



GT50/90/0006

**ROAD TRAFFIC REGULATION ACT 1984 – SECTIONS 64 AND 65  
AUTHORISATION OF TRAFFIC SIGNS AND SPECIAL DIRECTIONS**

The Secretary of State for Transport, in exercise of his powers under Sections 64 and 65 of the Road Traffic Regulation Act 1984, and of all other powers enabling him in that behalf, for the purpose of indicating the side or sides on which vehicles should or may pass refuges on roads for which the London Borough of Merton is the traffic authority, hereby:-

1. authorises the erection, at appropriate sites on the said roads, of a traffic sign (hereinafter referred to as “the authorised sign A”) conforming as to size, colour and character with a sign shown in the attached set of drawings numbered GT50/90/0006-1; and
2. authorises the erection, at appropriate sites on the said roads, of a traffic sign (hereinafter referred to as “the authorised sign B”) conforming as to size, colour and character with a sign shown in the said set of drawings, save that the arrow shall point to the right; and
3. directs that the authorised sign A shall only be used:-
  - a) in conjunction with the appropriately sized sign shown in diagram 610 or 611 in Schedule 2 to the Traffic Signs Regulations 2002 (Part I of SI 3113/2002, “the 2002 Regulations”), in accordance with the attached table numbered GT50/90/0006-2 and which shall be illuminated in accordance with item 1 of Schedule 17 to those Regulations; or



GT50/90/0006

- b) when mounted on a traffic island and facing in the same direction as the light signal shown in diagram 3000, 3000.7, 3000.8, 3000.9 or 3000.10 in Schedule 8 to the 2002 Regulations; or
  - c) when mounted on a central traffic island or central reservation that forms part of a zebra pedestrian crossing and in conjunction with two belisha beacon globes mounted on the central island or reservation in accordance with paragraph 1 of Part I in Schedule 1 to The Zebra, Pelican and Puffin Pedestrian Crossings Regulations 1997 (SI 2400/1997); and
4. directs that the authorised sign B shall only be used:-
- a) when mounted facing approaching traffic on a priority working build-out in combination with the appropriately sized sign to diagram 615 in combination with diagram 615.1 in Schedule 2, or diagram 811 in combination with diagram 811.1 in Schedule 4 to the 2002 Regulations, in accordance with the said table and which shall be illuminated in accordance with item 1 of Schedule 17 to those Regulations; and
5. directs, without prejudice to any statutory provision to the like effect, that it is a condition of this authorisation that the erection of the authorised signs A and B at or near the said sites shall continue to have effect only until such day as may be appointed by one month's notice given by the Secretary of State in writing to the traffic authority for the removal or alteration of the authorised signs A and B and on that day the said authorisation shall, without prejudice to the giving of any further authorisation or direction, cease to have effect.



GT50/90/0006

The provisions of Regulation 12 of the 2002 Regulations shall apply to the authorised signs A and B in the same manner as they apply to the sign shown in diagram 610 in Schedule 2 to those Regulations.

Dated *24 June* ..... 2011

Signed by authority of the Secretary of State



.....  
A Delegated Official of the Department for Transport

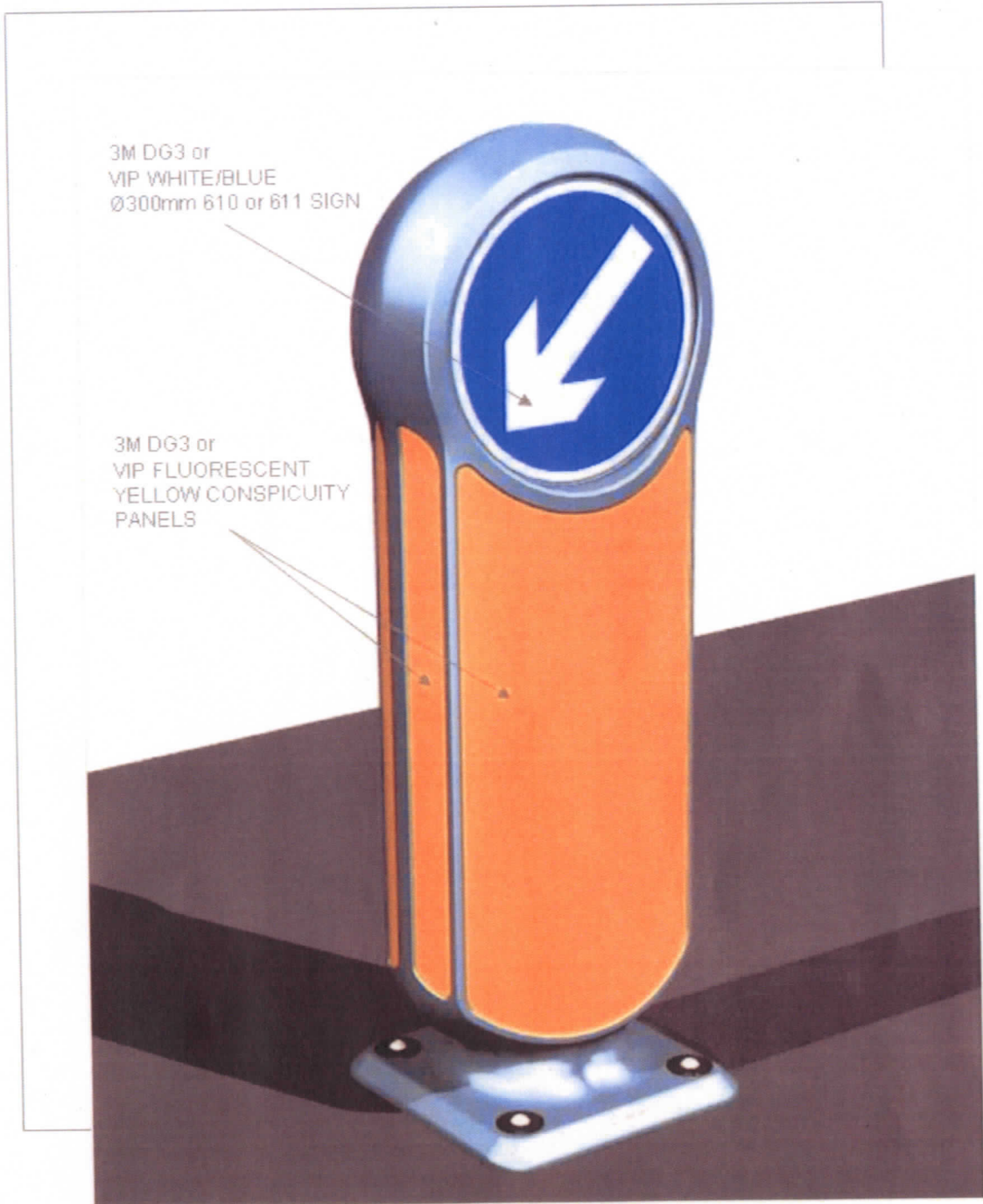
CERTIFIED TRUE COPY  
*24/6/11*



DEPARTMENT FOR TRANSPORT

# Rebound Sign Carrying Bollard (Bolt-Down)

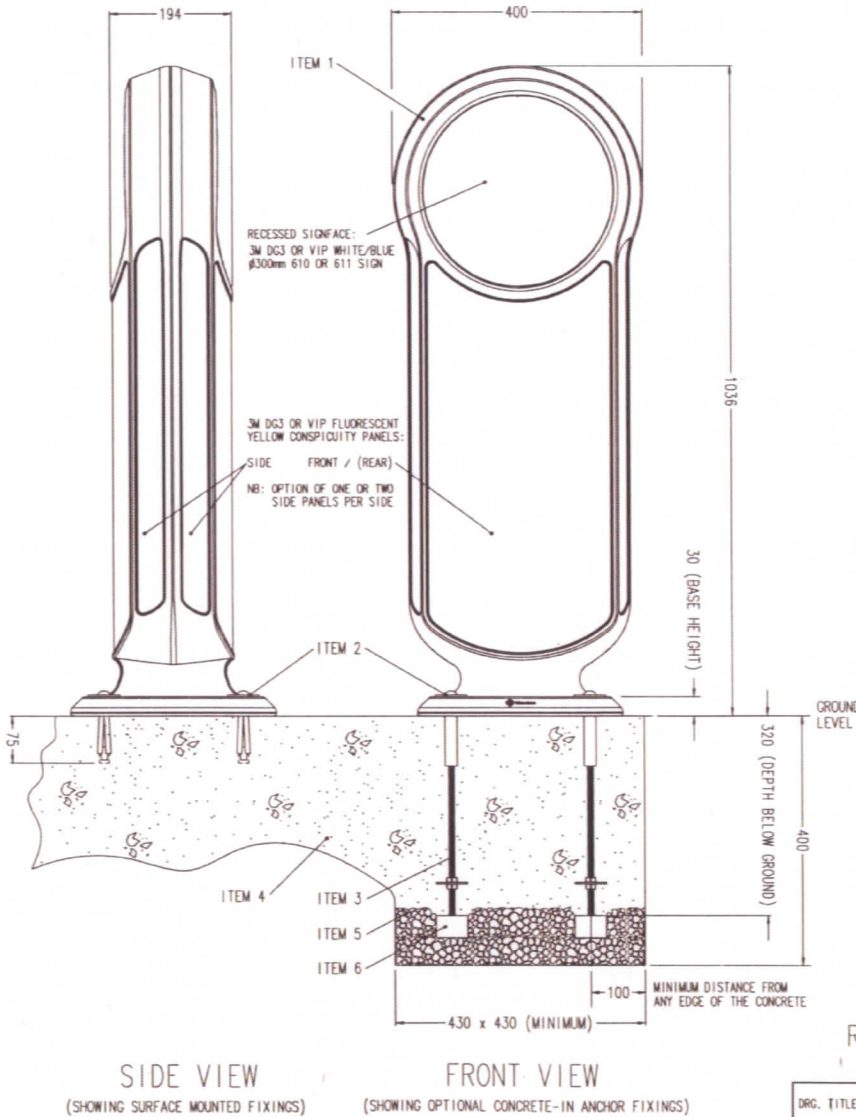
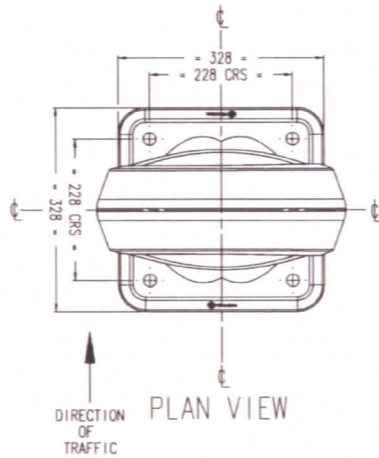
Shown: Aircraft Grey Body (Other Options: Black or White)



Department for Transport
Date <u>24/6/11</u>
No. <u>5750/90/0006-1</u>



# MODEL SPECIFICATION REBOUND SIGMASTER™ BOLLARD (BOLT-DOWN SURFACE MOUNTED & OPTIONAL CONCRETE-IN GROUND ANCHOR)



**PRODUCT INFORMATION:**

- **WEIGHT** - BOLLARD - 6.0 Kg  
FIXINGS - 0.6 Kg (SURFACE MOUNTED) OR 1.3 Kg (OPTIONAL C.I.A.F.)  
TOTAL - 6.6 Kg / 7.3Kg
- **MATERIAL** - BOLLARD: - IMPACTAPOI®  
FIXINGS: - SCREWS - STAINLESS STEEL  
- WASHERS - STAINLESS STEEL  
- SPACERS - RIGID PVC  
- ANCHORS - MS BZP  
- OPTIONAL C.I.A.F. - MS BZP
- **BODY COLOURS** - BLACK / WHITE / AIRCRAFT GREY
- **DIMENSIONS** - ALL DIMENSIONS IN MM UNLESS OTHERWISE STATED.

