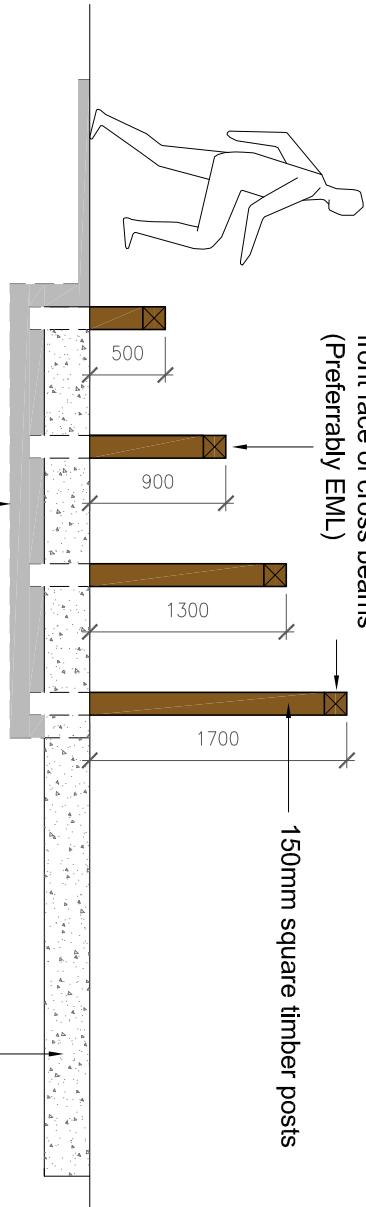


NOTE

**EML**  
EML SHOULD BE LAID SO THAT THE LOZENGE IS 15mm LENGTH ALONG THE DIRECTION OF TRAVEL AND 40mm

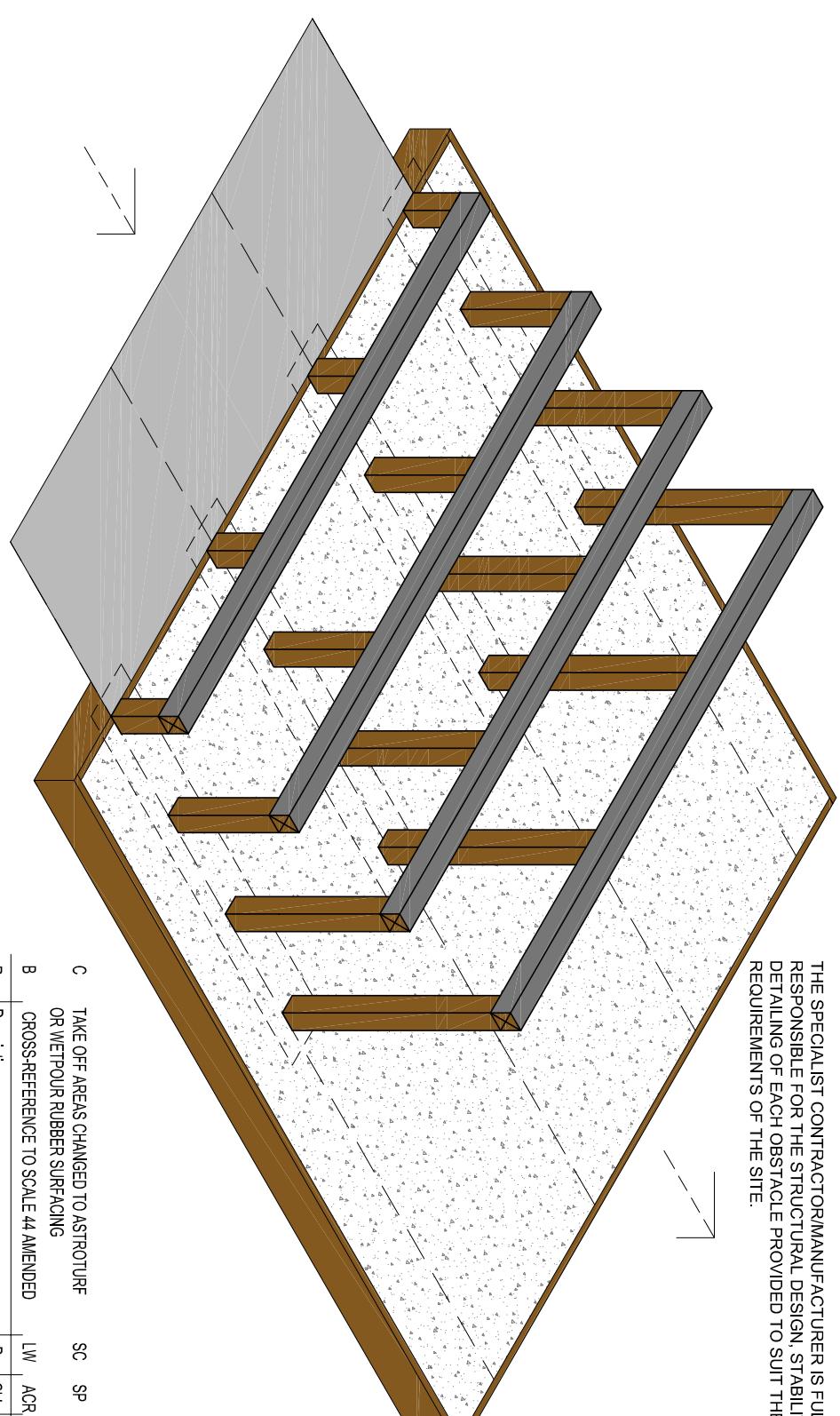
Non-slip finish to top and front face of cross beams  
(Preferably EML)

SECTION



**Concrete base**  
Pe-shingle impact  
absorbing surface  
(min depth 300mm)

## ISOMETRIC VIEW



**NOTES:**

DO NOT SCALE. Consultation to check all dimensions and report any omissions or errors.

THIS DRAWING IS TO BE READ IN ACCORDANCE WITH THE GENERAL DESIGN GUIDANCE NOTES INDICATED ON E8949/DE/AB01

THE SIZES AND DIAMETERS OF OBSTACLE COMPARTMENTS INDICATED ON THIS DRAWING ARE NECESSARY TO MEET THE USER'S OPERATIONAL TRAINING REQUIREMENTS AND ARE NOT INTENDED TO INDICATE STRUCTURAL DESIGN REQUIREMENTS.

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V

OBSTACLE COURSE DRAWINGS

## OBSTACLE A1 - STEPS

(JSP 315 SCALE 44, ANNEX A, SERIAL

COURSE

PLAN

OBSTACLE COURSE DRAWINGS						
<b>OBSTACLE A1 - STEPS</b>						
(JSP 315 SCALE 44, ANNEX A, SERIAL 1)						
COURSE TYPE A						
Scale at A3 1:50	Drawn By <i>LW</i>	Date 01/08/06	Checked By <i>SPP</i>	Date 01/08/06	Approved By <i>ACR</i>	Date 01/08/06
Project No. <b>E008949</b>	Office <b>35</b>	Type <b>04</b>	Drawing No. <b>E8949/DE/A1</b>	Revision No. <b>C</b>		
Drawing Title:						
Project:						
<b>Environmental</b> Civil Structural Mechanical Electrical Process Rail Traffic Environmental Project Manager						
Executive Park Avalon Way Ainstey Leicester LE7 7GR						
Tel: 0116 234 8000 Fax: 0116 234 8002 e-mail: enviro.leicester@wvg.com						
 <b>White Your Green</b>						

NOTE:

**EML**  
EML SHOULD BE LAID SO THAT THE LOZENGE IS 15mm LENGTH ALONG THE DIRECTION OF TRAVEL AND 40mm ACROSS THE DIRECTION.

60mm dia MS tube rungs at 380mm centres welded to posts and coated in a non-slip paint

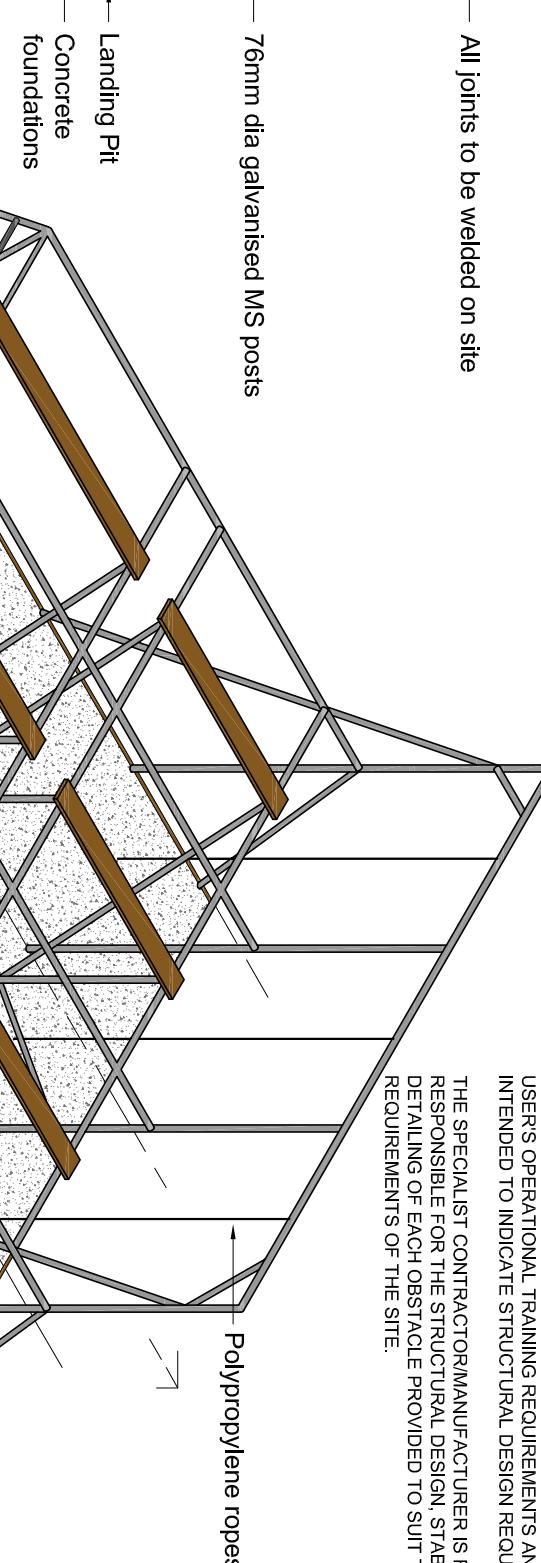
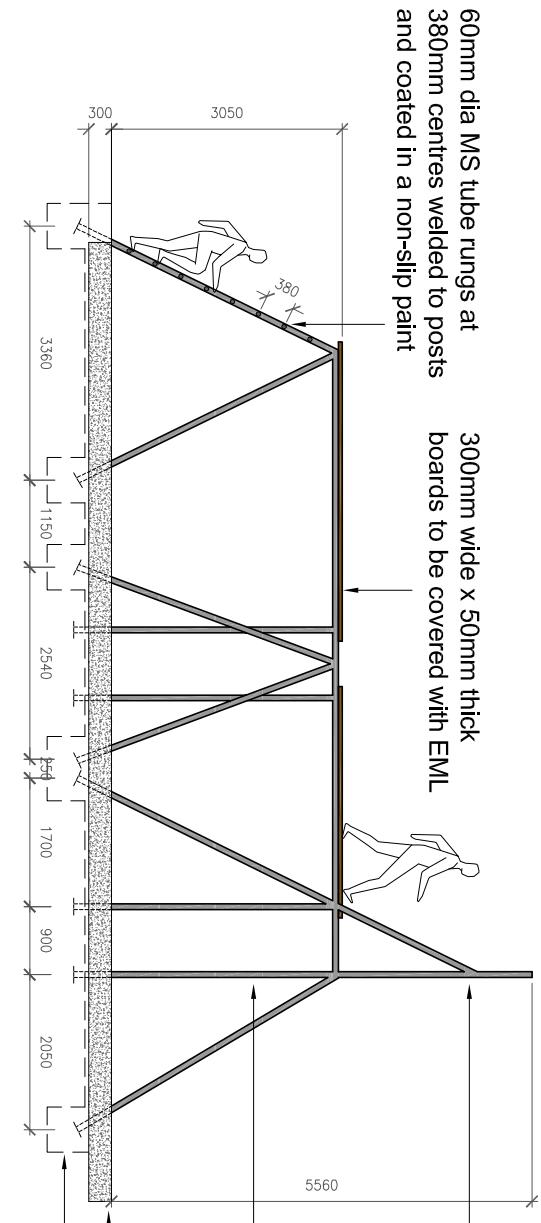
300mm wide x 50mm thick boards to be covered with EML-

All joints to be welded on site

NOTES:

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DO NOT SCALE: Contractor to check all dimensions and report any omissions or errors



### ISOMETRIC VIEW



C	TAKE OFF AREAS CHANGED TO ASTROTURF OR WETPOUR RUBBER SURFACING	SC	SP	SP	FEB '09
B	CROSS-REFERENCE TO SCALE 44 AMENDED	LW	ACR	ACR	JUNE '07
Rev	Description	By	Chk	App	Date

Client:



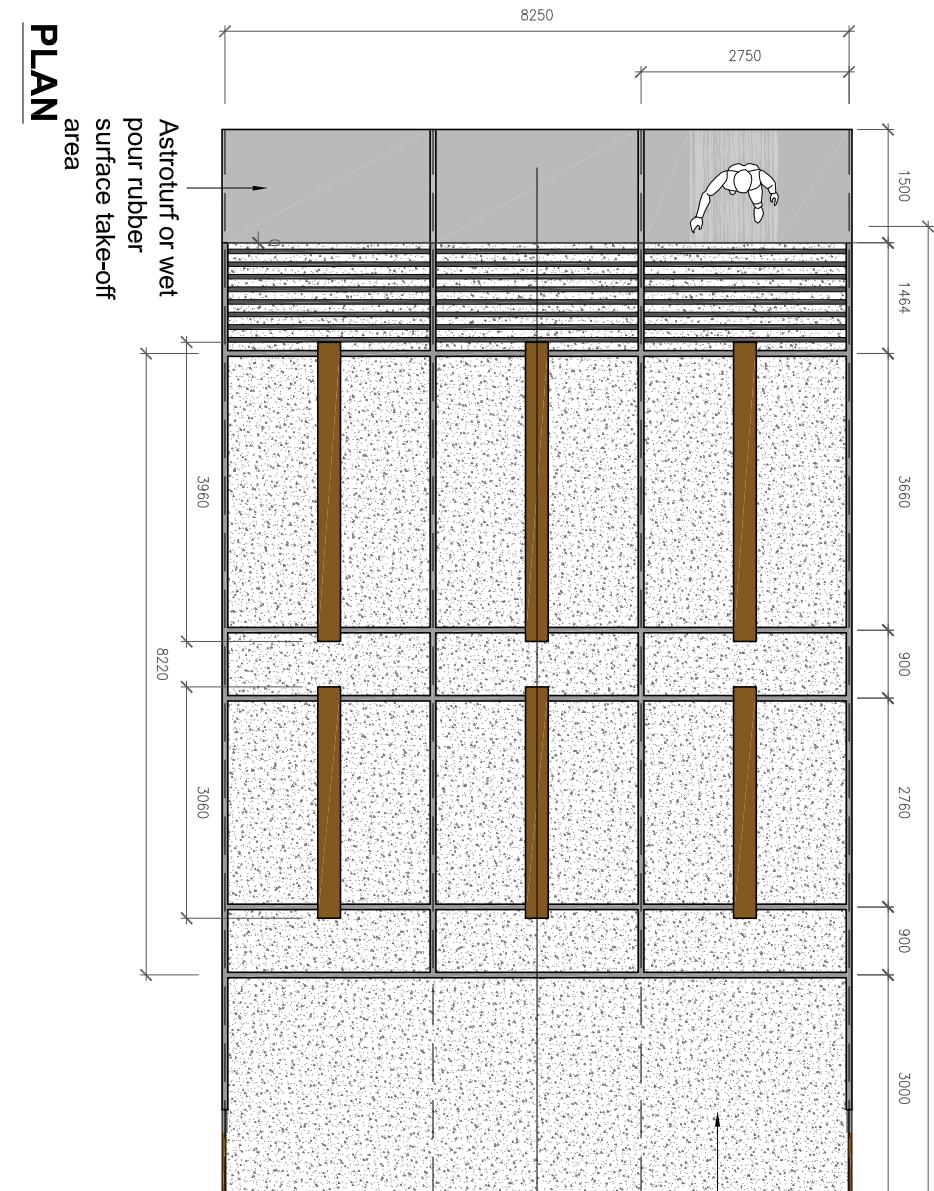
**Environmental**  
Civil Structural Mechanical Electrical Process Rail Traffic Environmental Project Management  
Project:

### OBSTACLE COURSE DRAWINGS

Drawing Title:

OBSTACLE A10 - BEAM BALANCE  
(JSP 315 SCALE 44, ANNEX A, SERIAL 10)

COURSE TYPE A



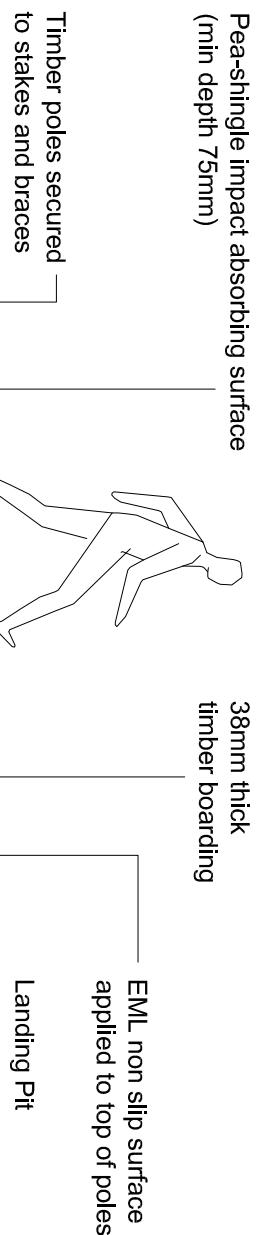
**PLAN**

APPROVAL	INFORMATION	TENDER	CONTRACT	CONSTRUCTION
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

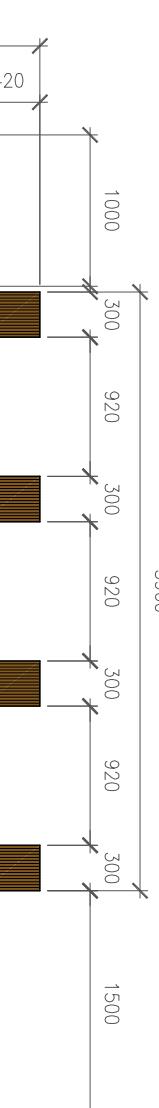
DO NOT SCALE: Contractor to check all dimensions and report any omissions or errors

NOTE:

**EML**  
**EML** SHOULD BE LAID SO THAT THE LOZENGE IS 15mm LENGTH ALONG THE DIRECTION OF TRAVEL AND 40mm ACROSS THE DIRECTION.



