy transitions to check that the replacement components comply with the drawings in the NPSBS 2002 or 2005 [Ref 10.N], or product drawings, that applied at the time of installation of the legacy transition, including any instructions contained within the drawings.

7.8 The frequency of checking that the replacement components for legacy transitions comply with the drawings in the NPSBS 2002 or 2005 [Ref 10.N], or product drawings, that applied at the time of installation of the legacy transition shall be a minimum of once per production run.

7.9 The requirements for "Verification" in Section 14 of GC 101 [Ref 4.N] shall apply to the checking of replacement components for legacy transitions.

Documentation requirements for replacement components for legacy transitions

7.10 The following Documentation shall be submitted for replacement components for legacy transitions prior to the commencement of repair and replacement activities: documentation showing compliance with the

drawings in the NPSBS 2002 or 2005 [Ref 10.N], or product drawings, that applied at the time of installation of the legacy transition.

7.11 The requirements for "Documentation" in Section 2 of GC 101 [Ref 4.N] shall apply to documentation for replacement components for legacy transitions.

Repair requirements for legacy transitions

7.12 The legacy transitions shall be repaired in accordance with the requirements for connections in BS 7669-3 [Ref 18.N].

Installation requirements for replacement components for legacy transitions

7.13 Except for legacy transition posts with height extension components, the installation of replacement components of legacy transitions shall conform to the drawings in the NPSBS 2002 or 2005 [Ref 10.N], or product drawings, that applied at the time of installation of the legacy transition, including any instructions contained within the drawings, the manufacturer's installation requirements or installation manual.

7.14 Legacy transition posts with height extension components shall be replaced with custom height posts, manufactured to match the total height of the posts which are to be replaced.

Documentation requirements for the repair and replacement of legacy transitions

7.15 The following Documentation shall be submitted for the repair and replacement of legacy transitions within one week of repair and replacement: Certification for each legacy transition certifying that it has been fully repaired or replaced in accordance with the drawings in the NPSBS 2002 or 2005 [Ref 10.N], or product drawings, that applied at the time of installation of the legacy transition.

7.16 The requirements for Documentation in Section 2 of GC 101 [Ref 4.N] shall apply to documentation for the repair and replacement of legacy transitions.

8. Legacy crash cushions

8.1 The repair and replacement of legacy crash cushions shall comply with "General requirements for permanent legacy vehicle restraint systems" in Section 2 of this document.

8.2 The repair and replacement of legacy crash cushions shall be Contractor design items, unless otherwise stated in CC 401/WSR/008.

8.3 The design of the repair and replacement of legacy crash cushions shall be in accordance with CD 377 [Ref 14.N].

8.4 The requirements for "Contractor design" in Section 17 of GC 101 [Ref 4.N] shall apply to the repair and replacement of legacy crash cushions.

Schedule for replacement components for legacy crash cushions

8.5 Replacement components for legacy crash cushions shall be supplied and installed as detailed in CC 401/WSR/008.

Replacement components for legacy crash cushions						
Legacy crash cushion ID	**Legacy crash cushion location**	**Legacy crash cushion type**	**Contractor design item**	**Applicable system drawings**	**Number of posts to be replaced**	**Replacement post requirements**
(a)	(b)	(c)	(d)	(e)	(f)	(g)

a) Enter a unique reference.

b) Enter text, to identify the location of the legacy crash cushion to be repaired or replaced, the traffic direction of the carriageway, e.g. Northbound, and whether the works are in the verge, median, or other.

c) Enter text, to identify the type of legacy crash cushion being repaired or replaced.

d) Enter a value, from options Yes, No, to identify if the design of the repair or replacement of the legacy crash cushion is a Contractor design item.

e) Enter text, to identify the system drawings to be used for the repair or replacement of the legacy crash cushion where it is not a Contractor design item.

f) Enter a number, to identify the number of posts that are to be replaced in the legacy crash cushion.

g) Enter text, to identify the cross-sectional size of posts, the length of posts and type of post foundation (driven or socketed) for those posts which are to be replaced in the legacy crash cushion.