**INSTALLATION GUIDE:**

- **ITEM 1 - REMOVABLE BOLLARD**
- **ITEM 2 - GROUND FIXINGS (4 OFF):**
  - M10 x 100mm SOCKET HEAD SCREW
  - M10 x ϕ50 x 3mm WASHER
  - M10 x 60mm ANCHOR
  - M10 x ϕ19 x 28mm SPACER
- **ITEM 3 - OPTIONAL CONCRETE-IN ANCHOR FIXING (C.I.A.F.)**
- **ITEM 4 - SOLID CONCRETE FOUNDATION OR QUICK SETTING CONCRETE (eg. GRADE QC10)**
- **ITEM 5 - GRAVEL**
- **ITEM 6 - SUPPORT BLOCK:**  
CAN BE ANYTHING SOLID TO ENSURE BOLLARD IS SUPPORTED AT THE CORRECT HEIGHT UNTIL THE CONCRETE HAS SET.

● **ENSURE THAT ANY SIGNFACE FACES TOWARDS ONCOMING TRAFFIC.**

● **FOR SURFACE MOUNTED FIXING:**

4 HOLES TO BE DRILLED FOR GROUND FIXING ANCHORS AND SCREWS ϕ16mm x 75mm (MIN DEPTH). ENSURE THE HOLES ARE LOCATED AT LEAST 100mm FROM ANY EDGE OF THE CONCRETE FOUNDATION.

WE RECOMMEND INSTALLING THE BOLLARD ON AN EXISTING SOUND CONCRETE FOUNDATION, OR FOR SPEED, PREPARING THE SITE WITH QUICK SETTING CONCRETE (eg. GRADE QC10) BUT EXACT INSTALLATION REQUIREMENTS SHOULD BE ASSESSED FROM A SITE SURVEY.

● **FOR OPTIONAL CONCRETE-IN ANCHOR FIXING (C.I.A.F.):**

FIX THE FOUR 'CONCRETE-IN FIXINGS' TO THE BOLLARD BEFORE INSTALLATION, AS THIS WILL ENSURE FIXING CENTRES ARE CORRECT AND PREVENT THE NEED TO REVISIT THE SITE ONCE CONCRETE HAS SET.

RECOMMENDED MINIMUM HOLE SIZE: 430x430x400mm DEEP.

IF DEPTH IS RESTRICTED TO LESS THAN 400mm THEN THE 'CONCRETE-IN ANCHOR FIXINGS' CAN BE CUT DOWN IF REQUIRED, HOWEVER WE RECOMMEND USING THE SAME VOLUME OF CONCRETE BY INCREASING THE WIDTH OF THE HOLE TO COMPENSATE.

FOR SPEED WE RECOMMEND INSTALLING WITH QUICK SETTING CONCRETE (eg. GRADE QC10) BUT EXACT INSTALLATION REQUIREMENTS SHOULD BE ASSESSED FROM A SITE SURVEY.

● **AVOID CONTACT WITH HOT TARMACADAM AS THIS WILL SERIOUSLY IMPAIR THE PERFORMANCE OF THE BOLLARD.**

**OPTIONAL PARTS:**

- **OPTIONS AVAILABLE FOR THE PRODUCT:**
  - BODY C/W FRONT, 1xLH & 1xRH CONSPICUITY PANELS
  - BODY C/W FRONT, 2xLH & 2xRH CONSPICUITY PANELS
  - BODY C/W FRONT, REAR, 2xLH & 2xRH CONSPICUITY PANELS
  - + A RANGE OF AUTHORISED SIGNFACES &/OR WHITE DISC
- **SPARES ARE AVAILABLE, WHICH INCLUDE:**
  - BOLLARD C/W FIXINGS & RETROREFLECTIVE PATCHES
  - BOLLARD ONLY
  - RANGE OF SIGNFACES
  - FIXINGS

**TECHNICAL DATA:**

- **SURFACE AREA OF CONSPICUITY PANELS:**
  - FRONT = 161,701mm<sup>2</sup> (PROJECTED)
  - SINGLE SIDE = 24,255mm<sup>2</sup>
  - OPTIONAL DOUBLE SIDE = 48,510mm<sup>2</sup>
- **SURFACE AREA OF SIGNFACE = 70,686mm<sup>2</sup>**

## RETROREFLECTIVE SELF RIGHTING BOLLARD

DRG. TITLE		 <b>Glasdon</b> <small>Glasdon UK Limited</small> Preston New Road, Blackpool Lancashire, FY4 4JL Telephone: 01253 600400 Facsimile: 01253 792558 E-mail: sales@glasdon-uk.co.uk Web Site: www.glasdon.com
PROJECT		
DRG. No.	PROJECT No.	
SCALE	DATE	
DRAWN BY	CHECKED	SPECIFICATION NUMBER - Q2S066-S03 ISSUE 3
		©GLASDON UK LTD 06/04/05 SHEET SIZE: A2

APPROVED  
*Deak*

USED ON \_\_\_\_\_ USED\_ON \_\_\_\_\_  
DIMMS IN MILLIMETRES

DRAWN FROM \_\_\_\_\_ DRAWN\_FROM \_\_\_\_\_

THIRD ANGLE PROJECTION



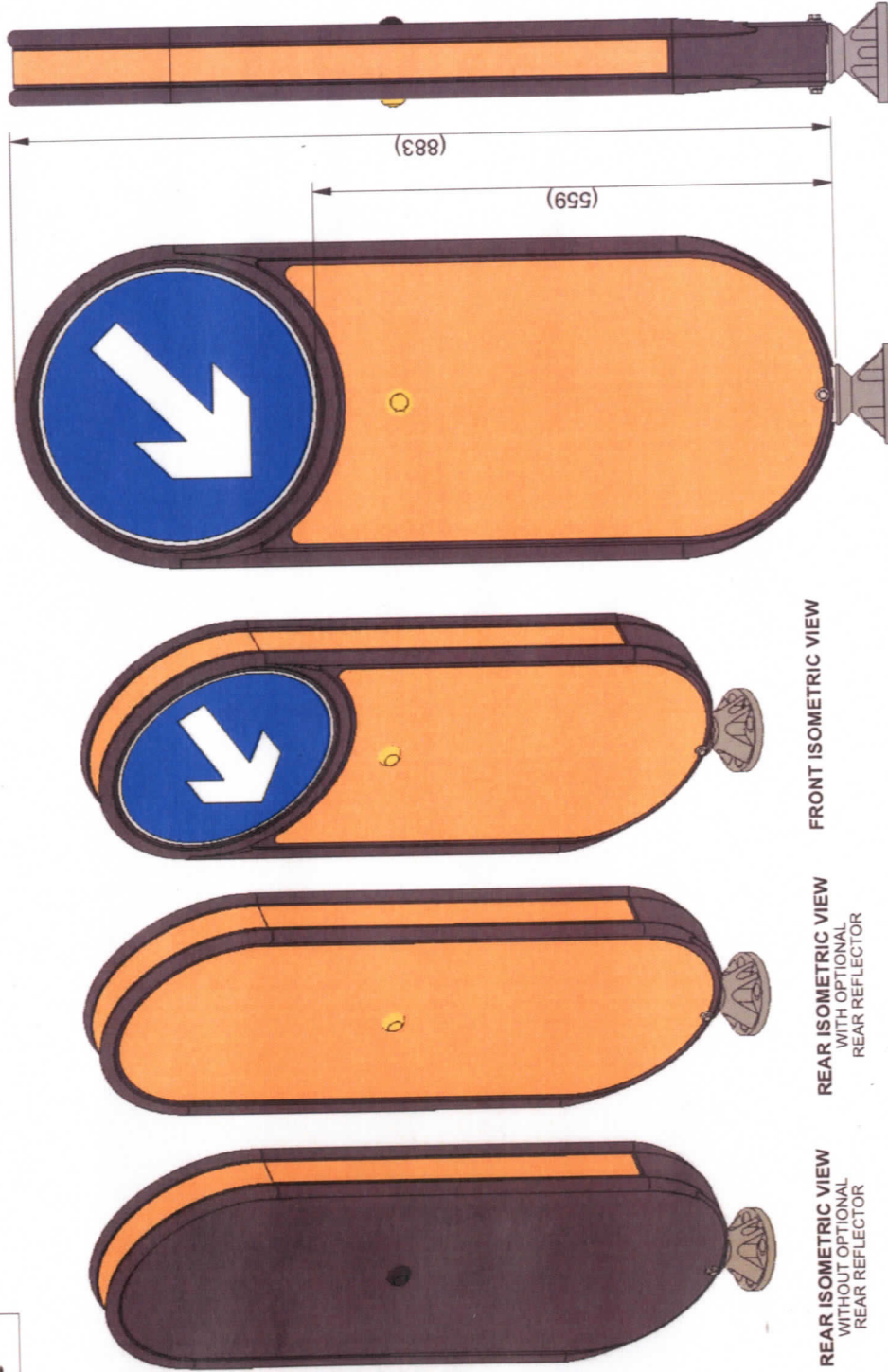
MODS  
ISSUE

**A**  
FIRST ISSUE

**B**  
NOTES  
REGARDING  
PRODUCTION  
DELETED.  
REAR FLECTA  
OPTION  
ADDED.  
TABLE  
ADDED.  
DM 31/01/07

**C**  
PICTORIAL  
CHANGES  
DM 02/02/07

**D**  
TITLE  
SHORTENED  
COLOURS  
ALTERED  
BS308 REFS  
DELETED  
DM 08/02/07



**SIGN FACE D610:**  
BORDER WHITE 4090  
BACKGROUND BLUE 4095  
ARROW WHITE 4090  
DIAMETER 300mm  
DG3.

**APPROX FACING DIMENSIONS:**  
WIDTH: 300mm  
HEIGHT: 515mm  
AREA: 151.558 sq.mm  
DG3 (BS8408:2005)  
FLUORESCENT YELLOW  
4081