**SECTION**



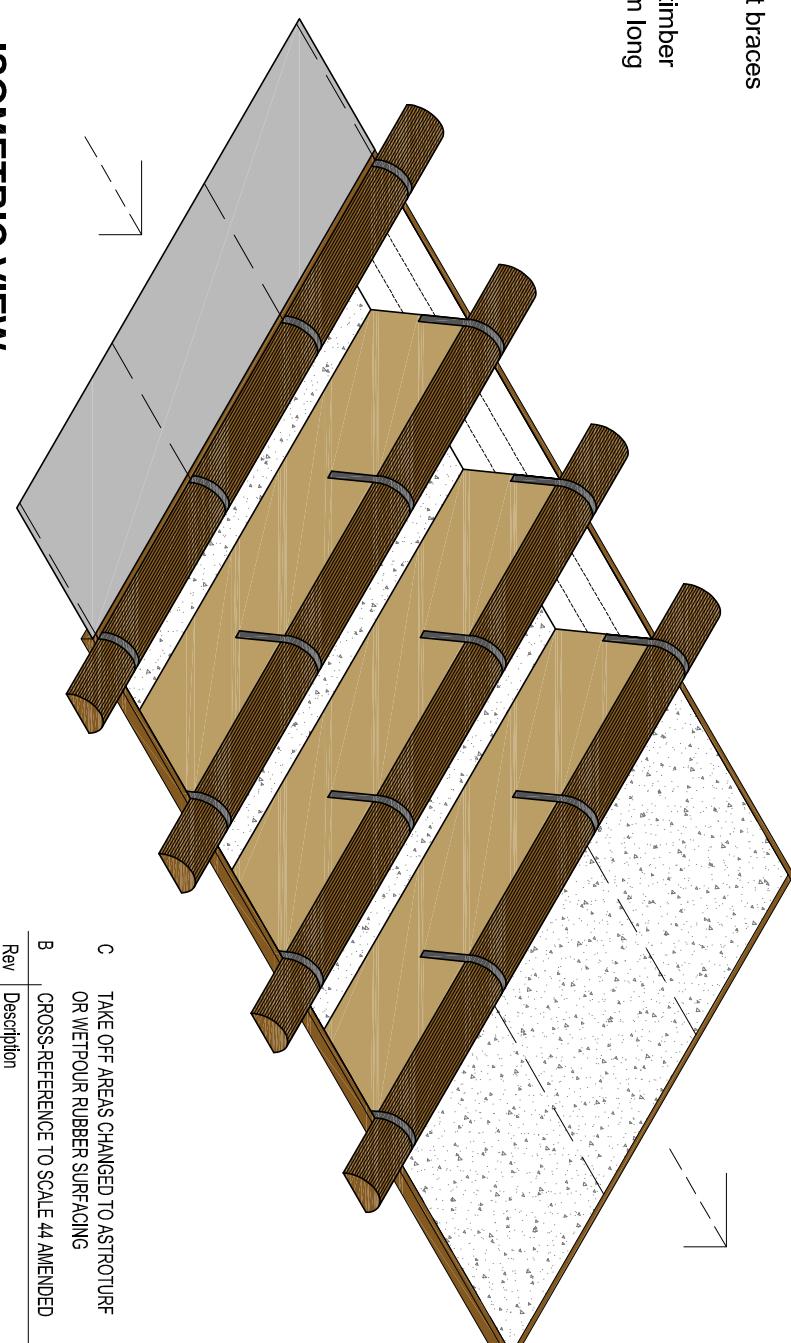
Pea-shingle impact absorbing surface  
(min depth 75mm)

Direction of course

50mm x 3mm thick galvanised MS straps fixed to timber stakes to hold 4 no. 300mm dia poles  
4 no. 300mm dia timber poles 450mm long with non-slip surface (EML)

Astroturf or wet pour rubber surface take-off area

**ISOMETRIC VIEW**



THIS DRAWING IS TO BE READ IN ACCORDANCE WITH THE GENERAL DESIGN GUIDANCE NOTES INDICATED ON E8949/DE/AB01. THE SIZES AND DIAMETERS OF OBSTACLE COMPARTMENTS INDICATED ON THIS DRAWING ARE NECESSARY TO MEET THE USER'S OPERATIONAL TRAINING REQUIREMENTS AND ARE NOT INTENDED TO INDICATE STRUCTURAL DESIGN REQUIREMENTS. THE SPECIALIST CONTRACTOR/MANUFACTURER IS FULLY RESPONSIBLE FOR THE STRUCTURAL DESIGN STABILITY AND DETAILING OF EACH OBSTACLE PROVIDED TO SUIT THE PARTICULAR REQUIREMENTS OF THE SITE.

NOTES:  
**EML**  
**EML** SHOULD BE LAID SO THAT THE LOZENGE IS 15mm LENGTH ALONG THE DIRECTION OF TRAVEL AND 40mm ACROSS THE DIRECTION.

C	TAKE OFF AREAS CHANGED TO ASTROTURF OR WETPOUR RUBBER SURFACING	SC	SP	SP	FEB'09
B	CROSS-REFERENCE TO SCALE 44 AMENDED	LW	ACR	ACR	JUNE'07
Rev	Description	By	Chk	App	Date

Client:

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**White Young Green**

Environmental

Civil Structural Mechanical Electrical Process Rail Traffic Environmental Project Management

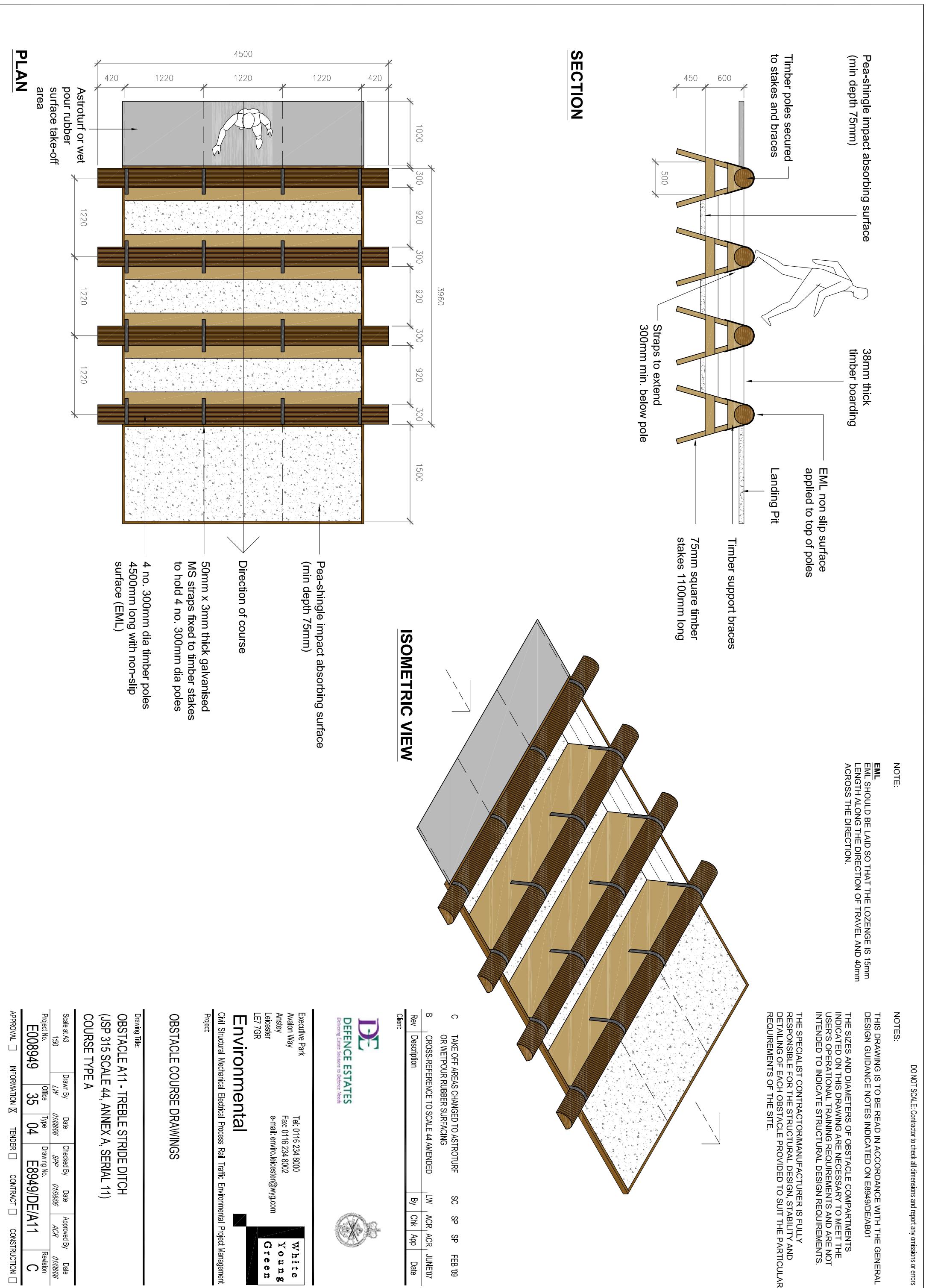
**OBSTACLE COURSE DRAWINGS**

Drawing Title:  
**OBSTACLE A11 - TREBLE STRIDE DITCH**  
(JSP 315 SCALE 44, ANNEX A, SERIAL 11)

**COURSE TYPE A**

Scale at A3 1:50	Drawn By LW	Date 01/08/06	Checked By SPP	Date 01/08/06	Approved By ACG	Date 01/08/06
<b>E008949</b>	<b>35</b>	<b>04</b>	<b>E8949/DE/A11</b>			<b>C</b>

**PLAN**



100mm dia galvanised MS tubes  
42mm dia MS monkey bars welded to corner bracket  
100mm dia main tubes at 375mm centres  
12mm MS galvanised plate

THE SIZES AND DIAMETERS OF OBSTACLE COMPARTMENTS INDICATED ON THIS DRAWING ARE NECESSARY TO MEET THE USER'S OPERATIONAL TRAINING REQUIREMENTS AND ARE NOT INTENDED TO INDICATE STRUCTURAL DESIGN REQUIREMENTS.

THE SPECIALIST CONTRACTOR/MANUFACTURER IS FULLY RESPONSIBLE FOR THE STRUCTURAL DESIGN STABILITY AND DETAILING OF EACH OBSTACLE PROVIDED TO SUIT THE PARTICULAR REQUIREMENTS OF THE SITE.

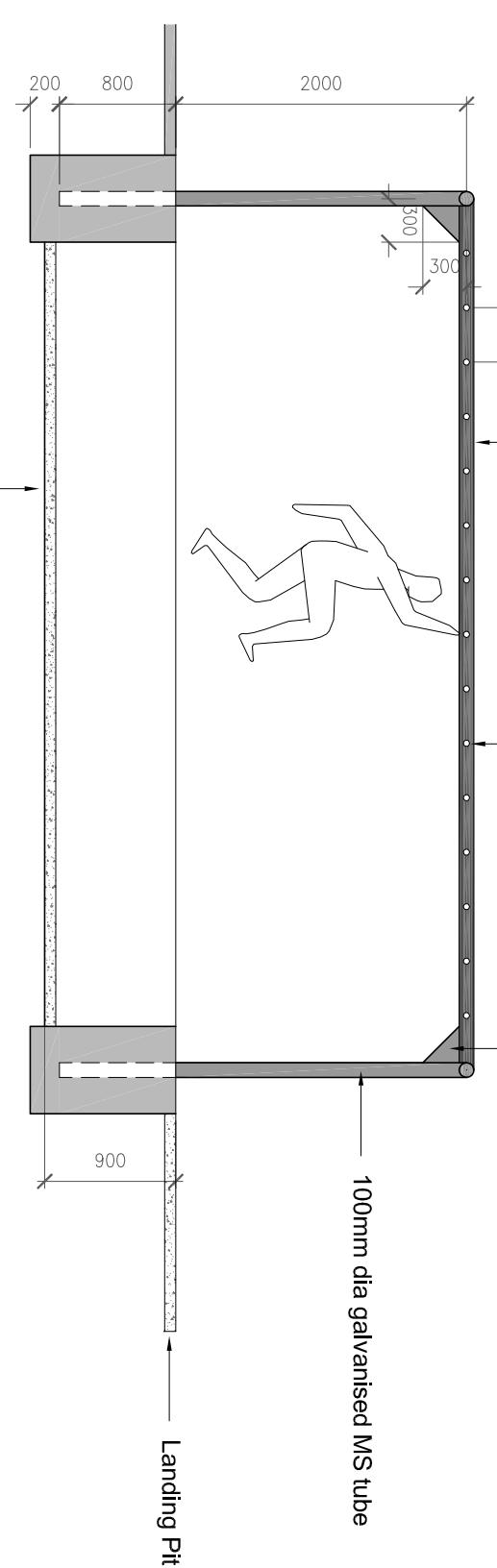
NOTES:

THIS DRAWING IS TO BE READ IN ACCORDANCE WITH THE GENERAL DESIGN GUIDANCE NOTES INDICATED ON E8949/DE/AB01

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THE SPECIALIST CONTRACTOR/MANUFACTURER IS FULLY RESPONSIBLE FOR THE STRUCTURAL DESIGN STABILITY AND DETAILING OF EACH OBSTACLE PROVIDED TO SUIT THE PARTICULAR REQUIREMENTS OF THE SITE.

DO NOT SCALE: Contractor to check all dimensions and report any omissions or errors



**SECTION**  
Scale 1:50

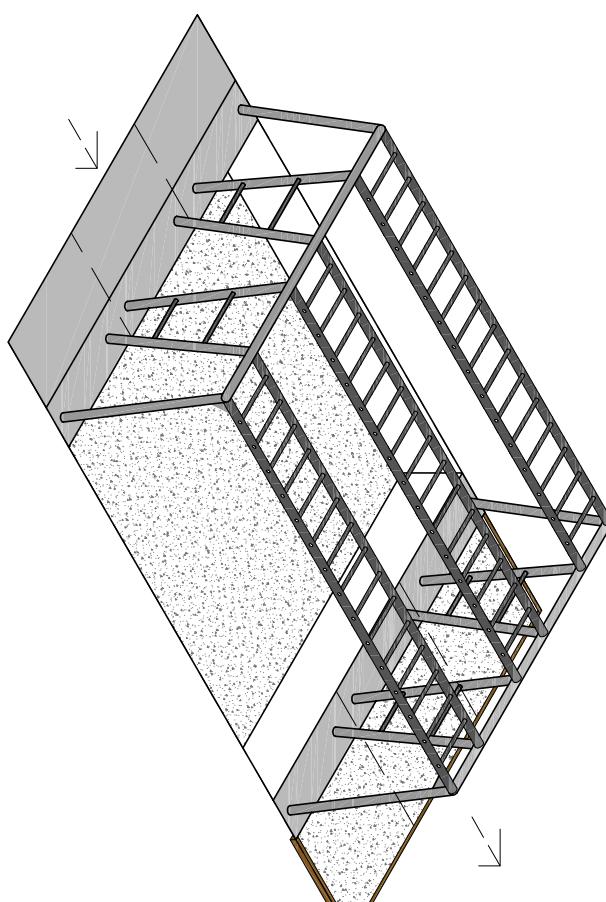
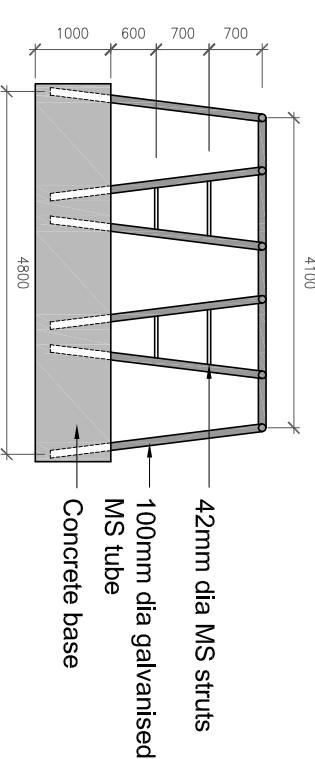
900mm deep excavation lined with a min of 75mm deep pea-shingle

100mm drain to suitable point of discharge  
(drainage trench on most suitable side)

5000  
1000  
1000  
700  
700  
450  
1000  
600  
5400  
300  
300  
1500

Pea-shingle impact absorbing surface  
(min depth 75mm)

**ISOMETRIC VIEW**  
Scale 1:100

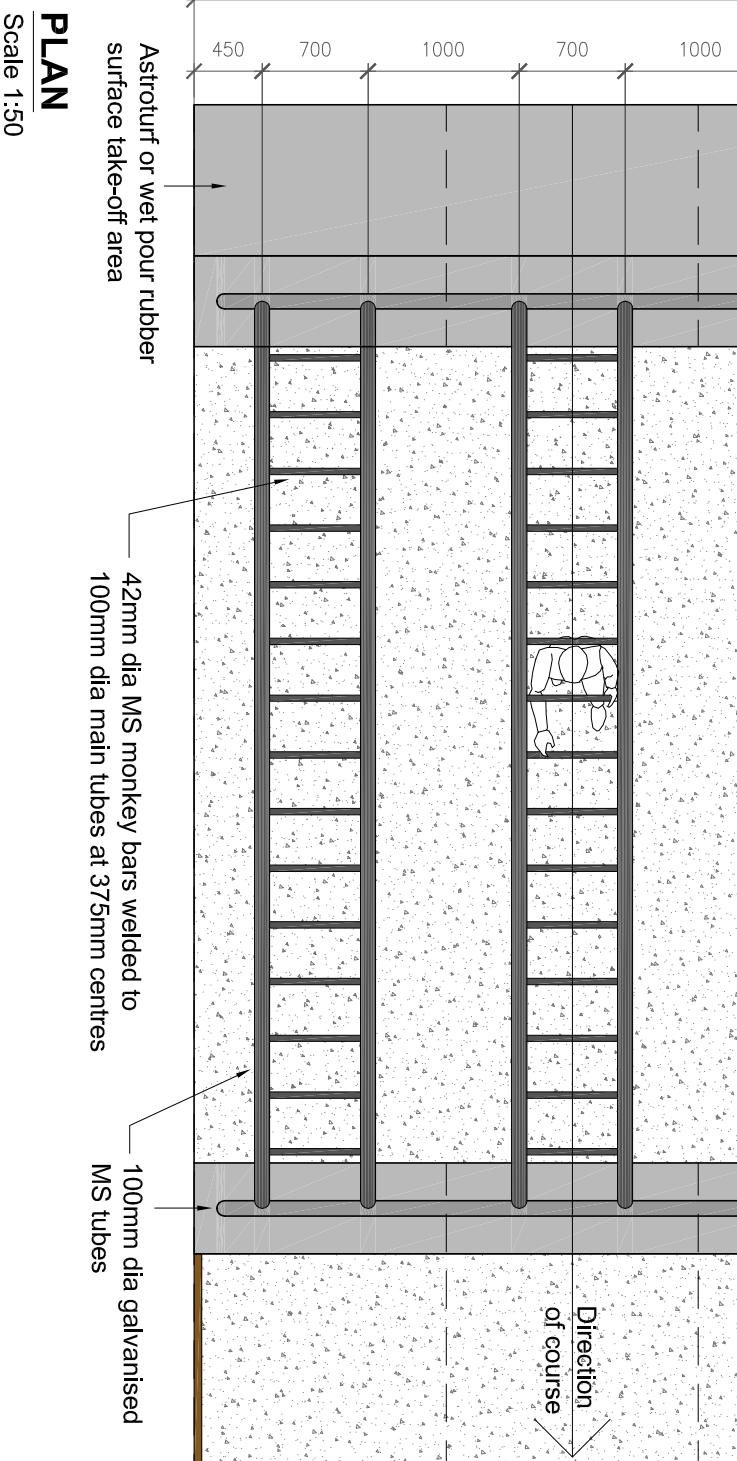


**OBSTACLE COURSE DRAWINGS**

OBSTACLE A12 - OVERHEAD TRAVERSE  
(JSP 315 SCALE 44, ANNEX A, SERIAL 12)

COURSE TYPE A

Scale A3 AS SHOWN	Drawn By <i>LW</i>	Date 01/08/06	Checked By <i>SPP</i>	Date 01/08/06	Approved By <i>ACG</i>	Date 01/08/06
Project No. E008949	Office 35	Type 04	Drawing No. E8949/DE/A12		Revision C	