Replacement components for legacy crash cushions (continued)								
Legacy crash cushion ID	**Number of foundations to be replaced**	**Number of sockets to be replaced**	**Number of replacement beams to be replaced**	**Number and size of energy absorbing elements to be replaced**	**Number of heads/noses to be replaced**	**Number of backstops to be replaced**	**Number of cables to be replaced**	**Number of guide rails to be replaced**
(a)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)

h) Enter a number, to identify the number of foundations that are to be replaced in the legacy crash cushion.

i) Enter a number, to identify the number of sockets that are to be replaced in the legacy crash cushion.

j) Enter a number, to identify the number of beams that are to be replaced in the legacy crash cushion.

k) Enter text, to Identify the number and size of energy absorbing elements that are to be replaced in the legacy crash cushion.

l) Enter a number, to identify the number of heads/noses that are to be replaced in the legacy crash cushion.

m) Enter a number, to identify the number of backstops that are to be replaced in the legacy crash cushion.

n) Enter text, to to identify the number, length and diameter of cables that are to be replaced in the legacy crash cushion.

o) Enter a number, to identify the number of guide rails that are to be replaced in the legacy crash cushion.

Replacement components for legacy crash cushions (continued)		
Legacy crash cushion ID	**Number of fasteners, and their type, to be replaced**	**Number of other components, and their type, to be replaced**
(a)	(p)	(q)

p) Enter text, to identify the number of fasteners and their type that are to be replaced in the legacy crash cushion.

q) Enter text, to identify number and type of other components that are to be replaced in the legacy crash cushion.

Product requirements for replacement components for legacy crash cushions

8.6 Components for the repair and replacement of legacy crash cushions shall be compliant with the system product drawings that applied at the time of installation of the legacy crash cushion, including any instructions contained within the drawings.

Verification requirements for replacement components for legacy crash cushions

8.7 Verification shall be undertaken for replacement components for legacy crash cushions to check that the replacement components comply with the product drawings that applied at the time of installation of the legacy crash cushion.

8.8 The frequency of checking that the replacement components comply with the product drawings that applied at the time of installation of the legacy crash cushion shall be a minimum of once per production run.

8.9 The requirements for "Verification" in Section 14 of GC 101 [Ref 4.N] shall apply to the checking of replacement components for legacy crash cushions.

Documentation requirements for replacement components for legacy crash cushions

8.10 The following Documentation shall be submitted for replacement components for legacy crash cushions prior to the commencement of repair and replacement activities: documentation showing compliance with the product drawings that applied at the time of installation of the legacy crash cushion.

8.11 The requirements for "Documentation" in Section 2 of GC 101 [Ref 4.N] shall apply to documentation for replacement components for legacy crash cushions.

Repair requirements for legacy crash cushions

8.12 The repair of legacy crash cushions shall be compliant with the product drawings for the system that applied at the time of installation of the legacy crash cushion, including any requirements contained within the

drawings, the manufacturer's installation requirements or installation manual.

Installation requirements for replacement components for legacy crash cushions

8.13 The installation requirements for replacement components for legacy crash cushions shall be compliant with the product drawings for the system that applied at the time of installation of the legacy crash cushion, including any instructions contained within the drawings, the manufacturer's installation requirements or installation manual.

Documentation requirements for the repair and replacement of legacy crash cushions

8.14 The following Documentation shall be submitted for the repair and replacement of legacy crash cushions within one week of repair and replacement: Certification for each legacy crash cushion system certifying that it has been fully repaired or replaced in accordance with the product drawings, manufacturer's installation requirements or installation manual for the system that applied at the time of installation of the legacy crash cushion.

8.15 The requirements for Documentation in Section 2 of GC 101 [Ref 4.N] shall apply to documentation for the repair and replacement of legacy crash cushions.

9. Legacy removable barrier sections

9.1 The repair and replacement of legacy removable barrier sections shall comply with "General requirements for permanent legacy vehicle restraint systems" in Section 2 of this document.

9.2 The repair and replacement of legacy removable barrier sections shall be Contractor design items, unless otherwise stated in CC 401/WSR/009.

9.3 The design of the repair and replacement of legacy removable barrier sections shall be in accordance with CD 377 [Ref 14.N].

9.4 The requirements for "Contractor design" in Section 17 of GC 101 [Ref 4.N] shall apply to the repair and replacement of legacy removable barrier sections.

Schedule for replacement components for legacy removable barrier sections

9.5 Replacement components for legacy removable barrier sections shall be supplied and installed as detailed in CC 401/WSR/009.