**SIDE STRIP:**  
WIDTH: 40mm  
HEIGHT: SIDE FLAT PLUS TOP  
DG3 (BS8408:2005)  
FLUORESCENT YELLOW  
4081

**MATERIAL:**  
POLYPROPYLENE BODY  
VACUUM FORMED IN  
BLACK, GREY OR WHITE.



**TMP Limited**  
(Part of the Dewhurst group)  
TELEPHONE +44 (0)1342 844437  
UK  
Ireland +353 87 24 23 634

TITLE METRO BOLLARD)

MATL \_\_\_\_\_

FINISH \_\_\_\_\_

SCALE NTS

DRN \_\_\_\_\_ D.MEEK  
CHKD \_\_\_\_\_  
FOR APPROVED SIGNATURE  
DATE 22/01/07

DRG No

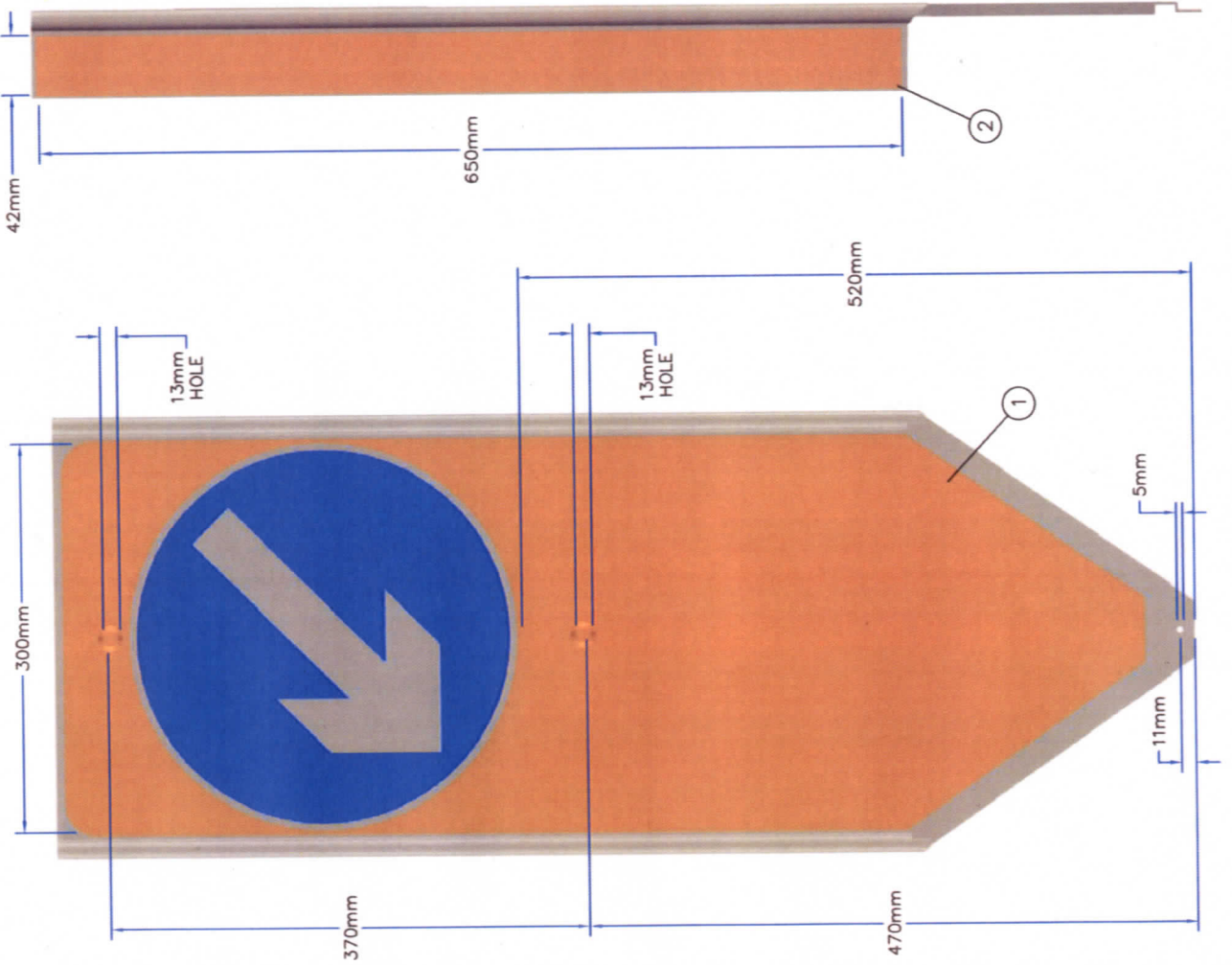
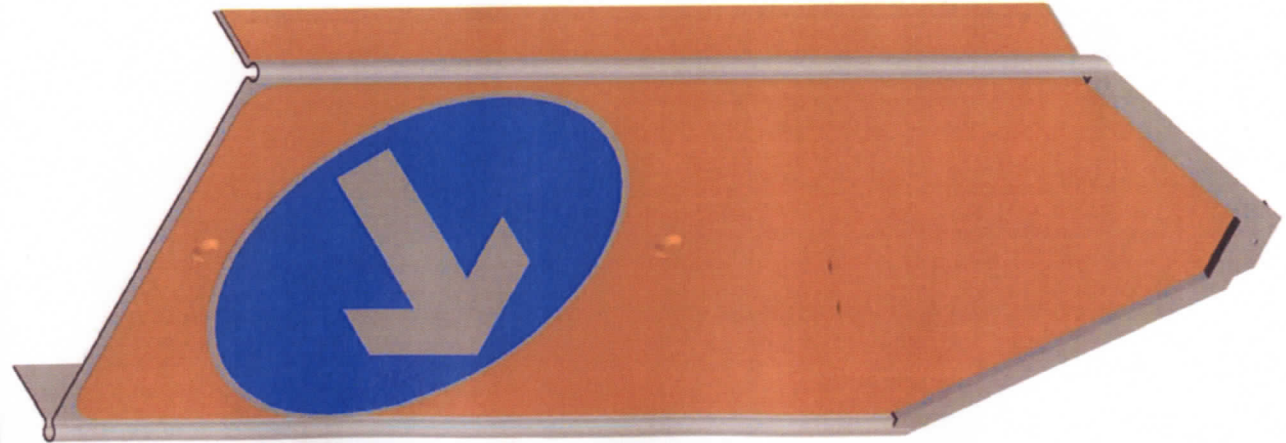
558022-000005001

DRG SIZE

A3

GENERAL TOLERANCES  
ANG DIMS: ± 0.5mm  
METRIC DIMS: ± 0.3mm  
IMP: DECIMAL DIMS: ± 0.005





SYMBOL P610:  
 ARROW WHITE 4090  
 BACKGROUND BLUE 4095  
 BORDER WHITE 4090  
 DIAMETER 300mm  
 DG3 (BS8408:2005)

① FACING DIMENSIONS:  
 WIDTH: 300mm  
 HEIGHT: 825mm  
 AREA: 0.22sq.m  
 DG3 (BS8408:2005)  
 FLUORESCENT YELLOW  
 4081

② SIDE STRIPS:  
 WIDTH: 40mm  
 HEIGHT: 650mm  
 DG3 (BS8408:2005)  
 FLUORESCENT YELLOW  
 4081

MATERIAL:  
 VACUUM FORMED  
 POLYPROPYLENE  
 GREY, WHITE OR BLACK

Approved by:

Date:

Design by DJN

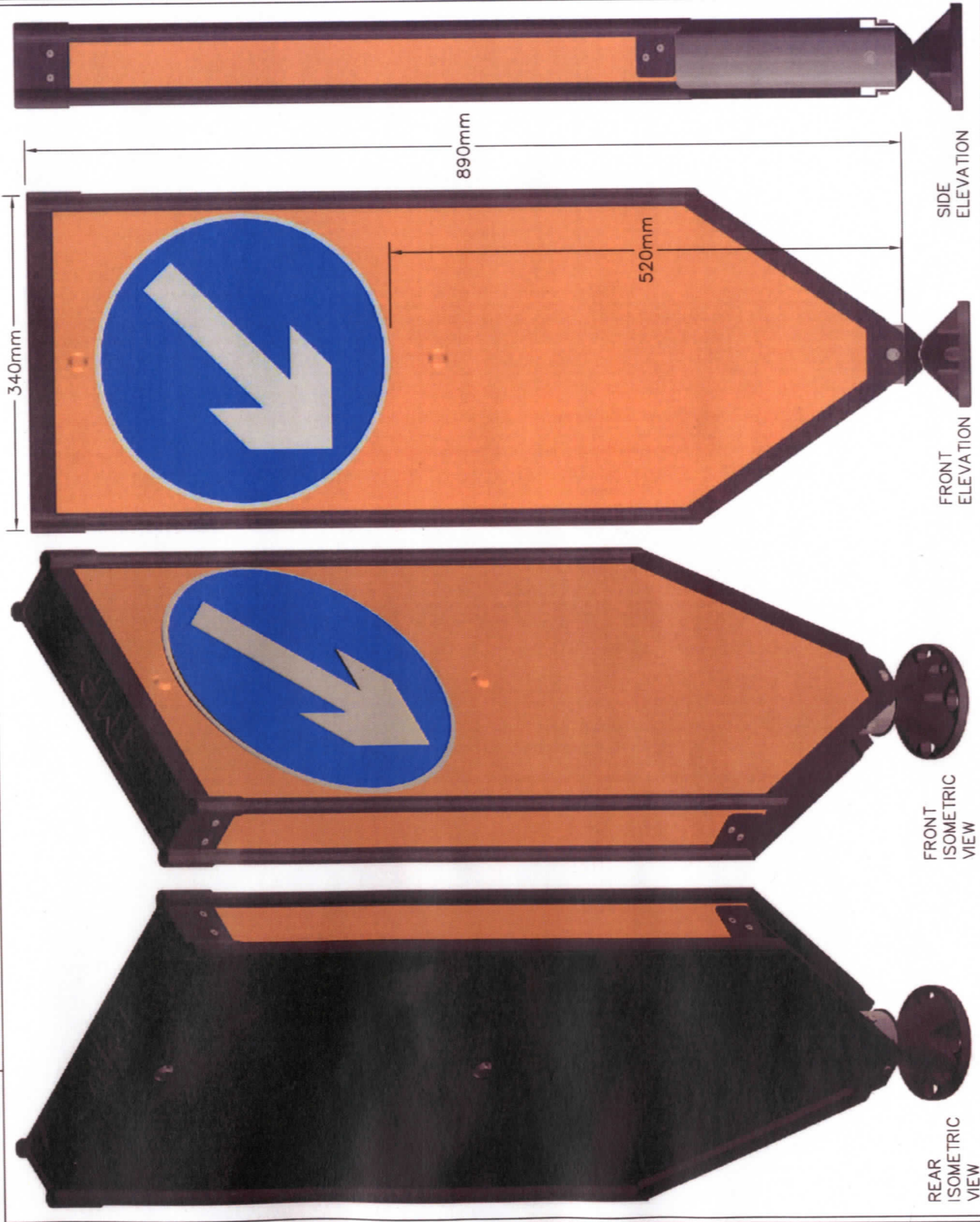
Drawn by AC

Tolerance ± 1.0mm

Revision # 2

Date 8/9/2006

Reference 4200040



SIGN FACE P610:  
 BORDER WHITE 4090  
 BACKGROUND BLUE 4095  
 ARROW WHITE 4090  
 DIAMETER 300mm  
 DG3 (BS8408:2005)

