VOLUME 0 MODEL CONTRACT DOCUMENT FOR MAJOR ROADWORKS AND IMPLEMENTATION REQUIREMENTS SECTION 3 ADVICE NOTES

PART 1

SA 1/01 - AMENDMENT NO. 5

LISTS OF APPROVED/REGISTERED PRODUCTS

SUMMARY

1.

2.

This document lists products which have obtained Statutory Type Approval, Type Approval and Registration in order that they can be used in the construction of trunk roads.

INSTRUCTIONS FOR USE

Insert replacement pages listed on the Amendment Sheet (Amendment No. 5 -November 2004).

Remove the corresponding existing pages, which are superseded by this amendment and archive as appropriate. (Advice on archiving is given in Advice Note SA 4/01.)

- 3. Enter details of Amendment No. 5 dated November 2004 on the Registration of Amendments Sheet, sign and date to confirm that the amendment has been incorporated.
- 4. Archive this sheet as appropriate.

Note: A quarterly index with a full set of Volume Contents Pages is available separately from The Stationery Office Ltd.



AMENDMENT No 5 TO SA 1/01 – November 2004

Instruction Sheet

Section	Revision
Front Sheet	Replace with new Front Sheet
Contents Sheet	Replace with new Contents Sheet
Chapter 4	Replace pages 4/1 - 4/2 with new pages 4/1 - 4/2
Annex B - Contents	Replace existing Contents page with new Contents page
Annex B	Replace pages B/1 - B/14 with new pages B/1 - B/6
Annex C - Contents	Replace existing Contents page with new Contents page
Annex C	Replace pages C/1 - C/4, C9 - C/10, C/13 - C/20 with new pages C/1 - C/4, C9 - C/10, C/13 - C/28

MANUAL OF CONTRACT DOCUMENTS FOR HIGHWAY WORKS SA 1/01

Amendment No. 5 dated November 2004



THE HIGHWAYS AGENCY



SCOTTISH EXECUTIVE



WELSH ASSEMBLY GOVERNMENT LLYWODRAETH CYNULLIAD CYMRU



THE DEPARTMENT FOR REGIONAL DEVELOPMENT NORTHERN IRELAND

Lists of Approved/ Registered Products

Summary:

This document lists products which have obtained Statutory Type Approval, Type Approval and Registration in order that they can be used in the construction of trunk roads.







1. INTRODUCTION

1.1 The Specification for Highway Works (SHW), which forms Volume 1 of the Manual of Contract Documents for Highway Works (MCHW 1), requires certain work, goods or materials (products) to have obtained Statutory Type Approval, Type Approval or Registration before they can be used in the construction of trunk roads including motorways. Annex A of SD 1 (MCHW 0.2.1) lists such products.

1.2 Statutory Type Approval is granted by the Secretary of State for the Overseeing Organisation while Type Approval/Registration is granted by the Overseeing Organisations. This Advice Note lists products which have obtained:

- a) Statutory Type Approval at Annex A (in Northern Ireland Type Approval applies in place of Statutory Type Approval);
- b) Type Approval at Annex B; and
- c) Registration at Annex C.

1.3 This Advice Note supersedes SA 1/98 which is hereby withdrawn.

1.4 Unless otherwise indicated in the lists at Annexes B and C, Type Approval/Registration granted by the Highways Agency as the Overseeing Organisation is valid throughout the UK.

1.5 It should be noted that the approval/registration of some products is subject to limitations on use. Where applicable these are stated in the lists. Such limitations are additional to any given in the SHW. When products are used in contracts which incorporate the SHW, they must conform to the descriptions, specifications and limitations set out in the SHW.

Implementation

1.6 The Advice Note Annexes are factual lists of products which have passed approval/registration procedures at the date of publication. There are no special requirements for implementation. It is intended that the Advice Note should be regularly updated to allow for the inclusion of new products or the deletion of products which are found to be unsatisfactory or have been superseded.

2. PROCEDURE FOR INCLUSION IN LISTS

2.1 Any manufacturer, supplier or agent can apply at any time to have products which have received the appropriate approval/registration placed on the lists at Annexes A, B or C. The addresses to which applications should be made are given in Chapter 4 of this Advice Note.

2.2 SD 1 (MCHW 0.2.1) gives information on the type of approval/registration required for each product, reference to the relevant clause in the SHW, and details on information required together with the likely timescale for products to obtain such approval/ registration.

2.3 Where approval/registration has been withdrawn from products owing to their failure to perform to the required standard, the products will be removed from the lists at the revision subsequent to the withdrawal. Enquiries may be made of the Overseeing Organisations to check that any approval/registration is current at the time of use. Similarly, enquiries can be made about any approval/registration that may have been granted subsequent to the last publication of the lists.

3. REFERENCES

3.1 Manual of Contract Documents for Highway Works:

Volume 0: Model Contract Document for Major Works and Implementation Requirements:

Section 2 Implementing Standards

SD 1 Implementation of the Specification for Highway Works and Notes for Guidance (MCHW 0.2.1)

Volume 1: Specification for Highway Works : (MCHW 1)

May 2001



MANUAL OF CONTRACT DOCUMENTS FOR HIGHWAY WORKS VOLUME 0 SECTION 3





Specification Clause Number	Product Type	Product Name Manufacturer's	Limitations on Use	Comments		
		Description	Name & Address		Manufacturer's Drawings	Fixing Instructions
1213	Permanent Road Stud Incorporating Retroreflectors	Armourstud Mark 6	Armourstud Ltd Century House Century Road Retford Nottinghamshire DN22 7TD Tel: 01777 703643	Type approval letter from the Secretary of State for the Overseeing Organisation	5003/814/Rev5	
		Armourstud Mark 6A	Armourstud Ltd Century House Century Road Retford Nottinghamshire DN22 7TD Tel: 01777 703643	Ditto	7990	
		CS 3000	Avery Dennison Knightcott Industrial Estate Banwell Weston Super Mare North Somerset BS29 6JN Tel: 01934 825800	Ditto	SS 675	
		CS 4000	Avery Dennison Knightcott Industrial Estate Banwell Weston Super Mare North Somerset BS29 6JN Tel: 01934 825800	Ditto	SS 677	BTM Document No. PR II 1001 June 1987
		Light Dome Mark 10	Light Dome Road Maker Inserts Ltd Premier Business Park Newgate Lane Fareham Hants PO14 1BP Tel: 01329 287955	Ditto	DTER No RED 13/20/09/119	

Annex A Statutory Type Approval



Specification	Product Type	Product Name	Manufacturer's	Limitations on Use	Comments	
Clause Number		Description	Name & Address		Manufacturer's Drawings	Fixing Instruction
1213	Permanent Road Stud Incorporating Retroreflectors	3M 290	3M United Kingdom plc Easthampstead Road Bracknell Berkshire RG12 1JE Tel: 01344 860678	Type approval letter from the Secretary of State for the Overseeing Organisation	DTER No RED 13/20/22/103	
		Night Star AB	Night Star 46-84-245 th Street Douglaston New York 11363 USA Tel: 00 1 718 229 0046	Ditto	DTER No RED 13/20/45/132	
		Prismo II T	BTM (Safety Products) Ltd Fosseway Midsomer Norton Bath BA3 4AY Tel: 01761 414824	Ditto	M2448/K	
		Stimsonite 953Hex	Avery Dennison Knightcott Industrial Estate Banwell Weston Super Mare North Somerset BS29 6JN Tel: 01934 825800	Ditto	SS 953 669 and SS 652	
	Permanent Road Stud Incorporating Retroreflectors and LEDs	Astucia DIRS	Astucia UK Ltd 42 Eldon Way Paddock Wood Tonbridge Kent TN12 6BE Tel: 01892 838333	Ditto	18698MDBLV001	