Replacement components for legacy removable barrier sections						
Legacy removable barrier section ID	**Legacy removable barrier section location**	**Legacy removable barrier section type**	**Single or double sided**	**Contractor design item**	**Applicable system drawings**	**Number of posts to be replaced**
(a)	(b)	(c)	(d)	(e)	(f)	(g)

a) Enter a unique reference.

b) Enter text, to identify the start and finish of the legacy removable barrier section to be repaired or replaced, the traffic direction of the carriageway, e.g. Northbound, and whether the works are in the verge, median, or other.

c) Enter text, to identify the type of legacy removable barrier section being repaired or replaced.

d) Enter a value, from options Single sided, Double sided, to identify whether the legacy removable barrier section is single or double sided.

e) Enter a value, from options Yes, No, to identify if the design of the repair or replacement of the legacy removable barrier section is a Contractor design item.

f) Enter text, to identify the system drawings to be used for the repair or replacement of the legacy removable barrier section where it is not a Contractor design item.

g) Enter a number, to identify the number of posts that are to be replaced in the legacy removable barrier section.

Replacement components for legacy removable barrier sections (continued)								
Legacy removable barrier section ID	**Replacement post requirements**	**Number of foundations to be replaced**	**Number of sockets to be replaced**	**Number of beams to be replaced**	**Replacement beam requirements**	**Number of hinge points to be replaced**	**Number of non-wheeled units to be replaced**	**Number of wheeled units to be replaced**
(a)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)

h) Enter text, to identify the cross-sectional size of posts, the length of posts and type of post foundation (driven or socketed) that are to be replaced in the legacy removable barrier section.

i) Enter a number, to identify the number of foundations that are to be replaced in the legacy removable barrier section.

j) Enter a number, to identify the number of sockets that are to be replaced in the legacy removable barrier section.

k) Enter a number, to identify the number of beams that are to be replaced in the legacy removable barrier section.

l) Enter text, to section profile of the beams and the length of individual beams to be replaced in the legacy removable barrier section.

m) Enter a number, to identify the number of hinge points that are to be replaced in the legacy removable barrier section.

n) Enter a number, to identify the number of non-wheeled units that are to be replaced in the legacy removable barrier section.

o) Enter a number, to identify the number of wheeled units that are to be replaced in the legacy removable barrier section.

Replacement components for legacy removable barrier sections (continued)			
Legacy removable barrier section ID	**Number of concrete units to be replaced**	**Number of fasteners, and their type, to be replaced**	**Number of other components, and their type, to be replaced**
(a)	(p)	(q)	(r)

p) Enter a number, to identify the number of concrete units that are to be replaced in the legacy removable barrier section.

q) Enter text, to identify the number of fasteners and their type that are to be replaced in the legacy removable barrier section.

r) Enter text, to identify number and type of other components that are to be replaced in the legacy removable barrier section.

Product requirements for replacement components for legacy removable barrier sections

9.6 Components for the repair and replacement of legacy removable barrier sections shall be compliant with the system product drawings that applied at the time of installation of the legacy removable barrier section, including any instructions contained within the drawings.

Verification requirements for replacement components for legacy removable barrier sections

9.7 Verification shall be undertaken for replacement components for legacy removable barrier sections to check that the replacement components comply with the product drawings that applied at the time of installation of the legacy removable barrier section.

9.8 The frequency of checking that the replacement components comply with the product drawings that applied at the time of installation of the legacy removable barrier section shall be a minimum of once per production run.

9.9 The requirements for "Verification" in Section 14 of GC 101 [Ref 4.N] shall apply to the checking of replacement components for legacy removable barrier sections.

Documentation requirements for replacement components for legacy removable barrier sections

9.10 The following Documentation shall be submitted for replacement components for legacy removable barrier sections prior to the commencement of repair and replacement activities: documentation

showing compliance with the system product drawings that applied at the time of installation of the legacy removable barrier section.

9.11 The requirements for "Documentation" in Section 2 of GC 101 [Ref 4.N] shall apply to documentation for replacement components for legacy removable barrier sections.

Repair requirements for legacy removable barrier sections

9.12 The repair of legacy removable barrier sections shall be compliant with the product drawings for the system that applied at the time of installation of the legacy removable barrier section, including any instructions contained within the drawings, the manufacturer's installation requirements or installation manual.

Installation requirements for replacement components for legacy removable barrier sections

9.13 The installation requirements for replacement components for legacy removable barrier sections shall be compliant with the product drawings for the system that applied at the time of installation of the legacy removable barrier section, including any instructions contained within the drawings, the manufacturer's installation requirements or installation manual.