**PLAN**  
Scale 1:50

**ELEVATION FACING**  
**DIRECTION OF COURSE**

Scale 1:100

Astroturf or wet pour rubber  
surface take-off area

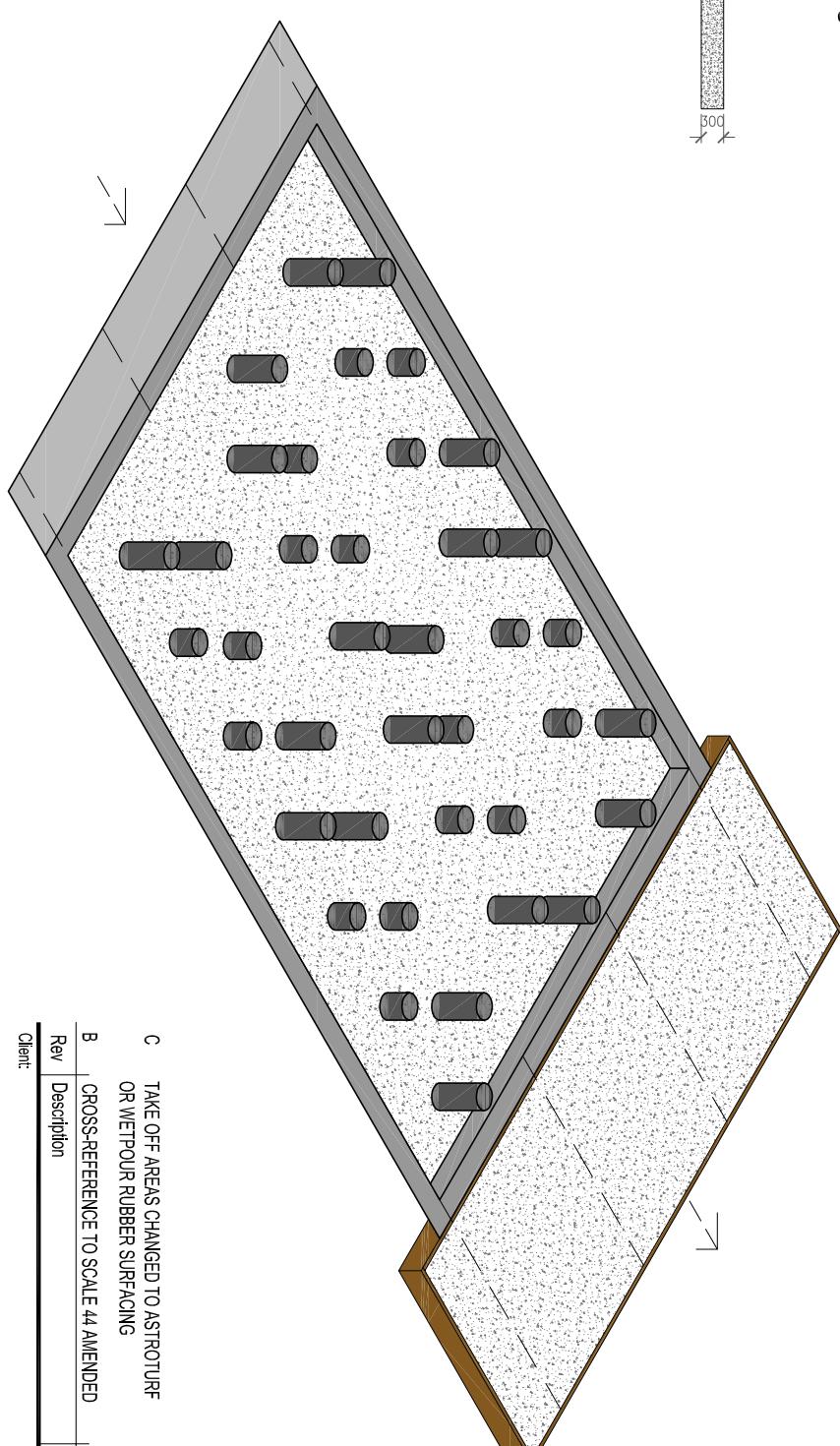
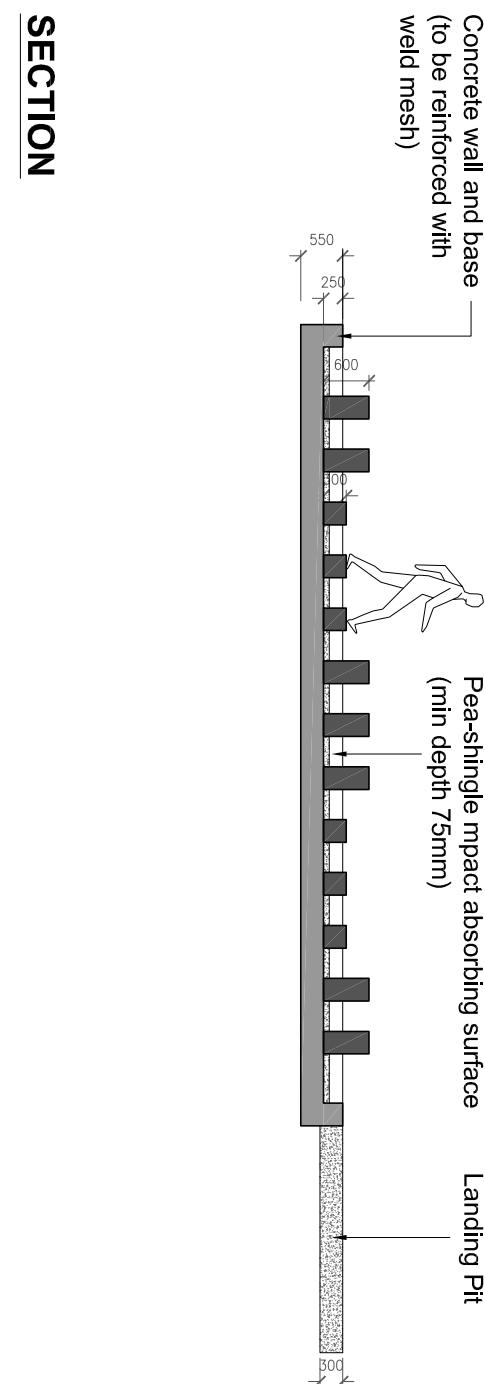
42mm dia MS monkey bars welded to  
100mm dia main tubes at 375mm centres

100mm dia galvanised  
MS tubes

NOTES:

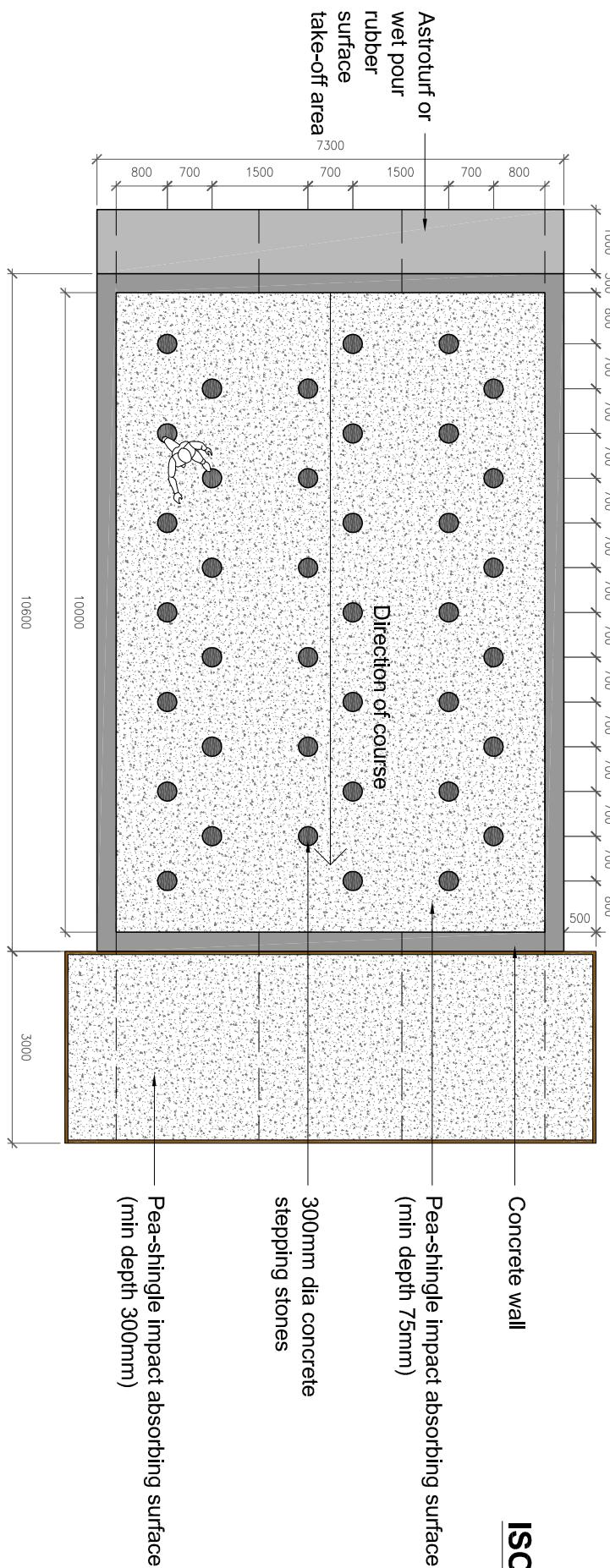
THIS DRAWING IS TO BE READ IN ACCORDANCE WITH THE GENERAL DESIGN GUIDANCE NOTES INDICATED ON E8949/DE/AB01. THE SIZES AND DIAMETERS OF OBSTACLE COMPARTMENTS INDICATED ON THIS DRAWING ARE NECESSARY TO MEET THE USER'S OPERATIONAL TRAINING REQUIREMENTS AND ARE NOT INTENDED TO INDICATE STRUCTURAL DESIGN REQUIREMENTS. THE SPECIALIST CONTRACTOR/MANUFACTURER IS FULLY RESPONSIBLE FOR THE STRUCTURAL DESIGN STABILITY AND DETAILING OF EACH OBSTACLE PROVIDED TO SUIT THE PARTICULAR REQUIREMENTS OF THE SITE.

DO NOT SCALE: Contractor to check all dimensions and report any omissions or errors



## SECTION

## ISOMETRIC VIEW



OBSTACLE COURSE DRAWINGS					
Drawing Title:					
OBSTACLE A13 - STEPPING STONES					
(JSP 315 SCALE 44, ANNEX A, SERIAL 13)					
COURSE TYPE A					
Scale A3 1:100	Drawn By LW 01/08/06	Checked By SPP 01/08/06	Date Approved By ACR 01/08/06	Date Approved By ACR 01/08/06	Date Approved By ACR 01/08/06
Project No. E008949	Office 35	Type 04	Drawing No. E8949/DE/A13	Revision C	
APPROVAL <input type="checkbox"/>	INFORMATION <input checked="" type="checkbox"/>	TENDER <input type="checkbox"/>	CONTRACT <input type="checkbox"/>	CONSTRUCTION <input type="checkbox"/>	

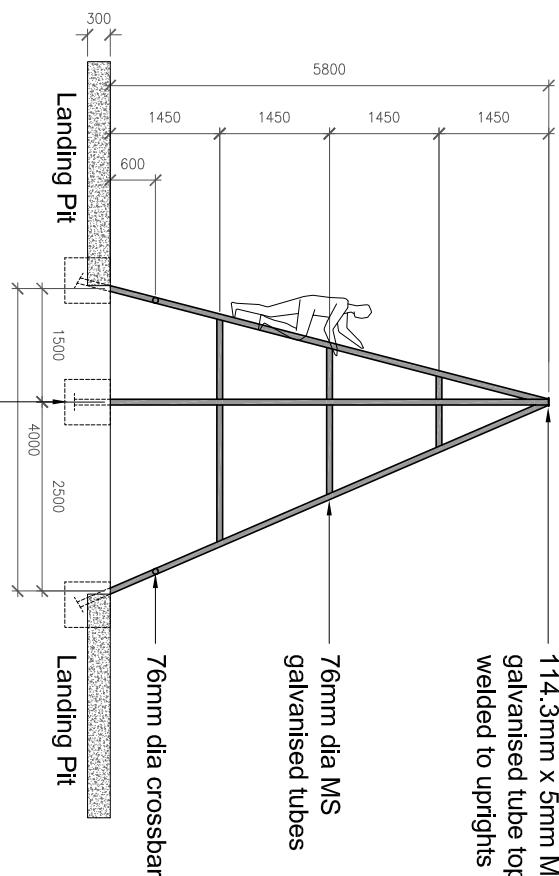
PLAN

DO NOT SCALE: Contractor to check all dimensions and report any omissions or errors

NOTES:

THIS DRAWING IS TO BE READ IN ACCORDANCE WITH THE GENERAL DESIGN GUIDANCE NOTES INDICATED ON E8949/DE/AB01. THE SIZES AND DIAMETERS OF OBSTACLE COMPARTMENTS INDICATED ON THIS DRAWING ARE NECESSARY TO MEET THE USER'S OPERATIONAL TRAINING REQUIREMENTS AND ARE NOT INTENDED TO INDICATE STRUCTURAL DESIGN REQUIREMENTS.

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## SECTION

Scale 1:100

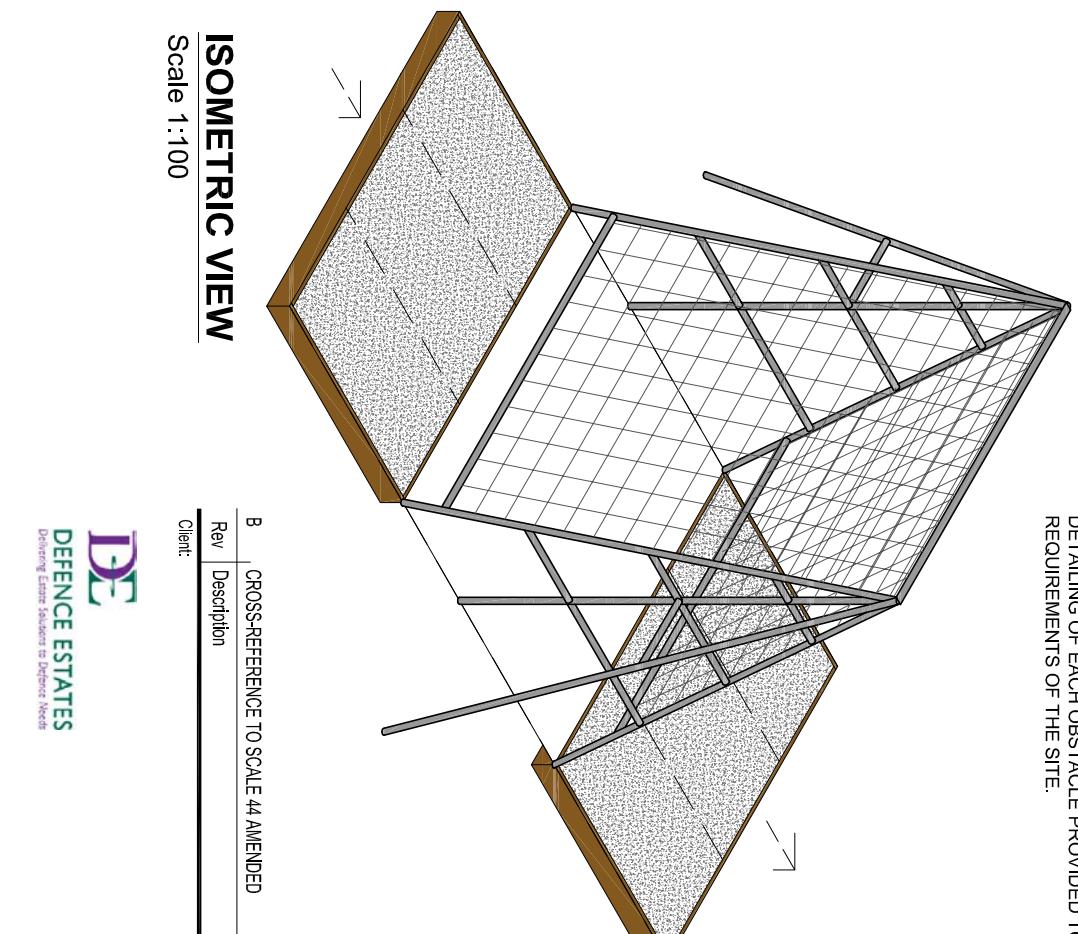
Peashingle impact absorbing surface  
(min depth 300mm)

4000



## ISOMETRIC VIEW

Scale 1:100



CROSS-REFERENCE TO SCALE 44 AMENDED		L/W	ACR	ACR	JUNE07
B	Rev	By	Chk	App	Date
	Description				



Executive Park Avalon Way Ansty Leicester LE7 7GR	Tel: 0116 234 8000 Fax: 0116 234 8002 e-mail: enviro.leicester@wyg.com
<b>Environmental</b> Civil Structural Mechanical Electrical Process Rail Traffic Environmental Project Management Project:	

OBSTACLE COURSE DRAWINGS
Drawing Title: <b>OBSTACLE A14 - SCRABBLE NET</b> (JSP 315 SCALE 44, ANNEX A, SERIAL 14)

COURSE TYPE A

Scale at A3 AS SHOWN	Drawn By LW	Date 01/08/06	Checked By SPP	Date 01/08/06	Approved By ACR	Date 01/08/06
Project No. <b>E008949</b>	Office <b>35</b>	Type <b>04</b>	Drawing No. <b>E8949/DE/A14</b>		Revision <b>B</b>	

**PLAN**  
Scale 1:50

76mm dia MS galvanised tubes

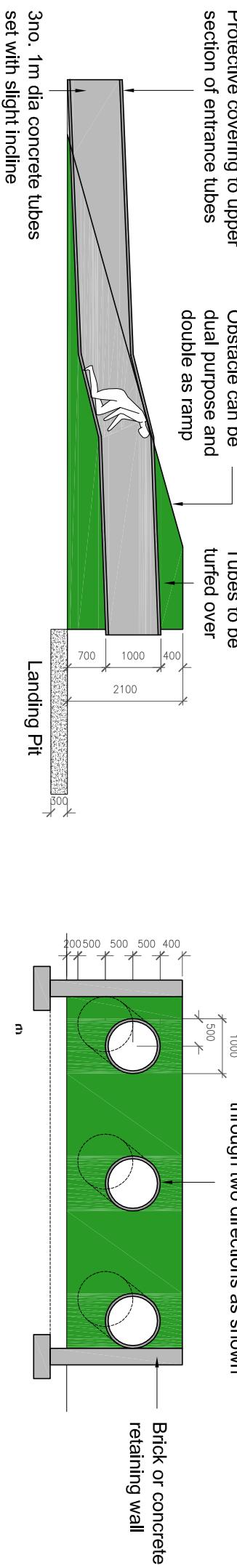
76mm dia crossbar

Peashingle impact absorbing surface  
(min depth 300mm)

Scramble net hung from 114.3mm dia  
top rail and fixed to lower crossbar  
(Refer to General Design Guidance Notes  
E8949/DE/AB01 Rev A)

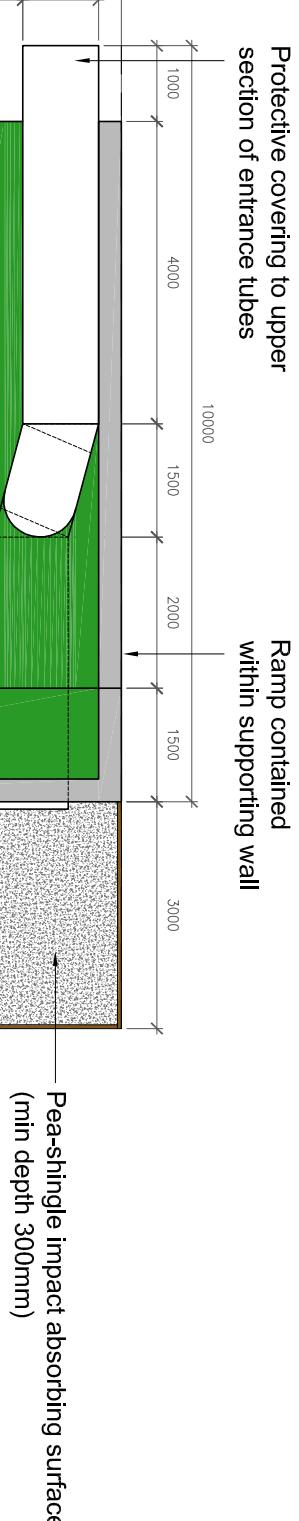
**NOTES:**  
 THIS DRAWING IS TO BE READ IN ACCORDANCE WITH THE GENERAL DESIGN GUIDANCE NOTES INDICATED ON E8949/DE/AB01.  
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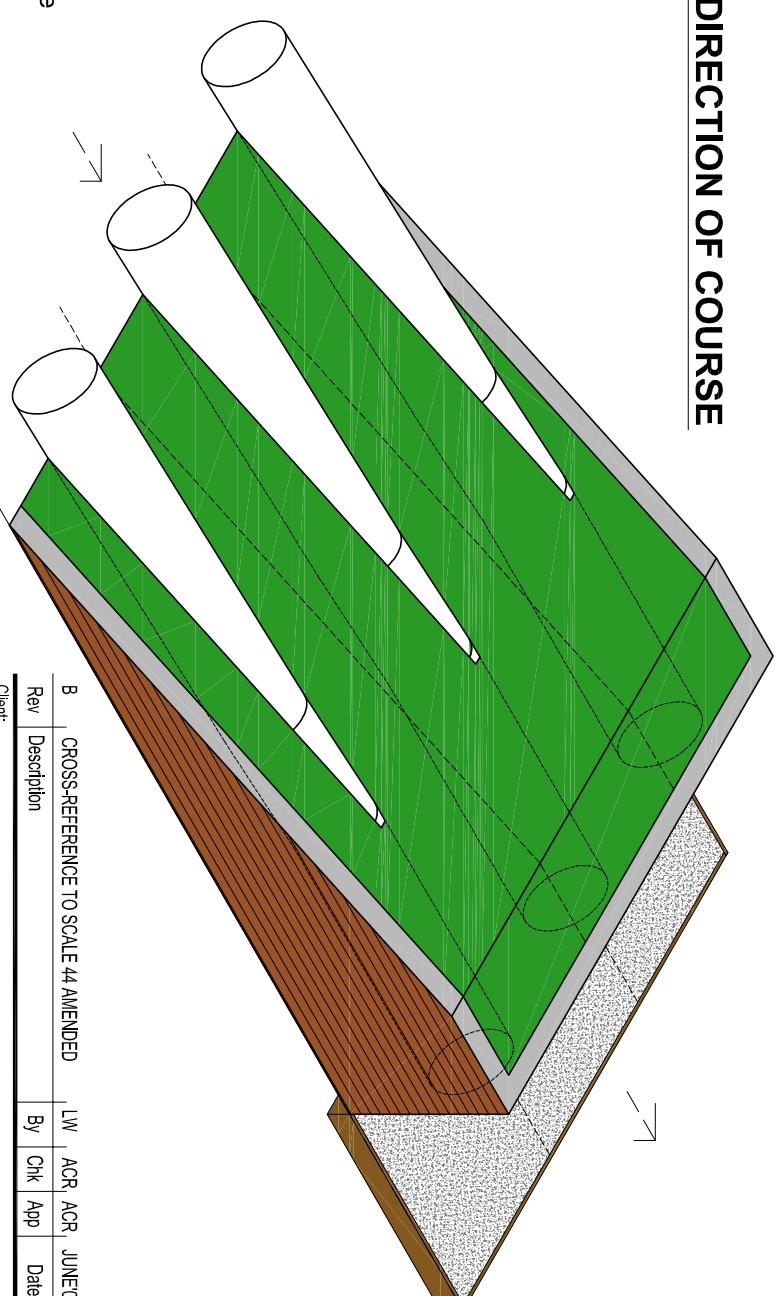


## SECTION

## SECTION FACING DIRECTION OF COURSE



## ISOMETRIC VIEW



B		CROSS-REFERENCE TO SCALE 44 AMENDED					LW	ACR
Rev	Description	By	Chk	App	Date	ACR	ACR	JUNE 07
	Client:							