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May 2001



Specification	Product Type	Product Name Description	Manufacturer's Name & Address	Limitations on Use	Comments		
Clause Number					Manufacturer's Drawings	Fixing Instruction	
213	Permanent Road Stud Incorporating Retroreflectors and LEDs	Astucia SIRS	Astucia UK Ltd 42 Eldon Way Paddock Wood Tonbridge Kent TN12 6BE Tel: 01892 838333	Type approval letter from the Secretary of State for the Overseeing Organisation	18698MDBLV002		
		Reflecto Active Road Stud	Reflecto Ltd 5 Carrs Meadow Escrick York YO19 6JZ Tel: 01904 728133	Ditto	7982		
	Road Stud Housing	Lucy Castings road stud housing	Lucy Castings Howland Road Eastern Bypass Thame Oxfordshire OX9 3UJ Tel: 01844 260940	Ditto	LDBH 003		
		Rice road stud housing LD/1	Rice and Co. Northampton Ltd South Bridge Road Northampton NN4 8BY Tel: 01604 766471	Ditto	LDBH 001		
		Triplex road stud housing	Triplex Foundry Ltd Upper Church Lane Tipton West Midlands DY4 9PA Tel: 0121 5571293	Ditto	LDBH 002		

Annex A Statutory Type Approval

RETROREFLECTING ROAD STUDS

Specification	Product Type	Product Name	Manufacturer's	Limitations on Use	Comments		
Clause Number		Description	Name & Address		Manufacturer's Drawings	Fixing Instructions	
1213	Permanent Road Stud Incorporating Retroreflectors	Catseyes	Reflecting Roadstuds Ltd Boothtown Halifax West Yorkshire HX3 6TR Tel: 01422 360 208	Type approval letter from the Secretary of State for the Overseeing Organisation	RRL 265, Angle type (19/8/61) RRL 266, Short type (19/8/61) RRL 345, Short type (modified) (14/12/87) RRL 267, Long type (19/8/61) RRL 272, Flush Kerb type (10/9/62)	(Paving (Instructions (1995 Edition (Red) (also ('Permafix' (Reflect-A-Fix (RAF/PM/85/KJ (Sept 1985	
		Permastud Aluminium and Cast Iron Housing	Permastud Sales Ltd 15 Station Road Yate Bristol BS17 5HT Tel: 01454 324 342	Ditto	P103 Issue 2 (16/11/87) RM 20-3 sheets (23/3/89)	Permastud Documen PSL/90 May 1990	
		Trailblazer Plastic Housing	Glasdon UK Ltd Preston New Road Blackpool Lancs FY4 4UL Tel: 01253 694 621	Ditto	02B029-01 Issue 05 (28/1/88)	Glasdon Document No. 02029/2 January 1988	
		Prismo II	BTM (Safety Products) Ltd Fosseway Midsomer Norton Bath BA3 4AY Tel: 01761 414 824	Ditto	M2448/1 Issue J (15/11/91)	BTM Document No. PR II 1001 June 1987	
		Catastud MK I	BTM (Safety Products) Ltd Fosseway Midsomer Norton Bath BA3 4AY Tel: 01761 414 824	Ditto	MK 1/CS/001 (30/7/71)	BTM Document No. 17484 July 1984	

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RETROREFLECTING ROAD STUDS

Specification	Product Type	Product Name	Manufacturer's	Limitations on Use	Comments	s
Clause Number		Description	Name & Address		Manufacturer's Drawings	Fixing Instructions
1213	Permanent Road Stud Incorporating Retroreflectors	Catastud Deep Fix Epoxy	BTM (Safety Products) Ltd Fosseway Midsomer Norton Bath BA3 4AY Tel: 01761 414 824	Type approval letter from the Secretary of State for the Overseeing Organisation	30957A - Body 30947B - Receptor 30947C - Screw (May 1981)	BTM Document No. 17484A July 1984
		Stimsonite 88	Avery Dennison Knightcott Industrial Estate Banwell Weston Super Mare North Somerset BS29 6JN Tel: 01934 825800	Ditto	SS629	
		Stimsonite 947	Avery Dennison Knightcott Industrial Estate Banwell Weston Super Mare North Somerset BS29 6JN Tel: 01934 825800	Ditto	SS 643 (21/5/86)	Stimsonite Document 947 - IPM April 1985
		Stimsonite 948	Avery Dennison Knightcott Industrial Estate Banwell Weston Super Mare North Somerset BS29 6JN Tel: 01934 825800	Ditto	SS 646 (2/9/88)	Simsco Documents 6592 May 1992 (Hot Melt) & 291041A March 1989 (Self-Adhesive)
		Stimsonite 953	Avery Dennison Knightcott Industrial Estate Banwell Weston Super Mare North Somerset BS29 6JN Tel: 01934 825800	Ditto	SS 652	Stimsonite Document No. 291041

RETROREFLECTING ROAD STUDS

pecification	Product Type	Product Name	Manufacturer's	Limitations on Use	Comments	
Clause Jumber		Description	Name & Address		Manufacturer's Drawings	Fixing Instructions
213	Permanent Road Stud Incorporating Retroreflectors	Gladson Pentar Mk III	Glasdon UK Ltd Preston New Road Blackpool Lancs FY4 4UL Tel: 01253 694 621	Type approval letter from the Secretary of State for the Overseeing Organisation	02Y 02602 (20/2/89)	Glasdon Document 02Y 02602 Sheet 2 February 1989
		Røadstar	Roadstars Ireland Ltd Gouldshill Mallow County Cork Eire Tel: 00 353 22 21009	Ditto	Roadstars Figures 1 - 5 (5/3/89)	Roadstars Document Ref No. C12 March 1989
		Light-Dome Mk. VA Depressible insert only (now known as MK 8A)	Light-Dome Road Marker Inserts Ltd Newgate Lane Industrial Estate Fareham Hants PO14 1BP Tel: 01329 287 955	Ditto	78/1 (27/6/88)	Light-Dome Document LD/1 March 1991
		Knight Sight Depressible insert only	Knight Polymers Ltd 27 Lansdown Industrial Estate Cheltenham GL51 8PL Tel: 01242 227 750	Ditto	200.1 March 1991	Knight Advanced Polymers Ltd Document KS/1 November 1992
		Glasdon Flexiwipe II Depressible insert only	Glasdon UK Ltd Preston New Road Blackpool Lancs FY4 4UL Tel: 01253 694 621	Ditto	02Y 02814 (31/1/90)	Glasdon Document 02Y 02815 Issue 1 April 1992