DRILL HOLES  
 11MM-5MM DIAMETER  
 470MM-13MM DIAMETER  
 840MM-13MM DIAMETER

YELLOW FACINGS FRONT  
 AND SIDES EXTEND  
 UNDER THE TOP CAP

FACING DIMENSIONS:  
 WIDTH: 300mm  
 HEIGHT: 825mm  
 AREA: 0.22sq.m  
 DG3 (BS8408:2005)  
 FLUORESCENT YELLOW  
 4081

SIDE STRIPS:  
 WIDTH: 40mm  
 HEIGHT: 650mm  
 DG3 (BS8408:2005)  
 FLUORESCENT YELLOW  
 4081

MATERIAL:  
 VACUUM FORMED  
 POLYPROPYLENE  
 GREY, WHITE OR BLACK

Approved by:

Date:

Design by DJN

Drawn by AC

Tolerance ± 1.0mm

Revision # 3

Date 22/9/2006

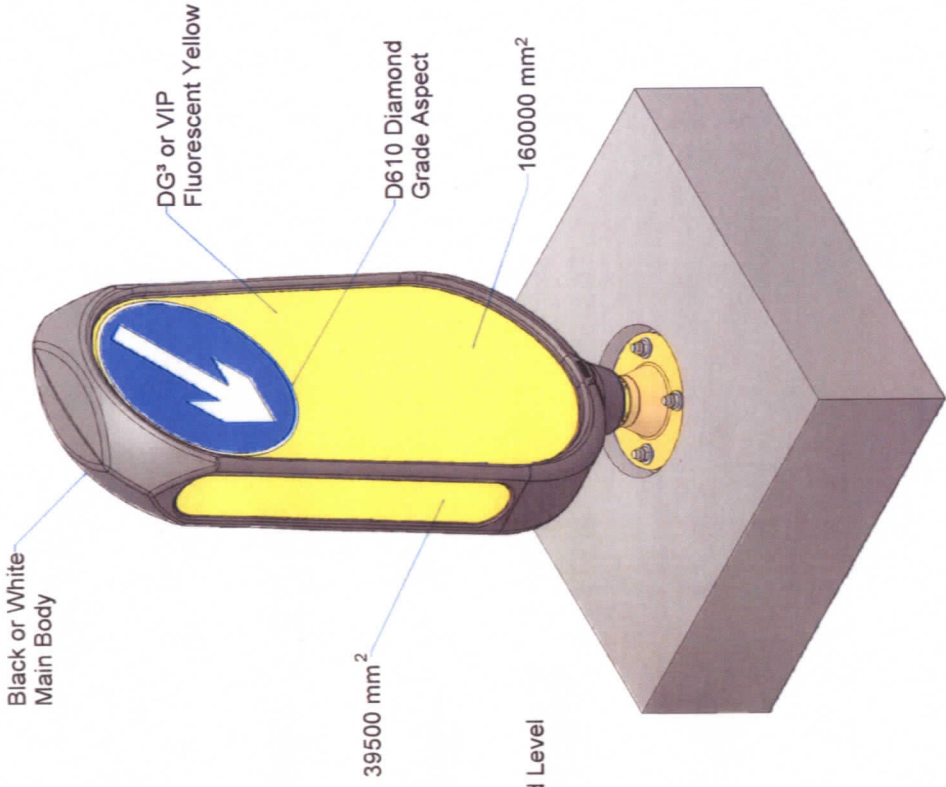
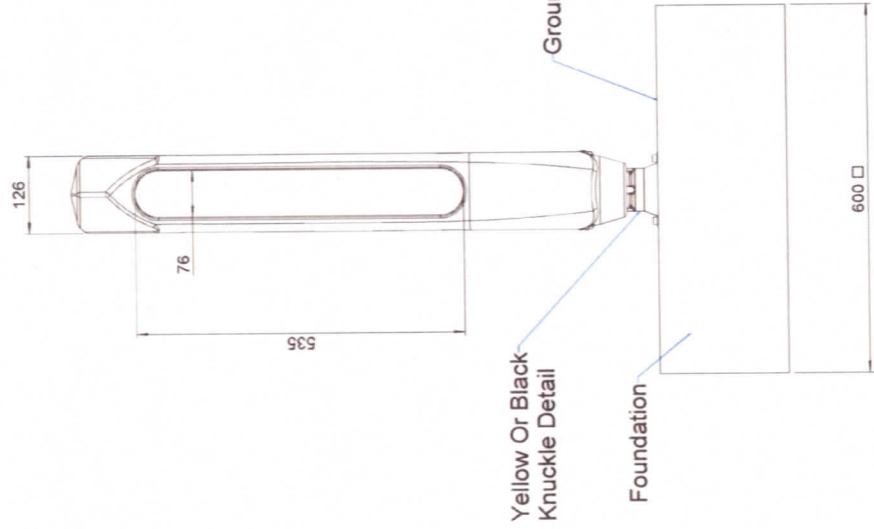
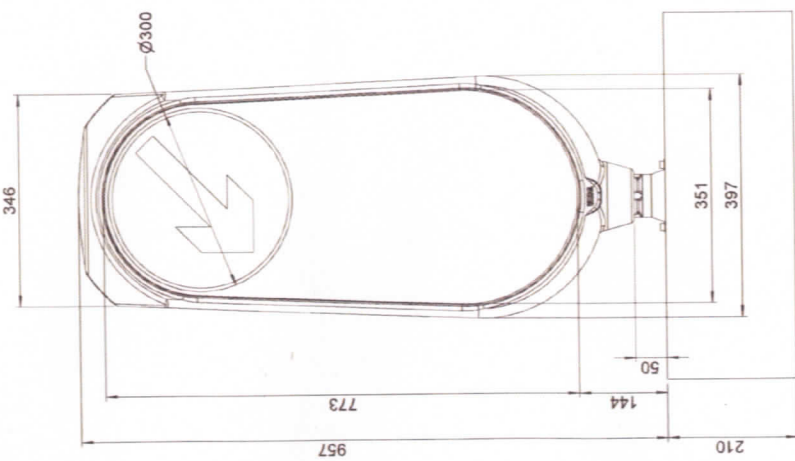
Reference 4200077





If in Doubt Ask  
Sheet 1 Of 1

Dwg No	WeebolGA.idw
Part No	Weebol03
Project No	



04	24/07/06	Body Colour Changed And DG³ Material Added
03	10/11/05	Logo Moved to Back Face
02	19/10/05	Foundation Block Added
01	12/11/04	Original



Modification	
Scale A1	Drawn By
(1 : 4)	Mark Tudor
Gen Tol	Date
± 1.0	15/11/2004
Mass	Checked By
Kg	
Title	
Weebol 300mm Reflective Bounce Back Bollard	
Simmons Limited	
Stafford Park 5, Telford, Shropshire, TF3 3AS	
Tel : 01952 293333 Fax : 01952 293555	
Email : sales@simmons.co.uk	

Material	Finish
----------	--------

THIS DRAWING IS COPYRIGHT PROTECTED AND THE SOLE PROPERTY OF SIGNATURE LIMITED THEREFORE AS SUCH, THE CONTENTS MUST NOT BE WHOLE OR PARTLY DISTRIBUTED IN ANY WAY, TO A THIRD PARTY WITHOUT THE PERMISSION OF SIGNATURE LIMITED.



IF IN DOUBT ASK

REVISION

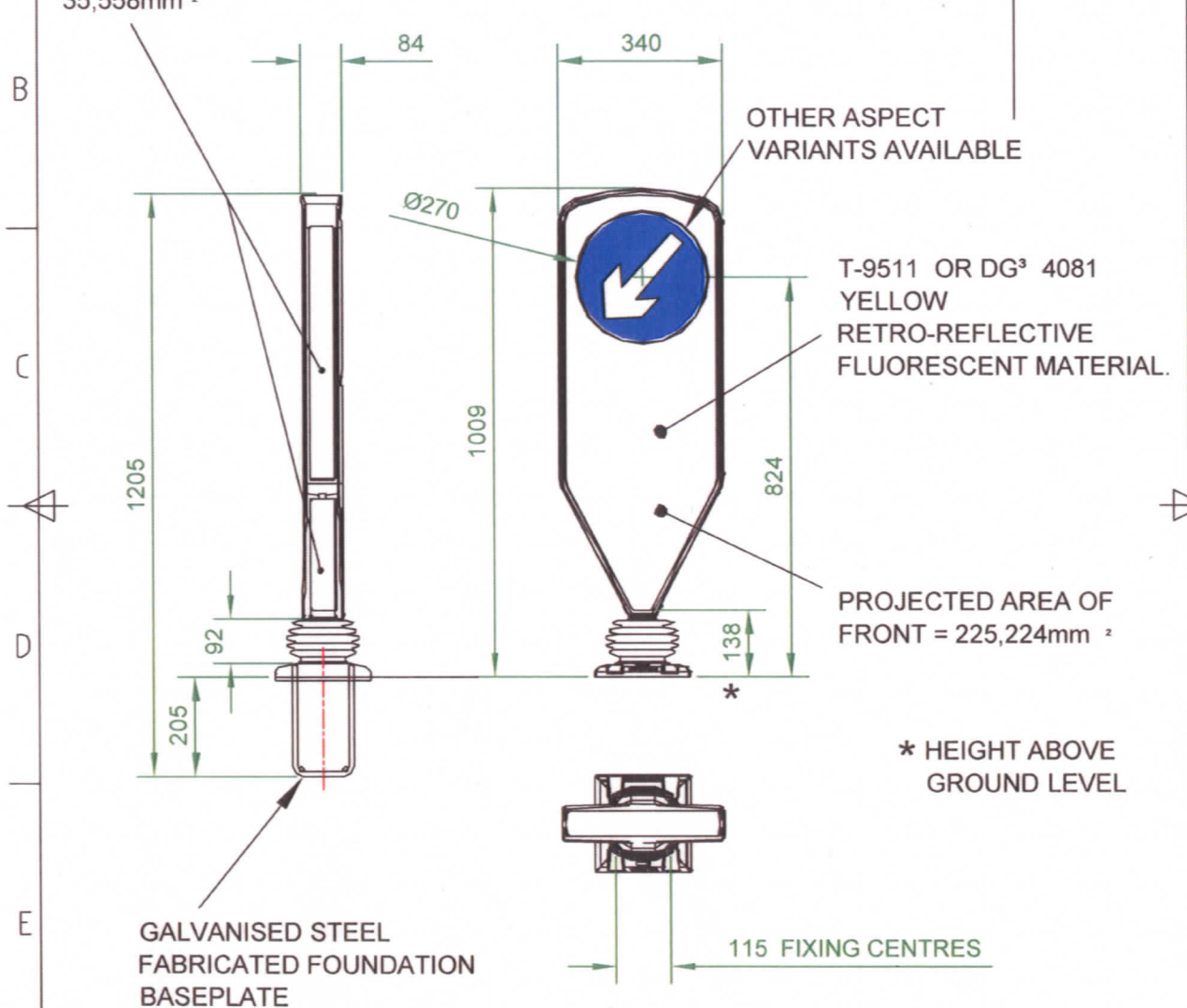
/A FIRST ISSUE FOR  
26-12-17

/B GEN. REVISED  
21-13-17

/C REFLECTIVE MATERIAL  
DETAILS ADDED: #271  
DIM ADDED:  
14-14-17

PROJECTED AREA  
OF EACH SIDE =  
35,558mm<sup>2</sup>

SINGLE OR DOUBLE ASPECT; I.E.  
SINGLE OR DOUBLE SIDED.