Documentation requirements for the repair and replacement of legacy removable barrier sections

9.14 The following Documentation shall be submitted for the repair and replacement of legacy removable barrier sections within one week of repair and replacement: Certification for each legacy removable barrier section certifying that it has been fully repaired or replaced in accordance with the product drawings, manufacturer's installation requirements or installation manual for the system that applied at the time of installation of the legacy removable barrier section.

9.15 The requirements for Documentation in Section 2 of GC 101 [Ref 4.N] shall apply to documentation for the repair and replacement of legacy removable barrier sections.

10. Legacy pedestrian parapets

10.1 The repair and replacement of legacy pedestrian parapets shall comply with "General requirements for permanent legacy road restraint systems" in Section 1 of this document.

10.2 The repair and replacement of legacy pedestrian parapets shall be Contractor design items, unless otherwise stated in CC 401/WSR/010.

10.3 The design of the repair and replacement of legacy pedestrian parapets shall be in accordance with CD 377 [Ref 14.N].

10.4 The requirements for "Contractor design" in Section 17 of GC 101 [Ref 4.N] shall apply to the repair and replacement of legacy pedestrian parapets.

Schedule for replacement components for legacy pedestrian parapets

10.5 Replacement components for legacy pedestrian parapets shall be supplied and installed as detailed in CC 401/WSR/010.

Replacement components for legacy pedestrian parapets						
Legacy pedestrian parapet ID	**Legacy pedestrian parapet location**	**Type of legacy pedestrian parapet**	**Contractor design item**	**Applicable standard**	**Parapet height**	**Number of posts to be replaced**
(a)	(b)	(c)	(d)	(e)	(f)	(g)

a) Enter a unique reference.

b) Enter text, to identify the start and finish of the length of legacy pedestrian parapet to be repaired or replaced, the traffic direction of the carriageway, e.g. Northbound, and whether the works are in the verge, median, or other.

c) Enter text, to identify the type of legacy pedestrian parapet requiring repair or replacement.

d) Enter a value, from options Yes, No, to identify if the design of the repair or replacement of the legacy pedestrian parapet is a Contractor design item.

e) Enter text, to identify the standard and publication year to be used for the repair or replacement of the legacy pedestrian parapet where it is not a Contractor design item.

f) Enter a number in units of mm, to identify the height to the top of the parapet, measured from the adjoining paved surface, for the legacy pedestrian parapet which is to be repaired or replaced.

g) Enter a number, to identify the number of posts that are to be replaced in the legacy pedestrian parapet.

Replacement components for legacy pedestrian parapets (continued)						
Legacy pedestrian parapet ID	**Replacement post requirements**	**Number of anchorages requiring repair or replacement**	**Anchorage requirements**	**Number of foundations to be replaced**	**Number of rails/panels to be replaced**	**Replacement rail/panel requirements**
(a)	(h)	(i)	(j)	(k)	(l)	(m)

h) Enter text, to identify the cross-sectional size and length of posts that are to be replaced in the legacy pedestrian parapet.

i) Enter text, to identify the number of anchorages that are to be repaired or replaced in the legacy pedestrian parapet.

j) Enter text, to identify the type, dimensions, material requirements and installation details for the anchorages that are to be replaced in the legacy pedestrian parapet.

k) Enter a number, to identify the number of foundations that are to be replaced in the legacy pedestrian parapet.

l) Enter a number, to identify the number of rails/panels that are to be replaced in the legacy pedestrian parapet.

m) Enter text, to identify the section profile of the rails/panels and the length of individual rails/panels that are to be replaced in the legacy pedestrian parapet.

Replacement components for legacy pedestrian parapets (continued)			
Legacy pedestrian parapet ID	**Infill or mesh to be replaced**	**Number of fasteners, and their type, to be replaced**	**Number of other components, and their type, to be replaced**
(a)	(n)	(o)	(p)

n) Enter text, to identify details of any infill or mesh that is to be repaired or replaced in the legacy pedestrian parapet.

o) Enter text, to identify the number of fasteners and their type that are to be replaced in the legacy pedestrian parapet.

p) Enter text, to identify the number and type of other components that are to be replaced in the legacy pedestrian parapet.

Product requirements for replacement components for legacy pedestrian parapets

10.6 Components for the repair and replacement of legacy pedestrian parapets shall match the performance characteristics of the existing parapet.