Annex A Statutory Type Approval

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Stimsonite 952LP



Avery Dennison

Weston Super Mare North Somerset BS29 6JN

Tel: 01934 825800

Banwell

Knightcott Industrial Estate

Ditto

SS656

Fixing Instructions

RED 13/20/09/111

Comments

Annex A Statutory Type Approval

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Specification	Product Type	Product Name	Manufacturer's	Limitations on Use	Comments	
Clause Number		Description	Name & Address		Manufacturer's Drawings	Fixing Instruction
1213	Permanent Road Stud Incorporating Retroreflectors	KnightLite Hot Melt Type	Knight Polymers Ltd 27 Lansdown Industrial Estate Cheltenham GL51 8PL Tel: 01242 227 750	Type approval letter from the Secretary of State for the Overseeing Organisation	911	RPM - I - 8/94
		KnightSight SP001 Stud and Housing	Knight Polymers Ltd 27 Lansdown Industrial Estate Cheltenham GL51 8PL Tel: 01242 227 750	Ditto	SP001	
		Glynwed Road Stud Housing	Glynwed Brickhouse Commercial Street Pontymister Industrial Estate Risca Gwent NP1 6YL Tel: 01633 612 833	Ditto	DOT No. RED 13/20/35/94	
	Permanent Road Stud Incorporating Retroreflectors	Glynwed Brickhouse CIBODY/RNDZ Housing	Glynwed Brickhouse Commercial Street Pontymister Industrial Estate Risca Gwent NP1 6YL Tel: 01633 612 833	Ditto	CIBODY/RNDZ	
	Temporary Road Stud Incorporating Retroreflectors	Safemark Self Adhesive Type	Avery Dennison Knightcott Industrial Estate Banwell Weston Super Mare North Somerset BS29 6JN Tel: 01934 825800	Ditto	29472 Issue 1 (22/12/86)	Simsco Document No. 29472A (Issue 2) December 1991

Annex A Statutory Type Approval

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pecification	Product Type	Product Name	Manufacturer's	Limitations on Use	Commen	ts
Clause Number		Description	Name & Address		Manufacturer's Drawings	Fixing Instructions
1213	Temporary Road Stud Incorporating Retroreflectors	Safemark Hot Melt Type	Avery Dennison Knightcott Industrial Estate Banwell Weston Super Mare North Somerset BS29 6JN Tel: 01934 825800	Type approval letter from the Secretary of State for the Overseeing Organisation	31848 Issue 1 (22/12/86)	Simsco Document No. 31848A (Issue 1) January 1987
		Contramark Self Adhesive Type	BTM (Safety Product) Ltd Fosseway Midsomer Norton Bath BA3 4AY Tel: 01761 414 824	Ditto	1003C (April 1988)	BTM Document No. 9484A February 1986
		Contramark Hot Melt Type	BTM (Safety Product) Ltd Fosseway Midsomer Norton Bath BA3 4AY Tel: 01761 414 824	Ditto	1003C (April 1988)	BTM Document No. 9484 June 1984
		Contramark II Hot Melt Type	BTM (Safety Product) Ltd Fosseway Midsomer Norton Bath BA3 4AY Tel: 01761 414 824	Ditto	BTM1001C (April 1988)	BTM Document Contramark II Temporary Hot Melt Studs May 1988
		Contramark 2000 Hot Melt and Self Adhesive Type	BTM (Safety Product) Ltd Fosseway Midsomer Norton Bath BA3 4AY Tel: 01761 414 824	Ditto	IP85B (16/4/91)	BTM Document No. 9484 June 1984 and 9484A February 1986



Specification	Product Type	Product Name	Manufacturer's	Limitations on Use	Comments	
Clause Number		Description	Name & Address		Manufacturer's Drawings	Fixing Instructions
1213	Temporary Road Stud Incorporating Retroreflectors	Visimarker Hot Melt Type	BTM (Safety Product) Ltd Fosseway Midsomer Norton Bath BA3 4AY Tel: 01761 414 824	Type approval letter from the Secretary of State for the Overseeing Organisation	M2484 Issue C (26/10/83)	BTM Document No. PVTRS 2001 April 1987
		Visimarker Self Adhesive Type	BTM (Safety Product) Ltd Fosseway Midsomer Norton Bath BA3 4AY Tel: 01761 414 824	Ditto	M2490 Issue A (21/4/87)	BTM Document No. PVTRS 2001 April 1987
		Swintex Stick-a-Stud 1 Hot Melt Type	Swintex Ltd Derby Works Manchester Road Bury Lancashire BL9 9NX Tel: 0161 767 4933	Ditto	Stick-a-Stud H/M (13/5/89)	Swintex Document Stick-a-Stud H/M May 1989
		Swintex Stick-a-Stud 2 Hot Melt Type	Swintex Ltd Derby Works Manchester Road Bury Lancashire BL9 9NX Tel: 0161 767 4933	Ditto	Stick-a-Stud H/M (4/5/90)	Swintex Document Stick-a-Stud H/M May 1990
		Swintex Stick-a-Stud 2 Self Adhesive Type	Swintex Ltd Derby Works Manchester Road Bury Lancashire BL9 9NX Tel: 0161 767 4933	Ditto	Stick-a-Stud S/A (4/5/90)	Swintex Document Stick-a-Stud H/M May 1989

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Dorman Trafistud



Dorman Traffic

Products Ltd

Rufford Road Crossens Southport

Tel: 01704 20911

PR9 8LA

Ditto

Fixing Instructions

BTM Document

BTM Document

No. 9484A

May 1990

Reflect-a-Fix

Document No.

RC.NJB.1.HM

Reflect-a-Fix

Document No.

RC.NJB.1.SA

Dorman Document

OTS 0592

May 1992

TSDA/A

(May 1992)

No. 9484

May 1990

Comments

Annex A Statutory Type Approval







MANUAL OF CONTRACT DOCUMENTS FOR HIGHWAY WORKS VOLUME 0 SECTION 3



| CORRUGATED STEEL BURIED STRUCTURES

Amendment - November 2004	

Specification Series/Clause Number	Product Type	Product Name Description	Manufacturer's Name & Address	Limitations on Use	Date Passed	Other Information
2500 / 2501	Bolted Segment Culverts	MP100 MP200	Asset International Ltd Stephenson Street Newport Gwent NP9 0XH	Use as described in BD12 (DMRB 2.2.6) and BBA Roads and Bridges Certificate No. 91/59	25/7/91	TA Cert No. BE 1/1/91
		T100 T200	Tubosider UK Ltd 24 Kingsland Grange Woolston Warrington WA1 4RW	Use as described in BD12 (DMRB 2.2.6)	22/10/91	TA Cert No. BE 1/2/91
		ARC 67 ARC 100 ARC 152	ARC SIPRA SRL c/o 1 Main Street Follifoot Harrogate HG3 IDU	Use as described in BD12 (DMRB 2.2.6)	22/12/94	TA Cert No. BE 1/5/94
		HAMCO Multi-plate MP200 HAMCO Multi-plate MP150	HAMCO Dinslaken Bausystem GMbH 46535 Dinslaken Julius-Kalle-Strasse 55 Germany	Use as described in BD12 (DMRB 2.2.6)	28/3/96	TA Cert No. BE 1/6/96
		HELIBORE 68 HELIBORE 125	Tubosider UK Ltd 24 Kingsland Grange Woolston Warrington WA1 4RW	Use as described in BD12 (DMRB 2.2.6) and BBA Roads and Bridges Certificate No. 91/62	9/6/92	TA Cert No. BE 1/4/92