QA Form No. PG21c Iss. 2

MAT. \_

SPEC. \_

FIN. \_

STOCK No. \_

Drn.by  
K. RAM

Checked by

Approved by - date



FILENAME

DATE

SCALE

L6084C

04-04-07

N.T.S.

Owner  
**Signature Ltd**  
SIGNATURE HOUSE  
HANGE ROAD  
TMDALE, DLODBURY  
B69 2NF  
0121 557 8234

TOLERANCE  
± 0.5mm

ANGULAR TOLERANCE

± 1°

ALL DIMENSIONS ARE IN MM  
OTHERWISE STATED.

TITLE LAYOUT OF TRUEFLEX BOLLARD

DWG. No.

**L6084**

REVISION  
**C**

Sheet  
1 OF 1

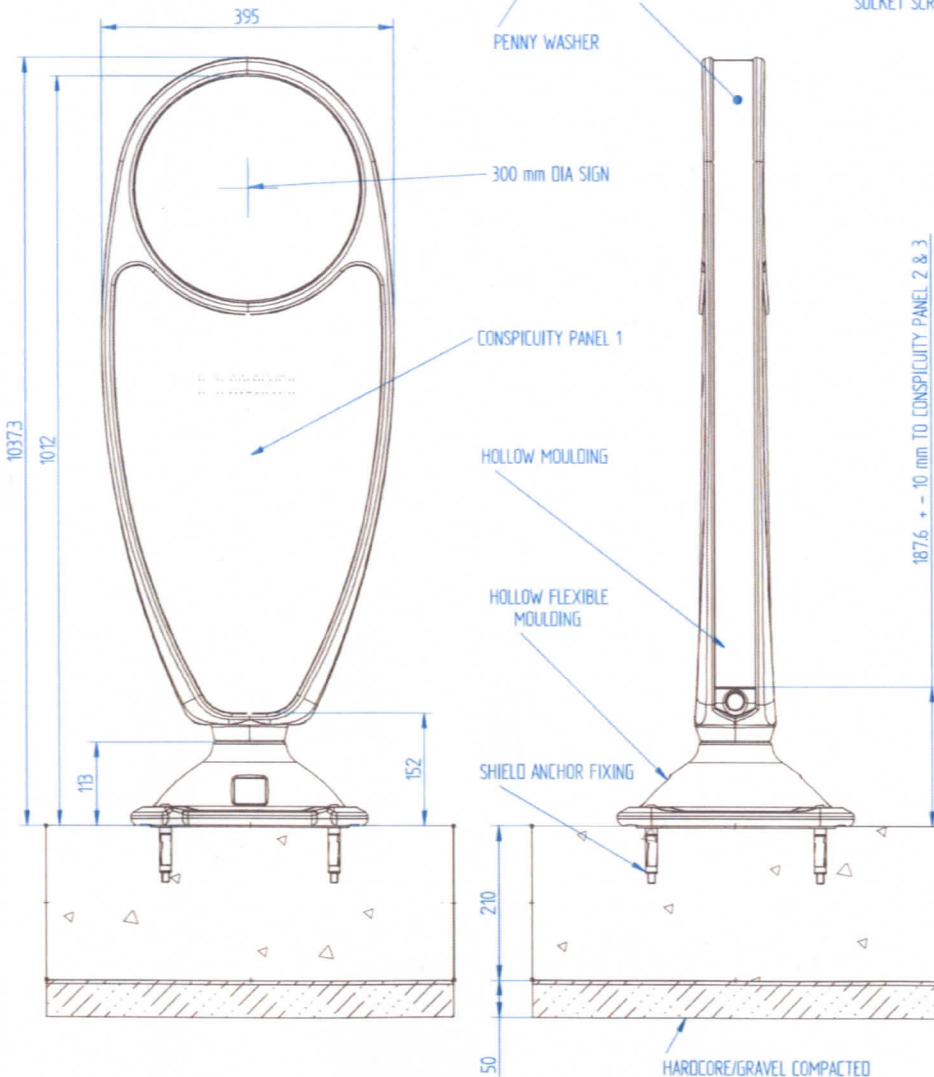
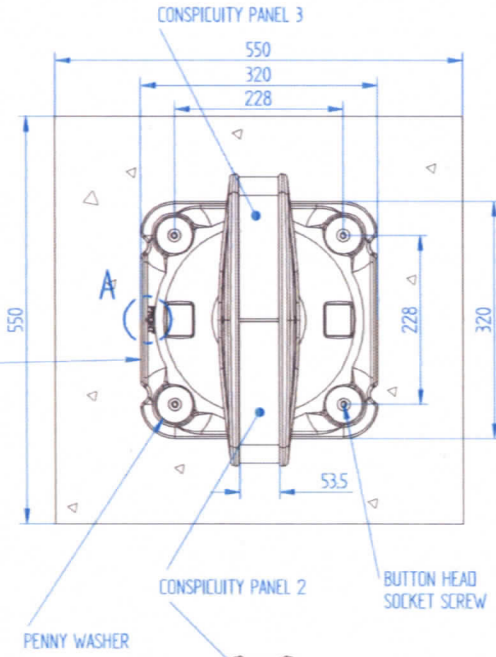
**DO NOT SCALE**  
IF IN DOUBT - ASK

**DETAIL A**

FRONT INDICATOR ON THE BASE  
MOULDING SHOULD ALWAYS BE  
MOUNTED SO THIS SIDE IS FACING  
ONCOMING TRAFFIC

DIRECTION OF ONCOMING TRAFFIC

PRODUCT TO BE SITED  
90 DEGREES TO DIRECTION OF TRAFFIC



DESIGN	
ENGINEERING	
QUALITY	
PRODUCTION	

DATE	MODIFICATIONS	DCN No	ISS	CHKD
28/9/09	NEW DRAWING	XX-XX	1	
4/2/10	SPEC UPDATED	05-10	1	

**NIGHTOWL BODY AND BOUNCE BACK  
BASE MATERIALS:**

- HOLLOW BODY MOULDING MDPE

- HOLLOW BASE MOULDING FLEXIBLE PE

**300 DIA SIGN FACES**

- 3M DIAMOND GRADE DG3 WHITE REFLECTIVE VINYL  
OR ALTERNATIVE MATERIAL APPROVED TO BS8408

**CONSPIQUITY PANEL 1 - FRONT PANEL**

- COMPLIES WITH THE REQUIREMENTS OF BS8442:2006.  
MATERIAL - 3M DIAMOND GRADE DG3 FLUORESCENT  
YELLOW REFLECTIVE VINYL OR ALTERNATIVE APPROVED  
TO BS8408  
160,999 mm<sup>2</sup> METERS PROJECTED AREA

**CONSPIQUITY PANEL 2 & 3 - (SIDE PANELS)**

- COMPLIES WITH THE REQUIREMENTS OF BS8442:2006.  
MATERIAL - 3M DIAMOND GRADE DG3 FLUORESCENT  
YELLOW REFLECTIVE VINYL OR ALTERNATIVE APPROVED  
TO BS8408  
44,802 mm<sup>2</sup> METERS PROJECTED AREA PER SIDE

**COMPONENTS USED TO ASSEMBLE  
PRODUCT (EXCLUDING GROUND FIXINGS)**

- 1 (X1) - M8 FORMC WASHER 20mm OD 1.6mm THICK - STAINLESS STEEL
- 2 (X1) - M8 x 13mm DYNAFIX - ZINC DIECAST
- 1 (X1) - M10 x 120mm SOCKET HEAD CAP SCREW - STAINLESS STEEL
- 1 (X2) BOLT CAP - 25mm Dia X 11.5mm - LDPE

**GROUND FIXING:  
SURFACE MOUNT FIXING**

- 1 (X4) M10 x 100mm BUTTON HEAD SOCKET SCREW - STAINLESS STEEL
- 2 (X1) - M10 PENNY WASHER 50mm OD 3mm THICK - STAINLESS STEEL
- 1 (X4) M10 SHIELD ANCHOR 16 mm x 60 mm MILD STEEL BZP OR EQUIVALENT OF SAFE WORKING LOAD 6 KN
- 1 (X4) COMPRESSION SPACER - 10MM ID 22mm OD X 20mm - NYLON

TO SURFACE MOUNT BOLLARD, DRILL 4 HOLES OF 16mm x 80mm I MIN DEPTH I INTO SUITABLE GOOD FOUNDATION OR PREPARE SITE TO THE FOLLOWING FOUNDATION SPEC BEFORE INSTALLING.

FOUNDATION TO CONSIST OF STRUCTURAL CONCRETE SPEC I MINIMUM C20/25 I OF SIZE 550x550x210 WITH 50 mm OF HARDCORE I SITE SURVEY MUST BE USED TO ASCERTAIN SUITABILITY OF FOUNDATION.

IF THE WIDTH OF THE CONCRETE FOUNDATION IS UNDER THE REQUIRED 550 MM SQUARE FOOTING IT IS RECOMMENDED TO INCREASE DEPTH OF FOUNDATION TO OBTAIN PROPORTIONAL VOLUME IN FOUNDATION.