10.7 Components for the repair and replacement of legacy pedestrian parapets shall be of identical material, mechanical properties, section size, concrete thicknesses, manufacturing process, specification and geometry to the parapet components originally installed.

10.8 Components for the repair and replacement of legacy pedestrian parapets of metal construction shall be compliant with BS 7818 [Ref 15.N]or its predecessor documents that applied at the time of installation of the legacy pedestrian parapet.

Verification requirements for replacement components for legacy pedestrian parapets

10.9 Verification shall be undertaken for replacement components for legacy pedestrian parapets to check that the replacement components match the performance characteristics of the existing parapet and are of identical material, mechanical properties, section size, concrete thicknesses, manufacturing process, specification and geometry to the parapet components originally installed.

10.10 The frequency of checking the replacement components for legacy pedestrian parapets shall be a minimum of once per production run.

10.11 The requirements for "Verification" in Section 14 of GC 101 [Ref 4.N] shall apply to the checking of replacement components for legacy pedestrian parapets.

Documentation requirements for replacement components for legacy pedestrian parapets

10.12 The following Documentation shall be submitted for replacement components for legacy pedestrian parapets prior to the commencement of repair and replacement activities: documentation demonstrating that the replacement components match the performance characteristics of the existing parapet and are of identical material, mechanical properties,

section size, concrete thicknesses, manufacturing process, specification and geometry to the parapet components originally installed.

10.13 The requirements for "Documentation" in Section 2 of GC 101 [Ref 4.N] shall apply to documentation for replacement components for legacy pedestrian parapets.

10.14 The following Documentation shall be submitted for replacement components for legacy pedestrian parapets of metal construction prior to the commencement of repair and replacement activities: documentation showing compliance with BS 7818 [Ref 15.N]or its predecessor documents that applied at the time of installation of the legacy pedestrian parapet.

10.15 The requirements for "Documentation" in Section 2 of GC 101 [Ref 4.N] shall apply to documentation for replacement components for legacy pedestrian parapets.

Repair requirements for legacy pedestrian parapets

10.16 The repair of legacy pedestrian parapets shall comply with the product specification and drawings that applied at the time of installation of the legacy pedestrian parapet.

Installation requirements for replacement components for legacy pedestrian parapets

10.17 The installation requirements for replacement components for legacy pedestrian parapets of metal construction shall be compliant with BS 7818 [Ref 15.N]or its predecessor documents that applied at the time of installation of the legacy pedestrian parapet.

10.18 Replacement components for legacy pedestrian parapets shall be installed such that the completed repair is the same as the original undamaged section.

Documentation requirements for the repair and replacement of legacy pedestrian parapets

10.19 The following Documentation shall be submitted for the repair and replacement of legacy pedestrian parapets within one week of repair and replacement: Certification for each parapet system certifying that it has been fully repaired or replaced in accordance with BS 7818 [Ref 15.N]or its predecessor documents that applied at the time of installation of the legacy pedestrian parapet.

10.20 The requirements for Documentation in Section 2 of GC 101 [Ref 4.N] shall apply to documentation for the repair and replacement of legacy pedestrian parapets.

11. Legacy pedestrian guardrails

11.1 The repair and replacement of legacy pedestrian guardrails shall comply with "General requirements for permanent legacy road restraint systems" in Section 1 of this document.

11.2 The repair and replacement of legacy pedestrian guardrails shall be Contractor design items, unless otherwise stated in CC 401/WSR/011.

11.3 The design of the repair and replacement of legacy pedestrian guardrails shall be in accordance with CD 377 [Ref 14.N].

11.4 The requirements for "Contractor design" in Section 17 of GC 101 [Ref 4.N] shall apply to the repair and replacement of legacy pedestrian guardrails.

Schedule for replacement components for legacy pedestrian guardrails

11.5 Replacement components for legacy pedestrian guardrails shall be supplied and installed as detailed in CC 401/WSR/011.