Annex B Type Approval

풍 | TEMPORARY ROAD MARKINGS

pecification eries/Clause	Product Type	Product Name Description	Manufacturer's Name & Address	Limitations on Use	Date Passed	Other Information Number
	Temporary Road Marking Tape		Traffic Control Products Group 3M (UK) Plc East Hampstead Road Bracknell Berkshire RG12 1JU Tel: 01344 866 465	Temporary road markings at road works	14 Oct 88	Contract point at 3M: Mr Mike Mason
		Scotchlane 6350 (White)	3M (UK) Plc	Ditto	14 Oct 88	Taper is paper linered
		Scotchlane A135 (Black)	3M (UK) Plc	Ditto	14 Oct 88	Black tape for masking existing markings
		Scotchane 645 (Black)	3M (UK) Plc	Ditto	15 Jan 95 (Black)	To be renamed Scotchlane 655
		Scotchlane 640 (White)	3M (UK) Plc	Longitude markings Arrows and worded markings	13 Jan 95 4 Dec 96	To be renamed Scotchlane 650 (White)
		Scotchlane 620 (White)	3M (UK) Plc		4 Dec 96	
		Remline (White)	Manufactured to Associated Asphalt specification. Associated Asphalt Co Ltd PO Box 60 Henley on Thames Oxon RG9 4EZ Tel: 01491 575 921	Temporary road markings at road works	14 Oct 88	Contact point at Associated Asphalt: Mr Harry M Jackson
		Remline (Black)	Ditto	Ditto	14 Oct 88	Black tape for masking existing Markings

TEMPORARY ROAD MARKINGS Amendment - November 2004 Specification **Product Type** Product Name Manufacturer's Limitations on Use **Date Passed Other Information** Series/Clause Description Name & Address Number 1212 Temporary Road Brite-line 100 Brite-line Industries Ltd Temporary road markings 14 Oct 94 Contact pt at Brite-Marking Tape (White) Tanglewood at road works Line: Mr Perkins & 100 Black 5 Muntham Drive Barns Green Horsham W Sussex RH13 7PT Vita light (White) Vita Salford Ditto Contact pt: Mr Dykes 14 Oct 94 Salford Road Does not include Salford arrows and worded Lancashire markings M6 6WA Tel: 0161 736 5343 Snoline - Tempoline Snoline Spa (Italy) Ditto 20 Oct 89 Contact at BTM (White) **UK** Supplier Mr Joe S Cole BTM (Safety Products) Ltd Fosseway Midsomer Norton Bath BA3 4AY Tel: 01761 414 824 Snoline - Tempoline Ditto Black tape for masking 20 Oct 89 Snoline Spa (Italy) (Black) UK Supplier existing markings BTM (Safety Products) Ltd Fosseway Midsomer Norton Bath BA3 4AY Tel: 01761 414 824 Ditto Contact point at Milli-Lux (White) Swintex Ltd 20 Oct 89 Derby Works Swintex: Mr H V Manchester Road Houghton Bury Lancashire BL9 9NX

Tel: 0161 761 4933

Annex B Type Approval

E | TEMPORARY ROAD MARKINGS

pecification Prod eries/Clause Jumber	luct Type	Product Name Description	Manufacturer's Name & Address	Limitations on Use	Date Passed	Other Information
	porary Road king Tape	Swintex Tape (White)	Swintex Ltd Derby Works Manchester Road Bury Lancashire BL9 9NX Tel: 0161 761 4933	Temporary road markings at road works	15 Sept 92	Contact point at Swintex: Mr H V Houghton
		Trelleborg SM (White)	Adbruf Ltd Gibbs Marsh Trading Estate Stalbridge Sturminster Newton Dorset ST10 2RX Tel: 01963 362 640	Ditto	12 Jan 96	Contact point at Adbruf Mr C Walsh
		Trelleborg SM (Black)	Adbruf Ltd Gibbs Marsh Trading Estate Stalbridge Sturminster Newton Dorset ST10 2RX Tel: 01963 362 640	Ditto	4 Oct 96	Contact point at Adbruf Mr C Walsh
	'					
						V

PAVEMENT MATERIALS

- 1. Concrete Pavement Repair Materials
- (i) Techcrete Repair Materials:

There are two type of Techcrete repair materials avialble, Techcrete TBR for partial depth repairs and Techcrete R for thin bonded repairs. Copies of the specifications for installing these materials can be obtained from:

Roadtechs Europe Limited The Airfield Barondale Lane Topcroft Bungay Suffolk NR35 2BE

 Tel.
 01508 536360

 Fax.
 01508 536160

 Email:
 info@ropadtech.net

However, before letting contracts to use this material, checks should be made that the specification is the same as that registered with the Highways Agency's Pavement Engineering Group.



MANUAL OF CONTRACT DOCUMENTS FOR HIGHWAY WORKS VOLUME 0 SECTION 3

ANNEX C REGISTRATION	
Contonto	
Contents Product	Page
Paints and Similar Protective Coatings	C/1
Waterproofing Systems for Highway	
Bridge Decks	C/5
Parapet Anchorages	C/7
Bridge Deck Expansion Joints	C/9
Safety Barriers	C/20

Series/Clause Number	Туре	Product/System Description	Manufacturer's Name	Limitations on Use	Environment Access
1900 / 1911.7: Table 19/2B Bridges, Parapets and Othe	r Highway Structures (Except B	earings, CCTV Masts, Cantilever Mast	s and Steel Lighting Columns and	Bracket Arms) (05/04)	
- Type I	Paint System	High Build Epoxy (2 pack) System	International Coatings Ltd W & J Leigh & Co Ameron Coatings Dacrylate Paints Ltd Tikkurila Coatings Ltd SigmaKalon Ltd Hempel Paints Ltd Spencer Coatings Ltd	All	Ready
- Type II	Sealer/Paint System	Aluminium Epoxy Sealer/High Build Epoxy and Polyurethane System	International Coatings Ltd W & J Leigh & Co Ameron Coatings Dacrylate Paints Ltd Tikkurila Coatings Ltd SigmaKalon Ltd Hempel Paints Ltd Spencer Coatings Ltd	All	Difficult
- Type III	Paint System	High Build Epoxy (2 pack) System	International Coatings Ltd W & J Leigh & Co Ameron Coatings SigmaKalon Ltd Tikkurila Coatings Ltd Spencer Coatings Ltd	All	Ready or Difficult
- Type IV For hot dipped galvanised surfaces (e.g. parapets)	Sealer/Paint System	Zinc Phosphate Epoxy Sealer/Polyurethane System	International Coatings Ltd W & J Leigh & Co Ameron Coatings Tikkurila Coatings Ltd Spencer Coatings Ltd	All	Ready or Difficult
1900 / 1911.8: Table 19/3B Bearings (and Metal Coated	Fasteners) (05/04)				
- Type V	Sealer/Paint System	Aluminium Metal Spray plus Sealer/Zinc Phosphate Sealer/Polyurethane System	International Coatings Ltd W & J Leigh & Co Dacrylate Paints Ltd Ameron Coatings Tikkurila Coatings Ltd Spencer Coatings Ltd	All	Ready or Difficult