NOTE: MINIMUM DISTANCE FROM ANCHOR TO EDGE OF CONCRETE SHOULD BE NO LESS THAN 160mm

**PRODUCT VARIANTS**

- 1) NIGHTOWL STANDARD - WITH 300 DIA SIGN FACE WITH CONSPIQUITY PANEL 1 ON FRONT AND CONSPIQUITY PANEL 2 & 3 COVERING THE SIDES.
- 2) NIGHTOWL STANDARD - CONSPIQUITY PANEL 1 ON THE BACK.
- 3) NIGHTOWL STANDARD - PANEL 1 ON THE BACK - 300 DIA SIGN ON BACK.

<small>No reproduction or publication of this drawing may be made and no other may be manufactured or assembled or in accordance with this drawing without prior written authorisation from LIN PAC as a term of any contract relating to this drawing.</small>		<small>LIN PAC Environmental Limited (Pty) Ltd Certified Industrial Estate Cromford, N10 8UD Tel: 01225 816600 Fax: 01225 816601 Web: www.linpacenvironmental.com</small>
		<small>Product: NIGHT OWL</small>
<small>Drawn by: A.E.dwards</small>	<small>Component: NIGHT OWL - SURFACE MOUNT</small>	
<small>DATE: 19/05/09</small>	<small>DECT Type: SPECIFICATION</small>	
<small>PC No: 81707/1</small>	<small>DCN No: 1707A01</small>	<small>Sheet No: SHEET 1 OF 1</small>

# NIGHTOWL SURFACE MOUNT

**NOTE - THIS IS A NON ILLUMINATED PRODUCT - RESTRICTIONS APPLY TO ITS USE. ALL DIMENSIONS IN mm**  
AUTHORISATION FOR USE MUST BE OBTAINED FROM THE DFT.

3rd Angle Projection



**DO NOT SCALE**  
IF IN DOUBT - ASK

**DETAIL A**

FRONT INDICATOR ON THE BASE MouldING SHOULD ALWAYS BE MOUNTED SO THIS SIDE IS FACING ONCOMING TRAFFIC

DIRECTION OF ONCOMING TRAFFIC →

PRODUCT TO BE SITED 90 DEGREES TO DIRECTION OF TRAFFIC

PENNY WASHER

BUTTON HEAD SOCKET SCREW

CONSPICUITY PANEL 2

300 mm DIA SIGN

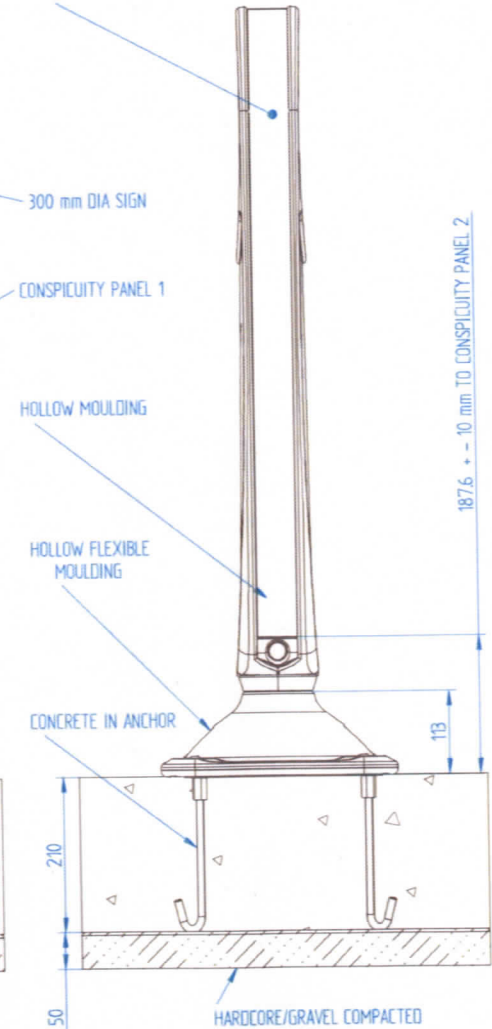
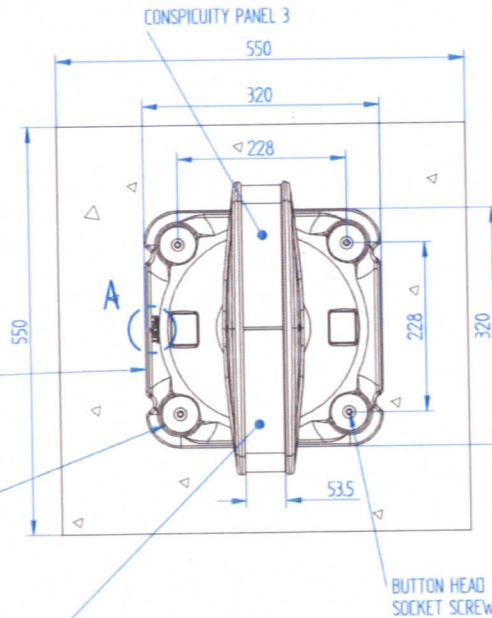
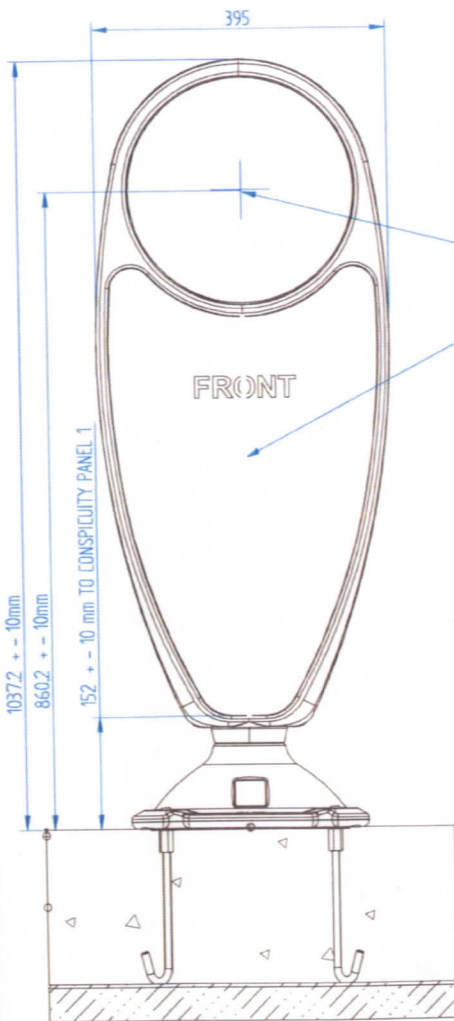
CONSPICUITY PANEL 1

HOLLOW MouldING

HOLLOW FLEXIBLE MouldING

CONCRETE IN ANCHOR

HARDCORE/GRAVEL COMPACTED



# NIGHTOWL CONCRETE IN

(RECOMMENDED FIXING)

**NOTE** - THIS IS A NON ILLUMINATED PRODUCT - RESTRICTIONS APPLY TO ITS USE. AUTHORIZATION FOR USE MUST BE OBTAINED FROM THE DFT.

ALL DIMENSIONS IN mm

3rd Angle Projection

DESIGN	ENGINEERING	QUALITY	PRODUCTION	
DATE	MODIFICATIONS	DCN No	ISS	CHKD
28/9/09	NEW DRAWING	XX-XX	1	
4/2/10	SPECIFICATION UPDATED	06-10	2	

**NIGHTOWL BODY AND BOUNCE BACK BASE MATERIALS:**

- HOLLOW BODY MouldING MDPE
- HOLLOW BASE MouldING FLEXIBLE PE

**300 DIA SIGN FACES**

- 3M DIAMOND GRADE DG3 WHITE REFLECTIVE VINYL OR ALTERNATIVE APPROVED TO BS8408

**CONSPICUITY PANEL 1 - FRONT PANEL**

- COMPLIES WITH THE REQUIREMENTS OF BS8442:2006. MATERIAL - 3M DIAMOND GRADE DG3 FLUORESCENT YELLOW REFLECTIVE VINYL OR ALTERNATIVE APPROVED TO BS8408
- 160,999 mm<sup>2</sup> METERS PROJECTED AREA

**CONSPICUITY PANEL 2 & 3 SIDE PANELS**

- COMPLIES WITH THE REQUIREMENTS OF BS8442:2006. MATERIAL - 3M DIAMOND GRADE DG3 FLUORESCENT YELLOW REFLECTIVE VINYL OR ALTERNATIVE APPROVED TO BS8408.
- 44,802 mm<sup>2</sup> METERS PROJECTED AREA PER SIDE

**COMPONENTS USED TO ASSEMBLE PRODUCT (EXCLUDING GROUND FIXINGS):**

- (X1) - M8 FORMC WASHER 20mm OD 1.6mm THICK - STAINLESS STEEL
- (X1) - M8 x 13mm DYNAFIX - ZINC DIECAST
- (X1) - M10 x 120mm SOCKET HEAD CAP SCREW - STAINLESS STEEL
- (X2) BOLT CAP - 25mm Dia X 11.5mm - LDPE

**GROUND FIXING:**

**CONCRETE IN FIXING**

- (X4) M10 x 40mm BUTTON HEAD SOCKET SCREW - STAINLESS STEEL
- (X1) - M10 PENNY WASHER 50mm OD 3mm THICK - STAINLESS STEEL
- (X4) LPE CONCRETE IN SOCKET ANCHOR M10 X 210MM LONG (OR EQUIVALENT HEAVY DUTY CONCRETE IN FIXING INSERT OF MIN AXIAL LOAD RATING 600 kg)
- (X4) COMPRESSION SPACER - 10MM ID 22mm OD X 20mm - NYLON

FOUNDATION TO CONSIST OF STRUCTURAL CONCRETE SPEC (MINIMUM C20/25) OF SIZE 550x550x210mm WITH 50 mm OF HARDCORE ( SITE SURVEY MUST BE USED TO ASCERTAIN SUITABILITY OF FOUNDATION SPEC REQUIRED.