Replacement components for legacy pedestrian guardrails						
Legacy pedestrian guardrail ID	**Legacy pedestrian guardrail location**	**Type of legacy pedestrian guardrail**	**Contractor design item**	**Applicable standard**	**Guardrail height**	**Number of posts to be replaced**
(a)	(b)	(c)	(d)	(e)	(f)	(g)

a) Enter a unique reference.

b) Enter text, to identify the start and finish of the length of legacy pedestrian guardrail to be repaired or replaced, the traffic direction of the carriageway, e.g. Northbound, and whether the works are in the verge, median, or other.

c) Enter text, to identify the type of legacy pedestrian guardrail requiring repair or replacement.

d) Enter a value, from options Yes, No, to identify if the design of the repair or replacement of the legacy pedestrian guardrail is a Contractor design item.

e) Enter text, to identify the standard and publication year to be used for the repair or replacement of the legacy pedestrian guardrail where it is not a Contractor design item.

f) Enter a number in units of mm, to identify the height to the top of the legacy pedestrian guardrail, measured from the adjoining paved surface, for the legacy pedestrian guardrail which is to be repaired or replaced.

g) Enter a number, to identify the number of posts that are to be replaced in the legacy pedestrian guardrail.

Replacement components for legacy pedestrian guardrails (continued)						
Legacy pedestrian guardrail ID	**Replacement post requirements**	**Number of anchorages requiring repair or replacement**	**Anchorage requirements**	**Number of foundations to be replaced**	**Number of rails/panels to be replaced**	**Replacement rail/panel requirements**
(a)	(h)	(i)	(j)	(k)	(l)	(m)

h) Enter text, to identify the cross-sectional size of posts and length of posts that are to be replaced in the legacy pedestrian guardrail.

i) Enter text, to identify the number of anchorages that are to be repaired or replaced in the legacy pedestrian guardrail.

j) Enter text, to identify the type, dimensions, material requirements and installation details for the anchorages that are to be replaced in the legacy pedestrian guardrail.

k) Enter a number, to identify the number of foundations that are to be replaced in the legacy pedestrian guardrail.

l) Enter a number, to identify the number of rails/panels that are to be replaced in the legacy pedestrian guardrail.

m) Enter text, to identify the section profile of the rails/panels and the length of individual rails/panels that are to be replaced in the legacy pedestrian guardrail.

Replacement components for legacy pedestrian guardrails (continued)			
Legacy pedestrian guardrail ID	**Infill or mesh to be replaced**	**Number of fasteners, and their type, to be replaced**	**Number of other components, and their type, to be replaced**
(a)	(n)	(o)	(p)

n) Enter text, to identify details of any infill or mesh that is to be repaired or replaced in the legacy pedestrian guardrail.

o) Enter text, to identify the number of fasteners and their type that are to be replaced in the legacy pedestrian guardrail.

p) Enter text, to identify the number and type of other components that are to be replaced in the legacy pedestrian guardrail.

Product requirements for replacement components for legacy pedestrian guardrails

11.6 Components for the repair and replacement of legacy pedestrian guardrails shall match the performance characteristics of the existing guardrail.

11.7 Components for the repair and replacement of legacy pedestrian guardrails shall be of identical material, mechanical properties, section size, concrete thicknesses, manufacturing process, specification and geometry to the guardrail components originally installed.

11.8 Components for the repair and replacement of legacy pedestrian guardrails of metal construction shall be compliant with BS 7818 [Ref 15.N]or its predecessor documents that applied at the time of installation of the legacy pedestrian guardrail.

Verification requirements for replacement components for legacy pedestrian guardrails

11.9 Verification shall be undertaken for replacement components for legacy pedestrian guardrails to check that the replacement components match the performance characteristics of the existing guardrail and are of identical material, mechanical properties, section size, concrete thicknesses, manufacturing process, specification and geometry to the guardrail components originally installed.

11.10 The frequency of checking the replacement components for legacy pedestrian guardrails shall be a minimum of once per production run.

11.11 The requirements for "Verification" in Section 14 of GC 101 [Ref 4.N] shall apply to the checking of replacement components for legacy pedestrian guardrails.

Documentation requirements for replacement components for legacy pedestrian guardrails

11.12 The following Documentation shall be submitted for replacement components for legacy pedestrian guardrails prior to the commencement of repair and replacement activities: documentation demonstrating that

the replacement components match the performance characteristics of the existing guardrail and are of identical material, mechanical properties, section size, concrete thicknesses, manufacturing process, specification and geometry to the legacy pedestrian guardrail components originally installed.

11.13 The requirements for "Documentation" in Section 2 of GC 101 [Ref 4.N] shall apply to documentation for replacement components for legacy pedestrian guardrails.

11.14 The following Documentation shall be submitted for replacement components for legacy pedestrian guardrails of metal construction prior to the commencement of repair and replacement activities: documentation showing compliance with BS 7818 [Ref 15.N]or its predecessor documents that applied at the time of installation of the legacy pedestrian guardrail.