Series/Clause Number	Туре	Product/System Description	Manufacturer's Name	Limitations on Use	Environment Access
1900 / 1911.9: Table 19/4C CCTV Masts, Cantilever M	asts, Steel Lighting Columns and	Bracket Arms (05/04)			
- Type A1	Sealer/Paint System	Aluminium Epoxy Sealer/Pitch Epoxy System	International Coatings Ltd Ameron Coatings W & J Leigh & Co Dacrylate Paints Ltd Tikkurila Coatings Ltd	Inland	Ready
- Type A2a	Sealer/Paint System	Zinc Phosphate Sealer/High Build Epoxy & Pitch Epoxy System	International Coatings Ltd Witham Oil & Paint Ltd Ameron Coatings SigmaKalon Ltd Dacrylate Paints Ltd W & J Leigh & Co Tikkurila Coatings Ltd	Inland Marine	Difficult Ready or Difficult
- Type A2b	Sealer/Paint System	Aluminium Epoxy Sealer/High Build Epoxy & Pitch Epoxy System	Ameron Coatings International Coatings Ltd Dacrylate Paints Ltd W & J Leigh & Co Tikkurila Coatings Ltd SigmaKalon Ltd Hempel Paints Ltd	Inland Marine	Difficult Ready or Difficult
- Type G1	Paint System	High Build Epoxy/Pitch Epoxy System	International Coatings Ltd Ameron Coatings W & J Leigh & Co Dacrylate Paints Ltd Tikkurila Coatings Ltd SigmaKalon Ltd Hempel Paints Ltd	Inland	Ready
- Type G2a	Paint System	High Build Epoxy /Polyurethane/Pitch Epoxy System	Dacrylate Paints Ltd International Coatings Ltd Ameron Coatings W & J Leigh & Co Tikkurila Coatings Ltd SigmaKalon Ltd Hempel Paints Ltd	Inland Marine	Difficult Ready or Difficult

Annex C Registration

Volume 0 Section 3 Part 1 SA 1/01

C₃



Annex C Registration

7 MANUFACTURERS OF PAINTS Ameron Coatings Blackwell Road 1 SigmaKalon Ltd Huthwaite Huddersfield Road Sutton-in-Ashfield Birstall Nottinghamshire Batley NG17 2RL WF17 9XA Tel: 01623 511 000 Tel: 01924 354 000 Fax: 01623 559 616 Fax: 01924 354 101 8 Dacrylate Paints Ltd 2 International Protective Coatings Ltd Lime Street International Paint Ltd Kirkby-in-Ashfield Stoneygate Lane Nottinghamshire Felling **NG17 8AL** Gateshead Tel: 01623 753 845 Tyne & Wear Fax: 01623 757 151 NE10 0JY E Wood Ltd 9 Tel: 0191 469 6111 Fax: 0191 495 0676 Standard Way Email@ comm.enquiries@uk.akzonobel.com Northallerton North Yorkshire 3 Witham Oil & Paint Ltd DL6 2XA Stanley Road Tel: 01609 780 170 **Oulton Broad** Fax: 01609 780 438 Lowestoft Suffolk 10 Hempel Paints Ltd NR33 9ND Llantarnam Industrial Park Tel: 01502 563 434 Cwmbran Fax: 01502 500 010 South Wales NP44 3XF 4 Tikkurila Coatings Ltd Tel: 01633 874 024 Radcliffe Road Fax: 01633 489 089 Bury Lancashire BL9 9NB Tel: 0161 764 6017 Fax: 0161 764 6102 5 W & J Leigh & Co Tower Works Kestor Street Bolton

6

BL2 2AL

Tel: 01204 521771 Fax: 01204 384 115

Spencer Coatings Ltd

Froghall Terrace Aberdeen AB24 3JN

Tel: 01224 788 400 Fax: 01224 648 116
Specification Series	Product Type	Product Name Description	Manufacturer's Name and Address	BBA Roads and Bridges Agrément Certificate No.	Date Certificate Issue
2000	Permitted Waterproofing Systems	Eliminator (One Coat)	Stirling Lloyd Polychem Ltd Union Bank King Street Knutsford Cheshire WA16 6EF	99/R111	17/5/99
		Eliminator (Two Coat)	Stirling Lloyd Polychem Ltd Union Bank King Street Knutsford Cheshire WA16 6EF	99/R112	17/5/99
		PmB	Bayer plc Polyurethane Business Group Bayer House Strawberry Hill Newbury Berkshire RG14 1JA	98/R101	13/8/98
		Bridgeguard Bridgedeck Waterproofing System	BDW (Services) Ltd Unit 1b Wares Farm Redwall Lane Linton Maidstone Kent ME17 4B	01/R126	14/12/01

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WATERPROOFING SYSTEMS FOR HIGHWAY BRIDGE DECKS

Image: Description of the section o	Specification Series	Product Type	Product Name Description	Manufacturer's Name and Address	BBA Roads and Bridges Agrément Certificate No.	Date Certificate Issued
MDP (Two Coat) 3 Walton Road Pattinson North District 15 Washington Tyne and Wear NE38 8QA				Kingston House 3 Walton Road Pattinson North District 15 Washington Tyne and Wear	02/R129	13/05/02
				Kingston House 3 Walton Road Pattinson North District 15 Washington Tyne and Wear	02/R128	13/05/02
				NE38 8QA		

PARAPET ANCHORAGES

Since 1 April 1998 a new scheme for the parapet anchorages via the 'Highways Authorities Product Approval Scheme' (HAPAS) has been in operation by the British Board of Agrément (BBA). Details of the scheme are available from the BBA. Contact details are as follows:

British Board of Agrément PO Box No 195 Bucknalls Lane Garston Watford Herts WD25 9BA Tel: 01923 670844

As from 1 April 1999 only those products which have British Board of Agrément HAPAS Roads and Bridges certification are acceptable for installation.



Specification Series	Product Type	Product Name Description	Manufacturer's Name and Address	Limitations on Use	Date Registered by HA
2300	Buried Joint	Nova BJ (formerly Avon BJ) TU20 TU30	ASL Contracts Ltd R W Engineering R W Engineering SHT Brueckentechnic GmbH SHT Brueckentechnic GmbH Agent (UK) ASL Contracts Ltd Unit 4 Regents Park Southway Walworth Industrial Estate Andover Hampshire SP10 5NX		1992 Jun 97 Jun 97
		Bayer/Pitchmastic Buried Joints BP1 BP2 BP3 BP4	Manufacturer: Bayer plc Installer: Pitchmastic plc Royds Works Attercliffe Road Sheffield S4 7WZ		Sept 96 Dec 96 Dec 96 Dec 96
		Expoband Plus Deck Flashing DF6	Fosroc Expandite Ltd Coleshill Road Tamworth Staffordshire B78 3TL		1992
		Radflex 125 (Deck Flashing)	Radflex Contract Services Ltd Unit 35 Wilks Avenue Dartford Trade Park Kent DA1 1JS		1992

Specification Series	Product Type	Product Name Description	Manufacturer's Name and Address	Limitations on Use	Date Registered by HA
2300	Buried Joint	Serviseal Type B (Deck Flashing)	W. R. Grace Ltd Servicised Expansion Jointing & Waterproofing Ajax Avenue Slough Berkshire SL1 4BH		1992
		Soba Greyline 06, 20, 20G & 40G Soba Greenfine 06, 20, 20G & 40G	Clarke Products 384 Cheadle Road Cheddleton Leek Staffordshire ST13 7BW		Jun 97 Jun 97
		Type 1 Type 2 Type 3 Type 4	Stirling Lloyd Polychem Ltd Union Bank King Street Knutsford Cheshire WA16 6EF		Nov 96 Oct 97 Oct 97 Oct 97
		Uniflex Joint Type A, Type B Type C	Universal Sealants (UK) Ltd Kingston House 3 Walton Road Pattinson North District 15 Washington Tyne and Wear NE38 8QA		Mar 95
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Specification Series	Product Type	Product Name Description	Manufacturer's Name and Address	Limitations on Use	Date Registered by HA
2300	Asphaltic Plug Joint	Asphapol	Associated Asphalt Ltd Highlands Lane Henley-on-Thames Oxfordshire RG9 4PS		1992
		ESS	ESS Systems East Sussex Surfacing (Midlands) Ltd 9 Marlborough Place Brighton East Sussex BN1 1UB		1992
		Feba	Universal Sealants (UK)Ltd Kingston-House 3 Walton Road Pattinson North District 15 Washington Tyne & Wear NE38 8QA		Sep 99
		Flexijoint	Highway Maintenance Specialists Ltd Bruntingthorpe Industrial Estate Lutterworth Leicestershire LE17 5QZ		Dec 98
		Hotfalt	ASL Contracts Ltd Unit 4 Regents Park Southway Walworth Industrial Estate Andover Hampshire SP10 5NX		1992