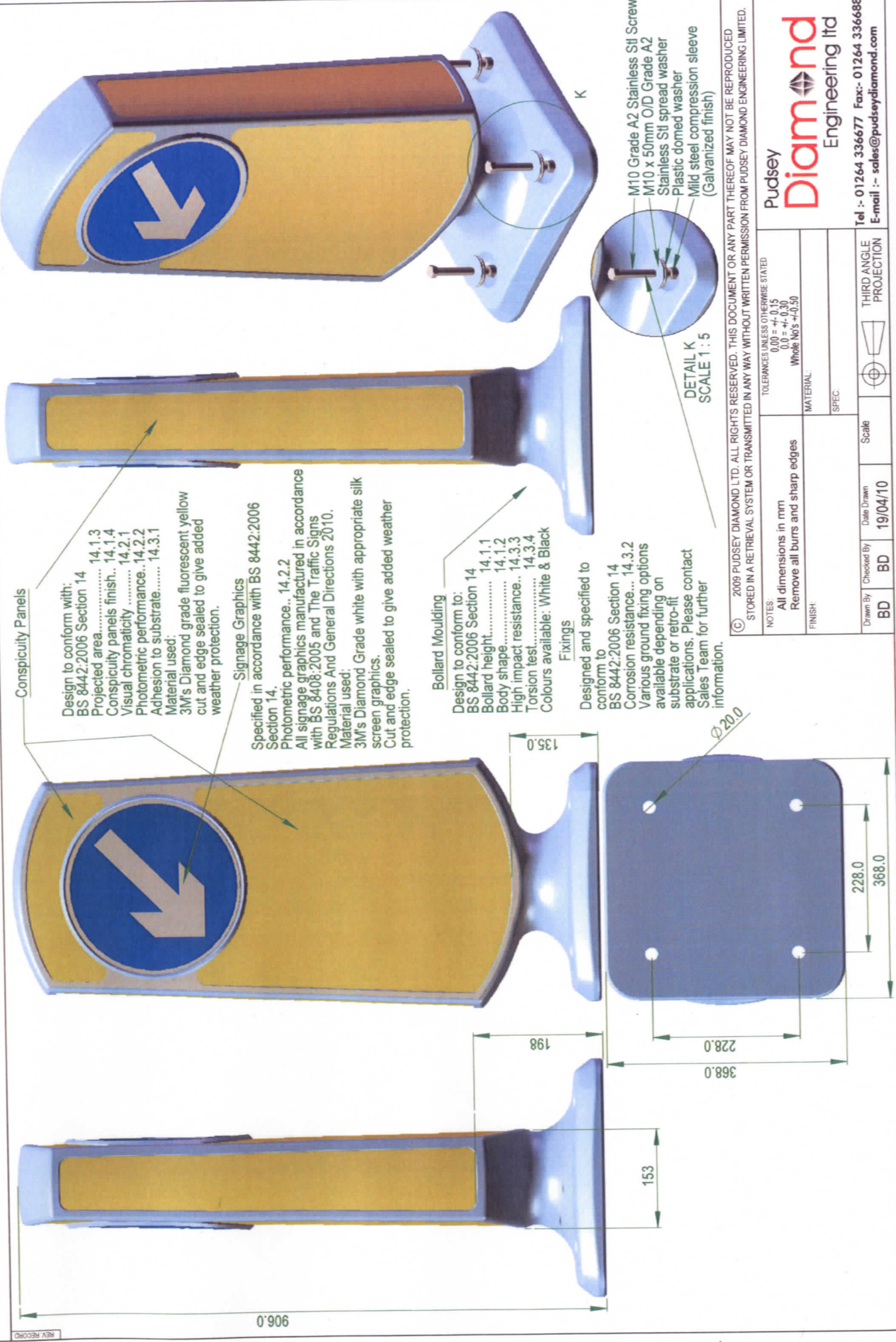
IF THE WIDTH OF THE CONCRETE FOUNDATION IS UNDER THE REQUIRED 550 mm SQUARE FOOTING IT IS RECOMMENDED TO INCREASE DEPTH OF FOUNDATION TO OBTAIN PROPORTIONAL VOLUME IN FOUNDATION.

NOTE: MINIMUM DISTANCE FROM ANCHOR TO EDGE OF CONCRETE SHOULD BE NO LESS THAN 100mm

**PRODUCT VARIANTS**

- NIGHTOWL STANDARD WITH 300 DIA SIGN FACE WITH CONSPICUITY PANEL 1 ON FRONT AND CONSPICUITY PANEL 2 & 3 COVERING THE SIDES (SINGLE SIDED)
- NIGHTOWL STANDARD - PANEL 1 ON BACK
- NIGHTOWL STANDARD - PANEL 1 ON THE BACK + 300 DIA SIGN ON BACK (DOUBLE SIDED)

<p>No reproduction or publication of this drawing may be made and no article may be manufactured or assembled in accordance with this drawing without prior written consent. This prohibition is a term of any contract relating to this drawing.</p>	<p>LIN PAC Environmental Leeds Leeds Industrial Estate Carnforth Skipton Road Tel: 01535 810000 Fax: 01535 810001 Web: www.linpac-environmental.com</p>
<p><b>NOT TO SCALE</b></p>	<p>Product: NIGHT OWL</p>
<p>DRAWN BY: A. Edwards</p>	<p>Company: NIGHT OWL - CONCRETE IN</p>
<p>DATE: 19/05/09</p>	<p>DRG Type: SPECIFICATION</p>
<p>DC No: 81707/II</p>	<p>DC No: 1707A02</p>
	<p>Sheet No: 1 OF 1</p>



© 2009 PUDSEY DIAMOND LTD. ALL RIGHTS RESERVED. THIS DOCUMENT OR ANY PART THEREOF MAY NOT BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM OR TRANSMITTED IN ANY WAY WITHOUT WRITTEN PERMISSION FROM PUDSEY DIAMOND ENGINEERING LIMITED.

NOTES:  
 All dimensions in mm  
 Remove all burrs and sharp edges  
 FINISH:

TOLERANCES UNLESS OTHERWISE STATED  
 0.00 = +0.015  
 0.0 = +0.30  
 Whole Nos +0.50

MATERIAL:  
 SPEC:

Drawn By: BD  
 Checked By: BD  
 Date Drawn: 19/04/10  
 Scale:  
 THIRD ANGLE PROJECTION



# Cusack Dynaflex Retroreflective Self Righting Bollard (Non illuminated)

**Complies to BS 8442 clause 14**

**Conspicuity panel details;**

Fluorescent Yellow Crystal grade microprismatic sheeting,  
BS 8408 performance greater than 9.0 for V1 D3 A1 LB

Sign face;  
300mm dia circle Crystal grade microprismatic sheeting

Front conspicuity panel area; 151, 666mm<sup>2</sup>

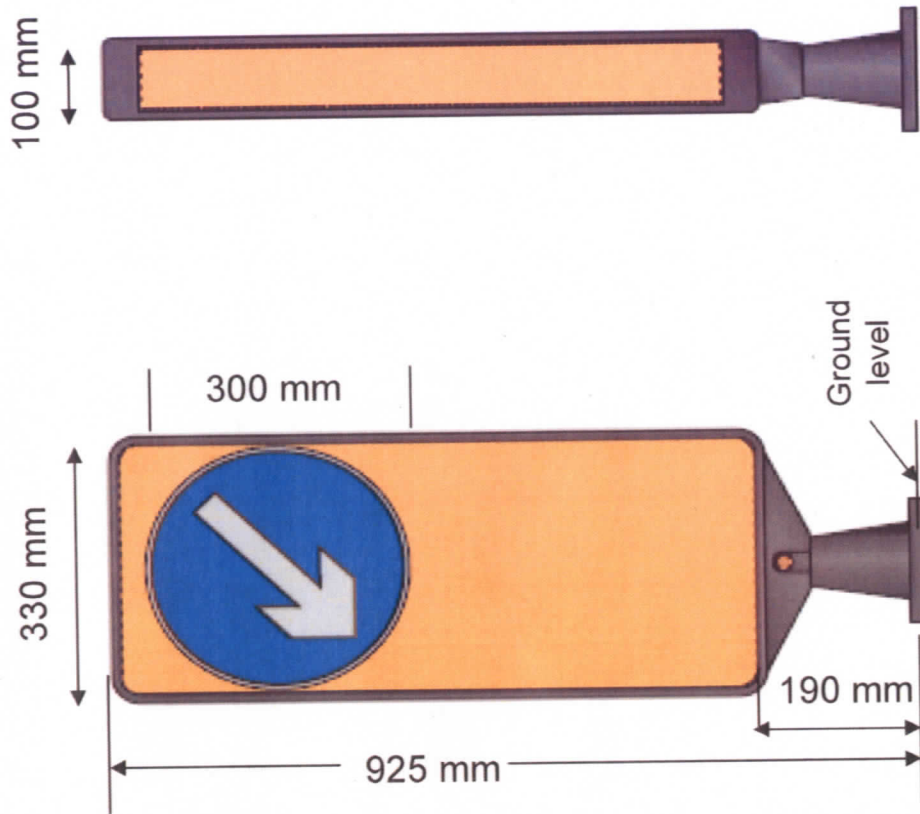
Side conspicuity panels area (each); 51,205mm<sup>2</sup>

Optional rear conspicuity panel area ; 151, 666mm<sup>2</sup>



Cusack (Tools Supplies) Ltd (Wolverhampton)  
The Hydra Building, Mammoth Drive  
Wolverhampton Science Park  
Wolverhampton  
West Midlands  
WV10 9TF

Tel; 01902 371715 Fax; 10902 310977  
Web; [www.cusack.co.uk](http://www.cusack.co.uk)  
Email: [sales@cusack.co.uk](mailto:sales@cusack.co.uk)



Single sided or double sided options.



THIS DRAWING IS COPYRIGHT PROTECTED AND THE SOLE PROPERTY OF SIGNATURE LIMITED THEREFORE AS SUCH, THE CONTENTS MUST NOT BE WHOLE OR PARTLY BE DISTRIBUTED IN ANY WAY, TO A THIRD PARTY WITHOUT THE PERMISSION OF SIGNATURE LIMITED.

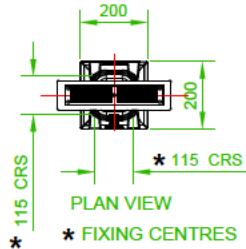


IF IN DOUBT ASK

REVISION
1 A FIRST ISSUE: DDR 477: KR 16-05-11



YELLOW REVERSE PANEL :- T-9511 OR DG\* 4081 YELLOW (10 YEAR) RETRO-REFLECTIVE FLUORESCENT MATERIAL. 6 YEAR DELAMINATION WARRANTY SUBJECT TO NORMAL CONDITIONS



**TOOLS REQUIRED FOR INSTALLATION**  
M10 RATCHET SPANNER

**KIT OF PARTS**

- CAGE FIXINGS = 4 OFF M10 BLACK PLASTIC COVERS
- 4 OFF M10 STAINLESS STEEL NYLOC NUTS
- 4 OFF M10 STAINLESS STEEL WASHERS

SOLAR ILLUMINATED TRUEFLEX BOLLARD

FOUNDATION CAGE



SINGLE OR DOUBLE ASPECT; I.E. SINGLE OR DOUBLE SIDED.

OTHER ASPECT VARIANTS AVAILABLE

**INSTALLATION INSTRUCTIONS**

RECOMMENDED MINIMUM EXCAVATED HOLE SIZE 350x350x350mm DEEP.

PLACE FOUNDATION CAGE IN SITU AND FILL IN WITH APPROPRIATE CONCRETE IN LINE WITH HIGHWAY WORKS SPECIFICATION. NOTE FOR REDUCED RISK IT IS RECOMMENDED TO USE QUICK SETTING CONCRETE, BUT EXACT INSTALLATION REQUIREMENTS SHOULD BE ASSESSED FROM SITE SURVEY.