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**Environmental**

Civil Structural Mechanical Electrical Process Rail Traffic Environmental Project Management  
Project:

## PLAN

### OBSTACLE COURSE DRAWINGS

Drawing Title:  
**OBSTACLE A15 - TUBE CRAWL**

(JSP 315 SCALE 44, ANNEX A, SERIAL 15)

COURSE TYPE A

Scale at A3 1:100	Drawn By LW	Date 01/08/06	Checked By SPP	Date 01/08/06	Approved By ACR	Date 01/08/06
Project No. <b>E008949</b>	Office <b>35</b>	Type <b>04</b>	Drawing No. <b>E8949/DE/A15</b>		Revision <b>B</b>	

60mm dia MS tubes coated  
in non slip paint welded to  
posts as ladder rungs

Polypropylene  
burma rope bridge

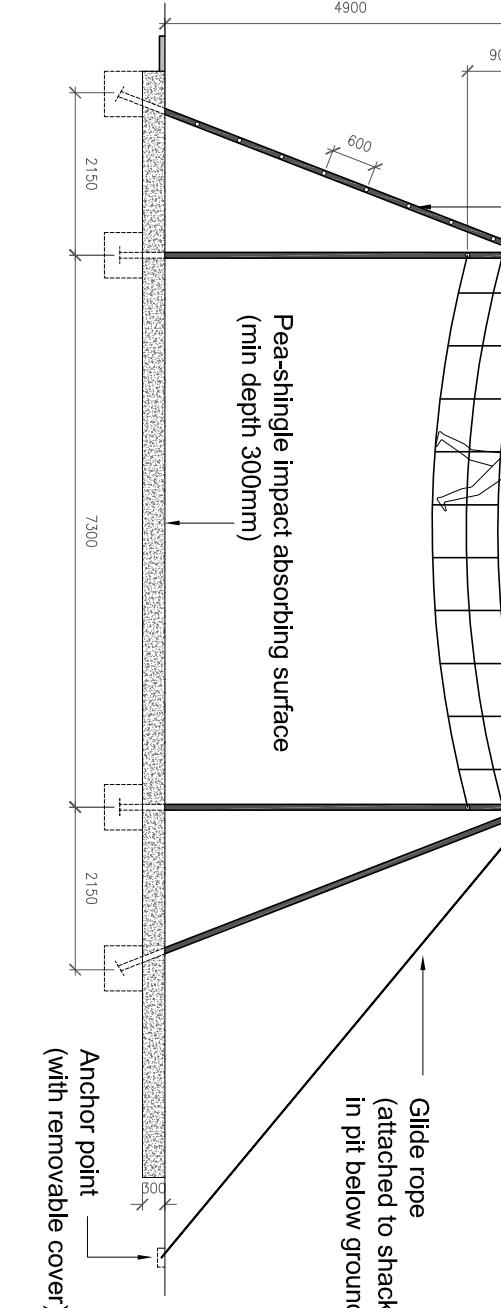
Rope of bridge fixed to  
cross member at both ends

76mm dia MS galvanised tubes

Glide rope  
(attached to shackle house  
in pit below ground level)

Pea-shingle impact absorbing surface  
(min depth 300mm)

Anchor point  
(with removable cover)

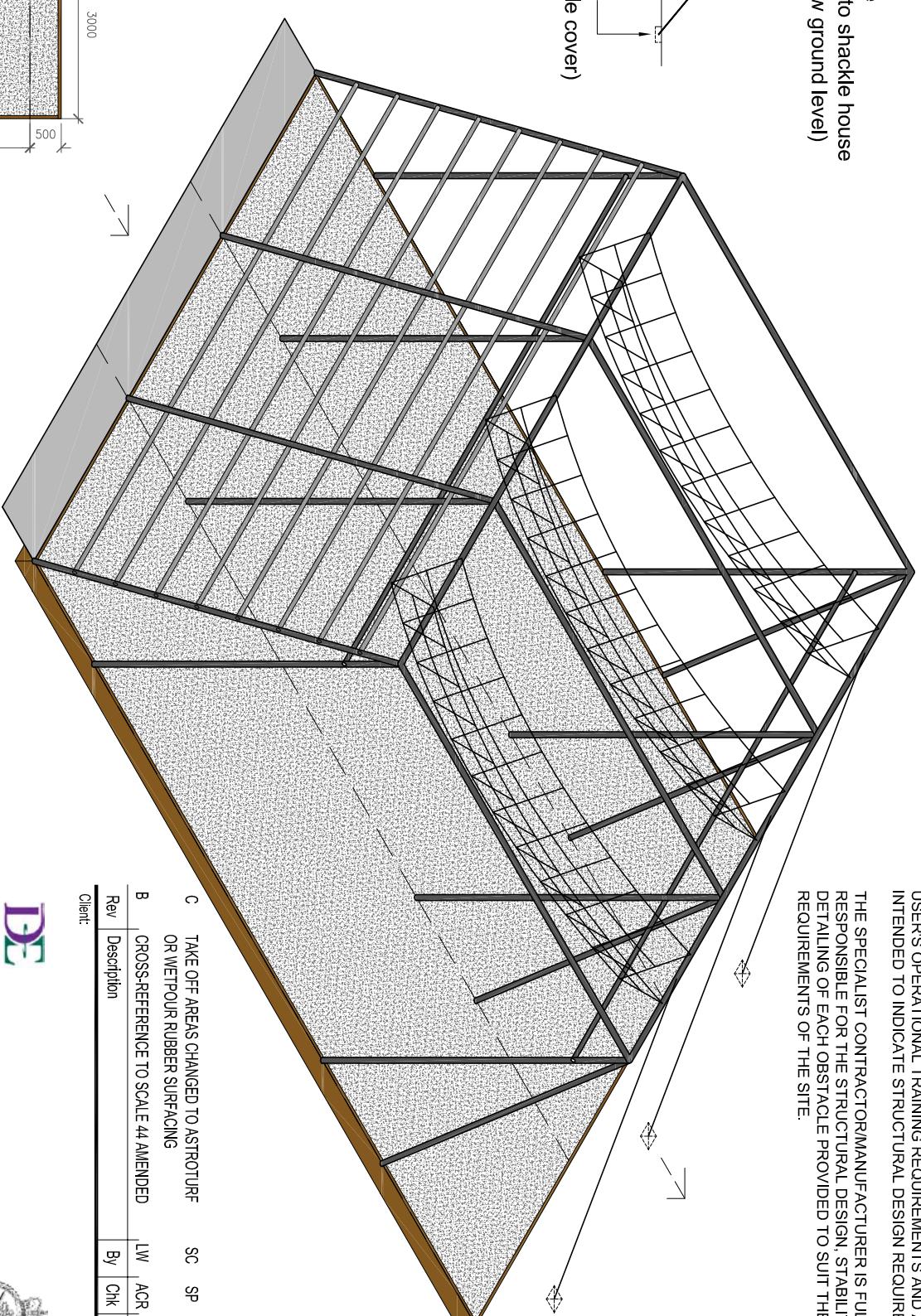


## SECTION

All joints to be welded on site

Burma bridge

76mm dia MS tube  
centre stiffener



## ISOMETRIC VIEW

Astroturf or  
wet pour  
rubber  
surface  
take-off area

Pea-shingle impact absorbing surface  
(min depth 300mm)

Direction of course

Anchor point for descent glide rope  
(attached to shackle house in pit)

### NOTES:

**BURMA ROPE BRIDGE - VERTICAL STRANDS**  
THE GAP BETWEEN UPRIGHTS MUST BE WITHIN A MINIMUM  
OF 650MM AND A MAXIMUM OF 750MM.

**BURMA ROPE BRIDGE - ROPE TENSIONERS**  
DO NOT FIT TENSIONERS ROPES TO BE FITTED DIRECTLY  
ONTO THE SUPPORT FRAME.

**SECURING THE BURMA ROPE BRIDGE**  
THE TOP AND BOTTOM ROPES ARE TO BE SECURED DIRECT  
TO THE MAIN FRAME VIA THE THIMBLE EYES AND TO A  
BOTTLE SCREW TO D OR BOW (PREFERRED) GALVANISED  
STEEL OR ALLOY SHACKLES.  
**N.B.** IF INTRODUCED, THE TOP AND BOTTOM ROPES AND  
GUIDE RAIL WILL NEED TO BE SHORTENED.

DO NOT SCALE: Contractor to check all dimensions and report any omissions or errors

NOTES:  
THIS DRAWING IS TO BE READ IN ACCORDANCE WITH THE GENERAL DESIGN GUIDANCE NOTES INDICATED ON E8949/DE/AB01  
THE SIZES AND DIAMETERS OF OBSTACLE COMPARTMENTS INDICATED ON THIS DRAWING ARE NECESSARY TO MEET THE USER'S OPERATIONAL TRAINING REQUIREMENTS AND ARE NOT INTENDED TO INDICATE STRUCTURAL DESIGN REQUIREMENTS.  
THE SPECIALIST CONTRACTOR/MANUFACTURER IS FULLY RESPONSIBLE FOR THE STRUCTURAL DESIGN, STABILITY AND DETAILING OF EACH OBSTACLE PROVIDED TO SUIT THE PARTICULAR REQUIREMENTS OF THE SITE.

C	TAKE OFF AREAS CHANGED TO ASTROTURF OR WETPOUR RUBBER SURFACING	SC	SP	SP	FEB 09
B	CROSS-REFERENCE TO SCALE 44 AMENDED	LW	ACR	ACR	JUNE 07
Rev	Description	By	Chk	App	Date

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Civil Structural Mechanical Electrical Process Rail Traffic Environmental Project Management  
Project:

## OBSTACLE COURSE DRAWINGS

Drawing Title:

OBSTACLE A16 - BURMA BRIDGE  
(JSP 315 SCALE 44, ANNEX A, SERIAL 16)

COURSE TYPE A

Scale at A3 1:100	Drawn By LM	Date 01/08/06	Checked By SPP	Date 01/08/06	Approved By ACR	Date 01/08/06
Project No. <b>E008949</b>	Office <b>35</b>	Type <b>04</b>	Drawing No. <b>E8949/DE/A16</b>		Revision <b>C</b>	

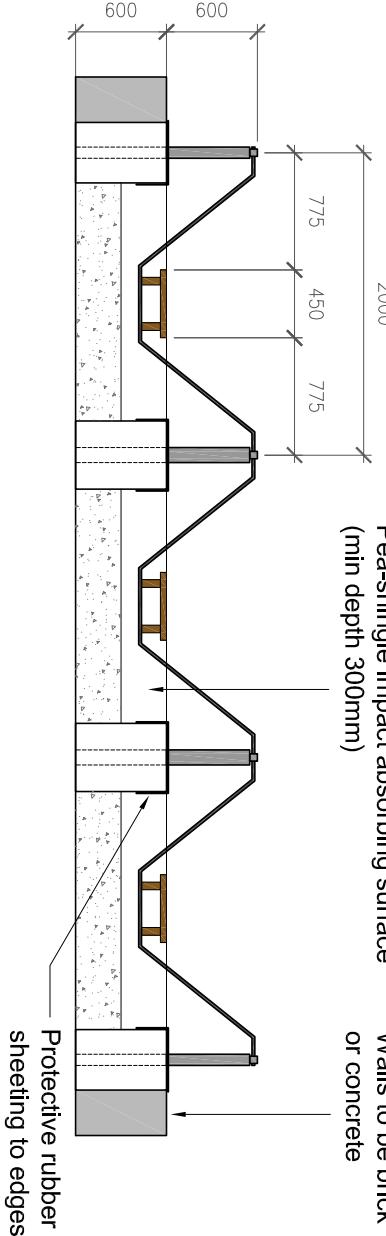
NOTES:

PROTECTIVE RUBBER SHEETING TO BE APPLIED TO ALL EXPOSED EDGES.

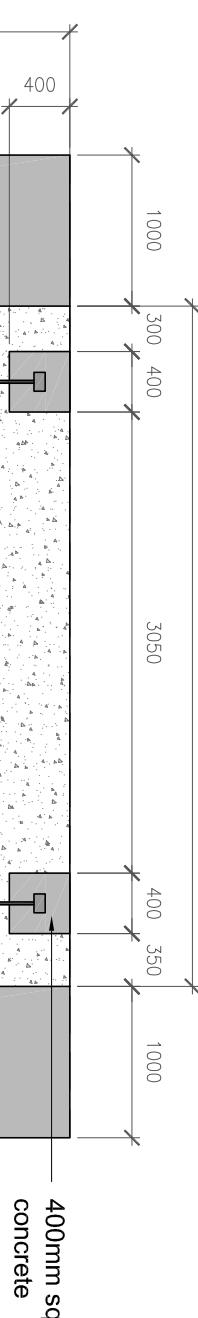
SWING BRIDGES MUST NOT BE ABLE TO TOUCH THE WALL.

Pea-shingle impact absorbing surface  
(min depth 300mm)

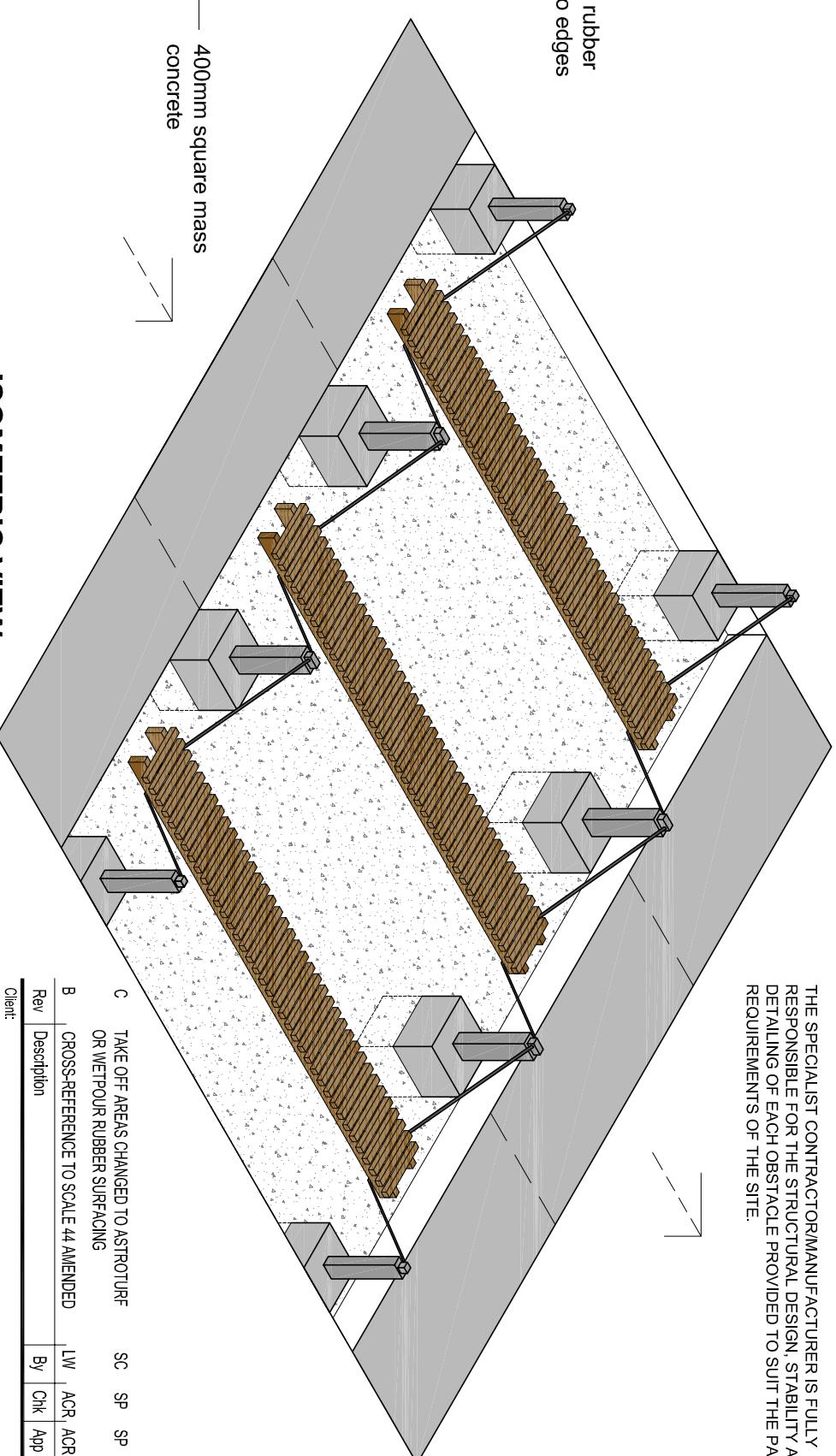
Walls to be brick  
or concrete



## SECTION



## ISOMETRIC VIEW



C TAKE OFF AREAS CHANGED TO ASTROTURF OR WETPOUR RUBBER SURFACING		SC	SP	SP	FEB 09
B	CROSS-REFERENCE TO SCALE 44 AMENDED	L/W	ACR	ACR	JUNE 07
Rev	Description	By	Chk	App	Date
Client:					

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Project: Civil Structural Mechanical Electrical Process Rail Traffic Environmental Project Management	

## Environmental

COURSE TYPE A  
OBSTACLE COURSE DRAWINGS  
Drawing Title:  
OBSTACLE A17 - SWINGING DUCKBOARDS  
(JSP 315 SCALE 44, ANNEX A, SERIAL 17)

Scale at A3 1:50	Drawn By LW	Date 01/03/06	Checked By SPP	Date 01/03/06	Approved By ACR	Date 01/03/06
Project No. <b>E008949</b>	Office <b>35</b>	Type <b>04</b>	Drawing No. <b>E8949/D/E/A17</b>	Revision <b>C</b>		

## OBSTACLE COURSE DRAWINGS

Astro turf or wet pour  
rubber surface take-off  
area

## PLAN

DO NOT SCALE: Contractor to check all dimensions and report any omissions or errors

NOTES:  
THIS DRAWING IS TO BE READ IN ACCORDANCE WITH THE GENERAL DESIGN GUIDANCE NOTES INDICATED ON E8949/DE/AB01

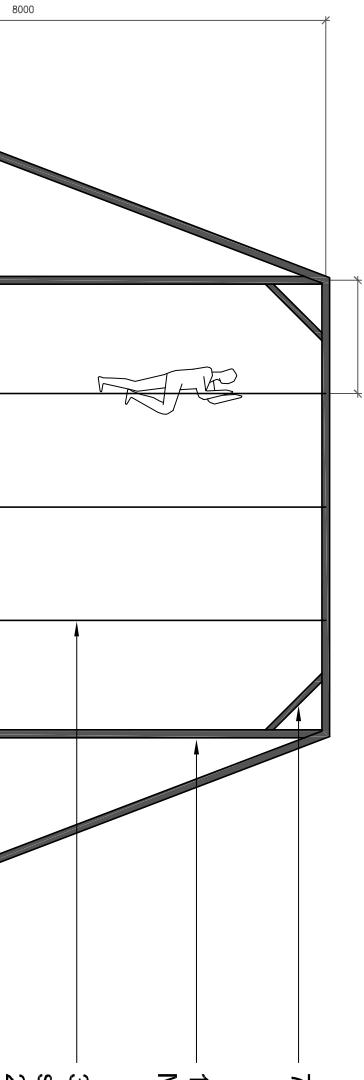
THE SIZES AND DIAMETERS OF OBSTACLE COMPARTMENTS INDICATED ON THIS DRAWING ARE NECESSARY TO MEET THE USER'S OPERATIONAL TRAINING REQUIREMENTS AND ARE NOT INTENDED TO INDICATE STRUCTURAL DESIGN REQUIREMENTS.

THE SPECIALIST CONTRACTOR/MANUFACTURER IS FULLY RESPONSIBLE FOR THE STRUCTURAL DESIGN, STABILITY AND DETAILING OF EACH OBSTACLE PROVIDED TO SUIT THE PARTICULAR REQUIREMENTS OF THE SITE.