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Specification Series	Product Type	Product Name Description	Manufacturer's Name and Address	Limitations on Use	Date Registered by HA
2300	Asphaltic Plug Joint	Zebrajoint	Zebraflex Sealants Ltd Quarry Road Ind. Est. Quarry Road Chorley Lancashire PR6 0LR		1992
	In-situ nosing or transition strip	Britflex (Polyureide)	Universal Sealants (UK) Ltd Kingston House 3 Walton Road Pattinson North District 15 Washington Tyne and Wear NE38 8QA		1992
		Ceva-Crete (Polyurethane modified epoxy)	Prismo Products Ltd 5 Drumhead Road Chorley North Industrial Park Chorley Lancashire PR6 7BX	Use only with Cevajoint	May 94
		CN2 (Cementitious)	RAB Associates Longstone Lane Ashford Bakewell Derbyshire DE45 1NH		1992
		Monojoint (HAC) (Cementitious)	Industrial Flooring Services Ltd Sankey Valley Industrial Estate Newton-le-Willows Nr Warrington Cheshire WA12 8DN		1992

	Specification Series	Product Type	Product Name Description	Manufacturer's Name and Address	Limitations on Use	Date Registered by HA
	2300	In-situ nosing or transition strip	Strelax Polyurethane Mortar Wabocrete FMV Polyureide Mortar	MBT Feb 19 Broad Ground Road Lakeside Redditch Worcestershire B98 8YP	Use Wabocrete FMV only with Wabo ER	1992 Feb 96
		Transition Strip	PML NS/FG (Epoxy Mortar)	Acalor Protective Measures Ltd Airmanship Hall Towcester Northants NN12 8TL	Transition strip for use with Serviflex only	1992
			Ronajoint (Cementitious) Ronaset (Cementitious)	Ronacrete Ltd Ronac House Selinas Lane Dagenham Essex RM8 1QL	Transition Strip Only	1992
		Nosing Joint	Jeene W25, W30, W40, W50 and FW25, FW30, FW40, FW50 W65 FW65	MBT Feb 19 Broad Ground Road Lakeside Redditch Worcestershire B98 8YP	11,	Sept 96 Dec 01
I			NJ 1 NJ 2 NJ 4	Universal Sealants (UK) Ltd Kingston House 3 Walton Road Pattinson North District 15 Washington Tyne and Wear NE38 8QA		Dec 98 Feb 96 Feb 96

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Specification Series	Product Type	Product Name Description	Manufacturer's Name and Address	Limitations on Use	Date Registered by HA
2300	Nosing Joint	Advanced Nosing Joint System	ASL Contracts Ltd Unit 4 Regents Park Southway Walworth Industrial Estate Andover Hampshire SP10 5NX		Mar 03
	Elastomeric	Algaflex T30, T50, T80, T100, T120, T140, T160, T200, T250, T330	Expansion Control Systems Int. Ltd PO Box 141 Leeds LS14 2XG		Sep 95
		"RAN" (Single Element) 30,508 "GPE" (Single Element) 80,120,160,200,250 "SIN" (Single Element) 35,50 "RAN-P" (Single and Multi-Element) 300,400,500,600,700,800	FIP Industrial (UK) Ltd Old Canteen Lincoln House The Paddocks 347 Cherry Hinton Road Cambridge CB1 4DH		Jun 94
		Freyssinet "M" Joint "N" Joint	Freyssinet Ltd 7 Hollinswood Court Stafford Park 1 Telford Shropshire TF3 3DE		1992
		Euroflex M20,M45, M60, M80, M100, M140, M200, M260, M330	Manufacturer: R W Engineering Agent (UK) ASL Contracts Ltd Unit 4 Regents Park Southway Walworth Industrial Estate Andover Hampshire SP10 5NX		

	Specification Series	Product Type	Product Name Description	Manufacturer's Name and Address	Limitations on Use	Date Registered by HA
V	2300	Elastomeric	Serviflex 50,75,100,165,230.330	W R Grace Ltd Servicised Expansion Jointing & Waterproofing Ajax Avenue Slough Berkshire SL1 4BH		1992
1			Transflex 150, 200, 250, 300, 400, 650, 900, 1300	Universal Sealants (UK) Ltd Kingston House 3 Walton Road Pattinson North District 15 Washington Tyne and Wear NE38 8QA		1992
			Waboflex SR2A, SR2.5A, SR4A, SR6.5A, SR9, SR13	MBT Feb 19 Broad Ground Road Lakeside Redditch Worcestershire B98 8YP		1992
		Elastomeric in metal runners	Armourjoint (Single Element)	ESS Systems East Sussex Surfacing (Midlands) Ltd 9 Marlborough Place Brighton East Sussex BN1 1UB		Oct 95

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Specification Series	Product Type	Product Name Description	Manufacturer's Name and Address	Limitations on Use	Date Registered by HA
2300	Elastomeric in metal runners	BEJ 3 BEJ 5 BEJ 8 BEJ 10 BEJ 13 BEJ 15 (All Single Element) Techstar Modular Joint System LG2 to LG 12 LR2 to LR12 LX2 to LX12 (All Multi-Element)	Universal Sealants (UK) Ltd Kingston House 3 Walton Road Pattinson North District 15 Washington Tyne and Wear NE38 8QA		1992 1992 1992 1992 Sep 99 1992 Aug 02
		BETA 30 (Single Element) BETA 50 (Single Element) BETA 65 (Single Element) BETA 80 (Single Element) BETA 100 (Single Element) BETA 130 (Single Element) Advanced EMR Joint 30, 50, 65, 80, 100, 130, 150 (All Single Element)	ASL Contracts Ltd Unit 4 Regents Park Southway Walworth Industrial Estate Andover Hampshire SP10 5NX		March 03 March 03 Jan 00 Jan 00 Jan 00 Jan 00 Jan 01
		Cevajoint (Single Element)	Prismo Products Ltd 5 Drumhead Road Chorley North Industrial Park Chorley Lancashire PR6 7BX		May 94