11.15 The requirements for "Documentation" in Section 2 of GC 101 [Ref 4.N] shall apply to documentation for replacement components for legacy pedestrian guardrails.

Repair requirements for legacy pedestrian guardrails

11.16 The repair of legacy pedestrian guardrails shall comply with the product specification and drawings that applied at the time of installation of the legacy pedestrian guardrail.

Installation requirements for replacement components for legacy pedestrian guardrails

11.17 The installation requirements for replacement components for legacy pedestrian guardrails of metal construction shall be compliant with BS 7818 [Ref 15.N]or its predecessor documents that applied at the time of installation of the legacy pedestrian guardrail.

11.18 Replacement components for legacy pedestrian guardrails shall be installed such that the completed repair is the same as the original undamaged section.

Documentation requirements for the repair and replacement of legacy pedestrian guardrails

11.19 The following Documentation shall be submitted for the repair and replacement of legacy pedestrian guardrails within one week of repair and replacement: Certification for each guardrail system certifying that it has been fully repaired or replaced in accordance with BS 7818 [Ref 15.N]or its predecessor documents that applied at the time of installation of the legacy pedestrian guardrail.

11.20 The requirements for Documentation in Section 2 of GC 101 [Ref 4.N] shall apply to documentation for the repair and replacement of legacy pedestrian guardrails.

12. Legacy anti-glare screens mounted on road restraint systems

12.1 The repair and replacement of legacy anti-glare screens mounted on road restraint systems shall comply with "General requirements for permanent legacy road restraint systems" in Section 1 of this document.

12.2 The repair and replacement of legacy anti-glare screens mounted on road restraint systems shall be Contractor design items, unless otherwise stated in CC 401/WSR/012.

12.3 The design of the repair and replacement of legacy anti-glare screens mounted on road restraint systems shall be in accordance with CD 377 [Ref 14.N].

12.4 The requirements for "Contractor design" in Section 17 of GC 101 [Ref 4.N] shall apply to the repair and replacement of legacy anti-glare screens mounted on road restraint systems.

Schedule for replacement components for legacy anti-glare screens mounted on road restraint systems

12.5 Replacement components for legacy anti-glare screens mounted on road restraint systems shall be supplied and installed as detailed in CC 401/WSR/012.

Replacement components for legacy anti-glare screens mounted on road restraint systems						
Legacy anti-glare screen ID	**Legacy anti-glare screen location**	**Type of legacy anti-glare screen**	**Contractor design item**	**Applicable system drawings**	**Number of occluding elements to be replaced**	**Occluding element requirements**
(a)	(b)	(c)	(d)	(e)	(f)	(g)

a) Enter a unique reference.

b) Enter text, to identify the start and finish of the length of the legacy anti-glare screen to be repaired or replaced, the traffic direction of the carriageway, e.g. Northbound, and whether the works are in the verge, median, or other.

c) Enter text, to identify the type of legacy anti-glare screen being repaired or replaced.

d) Enter a value, from options Yes, No, to identify if the design of the repair or replacement of the legacy anti-glare screen is a Contractor design item.

e) Enter text, to identify the system drawings to be used for the repair or replacement of the legacy anti-glare screen where it is not a Contractor design item.

f) Enter a number, to identify the number of occluding legacy anti-glare elements that are to be replaced.

g) Enter text, to identify the shape and dimensions of the occluding legacy anti-glare screen elements that are to be replaced.

Replacement components for legacy anti-glare screens mounted on road restraint systems (continued)			
Legacy anti-glare screen ID	**Number of supports to be replaced**	**Number of fasteners, and their type, to be replaced**	**Number of other components, and their type, to be replaced**
(a)	(h)	(i)	(j)

h) Enter a number, to identify the number of legacy anti-glare screen supports that are to be replaced.

i) Enter text, to identify the number of legacy anti-glare screen fasteners and their type that are to be replaced.

j) Enter text, to identify number and type of other legacy anti-glare screen components that are to be replaced.

Product requirements for replacement components for legacy anti-glare screens mounted on road restraint systems

12.6 Components for the repair and replacement of legacy anti-glare screens mounted on road restraint systems shall be compliant with the system product drawings that applied at the time of installation of the legacy anti-glare screen, including any instructions contained within the drawings.

Verification requirements for replacement components for legacy anti-glare screens mounted on road restraint systems

12.7 Verification shall be undertaken for replacement components for legacy anti-glare screens mounted on road restraint systems to check that

the replacement components comply with the product drawings that applied at the time of installation of the legacy anti-glare screen.