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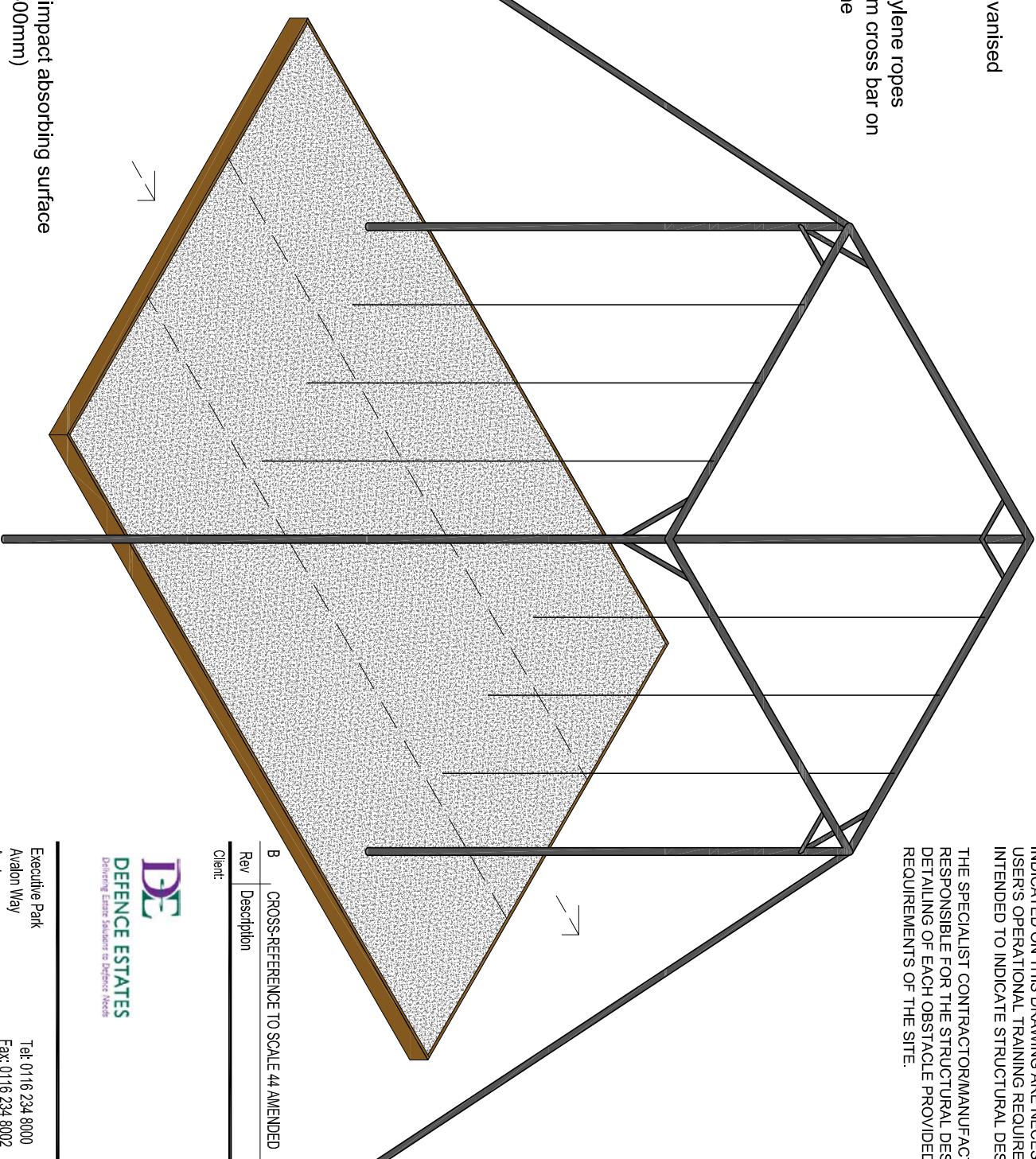
105mm dia galvanised MS frame  
 3 no. Polypropylene ropes suspended from cross bar on 2 sides of frame



### SECTION

Pea-shingle impact absorbing surface (min depth 300mm)

### ISOMETRIC VIEW



Pea-shingle impact absorbing landing area (min depth 300mm)

B		CROSS-REFERENCE TO SCALE 44 AMENDED				LW		ACR		ACR		JUNE 07	
B	Rev	Description	By	Chk	App	Date							
		Client:											

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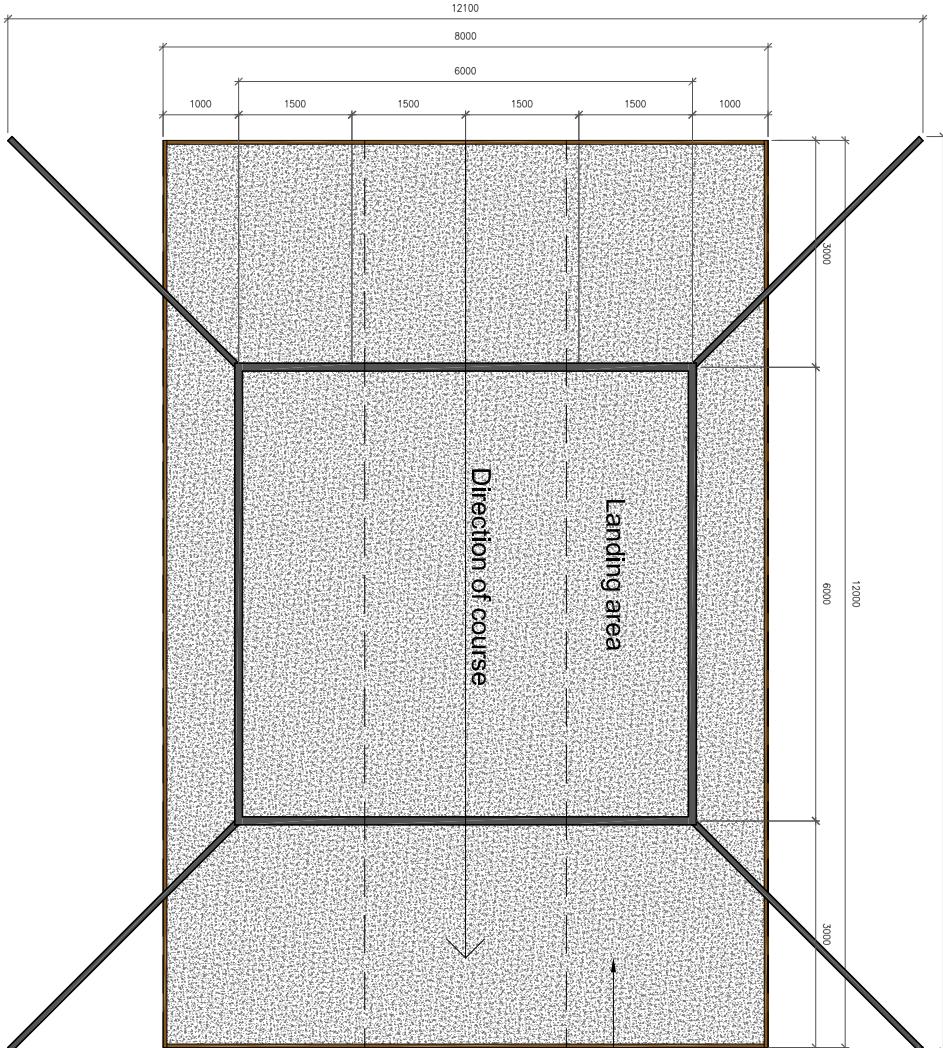
### OBSTACLE COURSE DRAWINGS

Drawing Title:  
**OBSTACLE A18 - CLIMBING ROPES**

(JSP 315 SCALE 44, ANNEX A, SERIAL 18)

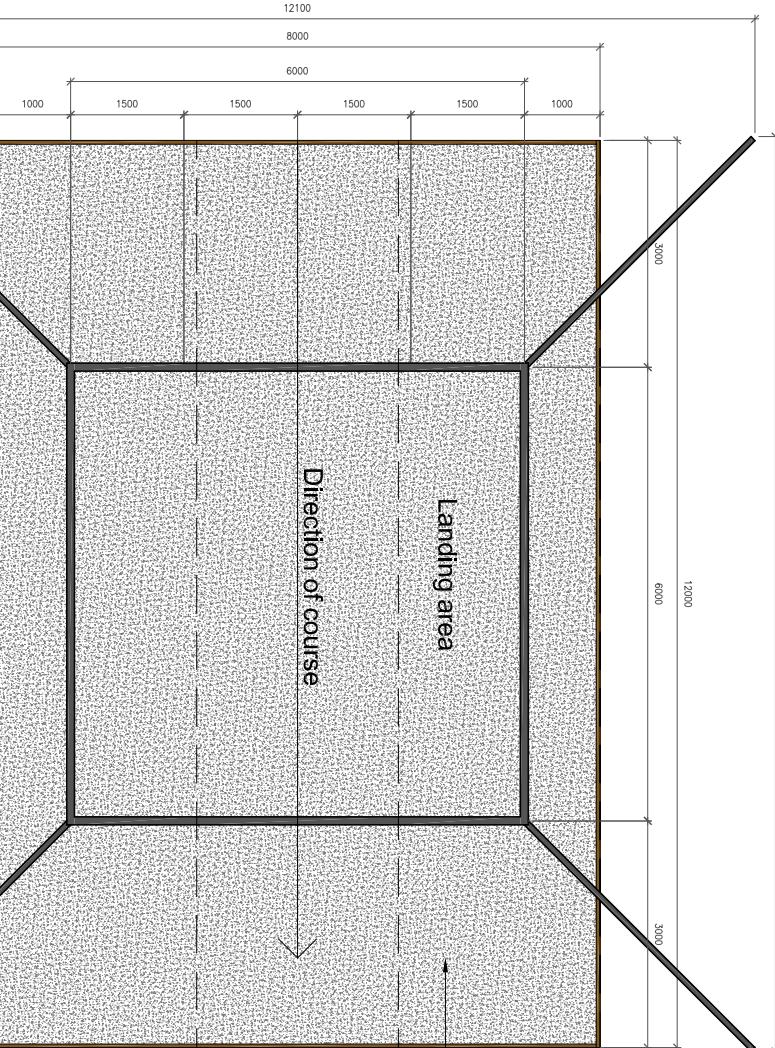
### COURSE TYPE A

### PLAN



Landing area

Direction of course



Pea-shingle impact absorbing surface (min depth 300mm)

APPROVAL

INFORMATION

TENDER

CONTRACT

CONSTRUCTION

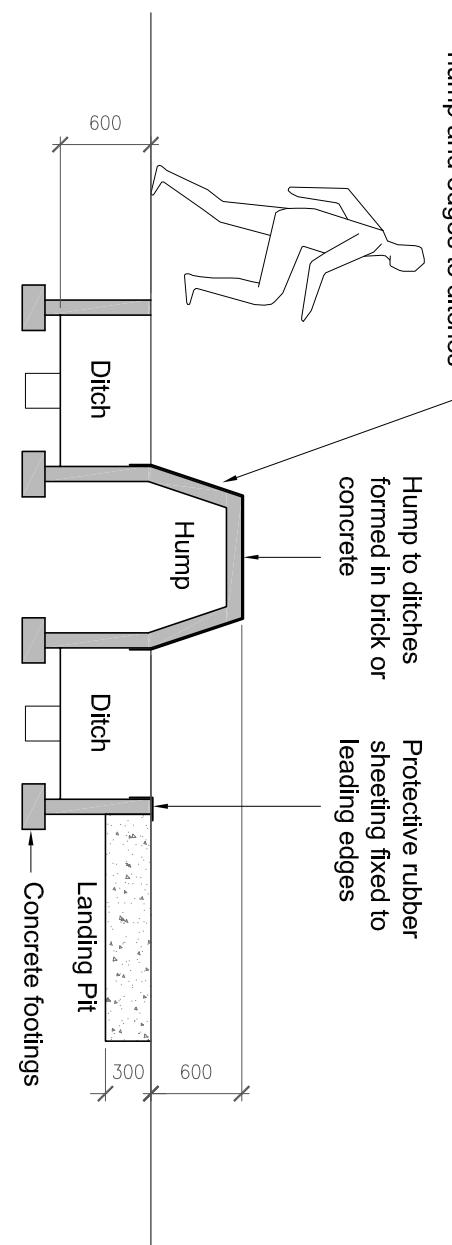
E008949 35 04 E8949/DE/A18

Revision B

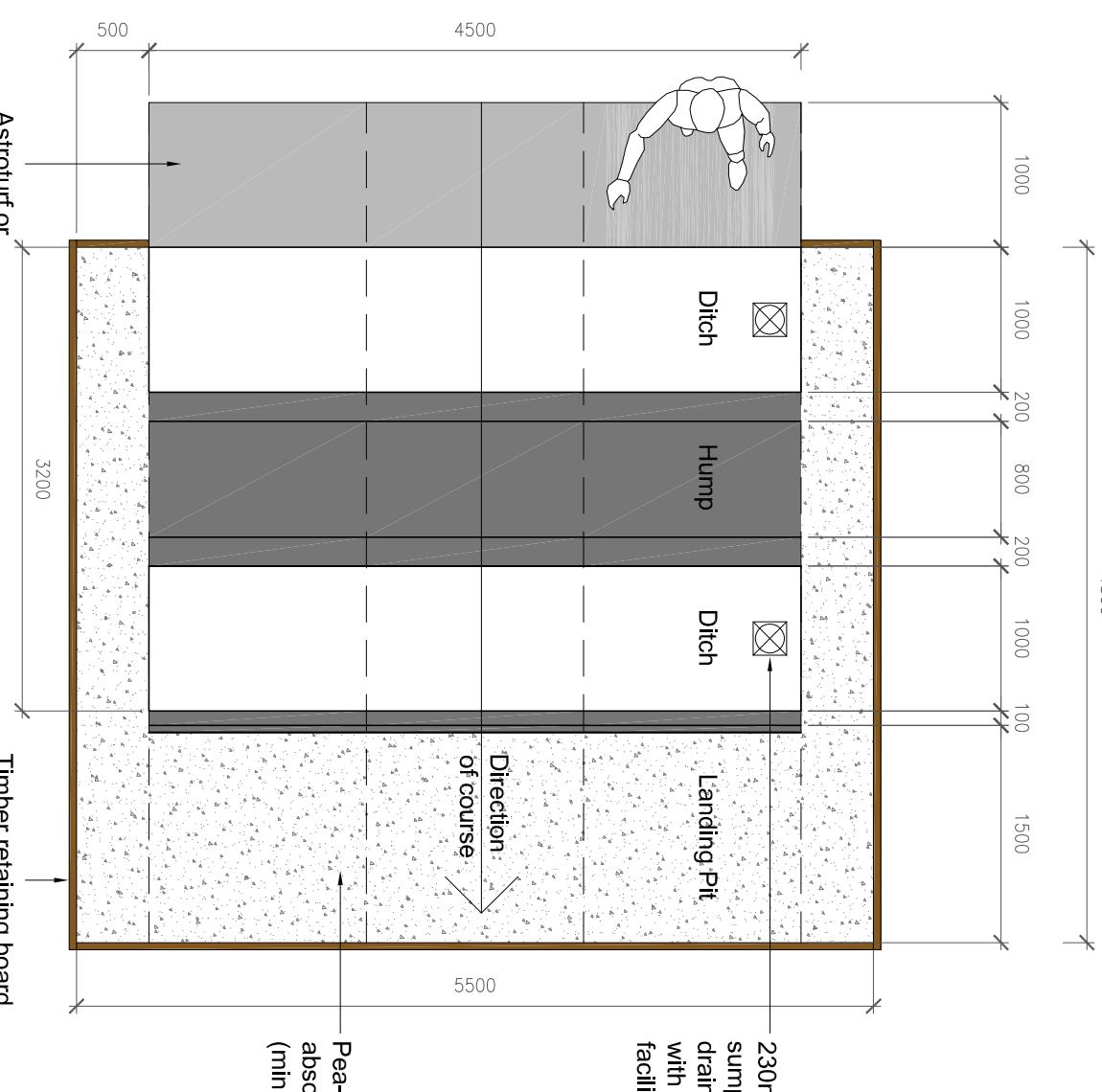
NOTES:

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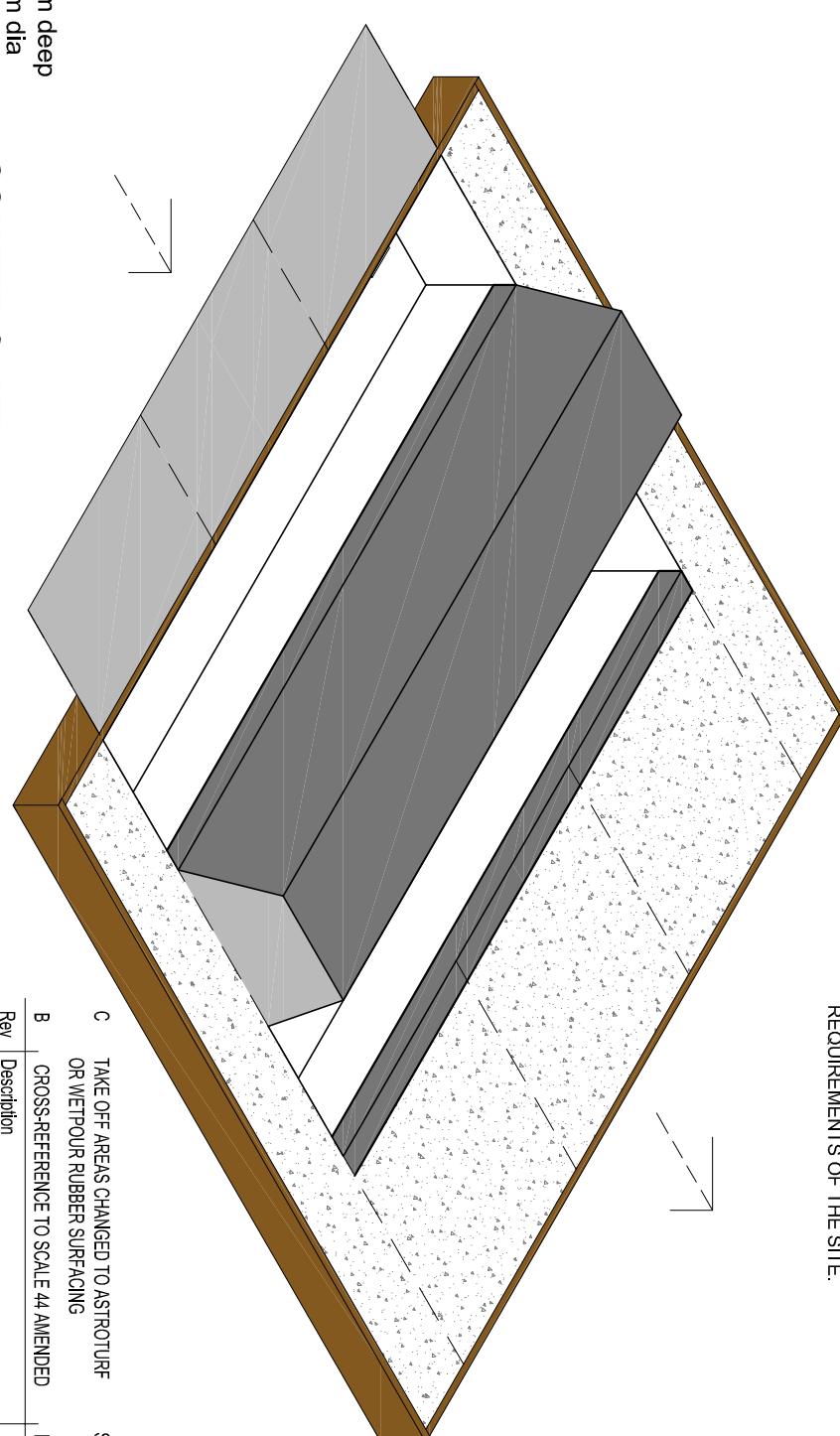


## SECTION



230mm<sup>2</sup> x 230mm deep  
sump with 100mm dia  
drain to ditch or soakaway  
with removable plug to  
facilitate ditch drainage

## ISOMETRIC VIEW



C	TAKE OFF AREAS CHANGED TO ASTROTURF OR WETPOUR RUBBER SURFACING	SC	SP	SP	FEB '09
B	CROSS-REFERENCE TO SCALE 44 AMENDED	LW	ACR	ACR	JUNE '07
Rev	Description	By	Chk	App	Date

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## OBSTACLE COURSE DRAWINGS

Drawing Title:  
**OBSTACLE A2 - DOUBLE DITCH**  
(JSP 315 SCALE 44, ANNEX A, SERIAL 2)

COURSE TYPE A

Scale A3 1:50	Drawn By LW 01/08/06	Checked By SPP 01/08/06	Date Approved By ACG 01/08/06	Date
Project No. <b>E008949</b>	Office <b>35</b>	Type <b>04</b>	Drawing No. <b>E8949/DE/A2</b>	Revision <b>C</b>