ONCE CONCRETE HAS SET PLACE THE TRUEFLEX BOLLARD OVER THE M10 STUDS ENSURING THAT THE RELEVANT ASPECT IS FACING TOWARDS ONCOMING TRAFFIC.

PLACE THE M10 STAINLESS STEEL WASHERS OVER THE M10 STUDS, TOGETHER WITH THE M10 NYLOC NUTS.

USING A RATCHET SPANNER TIGHTEN DOWN THE NYLOC NUTS. FINISH OFF BY PLACING THE PLASTIC COVERS OVER THE NYLOC NUTS.

**ORDERING CODES**

- JWL-JW-47-125 Truflex Solar Bollard Single Aspect 610(L)
- JWL-JW-47-126 Truflex Solar Bollard Double Aspect 610(L)
- JWL-JW-47-127 Truflex Solar Bollard Single Aspect (P)
- JWL-JW-47-104 Cage Fixing for Trueflex Solar

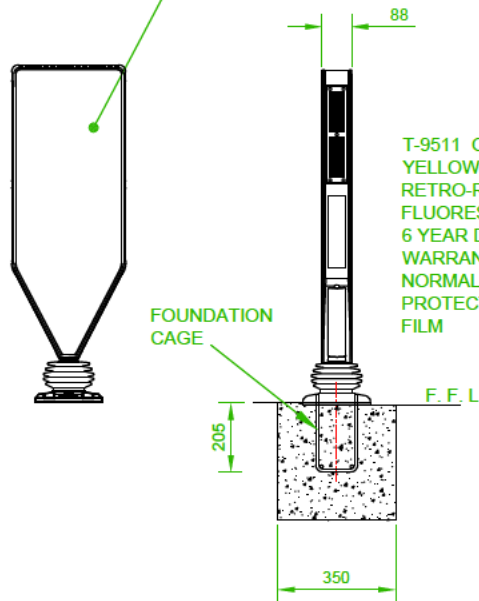
FOR OTHER OPTIONS OF STYLES PLEASE CONTACT JOHN WILKINSON.

FRONT VIEW

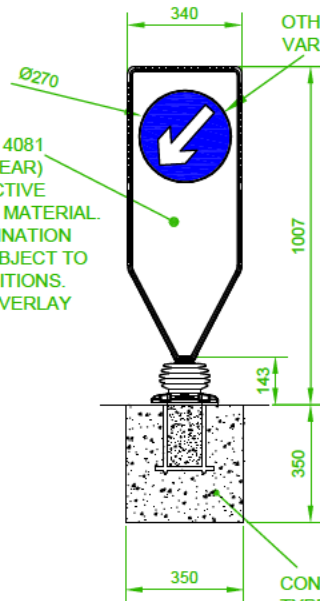
PLEASE NOTE: -

IT IS THE RESPONSIBILITY OF THE INSTALLER TO ENSURE THAT THEY ARE QUALIFIED TO UNDERTAKE THE ABOVE INSTALLATION.

SIGNATURE RESERVES THE RIGHT TO UPDATE THE ABOVE AS AND WHEN NECESSARY WITHOUT PRIOR NOTICE.



T-9511 OR DG\* 4081 YELLOW (10 YEAR) RETRO-REFLECTIVE FLUORESCENT MATERIAL. 6 YEAR DELAMINATION WARRANTY SUBJECT TO NORMAL CONDITIONS. PROTECTIVE OVERLAY FILM



**TECHNICAL**

PROJECTED AREA OF FRONT = 230,362mm<sup>2</sup>  
PROJECTED AREA OF EACH SIDE = 23,250mm<sup>2</sup>

SIDE VIEW

NOTE UNDERSIDE OF PLATE IS GROUND LEVEL.

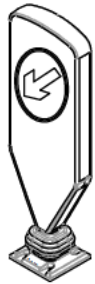
TOLERANCE	MATERIAL	DRN BY	CHKD BY	APPROVED BY & DATE	FILENAME	DATE	SCALE
+/- 0.5mm	-	K. RAM	N/A		L6140A	16-05-11	N.T.S.
ANGULAR TOLERANCE ± 1°	SPECIFICATION	OWNER SIGNATURE	TITLE LAYOUT - SOLAR ILLUMINATED TRUEFLEX BOLLARD WITH FOUNDATION CAGE LONDON BOROUGH OF MERTON SPECIFICATION				
ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED.	FINISH	Signature Ltd SIGNATURE HOUSE HAINGE ROAD TIVIDALE, OLDBURY B89 2NF 0121 557 0234	DWG. No.	L6140	REVISION	A	SHEET 1 OF 1

THIS DRAWING IS COPYRIGHT PROTECTED AND THE SOLE PROPERTY OF SIGNATURE LIMITED THEREFORE AS SUCH, THE CONTENTS MUST NOT BE WHOLE OR PARTLY BE DISTRIBUTED IN ANY WAY, TO A THIRD PARTY WITHOUT THE PERMISSION OF SIGNATURE LIMITED.

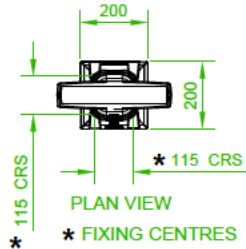


**IF IN DOUBT ASK**

REVISION
1/A FIRST ISSUE: DDR 477: KR 16-05-11



YELLOW REVERSE PANEL :- T-9511 OR DG<sup>®</sup> 4081 YELLOW (10 YEAR) RETRO-REFLECTIVE FLUORESCENT MATERIAL. 6 YEAR DELAMINATION WARRANTY SUBJECT TO NORMAL CONDITIONS



**TOOLS REQUIRED FOR INSTALLATION**  
M10 RATCHET SPANNER

**KIT OF PARTS**

CAGE FIXINGS = 4 OFF M10 BLACK PLASTIC COVERS  
4 OFF M10 STAINLESS STEEL NYLOC NUTS  
4 OFF M10 STAINLESS STEEL WASHERS

TRUEFLEX BOLLARD  
FOUNDATION CAGE



SINGLE OR DOUBLE ASPECT; I.E. SINGLE OR DOUBLE SIDED.

OTHER ASPECT VARIANTS AVAILABLE

**INSTALLATION INSTRUCTIONS**

RECOMMENDED MINIMUM EXCAVATED HOLE SIZE 350x350x350mm DEEP.

PLACE FOUNDATION CAGE IN SITU AND FILL IN WITH APPROPRIATE CONCRETE IN LINE WITH HIGHWAY WORKS SPECIFICATION. NOTE FOR REDUCED RISK IT IS RECOMMENDED TO USE QUICK SETTING CONCRETE, BUT EXACT INSTALLATION REQUIREMENTS SHOULD BE ASSESSED FROM SITE SURVEY.

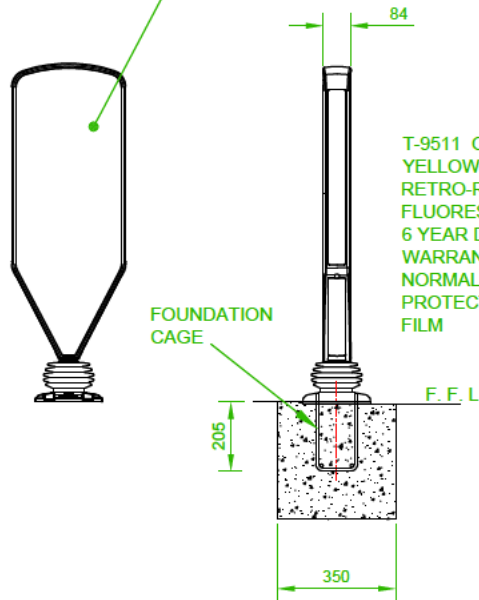
ONCE CONCRETE HAS SET PLACE THE TRUEFLEX BOLLARD OVER THE M10 STUDS ENSURING THAT THE RELEVANT ASPECT IS FACING TOWARDS ONCOMING TRAFFIC.

PLACE THE M10 STAINLESS STEEL WASHERS OVER THE M10 STUDS, TOGETHER WITH THE M10 NYLOC NUTS.

USING A RATCHET SPANNER TIGHTEN DOWN THE NYLOC NUTS. FINISH OFF BY PLACING THE PLASTIC COVERS OVER THE NYLOC NUTS.

**ORDERING CODES**

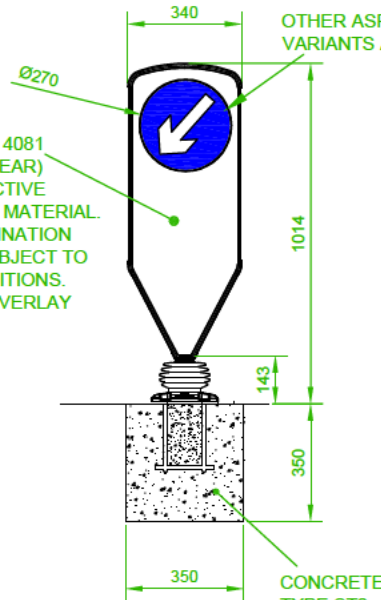
JWL-JW-47-110 KEEP LEFT ASPECT C/W REAR YELLOW PANEL  
JWL-JW-47-112 OPAL ASPECT C/W REAR YELLOW PANEL



**TECHNICAL**

PROJECTED AREA OF FRONT = 225,224mm<sup>2</sup>  
PROJECTED AREA OF EACH SIDE = 23,175mm<sup>2</sup>

NOTE UNDERSIDE OF PLATE IS GROUND LEVEL.



**FRONT VIEW**

PLEASE NOTE: -

IT IS THE RESPONSIBILITY OF THE INSTALLER TO ENSURE THAT THEY ARE QUALIFIED TO UNDERTAKE THE ABOVE INSTALLATION.

SIGNATURE RESERVES THE RIGHT TO UPDATE THE ABOVE AS AND WHEN NECESSARY WITHOUT PRIOR NOTICE.

FOR OTHER OPTIONS OF STYLES PLEASE CONTACT SIGNATURE LTD.,

	TOLERANCE +/- 0.5mm	MATERIAL -	DRN BY K. RAM	CHKD BY N/A	APPROVED BY & DATE	FILENAME L6141A	DATE 16-05-11	SCALE N.T.S.
QA FORM No. PG20c Iss 2	ANGULAR TOLERANCE ± 1°	SPECIFICATION -	OWNER SIGNATURE	Signature <sup>®</sup> Ltd SIGNATURE HOUSE HAINGE ROAD TIVIDALE, OLDBURY B89 2NF 0121 557 0234	TITLE LAYOUT DRAWING - TRUEFLEX BOLLARD WITH FOUNDATION CAGE - LONDON BOROUGH OF MERTON SPECIFICATION			
STOCK No.	ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED.	FINISH -			DWG. No. <b>L6141</b>	REVISION <b>A</b>	SHEET 1 OF 1	