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Amendment - August 2003

Specification Series	Product Type	Product Name Description	Manufacturer's Name and Address	Limitations on Use	Date Registered by HA
2300	Elastomeric in metal runners	Cipec WOSd (Single Element) Cipec WR (Single Element)	Freyssinet Ltd 7 Hollinswood Court Stafford Park 1 Telford		1992 1992
		Freyssinet 'P' Joint (Single Element) JEP 3 and JEP 5 (Single Element)	Shropshire TF3 3DE		1992 May 04
		Maurer D80B to D1040B (Single and Multi-Element) Maurer D80T to D1040T	Maurer (UK) Ltd Crendon Industrial Estate Thame Road		1992 Jan 95
		(Single and Multi-Element) Maurer DS 160B to DS 1200B (Multi-Element)	Long Crendon Aylesbury Buckinghamshire HP18 9EJ		Jan 95
		Maurer DS 160T to DS1200T (Multi-Element)			Dec 96
		Maurer Elastoblock (Single Element) Maurer Betoflex (Single Element)	N.		1992 Nov 92
		Mageba Modular Joint Robek System LR2 - LR12 (Single and Multi-Element)	C.A.S. Engineering Unit 1a & 2a Aston Works West End Aston Oxfordshire OX18 2DQ	M	1992
		Proflex 200HA 100C, 125C, 156C, 188C (All Single Element)	Expansion Control Systems Int Ltd PO Box 141 Leeds LS14 2XG		Sep 99

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Specification Series	Product Type	Product Name Description	Manufacturer's Name and Address	Limitations on Use	Date Registered by HA
2300	Elastomeric in metal runners	WABO modular joint system E80 to E 1200 (Single and Multi-Element) Wabo ER E32 E64 E101 E130 SE300 SE400 (All Single Element)	MBT Feb 19 Broad Ground Road Lakeside Redditch Worcestershire B98 8YP		July 1995 Feb 1996 Feb 1996 Feb 1996 Dec 01 Jan 00 Jan 00
		WSF 80 (Single-Element) WSG 160 to WSG 1040 (Multi-Element) T Mat (Single Element) T10, T30, T40, T80	Ekspan Ltd 410 Brightside Lane Sheffield S9 2SP		1992 March 03
		3W (Single & multi-element)	Manufacturer: R W Engineering Agent (UK) ASL Contracts Ltd Unit 4 Regents Park Southway Walworth Industrial Estate Andover Hampshire SP10 5NX		1992
	Comb or Tooth Joint	Cipec Wd Cipec Wp	Freyssinet Ltd 7 Hollinswood Court Stafford Park 1 Telford Shropshire TF3 3DE		1992

Annex C Registration

SAFETY BARRIERS Approved Designs: Page: Brifen 4 Rope Wire Rope Safety Fence C/21 Brifen 3 Rope Wire Rope Safety Fence C/23 Asset International Varioguard Safety Barrier C/24 Highway Care Barrierguard 800 **C**/26 Marshalls Delta Bloc 80 C/27 Sistema Steelguard Barrier C/28

BRIFEN 4 ROPE WIRE ROPE SAFETY FENCE

Approved Design:

Brifen 4 Rope Wire Rope Safety Fence

Containment Performance Class to BS EN 1317: N2

Working Width Class to BS EN 1317: W6

Brifen 4 Rope Wire Rope Safety Fence shall be in accordance with the following drawings:

BL03/11 & 12	Concreted Line Post
BL03/13 & 14	Concreted End Post
BL03/17 & 18	Short Driven Post
BL03/15 & 16	Long Driven Post
BL10/34 & 35	Surface Mounted Line Post
BL10/56 & 57	Surface Mounted Deflection Post
BL02/03 & 04	Tail Rope
BL02/03A & 04A	Alternative Tail Rope
BL02/01 & 02	Component Rope
BL/02	Safety Check Rope
BL03/47	Anchorage Shackle
BL02/54	Left Handed Swaged End Terminal
BL02/55	Right Handed Swaged End Terminal
WR1016	2 Slot Breakaway Anchor
WR1007	Cast-in Twin Rope Anchorage
BL02/10	Wire Rope Rigging Screw
WR1017	Breakaway Anchor - Type NYA06
BL04/25	Standard Post Socket
WR1029	Swaged Terminal Connecting Stud
WR1010	Transition Beam
WR1009	Connector Piece
WR1012	Load Spreader
WR1030	Strap
M24-10	M24 x 50 HT Cap Screw
M12	M12 Button Head Screws
M12	M12 Nut
M12	M12 Form C Galv' Washer
BL04/26	Rings
D233	Post Socket Cover (Central Reserve)
D234	Post Socket Cover (Verge)
BL04/27	Excluder
BL03/43	Peg
BL04/19	Post Cap
BL02/05	M24 Washer
BL02/06	M24 Nut
WR1500	Plan View Showing Anchorage Layout
WR1517	'Bri-Tran' Wire Rope Transition Layout

Brifen 4 Rope Wire Rope Safety Fence - Drawing List continued:

WR1520	Central Reserve Crossing Point Layout
WR1528	Wire Rope Interface & Double Sided T.C.B. Layout
WR1529	OBB/WRSF Protecting Structure (4m)
WR1530	OBB/WRSF Protecting Structure (4.5m)
BL/01	General Layout WRSF (Central Reserve)
BL/07	General Layout WRSF (Verge)
BL/27	Layout at Fence Crossover.

Please check with the Promoter for the latest issue of the above drawings.

In addition, the safety fence shall comply with the manufacturer's Specification and component descriptions for the Brifen 4 Rope Wire Rope Safety Fence and with the manufacturer's Installation Standard. Copies of these documents can be obtained from the Promoter at the following address:

Brifen (A Division of Hill and Smith) Springvale Avenue Bilston Wolverhampton WV14 OQL

Tel.: 01302 714 747 Fax: 01302 714 729 E-mail: eng@brifen.co.uk

BRIFEN 3 ROPE WIRE ROPE SAFETY FENCE

Approved Design:

Brifen 3 Rope Wire Rope Safety Fence

Containment Performance Class to BS EN 1317: N2

Working Width Class to BS EN 1317: W6

Brifen 3 Rope Wire Rope Safety Fence shall be in accordance with the following drawings:

BL03/11 & 12	Concreted Line Post
BL03/13 & 14	Concreted End Post
BL03/17 & 18	Short Driven Post
BL03/15 & 16	Long Driven Post
BL10/34 & 35	Surface Mounted Line Post
BL10/56 & 57	Surface Mounted Deflection Post
BL02/03 & 04	Tail Rope
BL02/03A & 04A	Alternative Tail Rope
BL02/01 & 02	Component Rope
BL/02	Safety Check Rope
BL03/47	Anchorage Shackle
BL02/54	Left Handed Swaged End Terminal
BL02/55	Right Handed Swaged End Terminal
WR1016	2 Slot Breakaway Anchor
WR1007	Cast-in Twin Rope Anchorage
BL02/10	Wire Rope Rigging Screw
WR1017	Breakaway Anchor - Type NYA06
BL04/25	Standard Post Socket
BL04/26	Rings
D233	Post Socket Cover (Central Reserve)
D234	Post Socket Cover (Verge)
BL04/27	Excluder
BL03/43	Peg
BL04/19	Post Cap
BL02/05	M24 Washer
BL02/06	M24 Nut
BL/30	3 Rope Layout (Central Reserve)
BL/31	3 Rope Layout (Verge)

Please check with the Promoter for the latest issue of the above drawings.

In addition, the safety fence shall comply with the manufacturer's Specification and component descriptions for the Brifen 3 Rope Wire Rope Safety Fence and with the manufacturer's Installation Standard. Copies of these documents can be obtained from the Promoter at the address listed on page C/22.