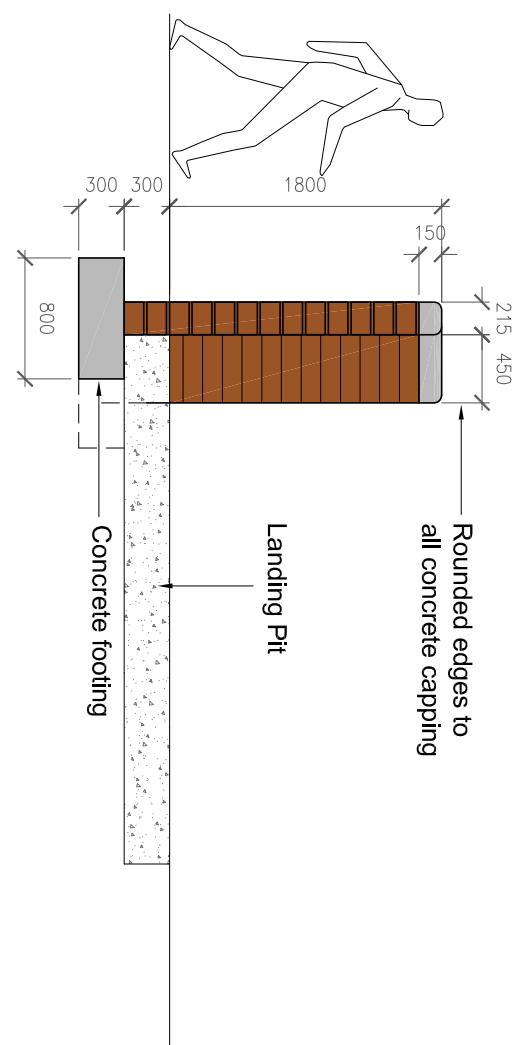
**PLAN**



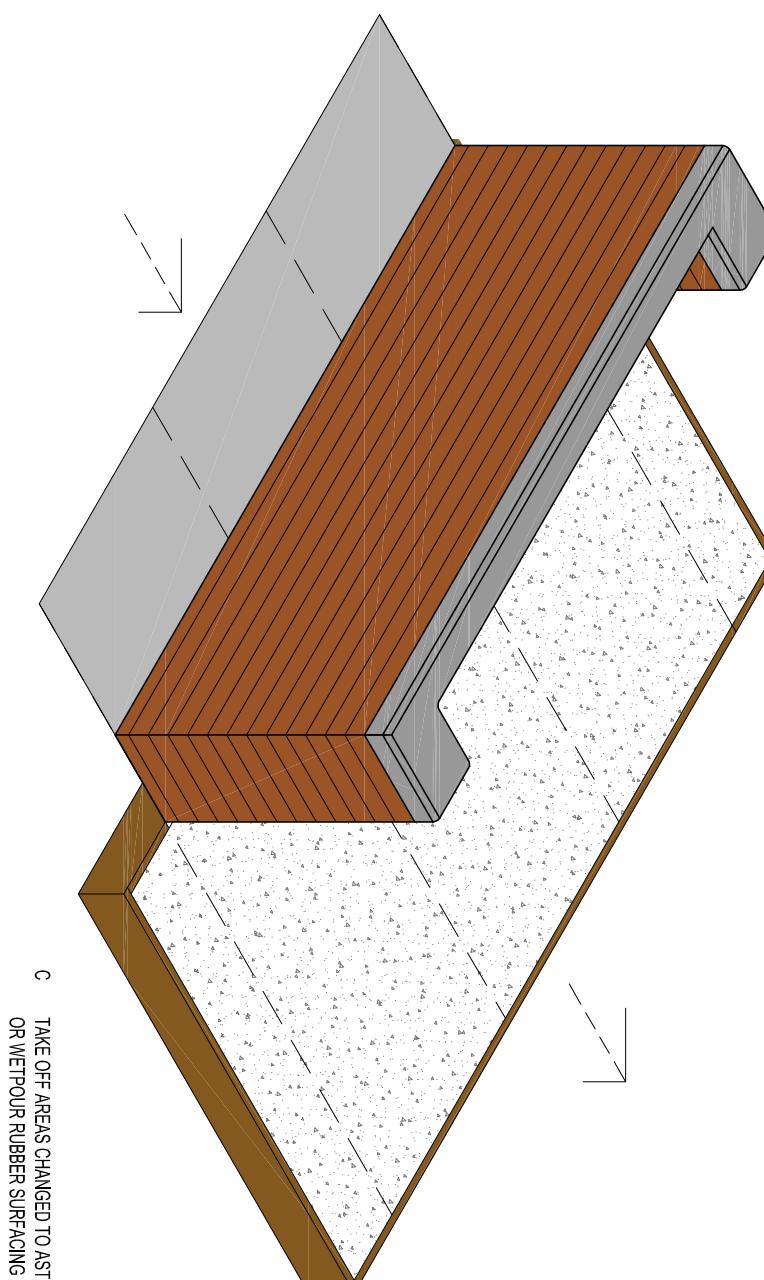
NOTES:

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## SECTION



## ISOMETRIC VIEW

C	TAKE OFF AREAS CHANGED TO ASTROTURF OR WETPOUR RUBBER SURFACING			SC	SP	SP	FEB'09
B	CROSS-REFERENCE TO SCALE 44 AMENDED			LW	ACR	ACR	JUNE'07
Rev	Description	By	Chk	App	Date		
	Client:						

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## OBSTACLE COURSE DRAWINGS

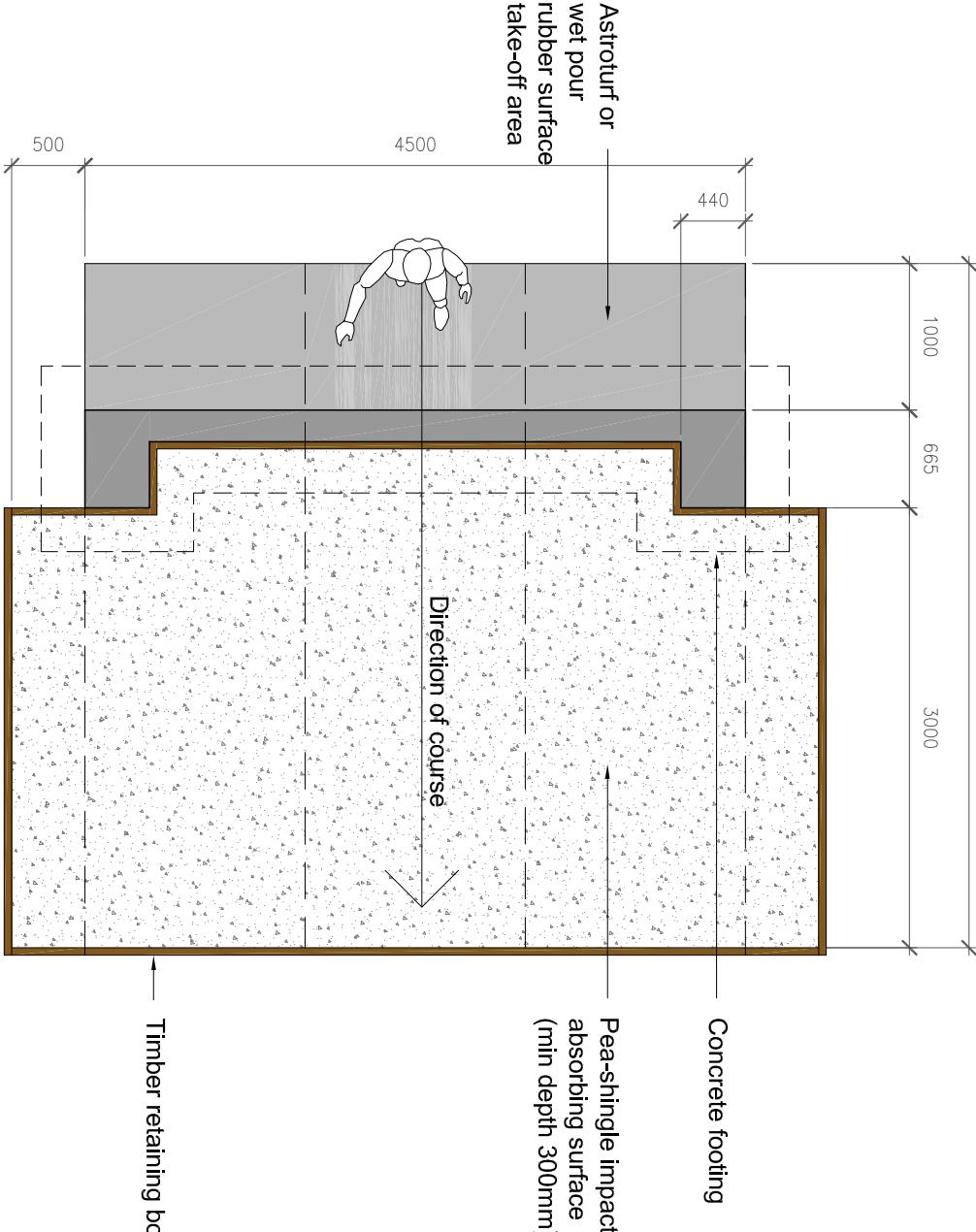
Drawing Title:

OBSTACLE A4 - SINGLE WALL (LOW)  
(JSP 315 SCALE 44, ANNEX A, SERIAL 4)

COURSE TYPE A

Scale A3 1:50	Drawn By LW	Date 01/08/06	Checked By SPP	Date 01/08/06	Approved By ACG	Date 01/08/06
Project No. E008949	Office 35	Type 04	Drawing No. E8949/DE/A4	Revision C		

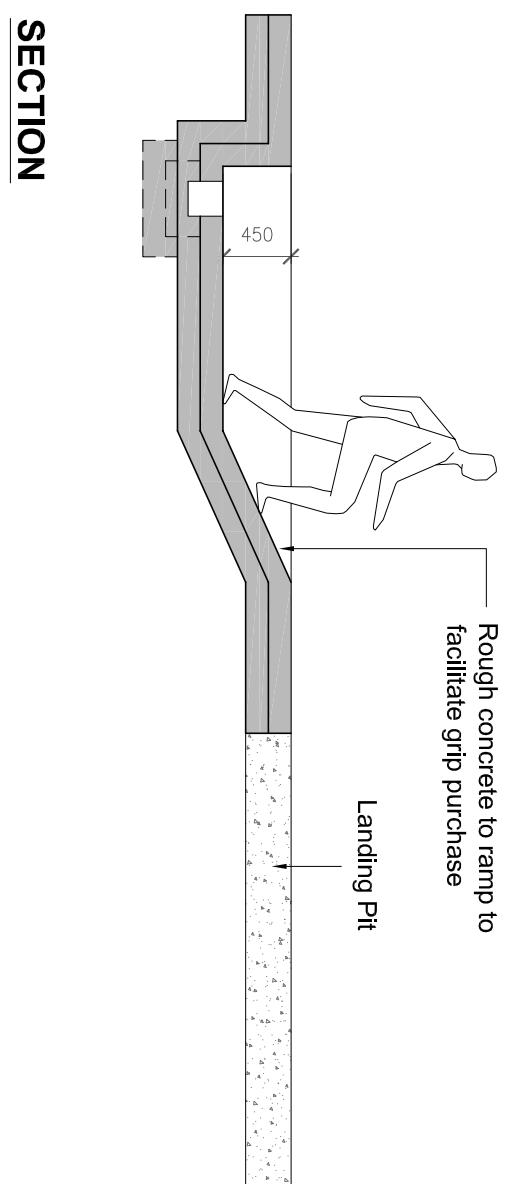
## PLAN



NOTES:

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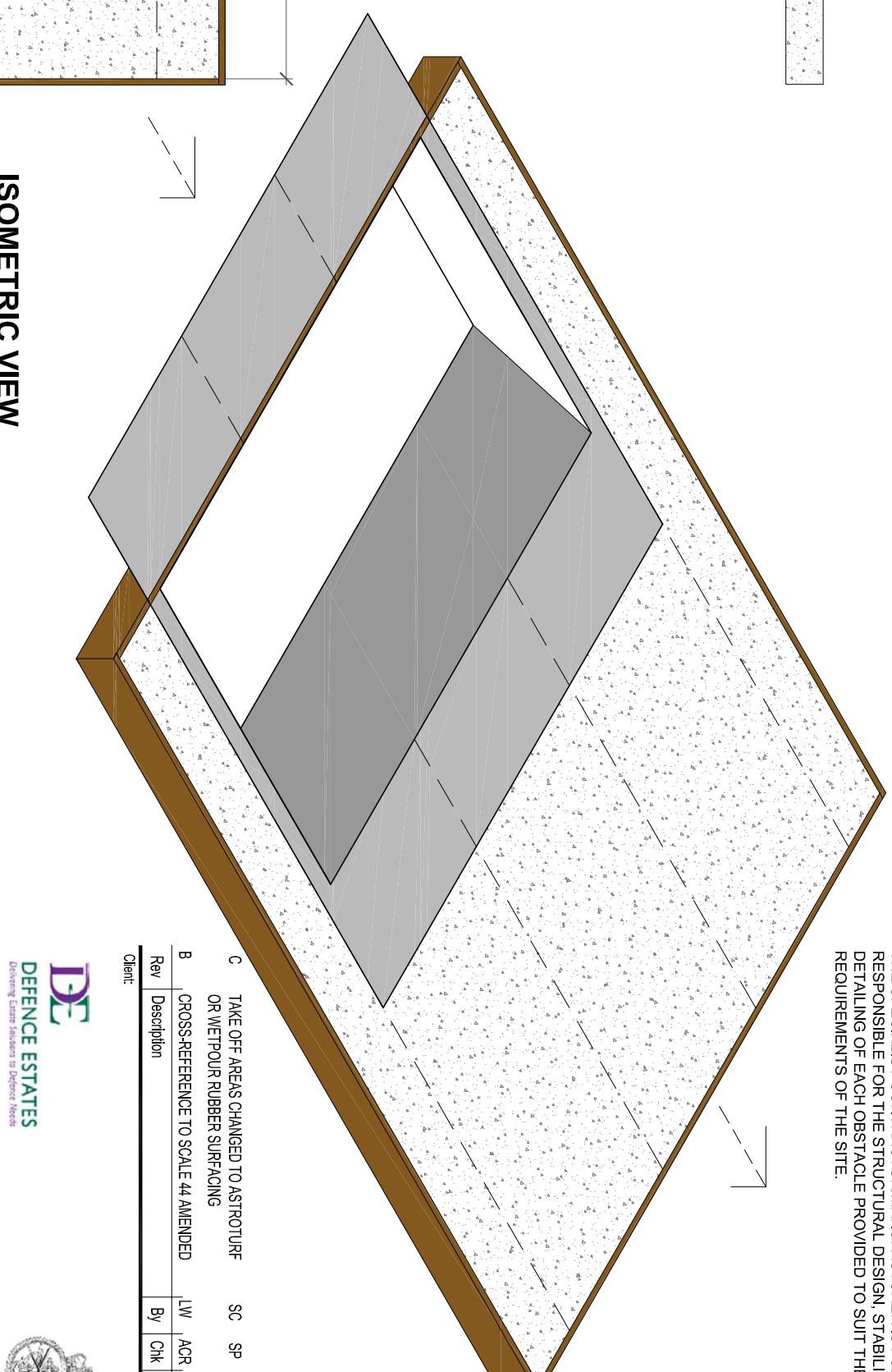


## SECTION

230mm<sup>2</sup> x 230mm deep sump with 100mm dia drain to ditch or soakaway with removable plug to facilitate ditch drainage

Ditch  
Slope  
Concrete slope lip

## ISOMETRIC VIEW



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C	TAKE OFF AREAS CHANGED TO ASTROTURF OR WETPOUR RUBBER SURFACING			SC	SP	SP	FEB'09
B	CROSS-REFERENCE TO SCALE 44 AMENDED			LW	ACR	ACR	JUNE'07
Rev	Description	By	Chk	App	Date		
	Client:						

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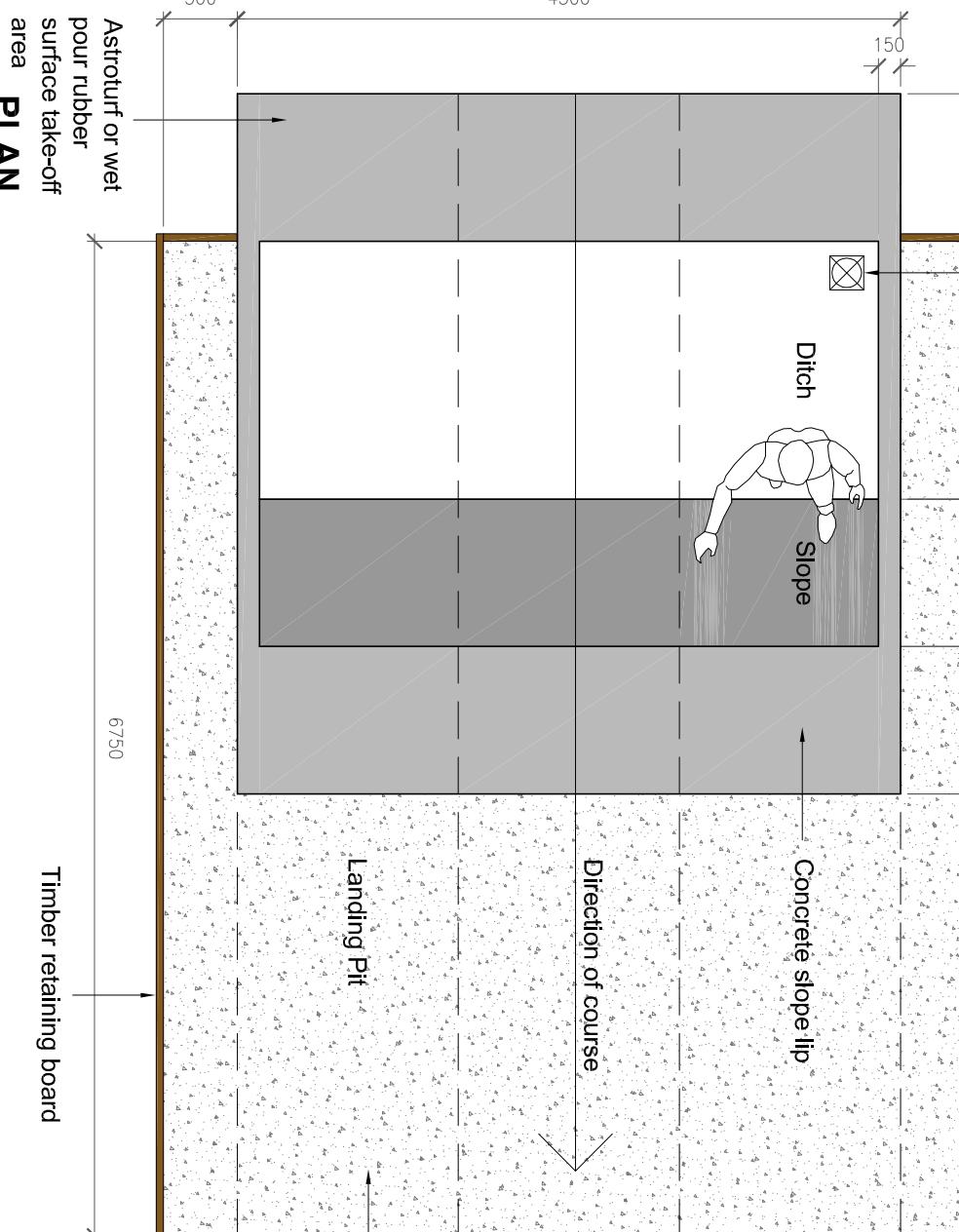
Project:

## OBSTACLE COURSE DRAWINGS

Drawing Title:

OBSTACLE A5 - DRY DITCH  
(JSP 315 SCALE 44, ANNEX A, SERIAL 5)

COURSE TYPE A



Scale A3	Drawn By	Date	Checked By	Date	Approved By	Date
1:50	LW	01/08/06	SPP	01/08/06	ACR	01/08/06
Project No.	Office	Type	Drawing No.		Revision	