12.8 The frequency of checking that the replacement components comply with the product drawings that applied at the time of installation of the legacy anti-glare screen shall be a minimum of once per production run.

12.9 The requirements for "Verification" in Section 14 of GC 101 [Ref 4.N] shall apply to the checking of replacement components for legacy anti-glare screens.

Documentation requirements for replacement components for legacy anti-glare screens mounted on road restraint systems

12.10 The following Documentation shall be submitted for replacement components for legacy anti-glare screens prior to the commencement of repair and replacement activities: documentation showing compliance with the system product drawings that applied at the time of installation of the legacy anti-glare screen.

12.11 The requirements for "Documentation" in Section 2 of GC 101 [Ref 4.N] shall apply to documentation for replacement components for legacy anti-glare screens.

Repair requirements for legacy anti-glare screens mounted on road restraint systems

12.12 The repair of legacy anti-glare screens mounted on road restraint systems shall be compliant with the product drawings for the system that applied at the time of installation of the legacy anti-glare screen, including any instructions contained within the drawings, the manufacturer's installation requirements or installation manual.

Installation requirements for replacement components for legacy anti-glare screens mounted on road restraint systems

12.13 The installation requirements for replacement components for legacy anti-glare screens mounted on road restraint systems shall be compliant with the product drawings for the system that applied at the time of installation of the legacy anti-glare screen, including any instructions contained within the drawings, the manufacturer's requirements or installation manual.

Documentation requirements for the repair and replacement of legacy anti-glare screens mounted on road restraint systems

12.14 The following Documentation shall be submitted for the repair and replacement of legacy anti-glare screens mounted on road restraint systems within one week of repair and replacement: Certification for each legacy anti-glare screen system certifying that it has been fully repaired or replaced in accordance with the product drawings, manufacturer's installation requirements or installation manual for the system that applied at the time of installation of the legacy anti-glare screen.

12.15 The requirements for Documentation in Section 2 of GC 101 [Ref 4.N] shall apply to documentation for the repair and replacement of legacy anti-glare screens mounted on road restraint systems.

13. Normative references

The following documents, in whole or in part, are normative references for this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

Ref.	Document
Ref 1.N	National Highways. CC 491, 'Brickwork, Blockwork and Stonework'
Ref 2.N	National Highways. CC 484, 'Concrete Repairs'
Ref 3.N	BSI. BS 8500-2, 'Concrete. Complementary British Standard to BS EN 206. Specification for constituent materials and concrete.'
Ref 4.N	National Highways. GC 101, 'General requirements for the Specification for Highway Works'
Ref 5.N	BSI. BS 6779-2 , 'Highway parapets for bridges and other structures - Specification for vehicle containment parapets of concrete construction' , 1991
Ref 6.N	BSI. BS 6779-4, 'Highway parapets for bridges and other structures. Specification for parapets of reinforced and unreinforced masonry construction' , 1999
Ref 7.N	BSI. BS 6779-3, 'Highway parapets for bridges and other structures. Specification for vehicle containment parapets of combined metal and concrete construction' , 1994
Ref 8.N	BSI. BS 6779-1, 'Highway parapets for bridges and other structures. Specification for vehicle containment parapets of metal construction. ' , 1998
Ref 9.N	National Highways. CC 495 'Miscellaneous'
Ref 10.N	Highways England. NPSBS, 'Non-Proprietary Safety Barrier Systems' , 2002 or 2005
Ref 11.N	Highways England. NPSBS v1, 'Non-Proprietary Safety Barrier Systems v1' , 2005
Ref 12.N	National Highways. CC 400, 'Permanent Road Restraint Systems'
Ref 13.N	BSI. BS EN 1504-3, 'Products and systems for the protection and repair of concrete structures. Definitions, requirements, quality control and evaluation of conformity. Structural and non-structural repair. (Designated Standard - CPR)'

Ref 14.N	National Highways. CD 377, 'Requirements for road restraint systems'
Ref 15.N	BSI. BS 7818, 'Specification for pedestrian restraint systems in metal '
Ref 16.N	National Highways. CC 482 'Structural concrete'
Ref 17.N	National Highways. CC 483 'Structural steelwork'
Ref 18.N	BSI. BS 7669-3, 'Vehicle restraint systems. Guide to the installation, inspection and repair of safety fences'