ASSET INTERNATIONAL VARIOGUARD SAFETY BARRIER

Approved Design:

Asset International Varioguard Safety Barrier

Containment Performance Class to BS EN 1317: N2

Asset International Varioguard Safety Barrier shall be in accordance with the following drawings:

VG2000	Terminal End Element (Without Pins) (Revision 'A')
VG2001(1)	Standard 4m Element
VG2001(2)	4m Element for Bridge Deck Fixing
VG2002(1)	Terminal End Element (With Pins)
VG2002(2)	Terminal End Element (Core Hole Fixing)
VG2003(3)	Terminal End Element (Driven Post)
VG2002(4)	Terminal End Element (Bridge Deck Fixing)
VG2003	Expansion Joint Element (Revision 'B')
VG2005	Sologuard Element (Type *B*) (Revision 'B')
VG2006	Sologuard Element (Type *A*) (Revision 'B')
VG2007	Sologuard Element (Type *C*) (Revision 'B')
VG2008	Transition (Verge Approach) (Revision 'C')
VG2009	Transition (Verge Depart) (Revision 'C')
VG2010	Transition (Central Reserve) (Revision 'C')
VG2011	Transition (Central Reserve with Lighting Columns) (Revision 'C')
VG2012	Sigma Post (Central Reserve) (Revision 'C')
VG2013	Rubbing Rail Assembly (Single Sided) (Revision 'A')
VG2014	Rubbing Rail (Double Sided) (Revision 'A')
VG2015	Rubbing Rail Clamp Plate (Revision 'A')
VG2016	Rubbing Rail Hanger Plate (Revision 'A')
VG2017	Rubbing Rail Hanger Clamp Plates (Revision 'A')
VG2018	Flared Rubbing Rail (2100mm LG) (Revision 'A')
VG2019	Rubbing Rail (6000mm LG) (Revision 'A')
VG2020	Rubbing Rail Spigot (Revision 'A')
VG2021	Rubbing Rail Support Strap (D.S.O.B.B. – Varioguard) (Revision A)
VG2022	Rubbing Rail Clamp Strap (D.S.O.B.B. – Varioguard) (Revision A)
VG2023	Flared Rubbing Rail (D.S.O.B.B. – Varioguard) (Revision 'A')
VG2024	Parapet Connection Bracket Type *A* (Revision 'A')
VG2025	Parapet Connection Bracket Type *B* (Revision 'A')
VG2026	Baseplate Details (Revision 'B')
VG2027	BridgeFixing Detail (Revision 'A')

Drawing list continued on page C/25.



Asset International Vari	oguard Safety Barrier - Drawing List continued:
VG2028	Top Rail Fishplate (Revision 'B')
VG2029	Single Sided Standard 4m Element
VG2030	Single Sided Terminal End Element
VG2031	Hinged Varioguard Terminal for Sologuard
VG2032	Core Hole Fixing Socket and Post
VG2033	Driven Post Top and Bottom Sections
VG2034	30 Dia' Pin Details
VG2036	Side Connection Plate Details
VG2037	Base Connection Plate Details
VG2038	Standard 1.3m Element
VG2500	Layout for O.B.B – Varioguard (Verge Departure) (Revision 'B')
VG2501	Layout for O.B.B – Varioguard (Verge Approach) (Revision 'B')
VG2502	Layout for D.S.O.B.B – Varioguard (Central Reserve) (Revision 'B')
VG2503	Layout for Varioguard Protecting Work Zone (70mph) (Revision 'A')
VG2504	Varioguard Protecting Work Zone Details (Revision 'B')
VG2505	O.B.BVarioguard (Central Reserve) with Lighting Columns
VG2506	Temp' Varioguard for Work Zone Protection
VG2507	Varioguard/Sologuard Crossover Point Arrangement
VG2508	Varioguard/Sologuard Contraflow Arrangement
VG2509	Typical Connection Detail

Please check with the Promoter for the latest issue of the above drawings.

In addition, the safety barrier shall comply with the manufacturer's Specification and component descriptions for the Asset International Varioguard Safety Barrier and with the manufacturer's Installation Standard. Copies of these documents can be obtained from the Promoter at the following address:

Asset International (A Division of Hill and Smith Ltd.) Springvale Business & Industrial Park Bilston West Midlands WV14 0QL

Tel: 01902 499402 Fax: 01902 402104 E-mail: peter@hill-smith.co.uk Web site: www.varioguard.co.uk

HIGHWAY CARE BARRIERGUARD 800

Approved Design:

Highway Care Barrierguard 800

Containment Performance Class to BS EN 1317: N2

Working Width Class to BS EN 1317: W6

Highway Care Barrierguard 800 shall be in accordance with the following drawings:

BG800-001	GADRAWING	
BG800-002	TERMINAL SECTION	
BG800-003	INNER ANCHOR ASSEMBLY	
BG800-004	INTERMEDIATE ANCHOR ASSEMBLY	
BG800-005	RADIUS SECTIONS	

Please check with the Promoter for the latest issue of the above drawings.

In addition, the safety barrier shall comply with the manufacturer's Specification and component descriptions for the Highway Care Barrierguard 800 and with the manufacturer's Installation Standard. Copies of these documents can be obtained from the Promoter at the following address:

Highway Care Ltd The Highlands Detling Hill Detling Maidstone Kent ME14 3HT

Tel: 01622 734215 Fax: 01622 735106 E-mail: info@highwaycare.co.uk Web site: www.highwaycare.co.uk

MARSHALLS DELTA BLOC 80

Approved Design:

Marshalls Delta Bloc 80

Containment Performance Class to BS EN 1317: N1

Working Width Class to BS EN 1317: W4

Marshalls Delta Bloc 80 shall be in accordance with the following drawings:

DeltaBloc80/dwgschedule DeltaBloc80/intermediatecomponent DeltaBloc80/terminationcomponent DeltaBloc80/couplingcomponent DeltaBloc80/generalinstallationlayout

Please check with the Promoter for the latest issue of the above drawings.

In addition, the safety barrier shall comply with the manufacturer's Specification and component descriptions for Marshalls Delta Bloc 80 and with the manufacturer's Installation Standard. Copies of these documents can be obtained from the Promoter at the following address:

Marshalls Landscape Division (Traffic Management) Landscape House Premier Way Lowfields Business Park Elland Halifax West Yorkshire HX5 9H

Tel: 0845 3040708 Fax: 0845 3040709 E-mail: Traffic.Management@marshalls.co.uk

SISTEMA STEELGARD BARRIER

Approved Design:

Sistema Steelgard Barrier

Containment Performance Class to BS EN 1317: H4a

Working Width Class to BS EN 1317: W5

Sistema Steelgard Barrier shall be in accordance with the following drawings:

Sistema Drawing 18-05-A Sistema Drawing 18-05-H Sistema Transition Drawing 02B Sistema Drawing L61-M1 Sistema Drawing L61-M2

Please check with the Promoter for the latest issue of the above drawings.

In addition, the safety barrier shall comply with the manufacturer's Specification and component descriptions for Sistema Steelgard Barrier and with the manufacturer's Installation Standard. Copies of these documents can be obtained from the Promoter at the following address:

Sistema Construction (UK) Limited The Chantry Rougham Bury St Edmunds Suffolk IP30 9JW

Tel: 01359 271 830 Fax: 01359 271 831 Email: enquiries@sistema-construction.com Contact: Jason Ferro Direct E-mail: jferro@sistema-construction.com