E008949 35 04 E8949/DE/A5 C

APPROVAL  INFORMATION  TENDER  CONTRACT  CONSTRUCTION

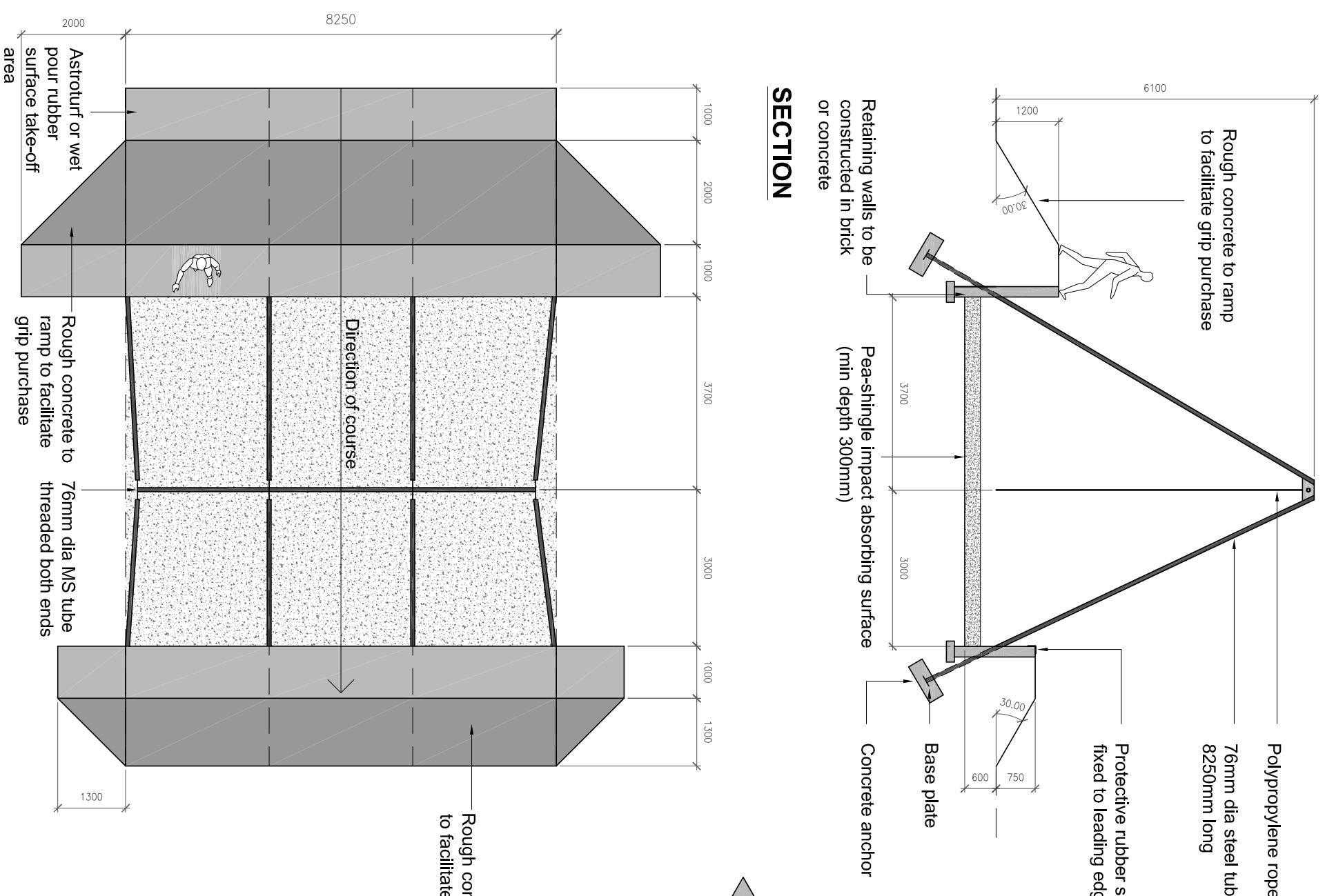


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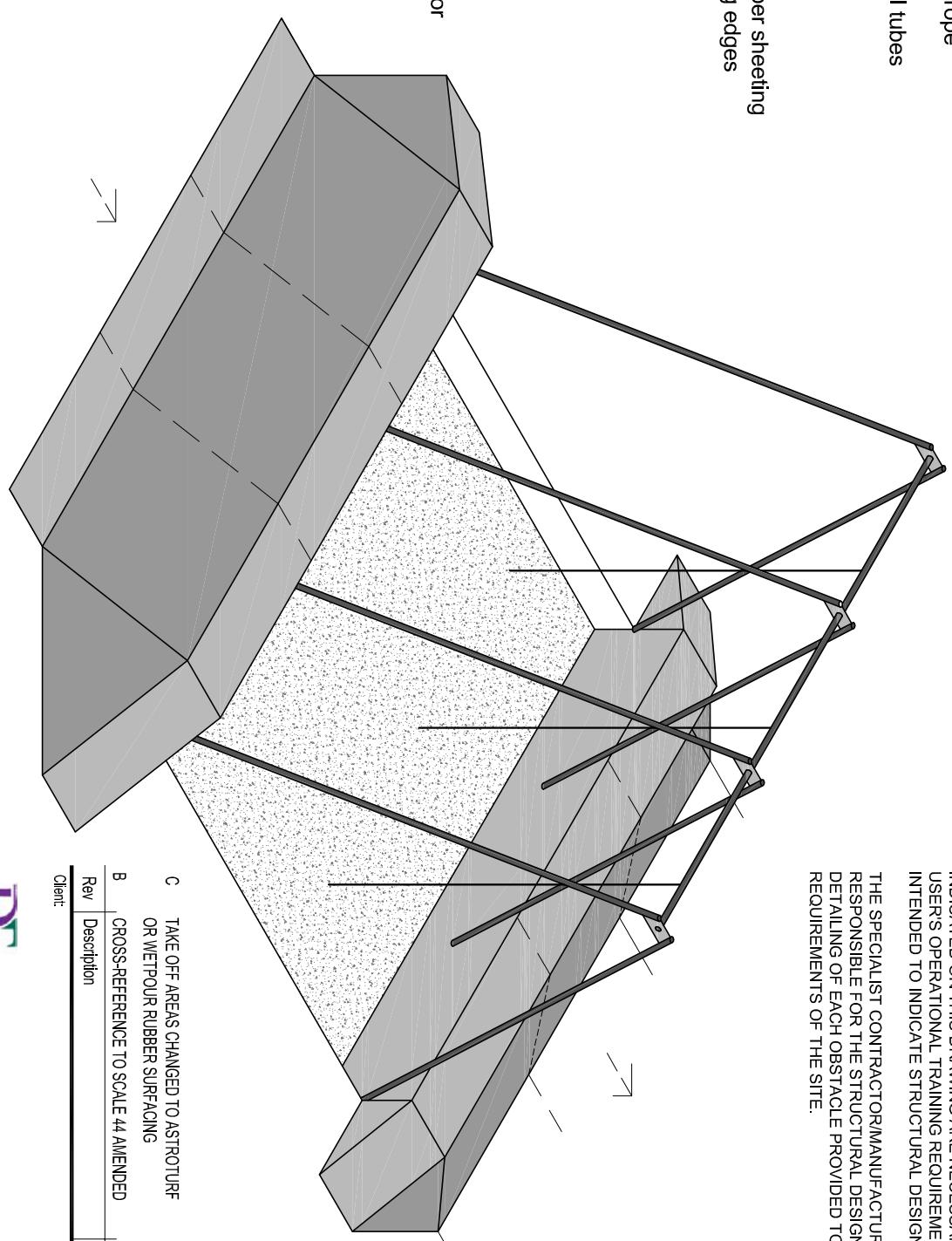
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### ISOMETRIC VIEW



C	TAKE OFF AREAS CHANGED TO ASTROTURF OR WETPOUR RUBBER SURFACING			SC	SP	SP	FEB '09
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### OBSTACLE COURSE DRAWINGS

Drawing Title: OBSTACLE A7 - SWING OVER DITCH

(JSP 315 SCALE 44, ANNEX A, SERIAL 7)

COURSE TYPE A

Scale A3

1:100

Drawn By

LW

Date

01/08/06

Checked By

SPP

Date

01/08/06

Approved By

ACR

Date

01/08/06

Drawing No.

E8949

35

Type

04

Revision

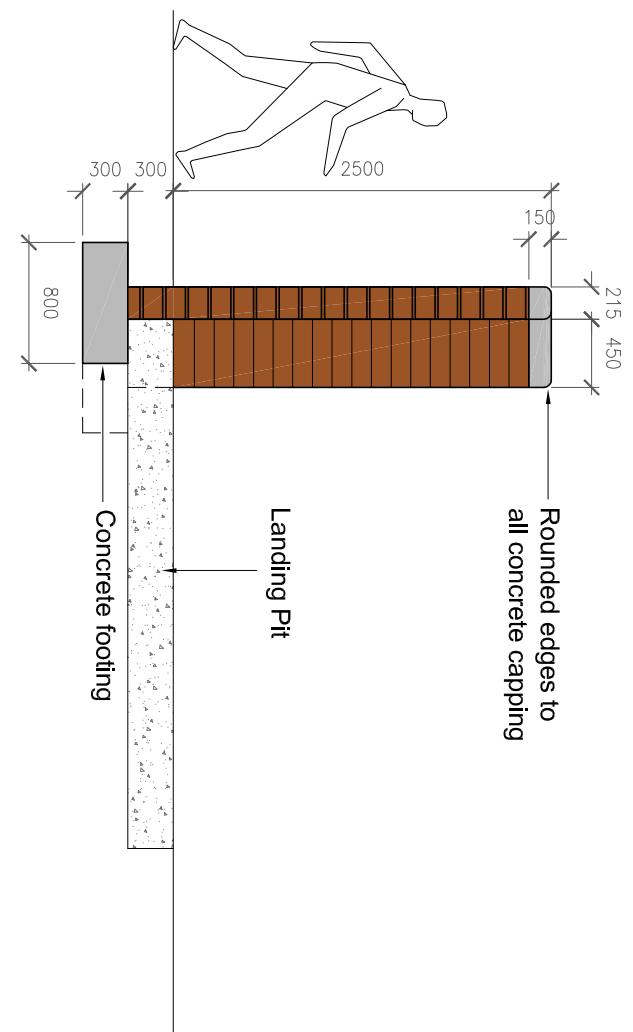
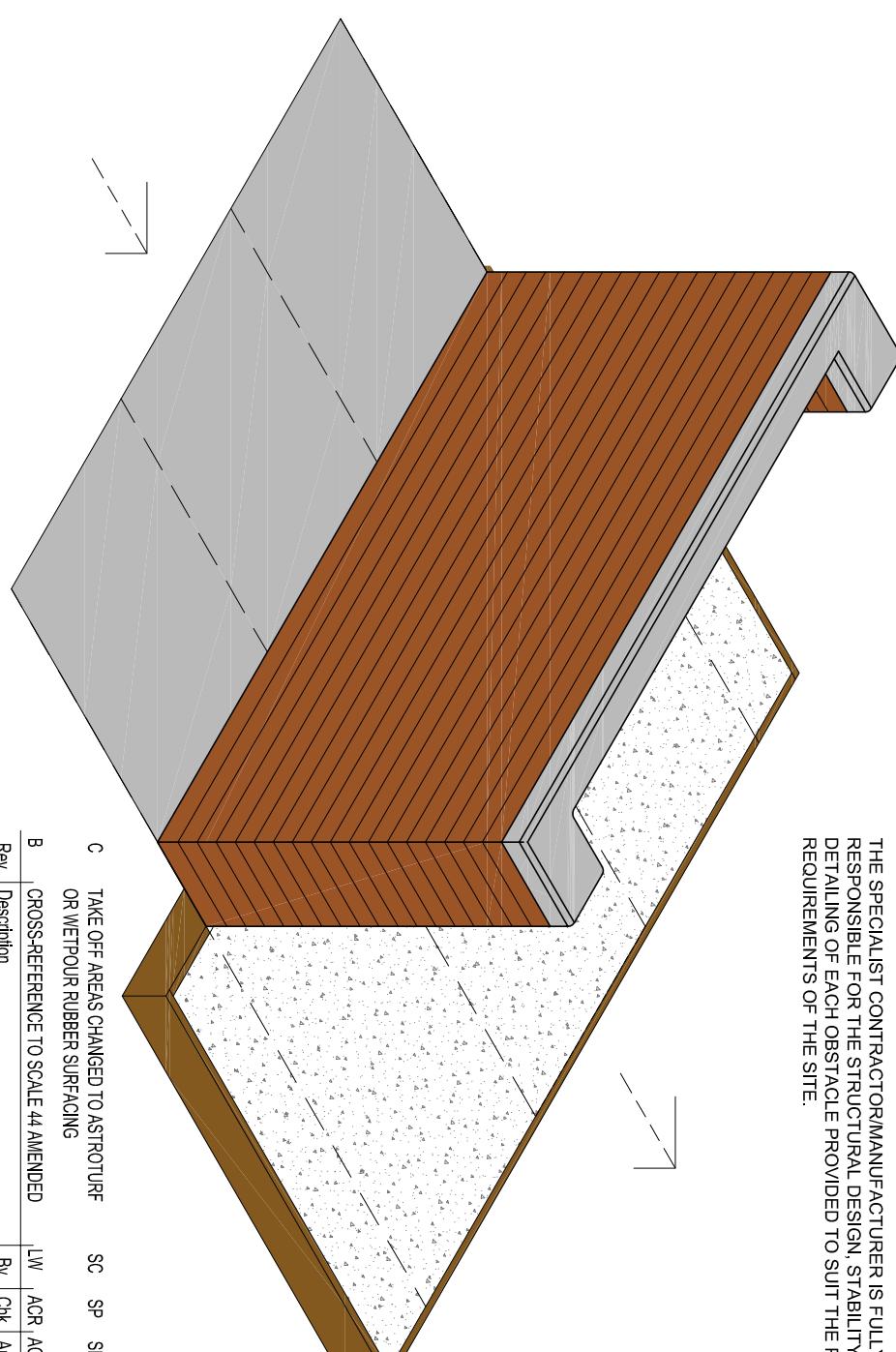
C

**PLAN**

## NOTES:

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**SECTION****ISOMETRIC VIEW**

C	TAKE OFF AREAS CHANGED TO ASTROTURF OR WETPOUR RUBBER SURFACING			SC	SP	SP	FEB '09
B	CROSS-REFERENCE TO SCALE 44 AMENDED			LW	ACR	ACR	JUNE '07
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Revision C



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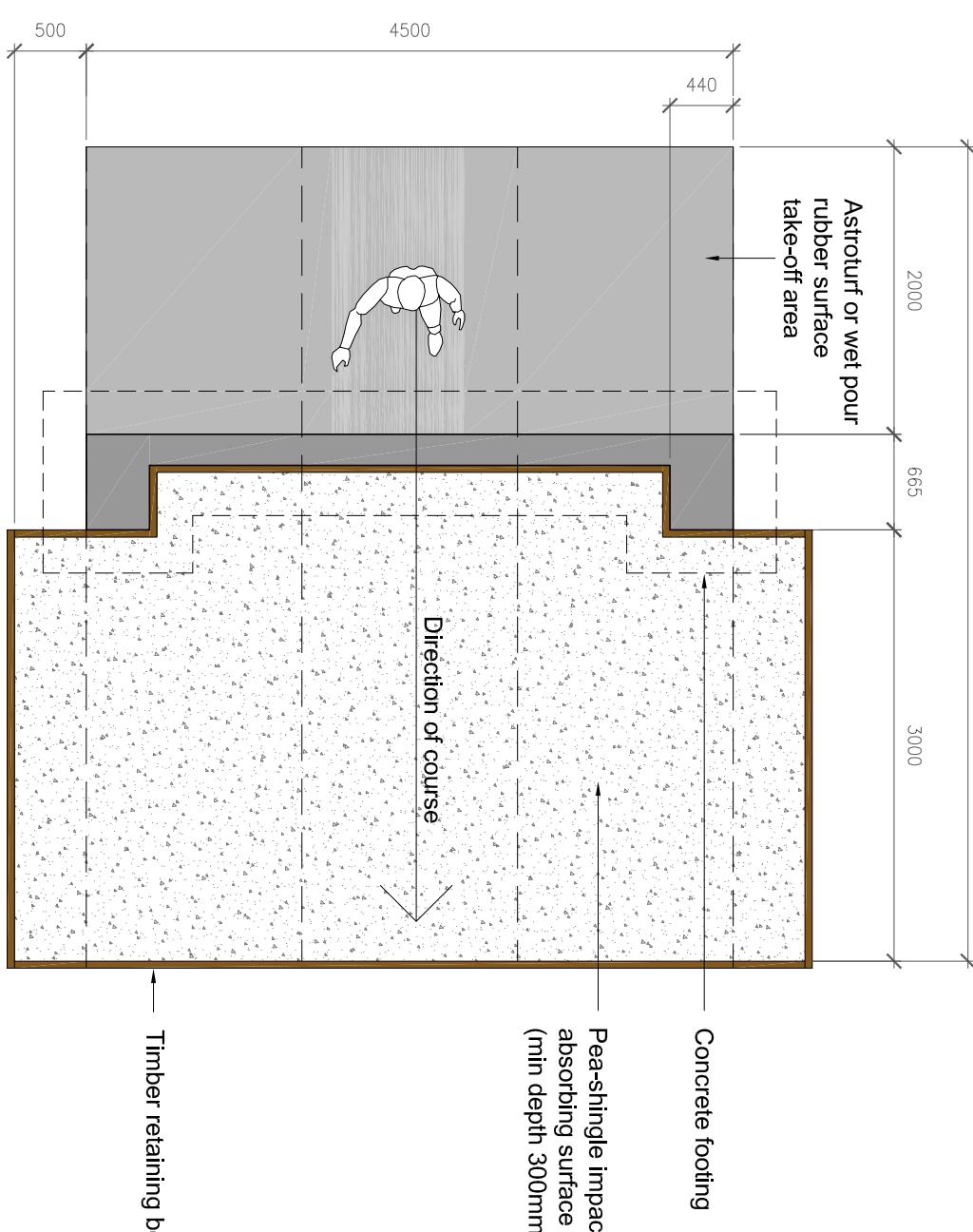
**OBSTACLE COURSE DRAWINGS**

Drawing Title:

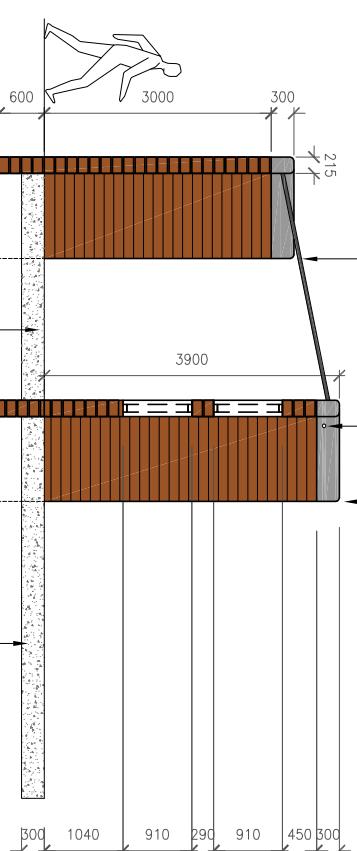
**OBSTACLE A8 - SINGLE WALL (HIGH)**  
(JSP 315 SCALE 44, ANNEX A, SERIAL 8)

COURSE TYPE A

Scale A3 1:50	Drawn By LW	Checked By SPP	Date 01/08/06	Approved By ACG	Date 01/08/06
Project No. <b>E008949</b>	Office <b>35</b>	Type <b>04</b>	Drawing No. <b>E8949/DE/A8</b>	Revision <b>C</b>	

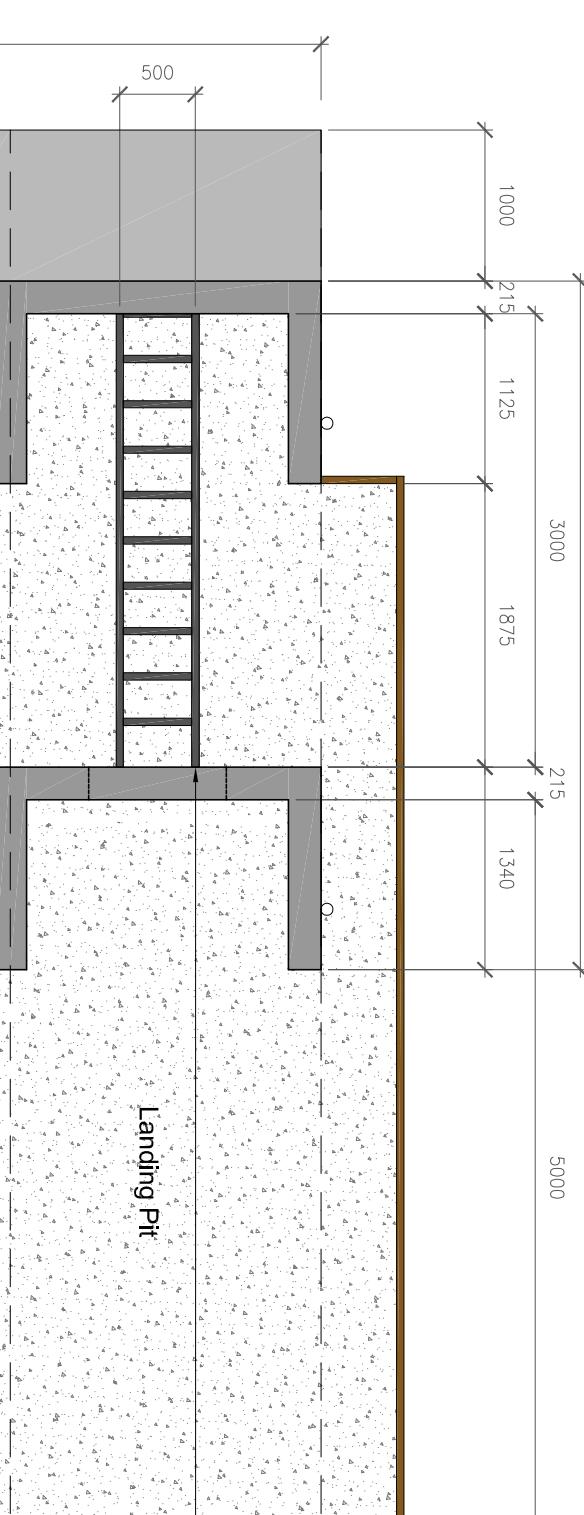
**PLAN**

Ladder made from 48mm dia MS tubing  
— Horizontal bar set into capping  
Rounded edges to all concrete capping



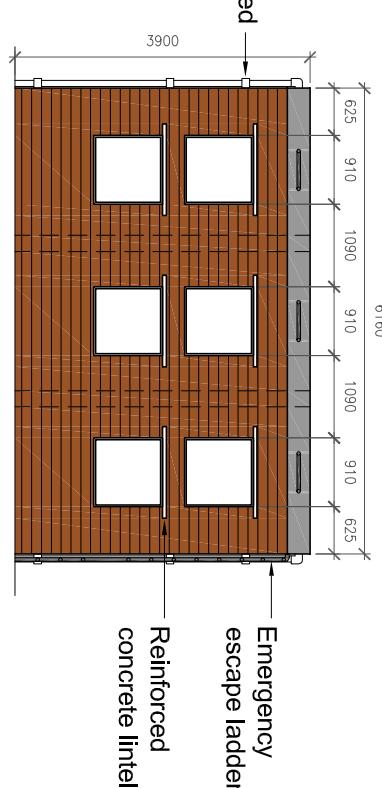
### SECTION

Scale 1:100

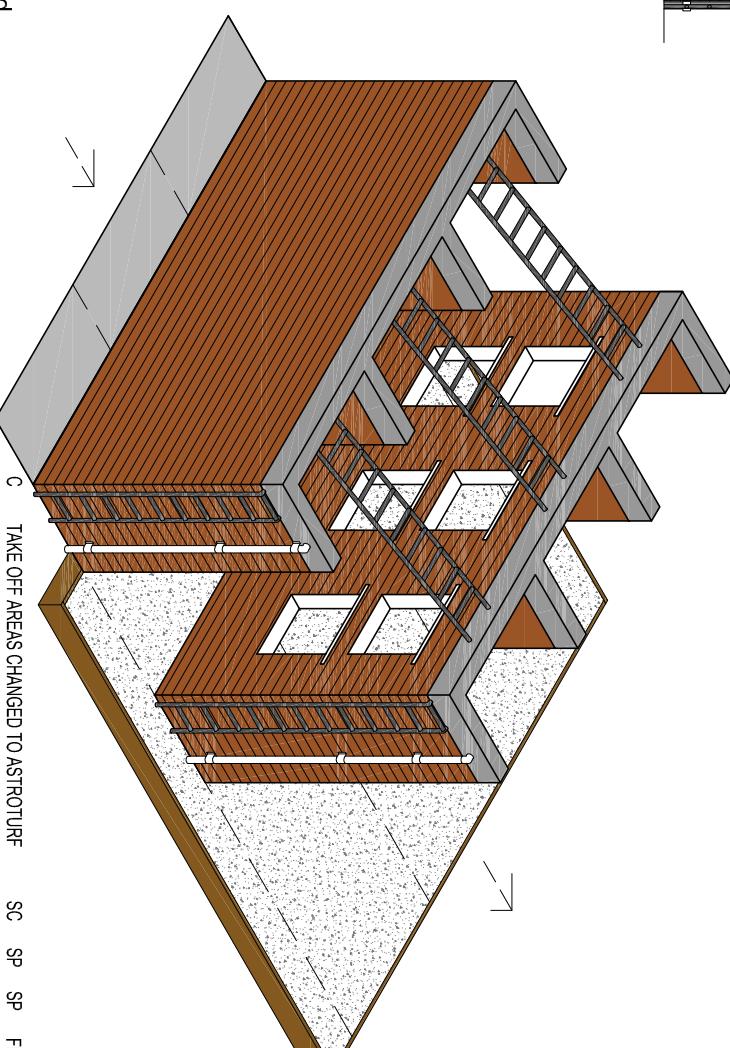


### ELEVATION (HIGHEST WALL)

Scale 1:100



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### ISOMETRIC VIEW

Scale 1:100



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### OBSTACLE COURSE DRAWINGS

#### OBSTACLE A9 - DOUBLE WALL (JSP 315 SCALE 44, ANNEX A, SERIAL 9)

##### COURSE TYPE A

ASTROTURF OR WET POUR RUBBER SURFACE TAKE-OFF AREA  
80MM DIA VERTICAL PIPE  
PEA-SHINGLE IMPACT ABSORBING SURFACE (MIN DEPTH 300MM)  
TIMBER RETAINING BOARD  
EMERGENCY ESCAPE ROUTE

### PLAN

Scale 1:50

APPROVAL	INFORMATION	TENDER	CONTRACT	CONSTRUCTION
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## TYPES OF OBSTACLE COURSES:-

THESE DRAWINGS RELATE TO THE PROVISION OF BASIC OBSTACLES AS DEFINED IN JSP 315 SCALE OF ACCOMMODATION No. 44 FOR USE ON THE FOLLOWING TYPES OF OBSTACLE COURSE:-

**COURSE TYPE A**  
(FOR USE BY TRAINED SERVICE PERSONNEL IN UNITS)

ALL OBSTACLES TO BE SUITABLE FOR 3 LANE USE WITH NO VARIATION IN DIFFICULTY BETWEEN LANES.  
NUMBER OF OBSTACLES USED RANGES FROM A MINIMUM OF 14 TO A MAXIMUM OF 18.

### LIST OF DE DESIGN DRAWINGS (A1-A18):-

E8949/DE/A01	GENERAL DESIGN GUIDANCE NOTES
E8949/DE/A1	SCHMATIC LAYOUT - COURSE TYPE A (UNIT)
E8949/DE/A2	OBSTACLE A1 - STEPS
E8949/DE/A3	OBSTACLE A2 - DOUBLE DITCH
E8949/DE/A4	OBSTACLE A3 - CRAWL
E8949/DE/A5	OBSTACLE A4 - SINGLE WALL (LOW)
E8949/DE/A6	OBSTACLE A5 - DRY DITCH
E8949/DE/A7	OBSTACLE A6 - RAMP
E8949/DE/A8	OBSTACLE A7 - SWING OVER DITCH
E8949/DE/A9	OBSTACLE A8 - SINGLE WALL (HIGH)
E8949/DE/A10	OBSTACLE A9 - DOUBLE WALL (OBUA)
E8949/DE/A11	OBSTACLE A10 - BEAM BALANCE
E8949/DE/A12	OBSTACLE A11 - TREBLE STRIDE DITCH
E8949/DE/A13	OBSTACLE A12 - OVERHAND TRAVERSE
E8949/DE/A14	OBSTACLE A13 - SCRABBLE NET
E8949/DE/A15	OBSTACLE A14 - TUBE CRAWL
E8949/DE/A16	OBSTACLE A15 - BURMA BRIDGE
E8949/DE/A17	OBSTACLE A16 - SWINGING DUCKBOARDS
E8949/DE/A18	OBSTACLE A17 - CLIMBING ROPE

### COURSE TYPE B (FOR USE BY TRAINEES AND RECRUITS)

ALL OBSTACLES TO BE SUITABLE FOR 3 LANE USE WITH VARIATION IN DIFFICULTY PROVIDED BETWEEN LANES, ALTHOUGH OBSTACLES WITHOUT VARIATIONS MAY BE USED.  
NUMBERS OF OBSTACLES MAY VARY BUT IS USUALLY 9.

### LIST OF DE DESIGN DRAWINGS (B1-B9):-

E8949/DE/B01	GENERAL DESIGN GUIDANCE NOTES
E8949/DE/B1	SCHMATIC LAYOUT - COURSE TYPE B (TRAINEES)
E8949/DE/B2	OBSTACLE B1 - VAULT (VARYING HEIGHTS)
E8949/DE/B3	OBSTACLE B2 - WALL (VARYING HEIGHTS-HIGH)
E8949/DE/B4	OBSTACLE B3 - WATER DITCH
E8949/DE/B5	OBSTACLE B4 - VARYING WIDTHS
E8949/DE/B6	OBSTACLE B5 - WALL (VARYING HEIGHTS-SLOW)
E8949/DE/B7	OBSTACLE B6 - BALANCE WALLS
E8949/DE/B8	OBSTACLE B7 - DRY DITCH (VARYING WIDTHS)
E8949/DE/B9	OBSTACLE B8 - RAMP (VARYING HEIGHTS)
	OBSTACLE B9 - MAZE

NB. THE JSP SCALE DOES NOT COVER THE PROVISION OF OBSTACLES FOR CONFIDENCE BUILDING OR SPECIALIST COURSES.  
**THE SCHEMATIC LAYOUT DRAWINGS FOR TYPE A AND B COURSES ARE FOR INFORMATION PURPOSES ONLY AND ARE NOT TO BE REGARDED AS STANDARD LAYOUTS.**

### SITING AND LAYOUT OF COURSES

WHERE POSSIBLE, THE LAYOUT OF COURSES SHOULD BE DESIGNED AROUND EXISTING SITE FEATURES USING STREAMS, SITE CONTOURS AND FEATURES TO CREATE ADDITIONAL INTEREST. COURSES DO NOT NEED TO BE IN A STRAIGHT LINE.

THE SEQUENCE AND SPACING OF OBSTACLES IS TO BE SELECTED TO SUIT THE SITE, SAFETY AND THE INDIVIDUAL TRAINING REQUIREMENTS OF THE UNIT CONCERNED.

THE DISTANCES BETWEEN OBSTACLES SHOULD BE A MINIMUM OF 5 METRES AND A MAXIMUM OF 10 METRES.  
NB. OBSTACLE IS INCLUSIVE OF LANDING AREA.

**ADVICE ON THE LAYOUT OF OBSTACLE COURSES SHOULD BE SOUGHT FROM THE APPROPRIATE SERVICE PHYSICAL DEVELOPMENT DIRECTORATE / FORMATION HEADQUARTERS SO2 PAT AT AN EARLY STAGE OF THE DESIGN PROCESS.**

## HEALTH AND SAFETY

ALL MAIN LANDING PIT AREAS ARE TO BE FILLED WITH IMPACT ABSORBING MATERIAL TO A DEPTH OF 300mm USING 12mm PEA SHINGLE.

ALL SECONDARY LANDING AREAS UNDER AND AROUND OBSTACLES AND ANY UNTURFED SECTIONS OF THE COURSE ARE TO BE COVERED IN A MINIMUM OF 75mm DEEP PEA SHINGLE OR BARK CHIPPINGS AS APPROPRIATE.

THE TOP SURFACES OF ALL PLANKS, TIMBER CAPPINGS AND LOGS ARE TO HAVE ANTI-SLIP FINISHES APPLIED AS INDICATED ON THE DRAWINGS.

ALL EXPOSED CONCRETE AND LEADING EDGES ON OBSTACLES ARE TO BE COVERED IN PROTECTIVE RUBBER SHEETING AS INDICATED ON THE DRAWINGS.

THE TOP SURFACES OF ALL PLANKS, TIMBER CAPPINGS AND LOGS ARE TO HAVE ANTI-SLIP FINISHES APPLIED AS INDICATED ON THE DRAWINGS.

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NET DISTORTION:  
NET MESH SHOULD BE 225MM SQUARE KNOTTED AND SPLICED TO PREVENT DISTORTION.

LASHING:  
NETS ARE TO BE LASHED DIRECTLY TO THE MAIN FRAME USING 16MM-20MM NATURAL OR SYNTHETIC ROPE. EXCEPTIONALLY, NYLON TEXTILE, 2 PLY, OLIVE DRAB/BLACK, 50MM WIDE WEBBING MAY BE USED.

WEBBING BUCKLES:  
WHERE WEBBING IS USED, IT IS TO BE SECURED USING BUCKLES SL50, ACETAL, G1, BLACK 902 MANUFACTURED BY ITW NEXUS LTD, KINGSWICK HOUSE, SUNNINGHILL, BERKS SL5 7BH OR SUITABLE ALTERNATIVE APPROVED BY DCIPT.

STITCHING:  
WHERE WEBBING IS USED, THE THREAD TO BE USED IS POLYESTER AND COTTON, CONTINUOUS FILAMENT POLYESTER CORE, COTTON SHEATH, OLIVE DRAB TO BS EN 12590:2000: TABLE 5 METRIC TICKET NO 25.

SECURING SCRAMBLE NETS:  
SCRAMBLE NETS ARE TO BE LASHED TO THE OBSTACLE FRAME ALONG EACH SIDE AND ACROSS THE TOP. SIDE LASHING IS TO BE A MINIMUM OF ONE LOOP TO EACH SQUARE AND TOP LASHING IS TO BE A MINIMUM OF TWO LOOPS TO EACH SQUARE.

TENSION:  
SCRAMBLE NETS MAY BE TENSIONED TO TAKE UP ANY SLACK THROUGH CONTINUED USE, BY RE-LASHING.

BURMA BRIDGE ROPEWORK  
TOP AND BOTTOM ROPES:  
THE TOP AND BOTTOM ROPES ARE TO BE 24MM-28MM DIAMETER, POLYESTER (LESS STRETCH PROPERTIES THAN POLYPROPYLENE OR MANILA) CONFORMING TO BS EN 697 OR A SUITABLE ALTERNATIVE APPROVED BY DCIPT.

OTHER ROPES:  
THE VERTICAL ROPES, HAND RAILS AND GUARD RAIL (HORIZONTAL ROPE RUNNING THE LENGTH OF THE ROPE BRIDGE POSITIONED MID-WAY BETWEEN TOP AND BOTTOM ROPES) ARE TO BE 12MM-16MM DIAMETER, POLYESTER CONFORMING TO BS EN 697 OR A SUITABLE ALTERNATIVE APPROVED BY DCIPT.

ROPE ENDS:  
THE ENDS OF THE TOP AND BOTTOM ROPES ARE TO HAVE THIMBLE EYES ATTACHED AND ARE TO BE SPLICED AND SEIZED IN ACCORDANCE WITH BR 68, CHAPTER 3.

DISTORTION PREVENTION:  
THE VERTICAL ROPES ARE TO BE SPLICED WITH THE TOP AND BOTTOM ROPES AND THE GUIDE RAIL ROPE TO PREVENT DISTORTION.

SECURING THE BURMA ROPE BRIDGE:  
THE TOP AND BOTTOM ROPES ARE TO BE SECURED DIRECT TO THE MAIN FRAME VIA THE THIMBLE EYES AND TO A BOTTLE SCREW TO D OR BOW (PREFERRED) GALVANISED STEEL OR ALLOY SHACKLES.

ANY PERSON CARRYING OUT A RISK ASSESSMENT OR INSTRUCTING MUST BE ABLE TO SEE WHETHER THE SCREW/TURN BUCKLES THAT SECURE/EXTENSION THE BURMA BRIDGE ROPES TO THE FRAME HAVE BEEN UNDONE OR LOOSENED SINCE THE LAST USE.

MAIN ROPE:  
THE MAIN ROPE IS TO BE 28MM-34MM DIAMETER, NATURAL (MANILA GRADE 1 PREFERRED) OR SYNTHETIC (POLYPROPYLENE) AND CONFORM TO BS EN 698 (FOR MANILA ROPE) OR BS EN 699 (FOR POLYPROPYLENE ROPE) OR AN ALTERNATIVE APPROVED BY DCIPT.

ROPE END:  
THE BOTTOM END OF THE ROPE IS TO BE SPLICED AND SEIZED IN ACCORDANCE WITH BR 68, CHAPTER 3.

SECURING ROPE SWINGS:  
THE ROPE SWING IS TO BE ATTACHED TO THE MAIN FRAME VIA D OR BOW (PREFERRED) GALVANISED STEEL OR ALLOY SHACKLES.

ROPE ENDS:  
ROPE ENDS SHOULD BE SPLICED IN ACCORDANCE WITH BR 68, CHAPTER 3.

DO NOT SCALE: Contractor to check all dimensions and report any omissions or errors

Project:

Environmental Civil Structural Mechanical Electrical Process Rail Traffic Environmental Project Management

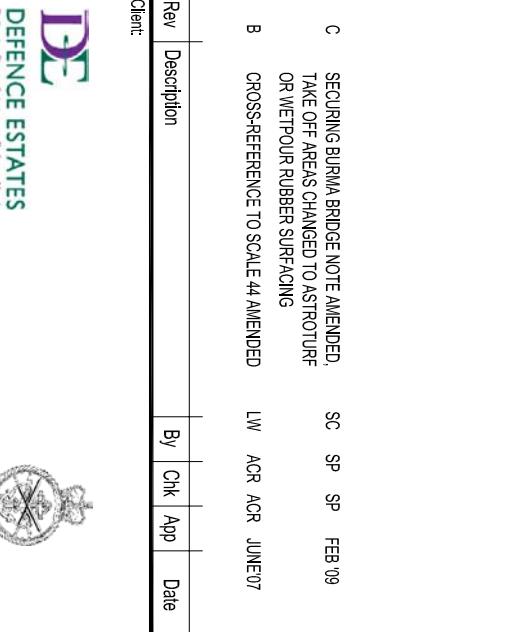
Rev Description By Chk App Date

C SECURING BURMA BRIDGE NOTE AMENDED, TAKE OFF AREAS CHANGED TO ASTROTURF OR NETPOUR RUBBER SURFACING

B CROSS-REFERENCED TO SCALE 44 AMENDED LW ACR AGR JUNE07

Executive Park Tel: 0116 234 8000  
Avalon Way Fax: 0116 234 8002  
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Leicester LE7 7GR

White Young Green



Drawing Title:

JSP 315 SCALE 44

OBSTACLE COURSES A AND B

GENERAL DESIGN GUIDANCE NOTES

Scale A3 NTS Drawn By L/P Date Checked By SPP Date Approved By ACR Date

Project No. E008949

Information □ 35 Type 04 Drawing No. E8949/DE/AB01 Revision C

Approval □ Tender □ Contract □ Construction □

Information □

Approval □

Tender □

Contract □

Construction □

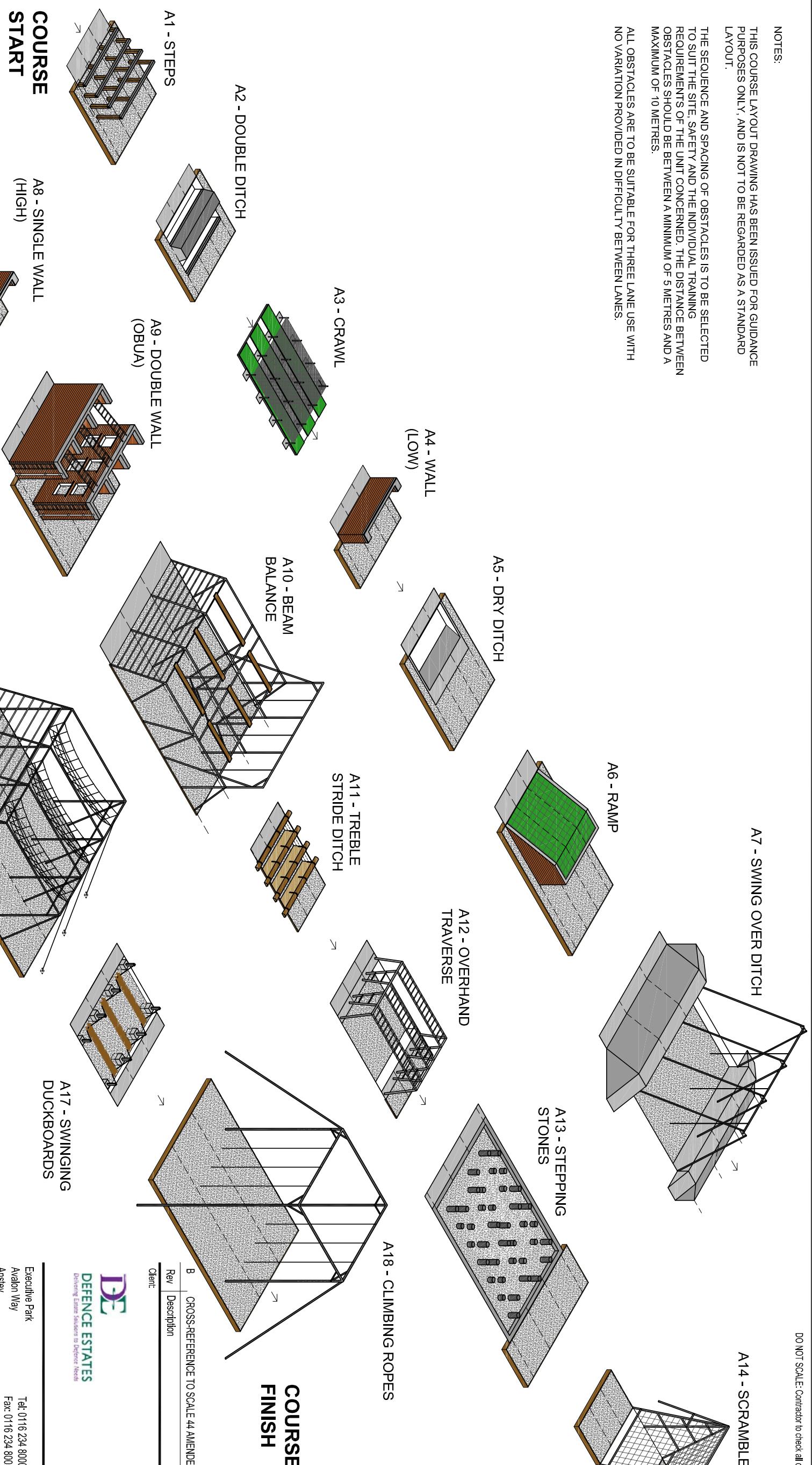
NOTES:

THIS COURSE LAYOUT DRAWING HAS BEEN ISSUED FOR GUIDANCE PURPOSES ONLY, AND IS NOT TO BE REGARDED AS A STANDARD LAYOUT.

THE SEQUENCE AND SPACING OF OBSTACLES IS TO BE SELECTED TO SUIT THE SITE, SAFETY AND THE INDIVIDUAL TRAINING REQUIREMENTS OF THE UNIT CONCERNED. THE DISTANCE BETWEEN OBSTACLES SHOULD BE BETWEEN A MINIMUM OF 5 METRES AND A MAXIMUM OF 10 METRES.

ALL OBSTACLES ARE TO BE SUITABLE FOR THREE LANE USE WITH NO VARIATION PROVIDED IN DIFFICULTY BETWEEN LANES.

DO NOT SCALE: Contractor to check all dimensions and report any omissions or errors



## COURSE FINISH



Executive Park  
Avalon Way  
Ainstey  
Leicester  
LE7 7GR

Client:

Project:

Civil Structural Mechanical Electrical Process Rail Traffic Environmental Project Management

Project:

Project: